Woodward, Inc.
Form 10-K
November 13, 2017
UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended September 30, 2017

or

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

For the transition period from _____ to _____

Commission file number 000-08408
WOODWARD, INC.
(Exact name of registrant as specified in its charter)

Delaware	36-1984010
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1081 Woodward Way, Fort Collins, Colorado	80524
(Address of principal executive offices)	(Zip Code)

(970) 482-5811

(Registrant's telephone number, including area code)

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

Indicate by check mark 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 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

Aggregate market value of registrant’s common stock held by non-affiliates of the registrant, based upon the closing price of a share of the registrant’s common stock on March 31, 2017 as reported on The NASDAQ Global Select Market on that date: $2,972,702,291. For purposes of this calculation, shares of common stock held by (i) persons holding more than 5% of the outstanding shares of stock, (ii) officers and directors of the registrant, and (iii) the Woodward Governor Company Profit Sharing Trust, Woodward Governor Company Deferred Shares Trust, or the Woodward Charitable Trust, as of March 31, 2017, are excluded in that such persons may be deemed to be affiliates. This determination is not necessarily conclusive of affiliate status.

As of November 9, 2017, 61,238,422 shares of the registrant’s common stock with a par value of $0.001455 per share were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of our proxy statement for the Annual Meeting of Stockholders to be held January 24, 2018, are incorporated by reference into Parts II and III of this Form 10-K, to the extent indicated.

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PART I

Forward Looking Statements

This Annual Report on Form 10-K, including "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements regarding future events and our future results within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are statements that are deemed forward-looking statements. These statements are based on current expectations, estimates, forecasts, and projections about the industries in which we operate and the beliefs and assumptions of management. Words such as "anticipate," "believe," "estimate," "seek," "goal," "expect," "forecast," "intend," "continue," "ou "project," "target," "strive," "can," "could," "may," "should," "will," "would," variations of such words, and similar expressio intended to identify such forward-looking statements. In addition, any statements that refer to projections of our future financial performance, our anticipated growth and trends in our businesses, and other characteristics of future events or circumstances are forward-looking statements. Forward-looking statements may include, among others, statements relating to:

- future sales, earnings, cash flow, uses of cash, and other measures of financial performance;
- trends in our business and the markets in which we operate, including expectations in those markets in future periods;
- our expected expenses in future periods and trends in such expenses over time;
- descriptions of our plans and expectations for future operations;
- plans and expectations relating to the performance of our joint venture with General Electric Company;
- investments in new campuses, business sites and related business developments;
- the effect of economic trends or growth;
- the expected levels of activity in particular industries or markets and the effects of changes in those levels;
- the scope, nature, or impact of acquisition activity and integration of such acquisition into our business;
- the research, development, production, and support of new products and services;
- new business opportunities;
- restructuring and alignment costs and savings;
- our plans, objectives, expectations and intentions with respect to business opportunities that may be available to us;
- our liquidity, including our ability to meet capital spending requirements and operations;
- future repurchases of common stock;
- future levels of indebtedness and capital spending;
- the stability of financial institutions, including those lending to us; and
- pension and other postretirement plan assumptions and future contributions.

Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict, including:

- a decline in business with, or financial distress of, our significant customers;
- global economic uncertainty and instability in the financial markets;
- our ability to manage product liability claims, product recalls or other liabilities associated with the products and services that we provide;
- our ability to obtain financing, on acceptable terms or at all, to implement our business plans, complete acquisitions, or otherwise take advantage of business opportunities or respond to business pressures;
- the long sales cycle, customer evaluation process, and implementation period of some of our products and services;
- our ability to implement and realize the intended effects of any restructuring and alignment efforts;
- our ability to successfully manage competitive factors, including prices, promotional incentives, competitor product development, industry consolidation, and commodity and other input cost increases;

- our ability to manage our expenses and product mix while responding to sales increases or decreases;
- the ability of our subcontractors to perform contractual obligations and our suppliers to provide us with materials of sufficient quality or quantity required to meet our production needs at favorable prices or at all;
- our ability to monitor our technological expertise and the success of, and/or costs associated with, our product development activities;
- consolidation in the aerospace market and our participation in a strategic joint venture with General Electric Company may make it more difficult to secure long-term sales in certain aerospace markets;
- our debt obligations, our debt service requirements, and our ability to operate our business, pursue business strategies and incur additional debt in light of covenants contained in our outstanding debt agreements;
- our ability to manage additional tax expense and exposures;
- risks related to our U.S. Government contracting activities, including liabilities resulting from legal and regulatory proceedings, inquiries, or investigations related to such activities;
- the potential of a significant reduction in defense sales due to decreases in the amount of U.S. Federal defense spending or other specific budget cuts impacting defense programs in which we participate;

- changes in government spending patterns, priorities, subsidy programs and/or regulatory requirements;
- future impairment charges resulting from changes in the estimates of fair value of reporting units or of long-lived assets;
- future results of our subsidiaries;
- environmental liabilities related to manufacturing activities and/or real estate acquisitions;
- our continued access to a stable workforce and favorable labor relations with our employees;
- physical and other risks related to our operations and suppliers, including natural disasters, which could disrupt production;
- our ability to successfully manage regulatory, tax, and legal matters (including the adequacy of amounts accrued for contingencies, the U.S. Foreign Corrupt Practices Act, international trade regulations, and product liability, patent, and intellectual property matters);
- our financial statements are subject to changes in accounting standards that could adversely impact our profitability or financial position;
- risks related to our common stock, including changes in prices and trading volumes;
- risks from operating internationally, including the impact on reported earnings from fluctuations in foreign currency exchange rates, tariffs, and compliance with and changes in the legal and regulatory environments of the United States and the countries in which we operate;
- risks associated with global political and economic uncertainty in the European Union and elsewhere;
- fair value of defined benefit plan assets and assumptions used in determining our retirement pension and other postretirement benefit obligations and related expenses including, among others, discount rates and investment return on pension assets;
- industry risks, including changes in commodity prices for oil, natural gas, and other minerals, unforeseen events that may reduce commercial aviation, and changing emissions standards;
- our operations may be adversely affected by information systems interruptions or intrusions; and
- certain provisions of our charter documents and Delaware law that could discourage or prevent others from acquiring our company.

These factors are representative of the risks, uncertainties, and assumptions that could cause actual outcomes and results to differ materially from what is expressed or forecast in our forward-looking statements. Other factors are discussed under the caption “Risk Factors” in Part I, Item 1A in this Annual Report on Form 10-K for the fiscal year ended September 30, 2017 (this “Form 10-K”). We undertake no obligation to revise or update any forward-looking statements for any reason, except as required by applicable law.

Unless we have indicated otherwise or the context otherwise requires, references in this Form 10-K to “Woodward,” “the Company,” “we,” “us,” and “our” refer to Woodward, Inc. and its consolidated subsidiaries.

Except where we have otherwise indicated or the context otherwise requires, amounts presented in this Form 10-K are in thousands, except per share amounts.

Item 1. Business

General

Woodward enhances the global quality of life, creating innovative energy control solutions that optimize the performance, efficiency and emissions of our customers' products. We are an independent designer, manufacturer, and service provider of energy control and optimization solutions. We design, produce and service reliable, efficient, low-emission, and high-performance energy control products for diverse applications in challenging environments. We have production and assembly facilities in the United States, Europe and Asia, and promote our products and services through our worldwide locations.

Our strategic focus is providing energy control and optimization solutions for the aerospace and industrial markets. The precise and efficient control of energy, including motion, fluid, combustion and electrical energy, is a growing requirement in the markets we serve. Our customers look to us to optimize the efficiency, emissions and operation of power equipment in both commercial and defense operations. Our core technologies leverage well across our markets and customer applications, enabling us to develop and integrate cost-effective and state-of-the-art fuel, combustion, fluid, actuation and electronic systems. We focus primarily on serving original equipment manufacturers ("OEMs") and equipment packagers, partnering with them to bring superior component and system solutions to their demanding applications. We also provide aftermarket repair, maintenance, replacement and other service support for our installed products.

Our components and integrated systems optimize performance of commercial aircraft, defense aircraft, military ground vehicles and other equipment, gas and steam turbines, wind turbines, including converters and power grid related equipment, industrial diesel, gas, bio-diesel and dual fuel reciprocating engines, and electrical power systems. Our innovative motion, fluid, combustion, and electrical energy control systems help our customers offer more cost-effective, cleaner, and more reliable equipment.

Woodward was established in 1870, incorporated in 1902, and is headquartered in Fort Collins, Colorado. The mailing address of our world headquarters is 1081 Woodward Way, Fort Collins, Colorado 80524. Our telephone number at that location is (970) 482-5811, and our website is www.woodward.com. None of the information contained on our website is incorporated into this document by reference.

Markets and Principal Lines of Business

We serve the aerospace and industrial markets through our two reportable segments – Aerospace and Industrial. Our customers require technological solutions to meet their needs for performance, efficiency, and reliability, and to reduce their costs of operation.

Within the aerospace market, we provide systems, components and solutions for both commercial and defense applications. Our key focus areas within this market are:

- Propulsion and combustion control solutions for turbine powered aircraft; and
- Fluid and motion control solutions for critical aerospace and defense applications.

Within the industrial market, our key focus areas are:

- Applications and control solutions for machines that produce electricity utilizing conventional or renewable energy sources; and
- Fluid, motion, and combustion control solutions for complex oil and gas, industrial, and transportation applications.

Additional information about our operations in fiscal year 2017 and outlook for the future, including certain segment information, is included in “Item 7 – Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Additional information about our business segments and certain geographical information is included in Note 20, Segment information and Note 21, Supplemental quarterly financial data (Unaudited), to the Consolidated Financial Statements in “Item 8 – Financial Statements and Supplementary Data.”

Products, Services and Applications

Aerospace

Our Aerospace segment designs, manufactures and services systems and products for the management of fuel, air, combustion and motion control. These products include fuel pumps, metering units, actuators, air valves, specialty valves, fuel nozzles, and thrust reverser actuation systems for turbine engines and nacelles, as well as flight deck controls, actuators, servocontrols, motors and sensors for aircraft. These products are used on commercial and private aircraft and rotorcraft, as well as on military fixed-wing aircraft and rotorcraft, guided weapons, and other defense systems.

We have significant content on a wide variety of commercial aircraft, rotorcraft and business jet platforms, such as the Airbus A320neo, Boeing 737 MAX and 787, Bell 429 and Gulfstream G650. We also have significant content on defense applications such

as Blackhawk and Apache helicopters, F-18 and F-35 fighter jets, and guided tactical weapons (for example, the Joint Direct Attack Munition ("JDAM")).

Revenues from the Aerospace segment are generated by sales to OEMs, tier-one suppliers, and prime contractors, and through aftermarket sales of components, such as provisioning spares or replacements, and spare parts. We also provide aftermarket maintenance, repair and overhaul, as well as other services to commercial airlines, repair facilities, military depots, third party repair shops, and other end users.

Industrial

Our Industrial segment designs, produces and services systems and products for the management of fuel, air, fluids, gases, motion, combustion and electricity. These products include actuators, valves, pumps, injectors, solenoids, ignition systems, speed controls, electronics and software, power converters, sensors and other devices that measure, communicate and protect electrical distribution systems. Our products are used on industrial gas turbines (including heavy frame and aeroderivative turbines), steam turbines, reciprocating engines (including engines on natural gas vehicles), electric power generation and power distribution systems, wind turbines, and compressors. The equipment on which our products are found is used to generate and distribute power; to extract and distribute fossil and renewable fuels; in the mining of other commodities; and to convert fuel to work in marine, mobile, and industrial equipment applications.

Revenues from our Industrial segment are generated primarily by sales to OEMs and by providing aftermarket products and other related services to our OEM customers. Our Industrial segment also sells products through an independent network of distributors and, in some cases, directly to end users.

Customers

For the fiscal year ended September 30, 2017, approximately 43% of our consolidated net sales were made to our five largest customers. Sales to our five largest customers represented approximately 42% of our consolidated net sales for the fiscal year ended September 30, 2016 and approximately 40% of our consolidated net sales for the fiscal year ended September 30, 2015.

Sales to our largest customer, General Electric, accounted for approximately 16% of our consolidated net sales in the fiscal year ended September 30, 2017, 17% of our consolidated net sales in the fiscal year ended September 30, 2016, and 18% of our consolidated net sales in the fiscal year ended September 30, 2015. Our accounts receivable from General Electric represented approximately 10% of total accounts receivable as of September 30, 2017 and 14% as of September 30, 2016. We believe General Electric and our other significant customers are creditworthy and will be able to satisfy their credit obligations to us.

The following customers account for approximately 10% or more of sales to each of our reportable segments for the fiscal year ended September 30, 2017.

	Customer
Aerospace	The Boeing Company, United Technologies Corporation, General Electric Company
Industrial	General Electric Company

Competitive Environment

Our products and product support services are sold worldwide into a variety of markets. In all markets, we compete on the basis of differentiated technology and design, product performance and conformity with customer specifications. Additional factors are customer service and support, including on-time delivery and customer partnering, product quality, price, reputation and local presence. Both of our segments operate in uniquely competitive environments.

We believe that new competitors face significant barriers to entry into many of our markets, including various government mandated certification requirements to compete in the aerospace and industrial markets in which we participate.

Aerospace industry has significant product certification requirements to meet safety regulations, which form a basis for competition as well as a barrier to entry. Technological innovation and design, product performance and conformity with customer specifications, and product quality and reliability are of utmost importance in the aerospace and defense industry. In addition, on-time delivery, pricing, and joint development capabilities with customers are points of competition within this market.

Our customers include airframe and aircraft engine OEM manufacturers and suppliers to these manufacturers. We supply these customers with technologically innovative system and component solutions and align our technology roadmaps with our customers. We focus on responding to needs for reduced cost and weight, emission control and reliability improvements.

We compete with numerous companies around the world that specialize in fuel and air management, combustion, electronic control, aircraft motion control, flight deck control, and thrust reverser products. Our competitors in aerospace include divisions of Eaton, Honeywell, Moog, and Parker Hannifin, and United Technologies Corporation Aerospace Systems (“UTC Aerospace Systems”) and its subsidiaries. In addition, some of our OEM customers are capable of developing and manufacturing similar

products internally. Several competitors are also customers for our products, such as Honeywell, Parker Hannifin, and UTC Aerospace Systems.

Our products offer high levels of field reliability, which provides end users an advantage in life-cycle cost. We address competition in aftermarket service through responsiveness to our customers' needs, providing short turnaround times, greater performance such as longer time between repairs, and maintaining a global presence.

Some of our customers are affiliated with our competitors through ownership or joint venture agreements. We compete in part by establishing relationships with our customers' engineering organizations, and by offering innovative technical and commercial solutions to meet their market requirements. During fiscal year 2016 we entered into a strategic joint venture ("JV") with General Electric Company ("GE"), acting through its GE Aviation business unit. The JV sells fuel systems for GE's large engine programs and is described further in Note 4, Joint Venture, in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data."

Industrial operates in the global markets for industrial turbines, industrial reciprocating engines, electric power generation systems, power distribution networks, and wind turbines. Many of these markets are subject to regulartory product and performance certifications to meet emissions and safety requirements, which form a basis for competition as well as a barrier to entry.

We compete with numerous companies that specialize in various engine, turbine, and power management products, and our OEM customers are often capable of developing and manufacturing similiar products internally. Many of our customers are large global OEMs that require suppliers to support them around the world and to meet increasingly higher requirements in terms of safety, quality, delivery, reliability and cost.

Competitors include ABB, Emerson, Heinzmann GmbH & Co., Hoerbiger, Invensys, L'Orange GmbH, Meggitt, Robert Bosch AG, and Schweitzer Electric. OEM customers with internal capabilities for similar products include Caterpillar, Cummins, General Electric, Siemens and Wartsila.

We believe we are a market leader in providing our customers advanced technology and superior product performance at a competitive price. We focus on developing and maintaining close relationships with our OEM customers' engineering teams. Competitive success is based on the development of innovative components and systems that are aligned with the OEMs' technology roadmaps to achieve future reliability, emission, efficiency, and fuel flexibility targets.

Government Contracts and Regulation

Portions of our business, particularly in our Aerospace segment, are heavily regulated. We contract with numerous U.S. Government agencies and entities, including all of the branches of the U.S. military, the National Aeronautics and Space Administration ("NASA"), and the Departments of Defense, Homeland Security, and Transportation. We also contract with similar government authorities outside the United States, subject in all cases to applicable law.

The U.S. Government, and potentially other governments, may terminate any of our government contracts, or any government contracts under which we are a subcontractor, at their convenience, as well as for default based on specified performance measurements. If any of our U.S. government contracts were to be terminated for convenience, we generally would be entitled to receive payment for work completed and allowable termination or cancellation costs. If any of our U.S. government contracts were to be terminated for our default, the U.S. Government generally would pay only for the work accepted, and could require us to pay the difference between the original contract price and the cost to re-procure the contract items, net of the work accepted from the original contract. The U.S. Government could also hold us liable for damages resulting from the default.

We must comply with, and are affected by, laws and regulations relating to the formation, administration and performance of U.S. Government contracts. These laws and regulations, among other things:

- require accurate, complete and current disclosure and certification of cost and pricing data in connection with certain contracts;
- impose specific and unique cost accounting practices that may differ from accounting principles generally accepted in the United States ("U.S. GAAP"), and therefore require robust systems to reconcile;
- impose regulations that define allowable and unallowable costs and otherwise govern our right to reimbursement under certain cost-based U.S. Government contracts;
- impose manufacturing specifications and other quality standards that may be more restrictive than for non-government business activities; and
- restrict the use and dissemination of information classified for national security purposes due to the regulations of the U.S. Government and foreign governments pertaining to the export of certain products and technical data.

Sales made directly to U.S. Government agencies and entities, or indirectly through third party manufacturers utilizing Woodward parts and subassemblies, collectively represented 23% of our sales for fiscal year 2017, 21% of our sales for fiscal year 2016, and 18% of our sales for fiscal year 2015. The level of U.S. spending for defense, alternative energy and other programs, and the mix of programs to which such funding is allocated, is subject to periodic congressional appropriation actions, and is subject to change, including elimination, at any time.

U.S. Government related sales from our reportable segments for fiscal years 2017, 2016 and 2015 were as follows:

	Direct U.S. Government Sales	Indirect U.S. Government Sales	Commercial Sales	Total
Year ended September 30, 2017				
Aerospace	$ 106,685	$ 362,536	$ 873,118	$ 1,342,339
Industrial	3,726	10,814	741,806	756,346
Total net external sales	$ 110,411	$ 373,350	$ 1,614,924	$ 2,098,685
Percentage of total net sales	5 %	18 %	77 %	100 %
Year ended September 30, 2016				
Aerospace	$ 103,026	$ 310,952	$ 819,198	$ 1,233,176
Industrial	6,550	9,845	773,507	789,902
Total net external sales	$ 109,576	$ 320,797	$ 1,592,705	$ 2,023,078
Percentage of total net sales	5 %	16 %	79 %	100 %
Year ended September 30, 2015				
Aerospace	$ 92,322	$ 258,391	$ 810,170	$ 1,160,883
Industrial	4,836	8,839	863,745	877,420
Total net external sales	$ 97,158	$ 267,230	$ 1,673,915	$ 2,038,303
Percentage of total net sales	5 %	13 %	82 %	100 %

Seasonality

We do not believe our sales, in total or in either business segment, are subject to significant seasonal variation. However, our sales have generally been lower in the first quarter of our fiscal year as compared to the immediately preceding quarter due to fewer working days resulting from the observance of various holidays and scheduled plant shutdowns for annual maintenance.

Sales Order Backlog

Our backlog of unshipped sales orders by segment as of October 31, 2017 and 2016 was as follows:

	October 31, 2017	% Expected to be filled by September 30, 2018	October 31, 2016
Aerospace	$ 826,096	77 %	$ 685,792
Industrial	189,283	93	189,397
	$ 1,015,379	80 %	$ 875,189

Our current estimate of the sales order backlog is based on unshipped sales orders that are open in our order entry systems. Unshipped orders are not necessarily an indicator of future sales levels because of variations in lead times and customer production schedules.

Manufacturing

We operate manufacturing and assembly plants in the United States, Europe and Asia. Our products consist of mechanical, electronic and electromechanical systems and components.

Aluminum, iron and steel are primary raw materials used to produce our mechanical components. Other commodities, such as gold, copper and nickel, are also used in the manufacture of our products, although in much smaller quantities. We purchase various goods, including component parts and services used in production, logistics and product development processes from third parties. Generally there are numerous sources for the raw materials and components used in our products, which we believe are sufficiently available to meet current requirements.

We maintain global strategic sourcing models to meet our global facilities' production needs while building long-term supplier relationships and efficiently managing our overall supply costs. We expect our suppliers to maintain adequate levels of quality raw materials and component parts, and to deliver such parts on a timely basis to support production of our various products. We use a variety of agreements with suppliers intended to protect our intellectual property and processes and to monitor and mitigate risks of disruption in our supply base that could cause a business disruption to our production schedules or to our customers. The risks

monitored include supplier financial viability, business continuity, quality, delivery and protection of our intellectual property and processes.

Our customers expect us to maintain adequate levels of certain finished goods and certain component parts to support our warranty commitments and sales to our aftermarket customers, and to deliver such parts on a timely basis to support our customers' standard and customary needs. We carry certain finished goods and component parts in inventory to meet these rapid delivery requirements of our customers.

The Securities and Exchange Commission ("SEC") adopted disclosure rules for companies that use tantalum, tin, tungsten, and gold or their derivatives (collectively referred to as "conflict minerals") in their products, with substantial supply chain verification requirements in the event the conflict minerals come or may come from the Democratic Republic of Congo or adjoining countries. The European Union is considering the imposition of similar reporting obligations. Our conflict minerals report for calendar year 2016 was filed with the SEC on May 24, 2017. We may face reputational challenges with our customers, stockholders and other stakeholders if we use and/or are unable to sufficiently verify the origins of the conflict minerals used in our products. Further, due to the complexity of our supply chain, the implementation of the existing U.S. requirements and any additional European requirements could affect the sourcing and availability of metals used in the manufacture of a number of parts contained in our products. Regardless, we have and will continue to incur costs associated with compliance, including time-consuming and costly efforts to determine the source of conflict minerals that may be used in our products.

Research and Development

We finance our research and development activities primarily with our own independent research and development funds. Our research and development costs include basic research, applied research, component and systems development, and other concept formulation studies.

Company funded expenditures related to new product development activities are expensed as incurred and are separately reported in the Company's Consolidated Statements of Earnings. Across both of our segments, research and development costs totaled $126,519 in fiscal year 2017, $126,170 in fiscal year 2016, and $134,485 in fiscal year 2015. Research and development costs were 6.0% of consolidated net sales in fiscal year 2017 compared to 6.2% in fiscal year 2016 and 6.6% in fiscal year 2015. See "Research and development costs" in Note 1, Operations and summary of significant accounting policies, to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data."

Aerospace is focused on developing systems and components that we believe will be instrumental in helping our customers achieve their objectives of lower fuel consumption, lighter weight, more efficient performance, reduced emissions, and improved operating economics. Our development efforts support technology for a wide range of:

- aerospace turbine engine applications, which include commercial, business and military turbofan engines of various thrust classes, turboshaft engines and turboprop engines;
- electromechanical and hydraulic actuation systems for flight deck-to-flight surface control of fixed-wing aircraft and rotorcraft, and turbine engine nacelles, as well as guidance for weapon systems; and
- motion control components for integration into comprehensive actuation systems.

The aerospace industry has moved toward more electric ("fly-by-wire"), lighter weight aircraft, while demanding increased reliability and redundancy. In response, we are developing an expanded family of intelligent flight deck control products (including throttle and rudder controls) with both conventional and fly-by-wire technology, as well as motor driven actuation systems.

We collaborate closely with our customers as they develop their technology plans, which leads to new product concepts. We believe this collaboration allows us to develop technology that is aligned with our customers' needs and therefore, increases the likelihood that our systems and components will be selected for inclusion in the platforms

developed by our customers. Further, we believe our close collaboration with our customers during preliminary design stages allows us to provide products that deliver the component and system performance necessary to bring greater value to our customers.

Most technology development programs begin years before an expected entry to service, such as those for the next generation of commercial aircraft. Other development programs result in nearer-term product launches associated with new OEM offerings, product upgrades, or product replacements on existing programs. Some of the major projects/programs we are developing are listed below.

We developed the fuel system, air management system, and actuation hardware for CFM International's LEAP engine program. We also developed the actuation system, combustion system and oil system components for Pratt & Whitney's Geared Turbo Fan ("GTF") engine program. These programs target applications in the single aisle and regional aircraft markets with entry into service in the 2016 to 2020 timeframe. Both the LEAP engine and the GTF engine have been selected by Airbus as options to power its A320neo aircraft, which entered service in 2016. In addition, the LEAP engine was selected exclusively by Boeing for its 737 MAX, which entered service in 2017, and by Comac for its C919 aircraft. The GTF engine was selected exclusively by Bombardier for its CSeries aircraft, which also entered service in 2016, by Embraer for its EJets E2 aircraft family, and by Irkut for the MS-21 aircraft.

During fiscal year 2016 we entered into a JV with GE, acting through its GE Aviation business unit. The JV sells fuel systems for GE's large engine programs. The JV is developing the fuel system for the GE9X engine (which will power the Boeing 777X). We have been selected as the JV's supplier of this fuel system.

We are the supplier for the thrust reverser actuation system ("TRAS") for the Boeing 737 MAX and the CFM LEAP-engined Airbus A320neo. We are developing the TRAS for the Boeing 777X and the Airbus A330neo, and have been awarded the new nacelle version of the GTF-engined Airbus A320neo. The A330neo is scheduled to enter service in 2018, and the 777X in 2020.

We are currently developing the fuel system, air management components, and actuation hardware for the Passport engine program, as well as the TRAS for the integrated propulsion system. Passport is the next generation GE Aviation engine for the large business aviation market, and has been selected by Bombardier to power its Global 7000 and 8000 long-range business aircraft, expected to enter into service in 2018 and 2019, respectively.

In addition, we developed sensor solutions for the Airbus A350 high lift system, an actuation sub-system for the Boeing 787-9 that improves fuel burn, flight deck components for the Bombardier CSeries and control and sensing solutions for the Boeing KC-46A refueling tanker boom subsystem. We are currently developing flight deck components for the Bombardier Global 7000 and 8000 aircraft.

Industrial is focused on developing improved technologies, including integrated control systems and system components, that will enable our OEM customers to cost-effectively meet mandated emissions regulations and fuel efficiency demands, allow for usage of a wider range of fuel sources, increase reliability (particularly in harsh environments), reduce total cost of ownership, support global infrastructure growth, and safely distribute power on the electrical grid.

Our efforts include research and development of technologies and products that improve combustion processes and provide more precise flow of various fuels and gases in our customers' gas turbines and industrial reciprocating engines. We also develop electronic devices and software that provide improved control and protection of reciprocating engines, gas turbines, steam turbines, wind turbines, and engine- and turbine-powered equipment. In addition, we are developing advanced prognostic and predictive intelligence into many of our complex products. Major development projects include enhancement of high pressure common rail diesel fuel injection systems, comprehensive gas engine control systems, fuel flow control valves and actuators, and various other technologies. Our technologies help our OEM customers' engines, turbines, power generation, power distribution, compressor and other powered equipment operate more efficiently and more reliably.

Employees

As of October 31, 2017, we employed approximately 6,900 full-time employees of which approximately 1,600 were located outside of the United States, with the majority in Germany, Poland and China. We believe that our relationships with our employees are good.

Approximately 17% of our total full-time workforce were union employees as of October 31, 2017, all of whom work for our Aerospace segment and are located in the United States. The collective bargaining agreements with our union employees are generally renewed through contract renegotiation near the contract expiration dates. The MPC Employees Representative Union contract, which covers 491 employees as of October 31, 2017, expires October 1, 2021. The Local Lodge 727-N International Association of Machinists and Aerospace Workers agreement, which covers 438 employees as of October 31, 2017, expires April 22, 2021. The International Union, United Automobile, Aerospace and Agricultural Implement Workers of America and Local No. 509 agreement, which covers 233 employees as of October 31, 2017, expires June 4, 2021. We believe that our relationships with our union employees and the representative unions are good.

Almost all of our other employees in the United States were at-will employees as of October 31, 2017, and therefore, not subject to any type of employment contract or agreement. Our executive officers each have change-in-control agreements which have been filed with the SEC.

Outside of the United States, we enter into employment contracts and agreements in those countries in which such relationships are mandatory or customary, including coordination through local works' councils. The provisions of these agreements correspond in each case with the required or customary terms in the subject jurisdiction.

Patents, Intellectual Property, and Licensing

We own numerous patents and other intellectual property, and have licenses for the use of patents and other intellectual property owned by others, which relate to our products and their manufacture. In addition to owning a large portfolio of intellectual property, we also license intellectual property to and from third parties. For example, the U.S. Government has certain rights in our patents and other intellectual property developed in performance of certain government contracts, and it may use or authorize others to use the inventions covered by such patents for government purposes as allowed by law.

Intellectual property not covered by patents (or patent applications) includes trade secrets and other technological know-how that is not patentable or for which we have elected not to seek patent protection, including intellectual property relating to our manufacturing processes and engineering designs. Such unpatented technology, including research, development and engineering

technical skills and know-how, as well as unpatented software, is important to our overall business and to the operations of each of our segments.

While our intellectual property assets taken together are important, we do not believe our business or either of our segments would be materially affected by the expiration of any particular intellectual property right or termination of any particular intellectual property patent license agreement.

As of September 30, 2017, our Consolidated Balance Sheet includes $171,882 of net intangible assets. This value represents the carrying values, net of amortization, of certain assets acquired in various business acquisitions and does not purport to represent the fair value of our acquired intellectual property as of September 30, 2017.

U.S. GAAP requires that research and development costs be expensed as incurred; therefore, as we develop new intellectual property in the normal course of business, the costs of developing such assets are expensed as incurred, with no corresponding intangible asset recorded.

Environmental Matters and Climate Change

The Company is regulated by federal, state and international environmental laws governing our use, transport and disposal of substances and control of emissions. Compliance with these existing laws has not had a material impact on our capital expenditures, earnings or global competitive position.

We use hazardous materials and/or regulated materials in our manufacturing operations. We also own, operate, and may acquire facilities that were formerly owned and operated by others that used such materials. We believe that the risk that a significant release of regulated materials has occurred in the past or will occur in the future cannot be completely eliminated or prevented. From time to time we engage in environmental remedial acitivites, generally in coordination with other companies, pursuant to federal and state laws. In addition, we may be exposed to other environmental costs including participation in superfund sites or other similar jurisdictional initiatives. When it is reasonably probable we will pay remediation costs at a site, and those costs can be reasonably estimated, we accrue a liability for such future costs with a related charge against our earnings. In formulating that estimate and recognizing those costs, we do not consider amounts expected to be recovered from insurance companies, or others, until such recovery is assured. Currently, we have no sites undergoing remediation.

Our manufacturing facilities generally do not produce significant volumes or quantities of byproducts, including greenhouse gases, that would be considered hazardous waste or otherwise harmful to the environment. We do not expect legislation currently pending or expected in the next several years to have a significant negative impact on our operations in any of our segments.

Domestic and foreign legislative initiatives on emissions control, renewable energy, and climate change tend to favorably impact the sale of our energy control products. For example, our Industrial segment produces inverters for wind turbines and energy control products that help our customers maximize engine efficiency and minimize wasteful emissions, including greenhouse gases.

Executive Officers of the Registrant

Information about our executive officers is provided below. There are no family relationships between any of the executive officers listed below.

Thomas A. Gendron, Age 56. Chairman of the Board since January 2008; Chief Executive Officer, President, and Director since July 2005; Chief Operating Officer and President September 2002 through June 2005; Vice President and General Manager of Industrial Controls June 2001 through September 2002; Vice President of Industrial Controls April 2000 through May 2001; Director of Global Marketing and Industrial Controls' Business Development February

1999 through March 2000.

Robert F. Weber, Jr., Age 63. Vice Chairman, Chief Financial Officer and Treasurer since September 2011, and Chief Financial Officer and Treasurer since August 2005. Prior to August 2005, Mr. Weber was employed at Motorola, Inc. for 17 years, where he held various positions, including Corporate Vice President and General Manager - EMEA Auto. Prior to this role, Mr. Weber served in a variety of financial positions at both a corporate and operating unit level with Motorola.

Martin V. Glass, Age 60. President, Airframe Systems since April 2011; President, Turbine Systems October 2009 through April 2011; Group Vice President, Turbine Systems September 2007 through September 2009; Vice President of the Aircraft Engine Systems Customer Business Segment December 2002 through August 2007; Director of Sales, Marketing, and Engineering February 2000 through December 2002. Mr. Glass has announced his retirement from the Company effective February 2, 2018.

Sagar Patel, Age 51. President, Aircraft Turbine Systems since June 2011. Prior to this role, Mr. Patel was employed at General Electric for 18 years, most recently serving as President, Mechanical Systems, GE Aviation, from March 2009 through June 2010. He served as President, Aerostructures, GE Aviation from July 2008 through July 2009 and as President and General Manager, MRS Systems, Inc., GE Aircraft Engines, from October 2005 through June 2008.

Chad R. Preiss, Age 52. President, Industrial Control Systems since November 2016, President, Engine Systems October 2009 through November 2016; Group Vice President, Engine Systems October 2008 through September 2009; Vice President, Sales, Service, and Marketing, Engine Systems December 2007 through September 2008; and Vice President, Industrial Controls September

2004 through December 2007. Prior to this role, Mr. Preiss served in a variety of engineering and marketing/sales management roles, including Director of Business Development, since joining Woodward in 1988.

A. Christopher Fawzy, Age 48. Corporate Vice President, General Counsel, Corporate Secretary and Chief Compliance Officer since October 2009; Vice President, General Counsel, and Corporate Secretary June 2007 through September 2009. Mr. Fawzy became the Company's Chief Compliance Officer in August 2009. Prior to joining Woodward, Mr. Fawzy was employed by Mentor Corporation, a global medical device company. He joined Mentor in 2001 and served as Corporate Counsel, then was promoted to General Counsel in 2003, and was appointed Vice President, General Counsel and Secretary in 2004.

Other Corporate Officers of the Registrant

Information about our other corporate officers is provided below. There are no family relationships between any of the corporate officers listed below or between any of the corporate officers listed below and the aforementioned executive officers.

James D. Rudolph, Age 56. Corporate Vice President since November 2016, President, Industrial Turbomachinery Systems April 2011 through November 2016; Corporate Vice President, Global Sourcing October 2009 through April 2011; Vice President, Global Sourcing April 2009 through October 2009; Director of Global Sourcing April 2005 through April 2009; Director of Engineering for Industrial Controls March 2000 through April 2005. Prior to March 2000, Mr. Rudolph served in a variety of engineering, operations and sales roles since joining Woodward in 1984.

Steven J. Meyer, Age 57. Corporate Vice President, Human Resources since October 2009; Vice President, Human Resources November 2006 through September 2009; Director, Global Human Resources November 2002 through October 2006; Director, Human Resources for Industrial Controls July 1997 through October 2002. Prior to joining Woodward, Mr. Meyer was employed by PG&E Corporation and Nortel in a variety of roles in human resources.

Matthew F. Taylor, Age 55. Corporate Vice President, Supply Chain since February 2011; Vice President, Engine Fluid Systems and Controls Center of Excellence ("CoE") October 2009 through February 2011; General Manager, Fluid Systems and Controls CoE December 2006 through October 2009; Director of Operations, Fluid Systems and Controls June 2005 through December 2006. Prior to joining Woodward in June 2005, Mr. Taylor was the Vice President and General Manager, Warner Electric and served in a variety of general management roles at Eaton Corporation from February 1998 through August 2003.

Matt R. Cook, Age 46. Corporate Vice President, Information Technology since January 2014; Director, Global Business Systems July 2012 through January 2014. Prior to joining Woodward, Mr. Cook was employed by Satcon Corporation as Vice President, Global Information Technology. Prior to Satcon, Mr. Cook served in a variety of senior roles in information technology and business development.

John D. Tysver, Age 55. Corporate Vice President, Technology since October 2016; Vice President, Aircraft Turbine Systems' Programs, Systems and Research & Development July 2015 through October 2016; Vice President and General Manager of Aircraft Turbine Systems' Fuel Systems Center of Excellence April 2011 through July 2015; Vice President of Turbine Systems' Systems & Engineering October 2009 through April 2011; Director of Turbine Systems' Systems & Engineering November 2006 through October 2009. Prior to November 2006, Mr. Tysver served in a variety of engineering leadership roles since joining Woodward in March 1991. Prior to joining Woodward, Mr. Tysver served in engineering roles at Sundstrand (now UTC Aerospace Systems).

Information available on Woodward's Website and Social Media

Through a link on the Investor Information section of our website, www.woodward.com, we make available, free of charge, the following filings as soon as reasonably practicable after they are electronically filed or furnished to the

SEC: our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements on Schedule 14A, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as well as Section 16 reports of our officers and directors. The SEC also maintains a website that contains our SEC filings. The address of the site is www.sec.gov. Further, a copy of this Annual Report on Form 10-K is located at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. We provide notifications of news or announcements regarding our financial performance, including SEC filings, investor events, press and earnings releases as part of our investor relations website. We have used, and intend to continue to use, our investor relations website, as well as the following as of the date of this filing, as means of disclosing material non-public information and for complying with the disclosure obligations under Regulation FD:

- Twitter: @woodward_inc
- Facebook: Facebook.com/woodwardinc
- LinkedIn: Linkedin.com/company/woodward
- Google Plus: +WoodwardInc
- YouTube: YouTube.com/user/woodwardinc
- Goldenline (Poland): http://www.goldenline.pl/firma/woodward
- XING (Germany): https://www.xing.com/companies/woodwardinc.

None of the information contained on our website, or the above-mentioned social media sites, is incorporated into this document by reference.

Stockholders may obtain, without charge, a single copy of Woodward's 2017 Annual Report on Form 10-K upon written request to the Corporate Secretary, Woodward, Inc., 1081 Woodward Way, Fort Collins, Colorado 80524.

Item 1A.Risk Factors

Investment in our securities involves risk. An investor or potential investor should consider the risks summarized in this section when making investment decisions regarding our securities.

Important factors that could individually, or together with one or more other factors, affect our business, results of operations, financial condition, and/or cash flows include, but are not limited to, the following:

Company Risks

A significant portion of our revenue is concentrated among a relatively small number of customers. A decline in business with, or financial distress of, such customers could decrease our consolidated net sales or impair our ability to collect amounts due and payable and have a material adverse effect on our business, financial condition, results of operations and cash flows.

We have fewer customers than many companies with similar sales volumes. For the fiscal year ended September 30, 2017, approximately 43% of our consolidated net sales were made to our five largest customers. Sales to our five largest customers for the fiscal year ended September 30, 2016 represented approximately 42% of our consolidated net sales. Sales to our largest customer, General Electric, accounted for approximately 16% of our consolidated net sales in the fiscal year ended September 30, 2017, 17% in the fiscal year ended September 30, 2016 and 18% in the fiscal year ended September 30, 2015. Accounts receivable from General Electric represented approximately 10% of accounts receivable at September 30, 2017 and 14% at September 30, 2016. Sales to our next largest customer accounted for approximately 11% of our consolidated net sales in the fiscal year ended September 30, 2017, 8% in the fiscal year ended September 30, 2016, and 7% in the fiscal year ended September 30, 2015. If any of our significant customers were to change suppliers, in-source production, institute significant restructuring or cost-cutting measures, or experience financial distress, these significant customers may substantially reduce, or otherwise be unable to pay for, purchases from us. Accordingly, our consolidated net sales could decrease significantly or we may experience difficulty collecting, or be unable to collect, amounts due and payable, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Instability in the financial markets and global or regional economic weakness or uncertainty could have a material adverse effect on the ability of our customers to perform their obligations to us and on their demand for our products and services.

Over the last six to eight years, there has been widespread concern over the instability in the financial markets and their influence on the global economy. As a result of the extreme volatility in the credit and capital markets and global economic uncertainty, our current or potential customers may experience cash flow problems and, as a result, may modify, delay or cancel plans to purchase our products. Additionally, if our customers face financial distress or are unable to secure necessary financing, they may not be able to pay, or may delay payment of, accounts receivable that are owed to us. Any inability of current or potential customers to pay us for our products may adversely affect our earnings and cash flows.

In addition, the general economic environment significantly affects demand for our products and services. Periods of slowing economic activity, for example the global industrial recession currently impacting many of our markets, may cause global or regional slowdowns in spending on infrastructure development in the markets in which we operate, and customers may reduce their purchases of our products and services. In addition, weakness or uncertainty in any of our global markets, such as economic uncertainty in China, may materially adversely affect one or more areas of our business.

There can be no assurance that any market and economic uncertainty in the United States or internationally would not have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our profitability may suffer if we are unable to manage our expenses due to sales increases, sales decreases, or impacts of capital expansion projects, or if we experience change in product mix.

Some of our expenses are relatively fixed in relation to changes in sales volume and are difficult to adjust in the short term. Expenses driven by business activity other than sales level and other long-term expenditures, such as fixed manufacturing overhead, capital expenditures and research and development costs, may be difficult to reduce in a timely manner in response to a reduction in sales. Expenses such as depreciation or amortization, which are the result of past capital expenditures or business acquisitions, are generally fixed regardless of sales levels. In addition, the achievement of manufacturing efficiencies associated with capital expansion projects may not meet management's current expectations. Due to our long sales cycle, in periods of sales increases it may be difficult to rapidly increase our production of finished goods, particularly if such sales increases are unanticipated. An increase in the production of our finished goods requires increases in both the purchases of raw materials and components and in the size of our workforce. If a sudden, unanticipated need for raw materials, components and labor arises in order to meet unexpected sales demand, we could experience difficulties in sourcing raw materials, components and labor at a favorable cost or to meet our production needs. These factors could result in delays in fulfilling customer sales contracts, damage to our reputation and relationships with our

customers, an inability to meet the demands of the markets that we serve, which in turn could prevent us from taking advantage of business opportunities or responding to competitive pressures, and result in an increase in variable and fixed costs leading to a decrease in net earnings or even net losses. In addition, we sell products that have varying profit margins, and increases or decreases in sales of our various products may change the mix of products that we sell during any period. Any of these events could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

The long sales cycle, customer evaluation process and implementation period of our products and services may increase the costs of obtaining orders and reduce the predictability of sales cycles and our inventory requirements.

Our products and services are technologically complex. Prospective customers generally must commit significant resources to test and evaluate our products and to install and integrate them into larger systems. Orders expected in one quarter may shift to another quarter or be cancelled with little advance notice as a result of customers' budgetary constraints, internal acceptance reviews and other factors affecting the timing of customers' purchase decisions. In addition, customers often require a significant number of product presentations and demonstrations before reaching a sufficient level of confidence in the product's performance and compatibility with the approvals that typically accompany capital expenditure approval processes. The difficulty in forecasting demand increases the challenge in anticipating sales cycles and our inventory requirements, which may cause us to over-produce finished goods and could result in inventory write-offs, or could cause us to under-produce finished goods. Any such over-production or under-production could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our product development activities may not be successful, may be more costly than currently anticipated, or we may not be able to produce newly developed products at a cost that meets the anticipated product cost structure.

Our business involves a significant level of product development activities, generally in connection with our customers' development activities. Industry standards, customer expectations, or other products may emerge that could render one or more of our products or services less desirable or obsolete. Maintaining our market position requires continued investment in research and development. During an economic downturn or a subsequent recovery, we may need to maintain our investment in research and development, which may limit our ability to reduce these expenses in proportion to a sales shortfall. In addition, increased investments in research and development may divert resources from other potential investments in our business, such as acquisitions or investments in our facilities, processes and operations. If these activities are not as successful as currently anticipated, are not completed on a timely basis, or are more costly than currently anticipated, or if we are not able to produce newly developed products at a cost that meets the anticipated product cost structure, then our future sales, margins and/or earnings could be lower than expected, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our business may be adversely affected by government contracting risks.

Sales made directly to U.S. Government agencies and entities were 5% of total net sales during fiscal year 2017, 5% during fiscal year 2016, and 5% during fiscal year 2015, primarily in the aerospace market. Sales made directly to U.S. Government agencies and entities, or indirectly through third party manufacturers, such as tier-one prime contractors, utilizing Woodward parts and subassemblies, accounted for approximately 23% of total sales in fiscal year 2017, 21% in fiscal year 2016, and 18% in fiscal year 2015. Our contracts with the U.S. Government are subject to certain unique risks, including the risks set forth below, some of which are beyond our control, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

· The level of U.S. defense spending is subject to periodic congressional appropriation actions and is subject to change at any time. The mix of programs to which such funding is allocated is also uncertain, and we can provide no assurance that an increase in defense spending will be allocated to programs that would benefit our business. If the

amount of spending were to decrease, or there were a shift from certain aerospace and defense programs on which we have content to other programs on which we do not, our sales could decrease. In addition, one or more of the aerospace or defense programs that we currently support could be phased-out or terminated. Any such reductions in U.S. Government needs under these existing aerospace and defense programs, unless offset by other aerospace and defense programs and opportunities, could have a material adverse effect on our sales.

- Our U.S. Government contracts and the U.S. Government contracts of our customers are subject to modification, curtailment or termination by the government, either for the convenience of the government or for default as a result of a failure by us or our customers to perform under the applicable contract. If any of our contracts are terminated by the U.S. Government, our backlog would be reduced, in accordance with contract terms, by the expected value of the remaining work under such contracts. In addition, we are not the prime contractor on most of our contracts for supply to the U.S. Government, and the U.S. Government could terminate a prime contract under which we are a subcontractor, irrespective of the quality of our products and services as a subcontractor.

- We must comply with procurement laws and regulations relating to the formation, administration and performance of our U.S. Government contracts and the U.S. Government contracts of our customers. The U.S. Government may change procurement laws and regulations from time to time. A violation of U.S. Government procurement laws or regulations, a change in U.S. Government procurement laws and regulations, or a termination arising out of our default could expose us to liability, debarment, or suspension and could have an adverse effect on our ability to compete for future contracts and orders.

- We are subject to government inquiries, audits and investigations due to our business relationships with the U.S. Government and the heavily regulated industries in which we do business. In addition, our contract costs are subject to audits by the U.S. Government. U.S. Government agencies, including the Defense Contract Audit Agency and the Defense Contract Management Agency, routinely audit government contractors and subcontractors. These agencies review our performance under contracts, cost structure and compliance with applicable laws, regulations, and standards, as well as the adequacy of and our compliance with our internal control systems and policies. Any costs found to be misclassified or inaccurately allocated to a specific contract would be deemed non-reimbursable, and to the extent already reimbursed, would be refunded. Any inadequacies in our systems and policies could result in withholds on billed receivables, penalties and reduced future business. Any inquiries or investigations, including those related to our contract pricing, could potentially result in civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines, suspension, and/or debarment from participating in future business opportunities with the U.S. Government. Such actions could harm our reputation, even if such allegations are later determined to be unfounded, and could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Product liability claims, product recalls or other liabilities associated with the products and services we provide may force us to pay substantial damage awards and other expenses that could exceed our accruals and insurance coverage.

The manufacture and sale of our products and the services we provide expose us to risks of product and other tort claims, and any resulting liability. We currently have and have had in the past product liability claims relating to our products, and we will likely be subject to additional product liability claims in the future for past, current and future products. Some of these claims may have a material adverse effect on our business, financial condition, results of operations and cash flows. We also provide certain services to our customers and are subject to claims with respect to the services provided. In providing such services, we may rely on subcontractors to perform all or a portion of the contracted services. It is possible that we could be liable to our customers for work performed by a subcontractor. Regardless of the outcome, product liability claims can be expensive to defend, can divert the attention of management and other personnel for significant periods of time, and can cause reputational damage. While we believe that we have appropriate insurance coverage available to us related to any such claims, our insurance may not cover all liabilities or be available in the future at a cost acceptable to us. An unsuccessful result in connection with a product liability claim, where the liabilities are not covered by insurance or for which indemnification or other recovery is not available, could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Suppliers may be unable to provide us with materials of sufficient quality or quantity required to meet our production needs at favorable prices or at all.

We are dependent upon suppliers for parts and raw materials used in the manufacture of components that we sell to our customers, and our raw material costs are subject to commodity market fluctuations. We may experience an increase in costs for parts or raw materials that we source from our suppliers, or we may experience a shortage of parts or raw materials for various reasons, such as the loss of a significant supplier, high overall demand creating shortages in parts and supplies we use, financial distress, work stoppages, natural disasters, fluctuations in commodity prices, or production or distribution difficulties that may affect one or more of our suppliers. In particular, current or future global economic uncertainty may affect the financial stability of our key suppliers or their access to financing, which may in turn affect their ability to perform their obligations to us. Our customers rely on us to provide on-time delivery and have certain rights if our delivery standards are not maintained. A significant increase in our supply costs, including for raw materials that are subject to commodity price fluctuations, or a protracted interruption of supplies for any reason, could result in the delay of one or more of our customer contracts or could damage our reputation and relationships with customers. In addition, quality and sourcing issues that our suppliers may experience can also adversely affect the quality and effectiveness of our products and services and may result in liability or reputational harm to us. Any of these events could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Subcontractors may fail to perform contractual obligations, which would adversely affect our ability to meet our obligations to our customers.

We frequently subcontract portions of work due under contracts with our customers and are dependent on the continued availability and satisfactory performance by these subcontractors. Nonperformance or underperformance by subcontractors could materially impact our ability to perform obligations to our customers. A subcontractor's failure to perform could result in a customer terminating our contract for default, expose us to liability, substantially impair our ability to compete for future contracts and orders, and limit our ability to enforce fully all of our rights under these agreements, including any rights to indemnification. Any of these events could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

We have engaged in restructuring and alignment activities from time to time and may need to implement further restructurings or alignments in the future, and there can be no assurance that our restructuring or alignment efforts will have the intended effects.

From time to time, we have responded to changes in our industry and the markets we serve, or other changes in our business, by restructuring or aligning our operations. Our restructuring activities have included workforce management and other restructuring charges related to acquired businesses, including, among others, changes associated with integrating similar operations, managing our

workforce, vacating or consolidating certain facilities and cancelling certain contracts. Due to cost reduction measures or changes in the industry and markets in which we compete, we may decide to implement restructuring or alignment activities in the future, such as closing plants, moving production lines, or making additions, reductions or other changes to our management or workforce. These restructuring and/or alignment activities generally result in charges and expenditures that may adversely affect our financial results for one or more periods.

Restructuring and/or alignment activities can create unanticipated consequences, such as instability or distraction among our workforce, and we cannot be sure that any restructuring or alignment efforts that we undertake will be successful. A variety of risks could cause us not to realize expected cost savings, including, among others, the following:

- higher than expected severance costs related to staff reductions;
- higher than expected retention costs for employees that will be retained;
- higher costs to hire new employees or delays or difficulty hiring the employees needed;
- higher than expected stand-alone overhead expenses;
- delays in the anticipated timing of activities related to our cost-saving plan; and
- other unexpected costs associated with operating the business.

If we are unable to structure our operations in the light of evolving market conditions, it could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Consolidation in the aerospace market and our participation in a strategic joint venture with GE may make it more difficult to secure long-term sales in certain aerospace markets.

In January 2016, Woodward and General Electric Company (“GE”), acting through its GE Aviation business unit, consummated the formation of a strategic joint venture between Woodward and GE (the “JV”). The JV agreement does not restrict Woodward from entering into any market, however, consolidation in the aircraft engine market is increasingly prevalent, resulting in fewer engine manufacturers, and thus it may become more difficult for Woodward to secure new business with GE competitors on similar product applications both within and outside the specific JV market space. Additionally, if GE fails to win new content in the market space covered by the JV, Woodward may be prevented from expanding content on future commercial aircraft engines in those markets.

We may not be able to obtain financing, on acceptable terms or at all, to implement our business plans, complete acquisitions, or otherwise take advantage of business opportunities or respond to competitive pressures.

During the last several years, global financial markets, including the credit and debt and equity capital markets, and economic conditions have been volatile. These issues, along with significant write-offs in the financial services sector, the re-pricing of credit risk, and the global economic uncertainty, have in the past made, and may in the future make, it difficult to obtain financing. In addition, as a result of concerns about the stability of financial markets generally and the solvency of counterparties specifically, the cost of obtaining money from the credit markets may increase as many lenders and institutional investors have or may increase interest rates, enact tighter lending standards, refuse to refinance existing debt at maturity either at all or on terms similar to existing debt, and reduce and, in some cases, cease to provide financing to borrowers. Due to these factors, we cannot be certain that financing, to the extent needed, will be available on acceptable terms or at all. If financing is not available when needed, or is available only on unacceptable terms, we may be unable to implement our business plans, complete acquisitions, fund significant capital expenditures, or otherwise take advantage of business opportunities or respond to competitive pressures, any of which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our debt obligations and the restrictive covenants in the agreements governing our debt could limit our ability to operate our business or pursue our business strategies, could adversely affect our business, financial condition, results of operations, and cash flows, and could significantly reduce stockholder benefits from a change of control event.

As of September 30, 2017, our total debt was $614,680, excluding unamortized debt issuance costs and including $32,600 of borrowings on our revolving credit facility, of which all was classified as current, $393,000 in unsecured notes denominated in U.S. dollars issued in private placements, and $189,080 of unsecured notes denominated in Euros issued in private placements. Our debt obligations could require us to dedicate a portion of our cash flow from operations to payments on our indebtedness, reducing the availability of our cash flow for other purposes, including business development efforts and mergers and acquisitions. We are contractually obligated under the agreements governing our long-term debt to make principal payments of $0 in fiscal year 2018, $143,000 in fiscal year 2019, $0 in fiscal year 2020, $100,000 in fiscal year 2021, $0 in fiscal year 2022, and the remaining $339,080 is due in subsequent fiscal years. Interest on our long-term notes is payable semi-annually, with the exception of the Series J Notes which is payable quarterly, each year until all principal is paid. Our debt obligations could make us more vulnerable to general adverse economic and industry conditions and could limit our flexibility in planning for, or reacting to, changes in our business and the industries in which we operate, thereby placing us at a disadvantage to our competitors that have less indebtedness.

Our existing revolving credit facility and note purchase agreements impose financial covenants on us and our subsidiaries that require us to maintain certain leverage ratios and minimum levels of consolidated net worth. Certain of these agreements require us to repay outstanding borrowings with portions of the proceeds we receive from certain sales of property or assets and specified future debt offerings.

These financial covenants place certain restrictions on our business that may affect our ability to execute our business strategy successfully or take other actions that we believe would be in the best interests of our Company. These restrictions include limitations or restrictions, among other things, on our ability and the ability of our subsidiaries to:

- incur additional indebtedness;
- pay dividends or make distributions on our capital stock or certain other restricted payments or investments;
- purchase or redeem stock;
- issue stock of our subsidiaries;
- make domestic and foreign investments and extend credit;
- engage in transactions with affiliates;
- transfer and sell assets;
- effect a consolidation or merger or sell, transfer, lease, or otherwise dispose of all or substantially all of our assets; and
- create liens on our assets to secure debt.

These agreements contain certain customary events of default, including certain cross-default provisions related to other outstanding debt arrangements. Any breach of the covenants under these agreements or other event of default could cause a default under these agreements and/or a cross-default under our other debt arrangements, which could restrict our ability to borrow under our revolving credit facility. If there were an event of default under certain provisions of our debt arrangements that was not cured or waived, the holders of the defaulted debt may be able to cause all amounts outstanding with respect to the debt instrument, plus any required settlement costs, to be due and payable immediately. Our assets and cash flow may not be sufficient to fully repay borrowings under our outstanding debt instruments if accelerated upon an event of default. If we are unable to repay, refinance, or restructure our indebtedness as required, or amend the covenants contained in these agreements, the lenders or note holders may be entitled to obtain a lien or institute foreclosure proceedings against our assets. Any of these events could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

The Company, at its option, is permitted at any time to prepay all or any part of the then-outstanding principal amount of any series of our private placement notes, together with interest accrued on such amount to be prepaid to the date of prepayment, plus any applicable prepayment compensation amount. The prepayment compensation amount for the Euro denominated private placement notes includes any net gain or loss realized by the lenders on swap transactions entered into by the lenders under which the lenders would receive payment in U.S. dollars in exchange for scheduled Euro payments of principal and interest on the Euro denominated private placement notes by the Company to the lenders, adjusted for theoretical lender returns foregone on hypothetical reinvestments in U.S. Treasury securities. However, in the case of an event of default as defined in the loan documents, including a change in control event, the prepayment compensation amount will not be less than zero. Depending on the movement of foreign exchange rates over the terms of the Euro denominated private placement notes, such payments could have a material adverse effect on our business, financial condition, results of operations, and cash flows and could significantly reduce stockholder benefits from a change of control event.

Additional tax expense or additional tax exposures could affect our future profitability.

Approximately 24%, in fiscal year 2017, and 23%, in fiscal year 2016, of our earnings before income taxes was earned in jurisdictions outside the United States. Accordingly, we are subject to income taxes in both the United States and various non-U.S. jurisdictions. Our tax liabilities are dependent upon the distribution mix of operating income among these different jurisdictions. Our tax expense includes estimates of additional tax that may be incurred and reflects various estimates, projections, and assumptions that could impact the valuation of our deferred tax assets and liabilities. Our future operating results could be adversely affected by changes in the effective tax rate, which could be caused by, among other things:

- changes in the mix of earnings in countries with differing statutory tax rates;
- changes in our overall profitability;

- changes in tax legislation and tax rates;
- changes in tax incentives;
- changes in U.S. GAAP;
- changes in the projected realization of deferred tax assets and liabilities;
- changes in management's assessment of the amount of earnings indefinitely reinvested offshore; and
- the results of audits and examinations of previously filed tax returns and continuing assessments of our tax exposures.

We derive a significant portion of our revenues from sales to countries outside the United States and purchase raw materials and components from suppliers outside of the United States; therefore, we are subject to the risks inherent in doing business in other countries.

In 2017, approximately 42% of our total sales were made to customers in jurisdictions outside of the United States (including products manufactured in the United States and sold outside the United States as well as products manufactured in international locations), including approximately 10% of our total sales to Brazil, Russia, India and China, known as the "BRIC" countries. We also purchase raw materials and components from suppliers outside the United States.

Accordingly, our business and results of operations are subject to risks associated with doing business internationally, including:

- fluctuations in foreign exchange rates;
- limitations on repatriation of earnings;
- transportation delays and interruptions;
- political, social and economic instability and disruptions;
- government embargos or trade restrictions;
- the imposition of duties and tariffs and other trade barriers;
- import and export controls;
- changes in labor conditions;
- changes in regulatory environments;
- the potential for nationalization of enterprises;
- difficulties in staffing and managing multi-national operations;
- limitations on the Company's ability to enforce legal rights and remedies, including protection of intellectual property;
- difficulty of enforcing agreements and collecting receivables through some foreign legal systems;
- acts of terrorism or war;
- potentially adverse tax consequences; and
- difficulties in implementing restructuring actions on a timely basis.

We are also subject to U.S. laws prohibiting companies from doing business in certain countries, or restricting the type of business that may be conducted in these countries. The cost of compliance with increasingly complex and often conflicting regulations governing various matters worldwide, including foreign investment, employment, import, export, business acquisitions, environmental and taxation matters, land use rights, property, and other matters, can also impair our flexibility in modifying product, marketing, pricing or other strategies for growing our businesses, as well as our ability to improve productivity and maintain acceptable operating margins. We must also comply with restrictions on exports imposed under the U.S. Export Control Laws and Sanctions Programs. These laws and regulations change from time to time and may restrict foreign sales.

In 2017, approximately 5% of our total sales were recorded in the Peoples' Republic of China ("China") and we have operations in China. Certain of our independent registered public accounting firm's audit documentation related to their audit report included in this annual report may be located in the China. The Public Company Accounting Oversight Board ("PCAOB") currently cannot inspect audit documentation located in China and, as such, prevents the PCAOB from regularly evaluating audit work of any auditors that was performed in China, including that performed by our independent auditors in China. As a result, investors may be deprived of the full benefits of PCAOB oversight of our global audits via their inspections. The inability of the PCAOB to conduct inspections of audit work performed in China makes it more difficult to evaluate the effectiveness of our Chinese independent auditor's audit procedures as compared to auditors in other jurisdictions that are subject to PCAOB inspections on all of their work.

Sales and purchases in currencies other than the U.S. dollar expose us to fluctuations in foreign currencies relative to the U.S. dollar. These exposures may change over time as our business and business practices evolve, and they could have a material adverse effect on our financial results and cash flows. An increase in the value of the U.S. dollar could increase the real cost to our customers of our products in those markets outside the United States where we sell in U.S. dollars, and a weakened U.S. dollar could increase the cost of local operating expenses and procurement of raw materials to the extent that we must purchase components in foreign currencies. Foreign currency exchange rate risk is reduced through several means, including the maintenance of local production facilities in the markets served, invoicing of customers in the same currency as the source of the products, and prompt settlement of inter-company balances utilizing a global netting system. While we monitor our exchange rate exposures and seek to reduce the risk of volatility, our actions may not be successful in significantly mitigating such volatility.

Of the $87,552 of cash and cash equivalents held at September 30, 2017, $87,383 was held by our foreign locations. We are not presently aware of any significant restrictions on the repatriation of these funds, although a portion is considered indefinitely reinvested in these foreign subsidiaries. If these funds were needed to fund our operations or satisfy obligations in the United States, then they could be repatriated and their repatriation into the United States may cause us to incur additional U.S. income taxes or foreign withholding taxes. Any additional U.S. taxes could be offset, in whole or in part, by foreign tax credits. The amount of such taxes and application of tax credits would be dependent on the income tax laws and other circumstances at the time these amounts are repatriated. Based on these variables, it is impractical to determine the income tax liability that might be incurred if these funds were to be repatriated.

In addition, uncertain global economic conditions arising from circumstances such as slowing growth in emerging regions could result in reduced customer confidence and decreased demand for our products and services, disruption in payment patterns and higher default rates, a tightening of credit markets, increased risk regarding supplier performance, increased counterparty risk with respect to the financial institutions with which we do business, and exchange rate fluctuations. While we employ comprehensive controls regarding global cash management to guard against cash or investment loss and to ensure our ability to fund our operations and commitments, a material disruption to the financial institutions with whom we transact business could have a material adverse effect on our international operations or on our business, financial condition, results of operations, and cash flows.

Political and economic uncertainty in the European Union could adversely impact our business, results of operations, financial condition and prospects.

Credit rating downgrades in certain European countries and/or speculation regarding changes to the composition or viability of the European Union ("EU") create uncertain global economic conditions. On June 23, 2016, the United Kingdom ("UK") voted to leave the EU. The UK's voluntary exit from the EU, generally referred to as the "Brexit," triggered short-term financial volatility, including a decline in the value of the Great Britain Pound ("GBP") in comparison to both the U.S. dollar ("USD") and the European Union countries' Euro ("EUR"). In addition, a process of negotiation will be required to determine the future terms of the UK's relationship with the EU, and the legal and regulatory framework that will be applicable in the UK may change. This uncertainty before, during and after the period of negotiation could have a negative economic impact and result in further volatility in the markets for several years. The impact of the Brexit referendum and such ongoing uncertainty may result in various economic and financial consequences for businesses operating in the UK, the EU and beyond.

We derive a significant portion of our revenues from non-U.S. sales and are subject to the risks inherent in doing business in other countries, including the UK. During fiscal year 2017, approximately 3% of our consolidated net sales were invoiced to customers in the UK through both our Aerospace and our Industrial reportable segments. Approximately 23% of our consolidated net sales were invoiced to customers in Europe overall. Woodward and its various subsidiaries hold financial assets and liabilities denominated in GBP and EUR, including cash and cash equivalents, accounts receivable, postretirement defined benefit pension plan assets and liabilities, and accounts payable, and the future impacts of the Brexit and the continued uncertainty surrounding the EU could have a material impact on our business, financial condition, results of operations and cash flows.

Changes in the estimates of fair value of reporting units or of long-lived assets, particularly goodwill, may result in future impairment charges, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Over time, the fair values of long-lived assets change. At September 30, 2017, we had $556,545 of goodwill, representing 20% of our total assets. We test goodwill for impairment at the reporting unit level on an annual basis and more often if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Based on the relevant U.S. GAAP authoritative guidance, we aggregate components of a single operating segment into a reporting unit, if appropriate. Future goodwill impairment charges may occur if estimates of fair values decrease, which would reduce future earnings. We also test property, plant, and equipment and other intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Future asset impairment charges may occur if asset utilization declines, if customer demand decreases, or for a number of other reasons, which would reduce future earnings. Any such impairment charges could have a material adverse effect on our business, financial condition, results of operations, and cash flows. Impairment charges would also reduce our consolidated stockholders' equity and increase our debt-to-total-capitalization ratio, which could negatively impact our credit rating and access to the debt and equity markets.

During the fourth quarter of fiscal year 2017, we completed our annual goodwill impairment test as of July 31, 2017 for the fiscal year ended September 30, 2017 during the fourth quarter. In performing the annual goodwill impairment test, we determined it was appropriate to aggregate certain components of the same operating segment into a single reporting unit. The identification of reporting units and consideration of aggregation criteria requires management's judgment. Further, we use the income approach based on a discounted cash flow method that incorporates various estimates and assumptions. The results of our fiscal year 2017 annual goodwill impairment test performed as of July 31, 2017 indicated the estimated fair values of each of our reporting units were in excess of their carrying amounts, and accordingly, no impairment existed. There can be no assurance that our estimates and assumptions of the fair value of our reporting units, the current economic environment, or the other inputs used in forecasting the present value of forecasted cash flows used to estimate the fair value of our reporting units will prove to be accurate

projections of future performance, and any material error in our estimates and assumptions, could result in us needing to take a material impairment charge, which would have the effects discussed above.

As part of our ongoing monitoring efforts, we will continue to consider the global economic environment and its potential impact on our businesses, as well as other factors, in assessing goodwill and long-lived assets for possible indications of impairment.

Our manufacturing activities may result in future environmental costs or liabilities.

We use hazardous materials and/or regulated materials in our manufacturing operations. We also own, operate, and may acquire facilities that were formerly owned and operated by others that used such materials. The risk that a significant release of regulated materials has occurred in the past or will occur in the future cannot be completely eliminated or prevented. As a result, we are subject to a substantial number of costly regulations. In particular, we are required to comply with increasingly stringent requirements of federal, state, and local environmental, occupational health and safety laws and regulations in the United States, the European Union, and other territories, including those governing emissions to air, discharges to water, noise and odor emissions, the generation, handling, storage, transportation, treatment and disposal of waste materials, and the cleanup of contaminated properties and human health and safety. Compliance with these laws and regulations results in ongoing costs. We cannot be certain that we have been, or will at all times be, in complete compliance with all environmental requirements, or that we will not incur additional material costs or

liabilities in connection with these requirements. In addition, we may be exposed to other environmental costs such as participation in superfund sites or other similar jurisdictional initiatives.

As a result, we may incur material costs or liabilities or be required to undertake future environmental remediation activities that could damage our reputation and have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our financial and operating performance depends on continued access to a stable workforce and on favorable labor relations with our employees.

Certain of our operations in the United States and internationally involve different employee/employer relationships and the existence of works' councils. In addition, approximately 22% of our workforce in the United States is unionized, and is expected to remain unionized for the foreseeable future. Competition for technical personnel in the industries in which we compete is intense. Our future success depends in part on our continued ability to hire, train, assimilate, and retain qualified personnel. There is no assurance that we will continue to be successful in recruiting qualified employees in the future. Further, we periodically need to renegotiate our collective bargaining agreements, and any failure to negotiate new agreements or extensions in a timely manner could result in work stoppages or slowdowns. Any significant increases in labor costs, deterioration of employee relations, including any conflicts with works' councils or unions, or slowdowns or work stoppages at any of our locations, whether due to employee turnover, changes in availability of qualified technical personnel, or otherwise, could have a material adverse effect on our business, our relationships with customers, and our financial condition, results of operations, and cash flows.

Our operations and suppliers may be subject to physical and other risks, including natural disasters that could disrupt production and have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our operations include principal facilities in the United States, China, Germany, and Poland. In addition, we operate sales and service facilities in Brazil, Bulgaria, India, Japan, the Netherlands, the Republic of Korea and the United Kingdom. We also have suppliers for materials and parts inside and outside the United States. Our operations and sources of supply could be disrupted by unforeseen events, including fires, tornadoes, tsunamis, hurricanes, earthquakes, floods and other forms of severe weather in countries in which we operate or in which our suppliers are located, any of which could adversely affect our operations and financial performance. Natural disasters, public health concerns, war, political unrest, terrorist activity, equipment failures, power outages, or other unforeseen events could result in physical damage to, and complete or partial closure of, one or more of our manufacturing facilities, or could cause temporary or long-term disruption in the supply of component products from some local and international suppliers, disruption in the transport of our products and significant delays in the shipment of products and the provision of services, which could in turn cause the loss of sales and customers. Existing insurance arrangements may not provide protection for all of the costs that may arise from such events. Accordingly, disruption of our operations or the operations of a significant supplier could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our intellectual property rights may not be sufficient to protect all our products or technologies.

Our success depends in part on our ability to obtain patents or rights to patents, protect trade secrets and know-how, and prevent others from infringing on our patents, trademarks, and other intellectual property rights. Some of our intellectual property is not covered by patents (or patent applications) and includes trade secrets and other know-how that is not patentable or for which we have elected not to seek patent protection, including intellectual property relating to our manufacturing processes and engineering designs. We will be able to protect our intellectual property from unauthorized use by third parties only to the extent that it is covered by valid and enforceable patents, trademarks, licenses or other valid intellectual property rights. Patent protection generally involves complex legal and factual questions and, therefore, enforceability of patent rights cannot be predicted with certainty; thus, any patents

that we own or license from others may not provide us with adequate protection against competitors. Moreover, the laws of certain foreign countries do not recognize intellectual property rights or protect them to the same extent as do the laws of the United States. Additionally, our commercial success depends significantly on our ability to operate without infringing upon the patent and other proprietary rights of others. Our current or future technologies may, regardless of our intent, infringe upon the patents or violate other proprietary rights of third parties. In the event of such infringement or violation, we may face expensive litigation or indemnification obligations and may be prevented from selling existing products and pursuing product development or commercialization. If we are unable to sufficiently protect our patent and other proprietary rights or if we infringe on the patent or proprietary rights of others, our business, financial condition, results of operations, and cash flows could be materially adversely affected.

Amounts accrued for contingencies may be inadequate to cover the amount of loss when the matters are ultimately resolved.

In addition to intellectual property and product liability matters, we are currently involved or may become involved in claims, pending or threatened litigation or other legal proceedings, investigations or regulatory proceedings regarding employment or other regulatory, legal, or contractual matters arising in the ordinary course of business. There is no certainty that the results of these matters will be favorable to the Company. We accrue for known individual matters if we believe it is probable that the matter will result in a loss when ultimately resolved using estimates of the most likely amount of loss. There may be additional losses that have not been accrued, or liabilities may exceed our estimates, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-bribery laws and regulations.

The U.S. Foreign Corrupt Practices Act ("FCPA") and similar anti-bribery laws and regulations in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. government officials for the purpose of obtaining or retaining business or securing an improper business advantage. Our policies mandate compliance with these anti-bribery laws. However, we operate in many parts of the world and sell to industries that have experienced corruption to some degree. If we are found to be liable for FCPA or other similar anti-bribery law or regulatory violations, whether due to our or others' actions or inadvertence, we could be subject to civil and criminal penalties or other sanctions that could have a material adverse impact on our business, financial condition, results of operations and cash flows.

Our net postretirement benefit obligation liabilities may increase, and the fair value of our pension plan assets may decrease, which could require us to make additional and/or unexpected cash contributions to our pension plans, increase the amount of postretirement benefit expenses, affect our liquidity or affect our ability to comply with the terms of our outstanding debt arrangements.

Accounting for retirement, pension and postretirement benefit obligations and related expense requires the use of assumptions, including a weighted-average discount rate, an expected long-term rate of return on assets, a net healthcare cost trend rate, and projected mortality rates, among others. Benefit obligations and benefit costs are sensitive to changes in these assumptions. As a result, assumption changes could result in increases in our obligation amounts and expenses. If interest rates decline, the present value of our postretirement benefit plan liabilities may increase faster than the value of plan assets, resulting in significantly higher unfunded positions in some of our pension plans. As of September 30, 2017, we had $224,712 in invested pension plan assets. Investment losses may result in decreases to our pension plan assets.

Funding estimates are based on certain assumptions, including discount rates, interest rates, mortality, fair value of assets and expected return on plan assets and are subject to changes in government regulations in the countries in which our employees work. Volatility in the financial markets may impact future discount and interest rate assumptions. Significant changes in investment performance or a change in the portfolio mix of invested assets can result in increases or decreases in the valuation of plan assets or in a change of the expected rate of return on plan assets. Also, new accounting standards on fair value measurement may impact the calculation of future funding levels. We periodically review our assumptions, and any such revision can significantly change the present value of future benefits, and in turn, the funded status of our pension plans and the resulting periodic pension expense. Changes in our pension benefit obligations and the related net periodic costs or credits may occur as a result of variances of actual results from our assumptions, and we may be required to make additional cash contributions in the future beyond those which have been estimated.

In addition, our existing revolving credit facility and note purchase agreements contain continuing covenants and events of default regarding our pension plans, including provisions regarding the unfunded liabilities related to those pension plans. See the discussion above concerning "Our debt obligations and the restrictive covenants in the agreements governing our debt could limit our ability to operate our business or pursue our business strategies, and could adversely affect our business, financial condition, results of operations, and cash flows."

To the extent that the present values of benefits incurred for pension obligations are greater than values of the assets supporting those obligations or if we are required to make additional or unexpected contributions to our pension plans for any reason, our ability to comply with the terms of our outstanding debt arrangements, and our business, financial condition, results of operations, and cash flows may be adversely affected.

Our business operations may be adversely affected by information systems interruptions or intrusion.

We are dependent on various information systems throughout our company to administer, store and support multiple business activities. If these systems are damaged, cease to function properly or are subject to cybersecurity attacks, such as unauthorized access, malicious software and other violations, we could experience production downtimes, operational delays, other detrimental impacts on our operations or ability to provide products and services to our customers, the compromising of confidential or otherwise protected information, destruction or corruption of data, security breaches, other manipulation or improper use of our systems or networks, financial losses from remedial actions, loss of business or potential liability, and/or damage to our reputation, any of which could have a material adverse effect on our business, financial condition, results of operations, and cash flows. While we attempt to mitigate these risks by employing a number of measures, including technical security controls, employee training, comprehensive monitoring of our networks and systems, and maintenance of backup and protective systems, our systems, networks, products, solutions and services remain potentially vulnerable to additional known or unknown threats.

Our financial statements are subject to changes in accounting standards that could adversely impact our profitability or financial position.

Our financial statements are subject to the application of U.S. GAAP, which are periodically revised and/or expanded. Accordingly, from time to time, we are required to adopt new or revised accounting standards issued by recognized authoritative bodies, including the Financial Accounting Standards Board. Recently, accounting standard setters issued new guidance which further

interprets or seeks to revise accounting pronouncements related to revenue recognition and lease accounting as well as to issue new standards expanding disclosures. The impact of accounting pronouncements that have been issued but not yet implemented is disclosed in our annual and quarterly reports on Form 10-K and Form 10-Q. An assessment of proposed standards is not provided, as such proposals are subject to change through the exposure process and, therefore, their effects on our financial statements cannot be fully assessed at this time. It is possible that future accounting standards we are required to adopt could change the current accounting treatment that we apply to our consolidated financial statements and that such changes could have a material adverse effect on our reported results of operations and financial position. Additionally, any inability by the Company to timely and properly implement such changes could have a material adverse effect on our ability to timely file future financial statements upon adoption of, and in accordance with, such new accounting standards, which could have a material adverse effect on our business and negatively affect our share price.

Industry Risks

Unforeseen events may occur that significantly reduce commercial aviation, which could adversely affect our business, financial condition and results of operations.

A significant portion of our business is related to commercial aviation. Global economic downturn and uncertainty in the marketplace typically lead to a general reduction in demand for air transportation services, leading some airlines to withdraw aircraft from service, which negatively affects sales of our aerospace components and services. These economic conditions can similarly affect our sales of systems and components for new business jet aircraft. The commercial airline industry tends to be cyclical and capital spending by airlines and aircraft manufacturers may be influenced by a variety of factors, including current and future traffic levels, aircraft fuel pricing, labor issues, competition, the retirement of older aircraft, regulatory changes, terrorism and related safety concerns, general economic conditions, worldwide airline profits and backlog levels. In the event these or other economic indicators stagnate or worsen, market demand for our components and systems could be negatively affected by renewed reductions in demand for air transportation services or commercial airlines' financial difficulties, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

The U.S. Government may change acquisition priorities and/or reduce spending, which could adversely affect our business, financial condition and results of operations.

The U.S. Government participates in a wide variety of operations, including homeland defense, counterinsurgency, counterterrorism, and other defense-related operations that employ our products and services. U.S. defense spending has historically been cyclical in nature, and defense budgets tend to rise when perceived threats to national security increase the level of concern over the country's safety. The U.S. Government continues to adjust its funding priorities in response to changes in the perceived threat environment, the political environment, and changes in budgetary priorities. In addition, defense spending currently faces pressures due to the overall economic and political environment, budget deficits, and competing budget priorities. A decrease in U.S. Government defense spending or changes in the spending allocation could result in one or more of our programs being reduced, delayed, or terminated.

Shifts in domestic and international spending and tax policy, changes in security, defense, and intelligence priorities, changes in government budget appropriations, general and political economic conditions and developments, and other factors may affect a decision to fund, or the level of funding for, existing or proposed programs. If the priorities of the U.S. Government change and/or defense spending is reduced, this may adversely affect our business, financial condition, results of operations, and cash flows.

Increasing emission standards that drive certain product sales may be eased or delayed, which could reduce our competitive advantage.

We sell components and systems that have been designed to meet strict emission standards, including standards that have not yet been implemented but are expected to be implemented soon. If these emission standards are eased, developed products may become unnecessary and/or our future sales could be lower as potential customers select alternative products or delay adoption of our products, which would have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Natural gas prices may increase significantly and disproportionately to other sources of fuels used for power generation, which could reduce our sales and adversely affect our business, financial condition and results of operations.

Commercial producers of electricity use many of our components and systems, most predominately in their power plants that use natural gas as their fuel source. Commercial producers of electricity are often in a position to manage the use of different power plant facilities and make decisions based on operating costs. Compared to other sources of fuels used for power generation, natural gas prices have increased slower than fuel oil, but about the same as coal. This increase in natural gas prices and any future increases, whether in absolute dollars or relative to other fuel costs such as oil, could impact the sales mix of our components and systems, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Long-term reduced commodity prices for oil, natural gas, and other minerals may depress the markets for certain of our products and services, particularly those from our Industrial segment.

Many of our Industrial segment OEM and aftermarket customers and our Aerospace segment rotorcraft product lines' customers provide goods and services that support various industrial extraction activities, including mining, oil and gas exploration and extraction, and transportation of raw materials from extraction sites to refineries and/or processing facilities. Long-term lower prices for commodities such as oil, natural gas, gold, tin, and various other minerals could reduce exploration activities and place downward pressure on demand for our goods and services that support exploration and extraction activities.

Changes in government subsidy programs and regulatory requirements may result in decreased demand for our products.

The U.S. Government, as well as various foreign governments, provide for various stimulus programs or subsidies, such as grants, loan guarantees and tax incentives, relating to renewable energy, alternative energy, energy efficiency and electric power infrastructure. Some of these programs have expired, which may affect the economic feasibility or timing of future projects. Additionally, while a significant amount of stimulus funds and subsidies are available to support various projects, we cannot predict the timing and scope of any investments to be made by our customers under stimulus funding and subsidies or whether stimulus funding and subsidies will result in increased demand for our products. Investments for renewable energy, alternative energy and electric power infrastructure under stimulus programs and subsidies may not occur, may be less than anticipated or may be delayed, any of which would negatively impact demand for our products.

Other current and potential regulatory initiatives may not result in increased demand for our products. It is not certain whether existing regulatory requirements will create sufficient incentives for new projects, when or if proposed regulatory requirements will be enacted, or whether any potentially beneficial provisions will be included in the regulatory requirement.

Uncertainty with respect to government subsidy programs and regulatory requirements could cause decreased demand for our products as investments are delayed or become economically unfeasible, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

We operate in a highly competitive industry and, if we are unable to compete effectively in one or more of our markets, our business, financial condition and results of operations may be adversely affected.

We face intense competition from a number of established competitors in the United States and abroad, some of which are larger in size or are divisions of large diversified companies with substantially greater financial resources. In addition, global competition continues to increase. Companies compete on the basis of providing products that meet the needs of customers, as well as on the basis of price, quality, and customer service. Changes in competitive conditions, including the availability of new products and services, the introduction of new channels of distribution, and changes in OEM and aftermarket pricing, could impact our relationships with our customers and may adversely affect future sales, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Further, the markets in which we operate experience rapidly changing technologies and frequent introductions of new products and services. The technological expertise we have developed and maintained could become less valuable if a competitor were to develop a breakthrough technology that would allow it to match or exceed the performance of existing technologies at a lower cost. If we are unable to develop competitive technologies, future sales or earnings could be lower than expected, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

In all of our markets, customers frequently develop new supply chain initiatives and/or sourcing models which could create new opportunities, but also could apply pressure to our customer relationships and/or strategic position with those customers.

Industry consolidation trends could reduce our sales opportunities, decrease sales prices, and drive down demand for our products.

There has been consolidation and there may be further consolidation in the aerospace, power, and process industries. The consolidation in these industries has resulted in customers with vertically integrated operations, including increased in-sourcing capabilities, which may result in economies of scale for those companies. If our customers continue to seek to control more aspects of vertically integrated projects, cost pressures resulting in further integration or industry consolidation could reduce our sales opportunities, decrease sales prices, and drive down demand for our products, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Investment Risks

The historic market price of our common stock may not be indicative of future market prices.

The market price of our common stock has fluctuated over time. Stock markets in general have experienced extreme price and volume volatility particularly over the past few years. The trading price of our common stock ranged from a high of $78.95 per share to a low of $57.09 per share during the twelve months ended September 30, 2017. The following factors, among others, could cause the price of our common stock in the public market to fluctuate significantly:

· general economic conditions, particularly in the aerospace, power generation and process and transportation industries;

- variations in our quarterly results of operation;
- a change in sentiment in the market regarding our operations or business prospects;
- the addition or departure of key personnel; and
- announcements by us or our competitors of new business, acquisitions or joint ventures.

Fluctuations in our stock price often occur without regard to specific operating performance. The price of our common stock could fluctuate based upon the above factors or other factors, including those that have little to do with our company, and these fluctuations could be material.

The typical daily trading volume of our common stock may affect an investor's ability to sell significant stock holdings in the future without negatively affecting stock price.

As of September 30, 2017, we had 72,960 shares of common stock issued, of which 11,739 shares were held as treasury shares. In addition, stockholders who each own 5% or greater of our shares hold a total of approximately 23% of the outstanding shares of our common stock. During the fourth quarter of fiscal year 2017, the average daily trading volume of our stock was approximately 249 shares. While the level of trading activity will vary each day, our typical daily trading volume is relatively low and represents only a small percentage of total shares of stock outstanding. As a result, a stockholder who sells a significant number of shares of stock in a short period of time could negatively affect our share price.

Certain anti-takeover provisions of our charter documents and under Delaware law could discourage or prevent others from acquiring our company.

Our certificate of incorporation and bylaws contain provisions that:

- provide for a classified board;
- provide that directors may be removed only for cause by holders of at least two-thirds of the outstanding shares of common stock;
- authorize our board of directors to fill vacant directorships or to increase or decrease the size of our board of directors;
- permit us to issue, without stockholder approval, up to 10,000 shares of preferred stock, in one or more series and, with respect to each series, to fix the designation, powers, preferences and rights of the shares of the series;
- require special meetings of stockholders to be called by holders of at least two-thirds of the outstanding shares of common stock;
- prohibit stockholders from acting by written consent;
- require advance notice for stockholder proposals and nominations for election to the board of directors to be acted upon at meetings of stockholders; and
- require the affirmative vote of two-thirds of the outstanding shares of our common stock for amendments to our certificate of incorporation and certain business combinations, including mergers, consolidations, sales of all or substantially all of our assets or dissolution.

In addition, Section 203 of the Delaware General Corporation Law limits business combinations with owners of more than 15% of our stock that have not been approved by the board of directors. These provisions and other similar provisions make it more difficult for a third party to acquire us without negotiation. Our board of directors could choose not to negotiate a potential acquisition that it does not believe to be in our best interest. Accordingly, the potential acquirer could be discouraged from offering to acquire us, or could be prevented by the anti-takeover measures, from successfully completing a hostile acquisition.

Item 1B.Unresolved Staff Comments

None.

Item 2.Properties

Our principal plants are as follows:

United States

Duarte, California – Aerospace segment manufacturing and engineering

Fort Collins, Colorado (two plants) – Corporate headquarters and Industrial segment manufacturing and engineering

Greenville, South Carolina (leased) –Industrial segment manufacturing and Aerospace and Industrial segments engineering

Loveland, Colorado –Industrial segment manufacturing and Aerospace and Industrial segments engineering

Niles, Illinois – Aerospace segment manufacturing and Aerospace and Industrial segments engineering

Rockford, Illinois (two plants) – Aerospace segment manufacturing and engineering

Santa Clarita, California – Aerospace segment manufacturing and engineering

Zeeland, Michigan – Aerospace segment manufacturing and engineering

Other Countries

Aken, Germany (leased) –Industrial segment manufacturing and engineering

Kempen, Germany –Industrial segment manufacturing and engineering

Krakow, Poland –Industrial segment manufacturing and Aerospace and Industrial segments engineering

Tianjin, Peoples' Republic of China (leased) –Industrial segment assembly

In addition to the principal plants listed above, we own or lease other facilities used primarily for sales, service activities, assembly, and/or engineering activities in Brazil, Bulgaria, China, India, Japan, the Netherlands, the Republic of Korea, the United Kingdom, Germany, and the United States.

Our principal plants are suitable and adequate for the manufacturing and other activities performed at those plants, and we believe our utilization levels are generally high.

Item 3.Legal Proceedings

Woodward is currently involved in claims, pending or threatened litigation or other legal proceedings, investigations and/or regulatory proceedings arising in the normal course of business, including, among others, those relating to product liability claims, employment matters, worker's compensation claims, contractual disputes, product warranty claims and alleged violations of various laws and regulations. We accrue for known individual matters where we believe that it is probable the matter will result in a loss when ultimately resolved using estimates of the most likely amount of loss.

While the outcome of pending claims, legal and regulatory proceedings, and investigations cannot be predicted with certainty, management believes that any liabilities that may result from these claims, proceedings and investigations will not have a material effect on Woodward's liquidity, financial condition, or results of operations.

Item 4.Mine Safety Disclosures

Not applicable.

PART II

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

Our common stock is listed on The NASDAQ Global Select Market and is traded under the symbol "WWD." At November 3, 2017, there were approximately 900 holders of record.

Dividends

We have historically paid cash dividends on our common stock on a quarterly basis, subject in any quarter to the approval of the Board of Directors. See below and Note 18, Stockholders' Equity in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data" for more information.

The following table sets forth the high and low sales prices of our common stock and dividends paid for the periods indicated.

	Fiscal Year Ended September 30,					
	2017			2016		
	High	Low	Cash Dividends	High	Low	Cash Dividends
First quarter	$ 71.46	$ 57.09	$ 0.110	$ 51.34	$ 39.68	$ 0.100
Second quarter	$ 72.28	$ 65.47	$ 0.125	$ 53.50	$ 41.24	$ 0.110
Third quarter	$ 71.50	$ 65.22	$ 0.125	$ 59.60	$ 50.70	$ 0.110
Fourth quarter	$ 78.95	$ 65.76	$ 0.125	$ 63.98	$ 56.00	$ 0.110

Performance Graph

The following graph compares the cumulative 10-year total return to stockholders on our common stock relative to the cumulative total returns of the S&P Midcap 400 index, the S&P Industrial Machinery index, and the S&P Industrials index. The graph shows total stockholder return assuming an investment of $100 (with reinvestment of all dividends) was made on September 30, 2007 in our common stock and in each of the three indexes and tracks relative performance through September 30, 2017. With the addition of the S&P Industrials index to the graph below, we anticipate removing reference to the S&P Industrial Machinery index in future annual filings, as we believe the S&P Industrial index more closely aligns to our business operations. We have used a period of 10 years as we believe that our stock performance should be reviewed over a period that is reflective of our long-term business cycle.

	9/07	9/08	9/09	9/10	9/11	9/12	9/13	9/14	9/15	9/16	9/17
Woodward, Inc.	$ 100.00	$ 113.68	$ 79.09	$ 106.63	$ 90.85	$ 113.55	$ 137.61	$ 161.65	$ 139.23	$ 215.53	$ 269.67
S&P Midcap 400	100.00	83.32	80.73	95.08	93.87	120.65	154.05	172.25	174.66	201.43	236.71
S&P Industrial Machinery	100.00	73.80	72.70	93.04	81.70	119.24	163.79	180.20	171.65	229.78	288.27
S&P Industrials	100.00	75.32	65.76	78.54	74.93	97.11	124.79	145.73	140.41	168.13	205.71

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities (In thousands, except for shares and per share amounts)	Total Number of Shares Purchased	Weighted Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Maximum Number (or Approximate Dollar Value) of Shares that may yet be Purchased under the Plans or Programs at Period End (1)
July 1, 2017 through July 31, 2017 (2)	285	$ 69.94	-	$ 438,771
August 1, 2017 through August 31, 2017	-	-	-	438,771
September 1, 2017 through September 30, 2017 (2)	141,902	70.41	141,604	428,803

(1) In November 2016, our Board of Directors terminated the Company's prior stock repurchase program and replaced it with a new program for the purchase of up to $500,000 of Woodward's outstanding shares of common stock on the open market or in privately negotiated transactions over a three-year period that will end in 2019.

(2) Under a trust established for the purposes of administering the Woodward Executive Benefit Plan, 285 shares of common stock were acquired in July 2017 on the open market related to the deferral of compensation by certain eligible members of Woodward's management who irrevocably elected to invest some or all of their deferred compensation in Woodward common stock. In addition, 298 shares of common stock were acquired in September 2017 on the open market related to the reinvestment of dividends for shares of treasury stock held for deferred compensation. Shares owned by the trust, which is a separate legal entity, are included in "Treasury stock held for deferred compensation" in the Consolidated Balance Sheets.

Item 6. Selected Financial Data

The following selected financial data should be read in conjunction with the Consolidated Financial Statements and related notes which appear in "Item 8 – Financial Statements and Supplementary Data" of this Form 10-K.

	Year Ended September 30,				
	2017	2016	2015	2014	2013
	(In thousands except per share amounts)				
Net sales (1)	$ 2,098,685	$ 2,023,078	$ 2,038,303	$ 2,001,240	$ 1,935,976
Net earnings (1)(2)(3)(4)	200,507	180,838	181,452	165,844	145,942
Earnings per share:					
Basic earnings per share	3.27	2.92	2.81	2.50	2.13
Diluted earnings per share	3.16	2.85	2.75	2.45	2.10
Cash dividends per share	0.485	0.430	0.380	0.320	0.320
Income taxes (4)	52,240	45,648	59,497	61,400	53,629
Interest expense	27,430	26,776	24,864	22,804	26,703
Interest income	1,725	2,025	787	271	273
Depreciation expense	55,140	41,550	45,994	43,773	37,254
Amortization expense	25,777	27,486	29,241	33,580	36,979
Capital expenditures	92,336	175,692	286,612	207,106	141,600
Weighted-average shares outstanding:					
Basic shares outstanding	61,366	61,893	64,684	66,432	68,392
Diluted shares outstanding	63,512	63,556	66,056	67,776	69,602

	At September 30,				
	2017	2016	2015	2014	2013
	(Dollars in thousands)				
Working capital	$ 593,955	$ 463,811	$ 579,211	$ 627,981	$ 498,757
Total assets	2,757,109	2,642,362	2,512,404	2,358,603	2,171,539
Long-term debt, less current portion	580,286	577,153	848,488	708,110	449,152
Total debt	612,886	727,153	850,918	708,110	549,152
Total liabilities (5)	1,385,726	1,429,767	1,359,300	1,197,659	1,028,994
Stockholders' equity	1,371,383	1,212,595	1,153,104	1,160,944	1,142,545
Full-time worker members	6,829	6,852	6,955	6,701	6,736

Notes:

1. On December 28, 2012, Woodward acquired from GE Aviation Systems LLC (the "Seller") substantially all of the assets and certain liabilities of the Seller's thrust reverser actuation systems business located in Duarte, California (the "Duarte Business"). As the Duarte Business was acquired at the end of the first quarter of fiscal year 2013, net sales for fiscal year 2014 were higher than fiscal year 2013, as fiscal year 2014 included $31,432 of sales from the Duarte Business during the period October 2013 through December 2013.
2. In the first quarter of fiscal year 2016, Woodward recorded special charges totaling approximately $16,100 related to its efforts to consolidate facilities, reduce costs and address current market conditions.
3. In the third quarter of fiscal year 2013, Woodward recorded a specific charge of $15,707 related to the alignment of its renewable power business to the economic environment and then foreseeable future.
4. In fiscal year 2016, Woodward recognized a tax benefit of $6,500, or $0.10 per basic and diluted share, related to the retroactive impact of the permanent reinstatement of the U.S. research and experimentation credit ("R&E Credit") pertaining to fiscal year 2015. In fiscal year 2015, Woodward recognized a tax benefit of $5,818, or $0.09 per basic and diluted share, related to the retroactive impact of the reinstatement of the R&E Credit pertaining to fiscal year 2014. In fiscal year 2013, Woodward recognized a tax benefit of $4,911, or $0.07 per basic and diluted share, related to the retroactive impact of the reinstatement of the R&E Credit pertaining to fiscal year 2012.
5. On January 4, 2016, Woodward and General Electric Company ("GE"), acting through its GE Aviation business unit, consummated the formation of a strategic joint venture between Woodward and GE (the "JV"). Woodward determined that the JV formation was not the culmination of an earnings event because Woodward has significant performance obligations to support the future operations of the JV. Therefore, Woodward recorded the $250,000 consideration received from GE for its purchase of a 50% equity interest in the JV as deferred income. The $250,000 deferred income will be recognized as an increase to net sales in proportion to revenue realized on sales of applicable fuel systems within the scope of the JV in a particular period as a percentage of total revenue expected to be realized by Woodward over the estimated remaining lives of the underlying commercial aircraft engine programs assigned to the JV. Total liabilities include $243,347 as of September 30, 2017, and $244,739 as of September 30, 2016 of unamortized deferred income realized related to the JV formation.

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

OVERVIEW

Woodward enhances the global quality of life and sustainability by optimizing energy use through improved efficiency and lower emissions. We are an independent designer, manufacturer, and service provider of energy control and optimization solutions. We design, produce and service reliable, efficient, low-emission, and high-performance energy control products for diverse applications in challenging environments. We have production and assembly facilities in the United States, Europe and Asia, and promote our products and services through our worldwide locations.

Our strategic focus is providing energy control and optimization solutions for the aerospace and industrial markets. The precise and efficient control of energy, including motion, fluid, combustion and electrical energy, is a growing requirement in the markets we serve. Our customers look to us to optimize the efficiency, emissions and operation of power equipment in both commercial and defense operations. Our core technologies leverage well across our markets and customer applications, enabling us to develop and integrate cost-effective and state-of-the-art fuel, combustion, fluid, actuation and electronic systems. We focus primarily on serving OEMs and equipment packagers, partnering with them to bring superior component and system solutions to their demanding applications. We also provide aftermarket repair, maintenance, replacement and other service support for our installed products.

Our components and integrated systems optimize performance of commercial aircraft, defense aircraft, military ground vehicles and other equipment, gas and steam turbines, wind turbines, including converters and power grid related equipment, industrial diesel, gas, bio-diesel and dual fuel reciprocating engines, and electrical power systems. Our innovative motion, fluid, combustion and electrical energy control systems help our customers offer more cost-effective, cleaner, and more reliable equipment.

Management’s discussion and analysis should be read together with the Consolidated Financial Statements and Notes included in this report. Dollar and number of share amounts contained in this discussion and elsewhere in this Annual Report on Form 10-K are in thousands, except per share amounts.

BUSINESS ENVIRONMENT AND TRENDS

We serve the aerospace and industrial markets.

Aerospace Markets

Our aerospace products and systems are primarily used to provide propulsion, actuation and motion control in both commercial and defense fixed-wing aircraft, rotorcraft, guided weapons, and other defense systems.

Commercial and Civil Aircraft – In the commercial aerospace markets, global air traffic continued to grow in fiscal year 2017. Commercial aircraft production has increased as aircraft operators continue to take delivery of new aircraft models that are more fuel efficient aircraft and retire older aircraft. This trend toward more fuel efficient aircraft favors our product offerings because we have more content on the newer generation of aircraft that have recently entered service or are scheduled to go into production over the next several years. We expect production levels to remain strong due to solid order backlogs for the new aircraft models. Business and General Aviation market demand – including business jets, turboprops and helicopters – was down in 2017 as a result of depressed global demand, which we expect to continue into fiscal year 2018, due to economic conditions and low oil and gas prices.

We have been awarded content on the Airbus A320neo and A330neo, Bell 429, Boeing 737 MAX, 787, 747-8 and 777X, Bombardier CSeries, Comac C919, Irkut MS-21 and a variety of business jet platforms, among others. We continue to explore opportunities on new engine and aircraft programs that are under consideration or have been recently announced.

Defense – The defense industry continues under the minimal-growth regime of the Budget Control Act of 2011 and related procurement reductions and delays. Our involvement with a wide variety of defense programs in fixed-wing aircraft, rotorcraft and weapons systems has provided relative stability for our defense market sales, as some newer programs increase (e.g. F-35 Lightning II and KC-46A Tanker) while some legacy programs are reduced (e.g. F/A-18 E/F Super Hornet and V-22 Osprey). Others are relatively steady (e.g. UH-60 Black Hawk and A-64 Apache helicopter programs). We have significant motion control system content for the refueling boom on the KC-46A, which enters low rate production in late calendar year 2017. Weapons programs for which we have significant sales include the Joint Direct Attack Munition (“JDAM”), Small Diameter Bomb (“SDB”) and AIM-9X guided tactical weapon systems. We expect modest production rate increases, relative to recent years, for these weapons programs in fiscal year 2018.

Aftermarket – Our commercial aftermarket business has increased, as our products have been selected for new aerospace platforms and our content has increased across existing platforms. With the entry into service of the new single aisle aircraft (Boeing 737 MAX and Airbus A320neo), we have seen a significant increase in initial provisioning sales to the operators of these new aircraft. In addition, we have experienced gains in commercial aftermarket related to repairs and spare parts for programs such as Airbus A320 and Boeing 777.

U.S. government sustainment funds continue to be prioritized to defense aircraft platforms on which we have content. Defense aftermarket was down slightly in fiscal year 2017, and we expect it to be variable in future periods, as it has been in the past. Variability is generally attributable to the cycling of various upgrade programs, as well as actual usage.

Industrial Markets

Our industrial products are used worldwide in various types of turbine- and reciprocating engine-powered equipment, including wind turbines and electric power generation and distribution systems, ships, locomotives, compressors, pumps, and other mobile and industrial machines.

Industrial Turbines – The demand for turbines for power generation, which consists mainly of heavy frames, aero derivatives and steam, was down in fiscal year 2017 compared to fiscal year 2016 as a result of excess inventory in the channel, increased efficiency, and the impact of renewables. Demand also softened for turbine aftermarket products and services driven by the low price of oil and energy. Start reliability, fuel flexibility, and part-load efficiency are all key drivers of the turbine market as the conversion from coal to natural gas usage continues, and we believe Woodward is well positioned to meet these market needs on the existing and next generation turbines. Though the increasing global demand for energy supports long-term growth for turbines, we expect market softness to continue into fiscal year 2018 due to weak near-term demand for electricity resulting from the continuing impact of renewables and greater efficiency in energy demand.

Reciprocating Engines – Woodward's key markets for engine control technologies are power generation, transportation (including natural gas fueled trucks and buses in Asia, mining, and shipping), and oil and gas. We saw significant increases in sales of fuel systems for natural gas fueled trucks and buses in China, where an improving economy and the government's focus on compliance with improved emissions standards drove strong demand. We expect this demand in China and other parts of Asia to continue through fiscal year 2018. In addition, we saw increased sales of large engines used in oil and gas and distributed power generation applications in 2017 related to increasing rig counts and capital investments. We anticipate these trends to continue into fiscal year 2018. We expect customer share gains and increased scope on the latest generation reciprocating engines, as well as continued demand for aftermarket products and services, to have a favorable impact on Woodward in fiscal year 2018. Government emissions requirements across many regions and new engine applications are driving demand for more sophisticated control systems, as is customer demand for improved engine efficiencies and increased reliability. Energy policies in some countries encourage the use of natural gas and other alternative fuels over carbon-rich petroleum fuels, which we expect will drive increased demand for our alternative fuel clean engine control technologies.

Renewable Power – The renewable power industry continued to grow in fiscal year 2017 and is expected to grow at a more moderate pace through the next decade. Uncertainty regarding government renewable mandates is subsiding, thereby reducing market volatility in the renewable power industry. Currently, capital investment and operating costs for onshore wind continue to substantially decline, driving the levelized cost of energy ("LCOE") toward parity with most fossil fuel energy sources. In the medium to longer term, we anticipate this trend to continue in the onshore market and is now emerging in the offshore wind market. The trend for larger turbines (greater than 3 megawatts onshore and 6 megawatts offshore) will continue to transform OEM product portfolios, further reducing the LCOE. While the renewable power market remains robust, Woodward is being unfavorably impacted by regional dynamics as well as short-term platform transitions by a few of our customers. Looking forward, we anticipate that integration of renewable energy sources into the grid and increased global energy demand will drive new opportunities for our advanced control and protection solutions.

RESULTS OF OPERATIONS

Reclassification

In our Statements of Earnings for the periods presented prior to fiscal year 2017 we have reclassified the amortization of intangible assets from a separate line to an allocated expense/cost component of cost of goods sold and selling, general and administrative expenses based on the nature of the intangible asset that is being amortized. Prior year amounts have been recast to reflect this reclassification. Additional information about the reclassification is included in Note 1, Operations and summary of significant accounting policies, to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data."

Operational Highlights

Net sales for fiscal year 2017 were $2,098,685, an increase of $75,607, or 3.7%, from $2,023,078 for the prior fiscal year. Aerospace segment sales for fiscal year 2017 were up 8.9% to $1,342,339, compared to $1,233,176 for the prior fiscal year. Industrial segment sales for fiscal year 2017 were down 4.2% to $756,346, compared to $789,902 for the prior fiscal year.

Net earnings for fiscal year 2017 were $200,507, or $3.16 per diluted share, compared to $180,838, or $2.85 per diluted share, for fiscal year 2016. Net earnings for fiscal year 2016 included approximately $16,100 of pre-tax special charges related to our efforts to consolidate facilities, reduce costs and address current market conditions, which was equal to approximately $9,900 net of tax.

The effective tax rate in fiscal year 2017 was 20.7%, compared to 20.2% for the prior fiscal year.

Earnings before interest and taxes ("EBIT"), which is a Non-U.S. GAAP financial measure, for fiscal year 2017 were $278,452, up 10.8% from $251,237 in fiscal year 2016. Earnings before interest, taxes, depreciation and amortization ("EBITDA"), which is also a non-U.S. GAAP financial measure, for fiscal year 2017 were $359,369, up 12.2% from $320,273 for fiscal year 2016. EBIT and EBITDA for fiscal year 2016 included the special charges of approximately $16,100 discussed above. (A reconciliation of these non-U.S. GAAP financial measures to the closest U.S. GAAP financial measure can be found under the caption "Non-U.S. GAAP Measures" in this Item 7 – Management's Discussion and Analysis of Financial Conditions and Results of Operations.)

Aerospace segment earnings as a percent of segment net sales increased to 19.2% in fiscal year 2017 from 18.8% in the prior fiscal year. Industrial segment earnings as a percent of segment net sales was 10.4% in both fiscal years 2017 and 2016.

Liquidity Highlights

Net cash provided by operating activities for fiscal year 2017 was $307,537, compared to $435,379 for fiscal year 2016. Net cash provided by operating activities for fiscal year 2016 included $155,000 of after-tax proceeds related to the formation of a strategic joint venture (the "JV") between Woodward and General Electric Company (the "JV Proceeds"). (For further discussion of the JV, see Note 4, Joint venture in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data.") The year-over-year increase in net cash provided by operating activities (after excluding the JV Proceeds for fiscal year 2016) is primarily attributable to an earnings increase of $19,669 in fiscal 2017 compared to the prior fiscal year. Changes in working capital also provided a net source of cash of $651 in fiscal year 2017 as compared to a net use of cash of $9,387 in prior fiscal year, with an increase in cash provided of $47,198 due mainly to accounts payable increasing in the current fiscal year compared to fiscal year 2016 related primarily to the timing of payments for various accounts payable for the current fiscal year that occurred after the fiscal year end, which was mostly offset by an increase in usage of cash of $43,961 due to accounts receivable increasing more in fiscal year 2017 compared to the increase in the prior fiscal year.

For fiscal year 2017, adjusted free cash flow, which we define as net cash flows provided by operating activities less payments for property, plant and equipment and less the net after-tax JV Proceeds and is a non-U.S. GAAP financial measure, was $215,201, compared to $104,687 for fiscal year 2016. The increase is primarily attributable to lower payments for property, plant and equipment and the higher net earnings in fiscal year 2017 as compared to fiscal year 2016. Changes in working capital also provided a net source of cash in fiscal year 2017 as compared to the prior fiscal year due to the increase in cash provided by accounts payable as described above, partially offset by the increase in cash used in accounts receivable in fiscal year 2017 as compared to fiscal year 2016. (A reconciliation of this non-U.S. GAAP financial measures to the closest U.S. GAAP financial measure can be found under the caption "Non-U.S. GAAP Measures" in this Item 7 – Management's Discussion and Analysis of Financial Conditions and Results of Operations.)

At September 30, 2017, we held $87,552 in cash and cash equivalents, and had total outstanding debt of $612,886 with additional borrowing availability of $956,779, net of outstanding letters of credit, under our revolving credit agreement. At September 30, 2017, we had additional borrowing capacity of $7,530 under various foreign lines of credit and foreign overdraft facilities.

Consolidated Statements of Earnings and Other Selected Financial Data

The following table sets forth selected consolidated statements of earnings data as a percentage of net sales for each period indicated:

	Year Ended September 30,					
	2017		2016		2015	
		% of Net Sales		% of Net Sales		% of Net Sales
Net sales	$ 2,098,685	100 %	$ 2,023,078	100 %	$ 2,038,303	100 %
Costs and expenses:						
Cost of goods sold	1,526,126	72.7	1,483,960	73.4	1,462,833	71.8
Selling, general, and administrative expenses	176,633	8.4	174,017	8.6	177,121	8.7
Research and development costs	126,519	6.0	126,170	6.2	134,485	6.6
Interest expense	27,430	1.3	26,776	1.3	24,864	1.2
Interest income	(1,725)	(0.1)	(2,025)	(0.1)	(787)	(0.0)
Other (income) expense, net	(9,045)	(0.4)	(12,306)	(0.6)	(1,162)	(0.1)
Total costs and expenses	1,845,938	88.0	1,796,592	88.8	1,797,354	88.2
Earnings before income taxes	252,747	12.0	226,486	11.2	240,949	11.8
Income tax expense	52,240	2.5	45,648	2.3	59,497	2.9
Net earnings	$ 200,507	9.6	$ 180,838	8.9	$ 181,452	8.9

Other select financial data:

	September 30, 2017	September 30, 2016
Working capital	$ 593,955	$ 463,811
Short-term borrowings and current portion of long-term debt	32,600	150,000
Total debt	612,886	727,153
Total stockholders' equity	1,371,383	1,212,595

2017 RESULTS OF OPERATIONS

2017 Sales Compared to 2016

Consolidated net sales for fiscal year 2017 increased 3.7% to $2,098,685 from $2,023,078 in fiscal year 2016. Details of the changes in consolidated net sales are as follows:

Consolidated net sales for the period ended September 30, 2016	$ 2,023,078
Aerospace volume	98,340
Industrial volume	(25,399)
Effects of changes in price and sales mix	7,680
Effects of changes in foreign currency rates	(5,014)
Consolidated net sales for the period ended September 30, 2017	$ 2,098,685

The increase in net sales for fiscal year 2017 was primarily attributable to increased defense OEM sales and increased commercial aftermarket and OEM sales in the Aerospace segment and increased sales of fuel systems for Compressed Natural Gas (“CNG”) trucks in Asia in our Industrial segment, partially offset by decreased industrial gas turbine

aftermarket and OEM sales and wind turbine converter sales in our Industrial segment.

Our worldwide sales activities are primarily denominated in USD, EUR, GBP, Japanese Yen ("JPY"), and Chinese Renminbi ("RMB"). As the USD, EUR, GBP, JPY and RMB fluctuate against each other and other currencies, we are exposed to gains or losses on sales transactions. For additional information on foreign currency exchange rate risk, please refer to the risk factor titled "We derive a significant portion of our revenues from sales to countries outside the United States and purchase raw materials and components from suppliers outside of the U.S.; therefore, we are subject to the risks inherent in doing business in other countries" set forth under the caption "Risk Factors" in Part I, Item 1A of this Form 10-K and Item 7A, "Quantitative and Qualitative Disclosures about Market Risk."

2017 Costs and Expenses Compared to 2016

Costs and expenses for fiscal year 2016 included special charges totaling approximately $16,100 ($13,300 included in cost of goods sold, $1,700 included in selling, general and administrative expenses, and $1,100 included in research and development costs) related to our efforts to consolidate facilities, reduce costs and address current market conditions in fiscal year 2016. There were no comparable costs and expenses recorded in fiscal year 2017.

Cost of goods sold increased by $42,166 to $1,526,126, or 72.7% of net sales, for fiscal year 2017 from $1,483,960, or 73.4% of net sales, for fiscal year 2016. The increase in cost of goods sold for fiscal year 2017 as compared to fiscal year 2016 is primarily attributable to higher sales volume and planned facility ramp-up costs in our Aerospace segment in the current fiscal year. Fiscal year 2017 also included increased new facility expenses for our new Colorado facilities as compared to the prior fiscal year. The increase year-over-year was partially offset by the inclusion of special charges in fiscal year 2016 of approximately $13,300, as described above, for which no such similar charge was recorded in fiscal year 2017.

Gross margin (as measured by net sales less cost of goods sold, divided by net sales) was 27.3% for fiscal year 2017, compared to 26.6% for fiscal year 2016. The increase in gross margin for fiscal year 2017 as compared to fiscal year 2016 was due to the inclusion in cost of goods sold of approximately $13,300 of special charges in fiscal year 2016 and fixed cost leverage on higher sales volume in our Aerospace segment in fiscal year 2017, partially offset by unfavorable mix and increases in facility ramp-up costs in fiscal year 2017 in both our Aerospace and Industrial segments.

Selling, general, and administrative expenses increased by $2,616, or 1.5%, to $176,633 for fiscal year 2017, as compared to $174,017 for fiscal year 2016. Selling, general, and administrative expenses as a percentage of net sales was 8.4% for fiscal year 2017, as compared to 8.6% for fiscal year 2016. The increase in selling, general and administrative expenses for fiscal year 2017 was primarily due to normal variability in costs, partially offset by savings associated with cost reduction initiatives previously implemented. In addition, fiscal year 2016 included special charges of approximately $1,700, described above, recorded in the first quarter of fiscal year 2016.

Research and development costs increased by $349, or 0.3%, to $126,519 for fiscal year 2017, as compared to $126,170 for fiscal year 2016. Research and development costs decreased as a percentage of net sales to 6.0% for fiscal year 2017, as compared to 6.2% for fiscal year 2016. Research and development costs in fiscal year 2017 were slightly higher due primarily to normal variability. The first quarter of fiscal year 2016 included special charges of approximately $1,100 described above. Our research and development activities extend across almost all of our customer base, and we anticipate ongoing variability in research and development due to the timing of customer business needs on current and future programs.

Interest expense increased to $27,430, or 1.3% of net sales for fiscal year 2017, compared to $26,776, or 1.3% of net sales, for fiscal year 2016. The slight increase in interest expense is primarily attributable to lower amounts of capitalized interest as compared to fiscal year 2016, as capital projects have been completed, partially offset by a decrease in higher interest debt due to the retirement of $57,000 of 7.81% Series E notes in fiscal year 2016.

Income taxes were provided at an effective rate on earnings before income taxes of 20.7% for fiscal year 2017, compared to 20.2% for fiscal year 2016. The changes in components of our effective tax rate (as a percentage of earnings before income taxes) were attributable to the following:

Effective tax rate at September 30, 2016	20.2 %
Research and experimentation credit	3.6
State and local taxes	(0.7)
Adjustment of prior period tax items	(0.7)
Taxes on international activities	(5.4)
Net excess income tax benefit from stock-based compensation	1.2
Domestic production activity deduction	0.6
Other	1.9
Effective tax rate at September 30, 2017	20.7 %

The increase in the year-over-year effective tax rate for fiscal year 2017 is primarily attributable to the retroactive benefit of the U.S. research and experimentation credit pursuant to the December 18, 2015 enactment of the Protecting Americans from Tax Hikes Act of 2015, which was included in the effective tax rate for the first quarter of fiscal year 2016, but did not repeat in fiscal year 2017, and a smaller favorable rate adjustment for the net excess income tax benefit from stock-based compensation in the current fiscal year compared to the prior fiscal year. This increase was partially offset by the impact of the repatriation to the United States of certain net foreign profits and losses in the first quarter of fiscal year 2017. The U.S. foreign tax credits available as a result of the repatriation of the foreign net earnings were greater than the U.S. taxes payable on these net foreign earnings. The excess U.S. foreign tax credits are expected to be used to offset U.S. taxes on other foreign source income. In addition this increase was also partially offset by larger favorable resolutions of tax matters in the current fiscal year compared to the prior fiscal year.

The total amount of the gross liability for worldwide unrecognized tax benefits reported in other liabilities in the Consolidated Balance Sheets was $20,132 at September 30, 2017 and $23,526 at September 30, 2016. At September 30, 2017, the amount of the liability for unrecognized tax benefits that would impact Woodward's effective tax rate, if recognized, was $9,677. At this time, we estimate it is reasonably possible that the liability for unrecognized tax benefits will decrease by as much as $7,726 in the next twelve months due to a number of factors including the completion of reviews by tax authorities and the expiration of certain statutes of limitations. We accrue for potential interest and penalties related to unrecognized tax benefits in tax expense. Woodward had accrued interest and penalties of $1,123 as of September 30, 2017 and $1,273 as of September 30, 2016.

Woodward's tax returns are subject to audits by U.S. federal, state, and foreign tax authorities, and these audits are at various stages of completion at any given time. Reviews of tax matters by authorities and lapses of the applicable statutes of limitation may result in changes to tax expense. Fiscal years remaining open to examination in significant foreign jurisdictions include 2008 and thereafter, and for the United States include fiscal years 2014 and thereafter. Woodward is currently under examination by the Internal Revenue Service for the fiscal year ended September 30, 2014. Woodward has concluded U.S. federal income tax examinations through fiscal year 2012. Woodward is generally subject to U.S. state income tax examinations for fiscal years 2012 and the periods thereafter.

SEGMENT RESULTS

Woodward serves the aerospace and industrial markets through its two reportable segments – Aerospace and Industrial. When appropriate, our reportable segments are aggregations of our operating segments. See Note 20, Segment information, in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data" for further information regarding our segments. The following table presents sales by segment:

	Year Ended September 30,					
	2017		2016		2015	
Net sales:						
Aerospace	$ 1,342,339	64.0 %	$ 1,233,176	61.0 %	$ 1,160,883	57.0 %
Industrial	756,346	36.0	789,902	39.0	877,420	43.0
Consolidated net sales	$ 2,098,685	100.0 %	$ 2,023,078	100.0 %	$ 2,038,303	100.0 %

The following table presents earnings by segment:

	Year Ended September 30,		
	2017	2016	2015
Aerospace	$ 257,813	$ 232,166	$ 187,747
Industrial	78,991	82,237	126,641
Nonsegment expenses	(58,352)	(63,166)	(49,362)
Interest expense, net	(25,705)	(24,751)	(24,077)
Consolidated earnings before income taxes	252,747	226,486	240,949
Income tax expense	52,240	45,648	59,497
Consolidated net earnings	$ 200,507	$ 180,838	$ 181,452

The following table presents earnings by segment as a percent of segment net sales:

	Year Ended September 30,		
	2017	2016	2015
Aerospace	19.2 %	18.8 %	16.2 %
Industrial	10.4	10.4	14.4

2017 Segment Results Compared to 2016

Aerospace

Aerospace segment net sales were $1,342,339 for fiscal year 2017, up 8.9% compared to $1,233,176 for fiscal year 2016. The increase in segment net sales for fiscal year 2017 as compared to fiscal year 2016 was driven primarily by increased defense OEM sales and increased commercial aftermarket and OEM sales in fiscal year 2017. Defense aftermarket sales were slightly down in fiscal year 2017 as compared to fiscal year 2016.

U.S. government funds continue to be prioritized for defense platforms on which we have content. Defense OEM sales continued to increase in fiscal year 2017, driven by sales of smart weapons, as demand has remained strong. Defense aftermarket sales decreased slightly in fiscal year 2017 as compared to fiscal year 2016, reflecting variability in the timing of continued maintenance needs and upgrade programs.

Commercial aftermarket sales increased significantly in fiscal year 2017 as compared to fiscal year 2016, benefitting from both the initial provisioning for new platforms and increased utilization of existing fleets.

Commercial OEM sales were up for fiscal year 2017 as compared to fiscal year 2016 due to next generation aircraft programs driving strong commercial OEM sales, reflecting the increased production of certain next generation aircraft on which Woodward has increased content, partially offset by continuing weakness in business jets and rotorcraft.

Aerospace segment earnings increased by $25,647, or 11.0%, to $257,813 for fiscal year 2017, compared to $232,166 for fiscal year 2016. The increase in Aerospace segment earnings for fiscal year 2017 were due to the following:

Earnings for the period ended September 30, 2016	$ 232,166
Sales volume	50,555
Price, sales mix and productivity	(6,032)
New facility costs	(11,462)
Joint venture earnings	(3,635)
Other, net	(3,779)
Earnings for the period ended September 30, 2017	$ 257,813

Aerospace segment earnings as a percentage of segment net sales were 19.2% for fiscal year 2017, compared to 18.8% for fiscal year 2016. The increase in aerospace segment earnings was primarily attributable to higher sales volume, partially offset by new facility costs, unfavorable mix and lower JV earnings.

Industrial

Industrial segment net sales decreased by 4.2% to $756,346 for fiscal year 2017, compared to $789,902 for fiscal year 2016. Industrial gas turbine aftermarket and OEM sales and renewables sales declined in fiscal year 2017 as compared to fiscal year 2016. The decline in industrial gas turbine sales was the result of excess inventory in the channel, increased efficiency, and the impact of renewables. The decline in renewables sales was due to unfavorable regional dynamics in the wind turbine market, as well as short-term platform transitions by some of our customers. Sales of fuel systems for CNG trucks in Asia increased in fiscal year 2017 as compared to fiscal year 2016 as the Chinese government continues to encourage natural gas usage. In addition, reciprocating engine power generation applications were up in fiscal year 2017 as compared to fiscal year 2016.

Industrial segment earnings decreased by $3,246, or 3.9%, to $78,991 for fiscal year 2017, compared to $82,237 for fiscal year 2016. The decrease in Industrial segment earnings for fiscal year 2017 was due to the following:

Earnings for the period ended September 30, 2016	$ 82,237
Sales volume	(14,042)
Price, sales mix and productivity	(3,506)
Savings from cost reduction initiatives	17,233
New facility costs	(4,692)
Effects of changes in foreign currency rates	(870)
Other, net	2,631
Earnings for the period ended September 30, 2017	$ 78,991

Industrial segment earnings as a percentage of sales were 10.4% for both fiscal years 2017 and 2016. The decrease in segment earnings for fiscal year 2017 as compared to the same period of fiscal year 2016 was driven primarily by the impact of lower sales volume, unfavorable sales mix, and the increase in new facility costs, which were partially offset by the savings associated with cost reduction initiatives previously implemented.

Nonsegment expenses

Nonsegment expenses decreased to $58,352 for fiscal year 2017, compared to $63,166 for fiscal year 2016. As a percent of net sales, nonsegment expenses were 2.8% of net sales for fiscal year 2017, compared to 3.1% of net sales for fiscal year 2016. The decrease in nonsegment expenses in fiscal year 2017 as compared to fiscal year 2016 is due to special charges taken in the first quarter of fiscal year 2016 as described above, which did not recur in fiscal year 2017, partially offset by normal variability in costs.

2016 RESULTS OF OPERATIONS

2016 Sales Compared to 2015

Consolidated net sales in fiscal year 2016 decreased 0.7% to $2,023,078 from $2,038,303 in fiscal year 2015. Details of the changes in consolidated net sales are as follows:

Consolidated net sales for the period ended September 30, 2015	$ 2,038,303
Aerospace volume	58,399
Industrial volume	(66,568)
Effects of changes in price and sales mix	7,829
Effects of changes in foreign currency rates	(14,885)
Consolidated net sales for the period ended September 30, 2016	$ 2,023,078

The decrease in net sales for fiscal year 2016 was primarily attributable to continued weakness across nearly all our Industrial segment markets, partially offset by increased commercial aftermarket and defense sales in the Aerospace segment markets.

Our net sales were negatively impacted by $14,885 in fiscal year 2016 by fluctuations in foreign currency exchange rates compared to fiscal year 2015. Nearly all of the foreign currency impact to our net sales was realized through our Industrial segment, primarily due to changes in the EUR.

2016 Costs and Expenses Compared to 2015

Costs and expenses for fiscal year 2016 include special charges, recorded in the first quarter, totaling approximately $16,100 ($13,300 included in cost of goods sold, $1,700 included in selling, general and administrative expenses, and $1,100 included in research and development costs) related to our efforts to consolidate facilities, reduce costs and address current market conditions. Cost savings realized during fiscal year 2016 related to these charges generally offset the expenses recorded in the first quarter of fiscal year 2016.

Cost of goods sold increased by $21,127 to $1,483,960, or 73.4% of net sales, for fiscal year 2016 from $1,462,833, or 71.8% of net sales, for fiscal year 2015. The increase in cost of goods sold was primarily attributable to the inclusion in fiscal year 2016 of approximately $13,300 of special charges recorded in the first quarter, as described above. In addition, cost of goods sold increased due to increased sales in our Aerospace segment and planned new facility start-up expenses for our new Rockford-area and Colorado facilities, partially offset by the effects of lower sales volume in our Industrial segment.

Gross margin (as measured by net sales less cost of goods sold, divided by net sales) was 26.6% for fiscal year 2016, compared to 28.2% for fiscal year 2015. Gross margin for fiscal year 2016 was lower compared to fiscal year 2015, primarily related to the inclusion in cost of goods sold of approximately $13,300 of special charges in the first quarter of fiscal year 2016, as well as planned new facility start-up expenses for our new Rockford-area and Colorado facilities.

Selling, general, and administrative expenses decreased by $3,104, or 1.8%, to $174,017 for fiscal year 2016 as compared to $177,121 for fiscal year 2015. Selling, general, and administrative expenses as a percentage of net sales was 8.6% for fiscal year 2016 as compared to 8.7% for fiscal year 2015. The decrease in selling, general and administrative expenses for fiscal year 2016 was due to the inclusion in fiscal year 2015 of expenses associated with our negotiations to enter into the JV agreement with GE for which there was no equivalent expense in fiscal year

2016, as well as normal variability in costs. In fiscal year 2016, these decreases were partially offset by the special charges of approximately $1,700 described above.

Research and development costs decreased by $8,315, or 6.2%, to $126,170 for fiscal year 2016, as compared to $134,485 for fiscal year 2015. Research and development costs decreased as a percentage of net sales to 6.2% for fiscal year 2016 as compared to 6.6% for fiscal year 2015. Research and development costs in fiscal year 2016 were impacted by variability in the timing of projects and expenses. In addition, fiscal year 2016 includes the special charges of approximately $1,100 described above.

Interest expense increased to $26,776, or 1.3% of net sales, for fiscal year 2016, compared to $24,864, or 1.2% of net sales, for fiscal year 2015. The increase in interest expense was primarily attributable to lower amounts of capitalized interest in fiscal year 2016 as compared to fiscal year 2015, as capital projects have been completed.

Income taxes were provided at an effective rate on earnings before income taxes of 20.2% for fiscal year 2016, compared to 24.7% for fiscal year 2015. The changes in components of our effective tax rate (as a percentage of earnings before income taxes) were attributable to the following:

Effective tax rate at September 30, 2015	24.7 %
Research and experimentation credit	(3.5)
Adjustment of prior period tax items	1.9
Net excess income tax benefit from stock-based compensation	(2.6)
Other	(0.3)
Effective tax rate at September 30, 2016	20.2 %

The decrease in the year-over-year effective tax rate for fiscal year 2016 as compared to fiscal year 2015 is primarily attributable to the permanent extension, in fiscal year 2016, of the U.S. research and experimentation credit ("R&E Credit") and the recognition through earnings of a net excess income tax benefit from stock compensation due to the fiscal year 2016 adoption of ASU 2016-09, "Improvements to Employee Share-Based Payments Accounting." Additionally, there were fewer favorable resolutions, reviews of tax matters, and lapses of applicable statutes of limitation in fiscal year 2016 as compared to fiscal year 2015.

2016 Segment Results Compared to 2015

Aerospace

Aerospace segment net sales were $1,233,176 for fiscal year 2016, up 6.2% compared to $1,160,883 for fiscal year 2015. The increase in segment net sales for fiscal year 2016 as compared to fiscal year 2015 was driven primarily by increased defense sales for aftermarket and OEM, and increased commercial aftermarket sales, partially offset by slightly weaker commercial OEM sales.

U.S. government funds continued to be prioritized for defense platforms on which we have content. Defense sales, for both aftermarket and OEM, continued to increase in fiscal year 2016, primarily related to conflicts in the Middle East. Sales of smart weapons were particularly strong in fiscal year 2016, as end-customers replenished their stock.

Commercial aftermarket sales were up in fiscal year 2016 compared to fiscal year 2015, as global passenger traffic growth continued to drive aircraft utilization and our market share continued to grow.

Commercial OEM sales were down slightly for fiscal year 2016 as compared to fiscal year 2015 due to lower rotorcraft OEM sales, primarily related to lower extraction demands due to depressed oil prices, as well as variability in business jet demand. These decreases were partially offset by increases in large transport OEM sales as aircraft deliveries of narrow-body and wide-body aircraft continued to increase based on steady airline demand and new product introductions.

Aerospace segment earnings increased by $44,419, or 23.7%, to $232,166 for fiscal year 2016, compared to $187,747 for fiscal year 2015. The net increase in Aerospace segment earnings for fiscal year 2016 was due to the following:

Earnings for the period ended September 30, 2015	$ 187,747
Sales volume	26,775
Price, sales mix and productivity	13,274
Joint venture earnings	6,204
Other, net	(1,834)
Earnings for the period ended September 30, 2016	$ 232,166

Aerospace segment earnings as a percentage of sales were 18.8% for fiscal year 2016, compared to 16.2% for fiscal year 2015. The increase was primarily attributable to higher sales volume, which included more high-margin aftermarket sales.

Industrial

Industrial segment net sales decreased by 10.0% to $789,902 for fiscal year 2016, compared to $877,420 for fiscal year 2015. The decrease in segment net sales for fiscal year 2016, as compared to fiscal year 2015 was driven by ongoing weakness across many of our Industrial segment markets. In particular, there was further deterioration of the natural gas truck market in China and continued weakness in reciprocating engine power generation and other OEM large capital equipment projects. This weakness was primarily due to delayed maintenance and capital infrastructure investments due to slowing economic growth in China and other global markets, as well as continued depressed oil and gas pricing. In addition, the first quarter of fiscal year 2015 had unusually strong sales in the natural gas truck market in Asia, which was not repeated in fiscal year 2016. This weakness was partially offset in fiscal year 2016 by strength in industrial turbomachinery aftermarket sales.

Foreign currency exchange rates had an unfavorable impact on sales of approximately $13,000 for fiscal year 2016 compared to fiscal year 2015.

Industrial segment earnings decreased by $44,404, or 35.1%, to $82,237 for fiscal year 2016, compared to $126,641 for fiscal year 2015. The decrease in Industrial segment earnings for fiscal year 2016 was due to the following:

Earnings for the period ended September 30, 2015	$ 126,641
Sales volume	(33,509)
Price, sales mix and productivity	(4,322)
Decrease in research and development expenses	6,989
New facility start-up costs	(5,868)
Effects of changes in foreign currency rates	(3,169)
Other, net	(4,525)
Earnings for the period ended September 30, 2016	$ 82,237

Industrial segment earnings as a percentage of sales were 10.4% for fiscal year 2016, compared to 14.4% for fiscal year 2015. The decrease in segment earnings for fiscal year 2016 as compared to fiscal year 2015 was driven by the impact of lower sales volume, unfavorable product mix, and costs associated with our new facility in Colorado. In addition, foreign currency exchange rates had an unfavorable impact of $3,169 for fiscal year 2016 compared to fiscal year 2015.

Nonsegment expenses

Nonsegment expenses increased to $63,166 for fiscal year 2016, compared to $49,362 for fiscal year 2015. As a percent of net sales, nonsegment expenses increased to 3.1% of net sales for fiscal year 2016, compared to 2.4% of net sales for fiscal year 2015. The increase in nonsegment expenses in fiscal year 2016 as compared to fiscal year 2015 was due to special charges taken in the first quarter of fiscal year 2016 totaling approximately $16,100 as described above.

LIQUIDITY AND CAPITAL RESOURCES

Historically, we have satisfied our working capital needs, as well as capital expenditures, product development and other liquidity requirements associated with our operations, with cash flow provided by operating activities and borrowings under our credit facilities. Historically, we have also issued debt to supplement our cash needs or repay our other indebtedness. We expect that cash generated from our operating activities, together with borrowings under our revolving credit facility and other borrowing capacity, will be sufficient to fund our continuing operating needs, including capital expansion funding for the foreseeable future.

Our aggregate cash and cash equivalents were $87,552 at September 30, 2017 and $81,090 at September 30, 2016, and our working capital was $593,955 at September 30, 2017 and $463,811 at September 30, 2016. Of the $87,552 of cash and cash equivalents held at September 30, 2017, $87,383 was held by our foreign locations. We are not presently aware of any significant restrictions on the repatriation of these funds, although a portion is considered indefinitely reinvested in these foreign subsidiaries. If these funds were needed to fund our operations or satisfy obligations in the United States, then they could be repatriated and their repatriation into the United States may cause us to incur additional U.S. income taxes or foreign withholding taxes. Any additional U.S. taxes could be offset, in part or in whole, by foreign tax credits. The amount of such taxes and application of tax credits would be dependent on the income tax laws and other circumstances at the time these amounts are repatriated. Based on these variables, it

is impractical to determine the income tax liability that might be incurred if these funds were to be repatriated.

Consistent with common business practice in China, our Chinese subsidiary accepts bankers' acceptance notes from Chinese customers, in settlement of certain customer accounts receivable. Bankers' acceptance notes are financial instruments issued by Chinese financial institutions as part of financing arrangements between the financial institution and a customer of the financial institution. Bankers' acceptance notes represent a commitment by the issuing financial institution to pay a certain amount of money at a specified future maturity date to the legal owner of the bankers' acceptance note as of the maturity date. The maturity date of bankers' acceptance notes varies, but it is our policy to only accept bankers' acceptance notes with maturity dates no more than 180 days from the date of our receipt of such draft. The issuing financial institution is the obligor, not our customers. Upon our acceptance of a bankers' acceptance note from a customer, such customer has no further obligation to pay us for the related accounts receivable balance. We had bankers' acceptance notes of $38,243 at September 30, 2017 and $5,093 at September 30, 2016 recorded as non-customer accounts receivable on our consolidated balance sheets. The increase in the amount of bankers' acceptance notes is due to the higher sales of natural gas truck and bus systems in China. We only accept bankers' acceptance notes issued by banks that are believed to be creditworthy and to which the credit risks associated with the bankers' acceptance notes are believed to be low.

Our revolving credit facility matures in April 2020 and provides a borrowing capacity of up to $1,000,000 with the option to increase total available borrowings to up to $1,200,000, subject to lenders' participation. We can borrow against our $1,000,000 revolving credit facility as long as we are in compliance with all of our debt covenants. Historically, we have used borrowings under our revolving credit facilities to meet certain short-term working capital needs, as well as for strategic uses, including repurchases of

our common stock, payments of dividends, acquisitions, and facilities expansions. In addition, we have various foreign credit facilities, some of which are tied to net amounts on deposit at certain foreign financial institutions. These foreign credit facilities are reviewed annually for renewal. We use borrowings under these foreign credit facilities to finance certain local operations on a periodic basis. For further discussion of our $1,000,000 revolving credit facility and our other credit facilities, see Note 12, Credit facilities, short-term borrowings and long-term debt in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data."

At September 30, 2017, we had total outstanding debt of $612,886 consisting of amounts borrowed under our revolving credit facility and various series of unsecured notes due between 2018 and 2031, with additional borrowing availability of $956,779 under our revolving credit facility, net of outstanding letters of credit, and additional borrowing availability of $7,530 under various foreign credit facilities. For further discussion of our notes, see Note 12, Credit facilities, short-term borrowings and long-term debt in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data."

At September 30, 2017, we had $32,600 of borrowings outstanding under our revolving credit facility, all of which was classified as short-term. Revolving credit facility and short-term borrowing activity during the fiscal year ended September 30, 2017 were as follows:

Maximum daily balance during the period	$ 317,700
Average daily balance during the period	$ 242,966
Weighted average interest rate on average daily balance	1.96%

We believe we were in compliance with all our debt covenants as of September 30, 2017. See Note 12, Credit facilities, short-term borrowings and long-term debt in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data," for more information about our covenants.

In addition to utilizing our cash resources to fund the working capital needs of our business, we evaluate additional strategic uses of our funds, including the repurchase of our common stock, payment of dividends, significant capital expenditures, consideration of strategic acquisitions and other potential uses of cash.

Our ability to service our long-term debt, to remain in compliance with the various restrictions and covenants contained in our debt agreements, and to fund working capital, capital expenditures and product development efforts will depend on our ability to generate cash from operating activities, which in turn is subject to, among other things, future operating performance as well as general economic, financial, competitive, legislative, regulatory, and other conditions, some of which may be beyond our control.

On January 4, 2016, we consummated the formation of a strategic joint venture between Woodward and GE. GE purchased from Woodward a 50% ownership interest in the JV for a $250,000 cash payment to Woodward. In addition, GE will pay contingent consideration to Woodward consisting of fifteen annual payments of $4,894 per year beginning January 4, 2017 subject to certain claw-back conditions. The $250,000 cash consideration received from GE on January 4, 2016 was taxable in the United States upon receipt. The taxes of approximately $95,000 associated with this cash consideration were paid through estimated payments made during fiscal year 2016.

In the first quarter of fiscal year 2016, we executed a 10b5-1 plan to repurchase up to $125,000 of our common stock for a period that ended on April 20, 2016. During the fiscal year ended September 30, 2016, we purchased 2,635 shares of our common stock for $125,000 under the 10b5-1 plan, using a portion of the $250,000 received from GE. In fiscal year 2015, we completed $125,000 of share repurchases through an accelerated stock repurchase

program. This was part of a previously announced $250,000 stock repurchase initiative.

In the first quarter of fiscal year 2017, our Board of Directors terminated the Company's prior stock repurchase program and replaced it with a new program for the repurchase of up to $500,000 of Woodward's outstanding shares of common stock on the open market or in privately negotiated transactions over a three-year period that will end in 2019 (the "2016 Authorization"). In fiscal year 2017, we purchased 1,027 shares of our common stock under the 2016 Authorization for $71,197, of which 491 shares were purchased pursuant to 10b5-1 plans and 536 were purchased pursuant to a 10b-18 plan.

For our Aerospace segment, in fiscal year 2015 we completed construction of a manufacturing and office building on a second campus in the greater-Rockford, Illinois area. This campus is intended to support the expected growth in our Aerospace segment over the next ten years and beyond, as a result of our being awarded a substantial number of new system platforms, particularly on narrow-body aircraft. We have been purchasing production equipment for the second campus and anticipate continuing such purchases as new aircraft platforms ramp up to full production volumes.

We believe that cash flows from operations, along with our contractually committed borrowings and other borrowing capability, will continue to be sufficient to fund anticipated capital spending requirements and our operations for the foreseeable future. However, we could be adversely affected if the financial institutions providing our capital requirements refuse to honor their contractual commitments, cease lending, or declare bankruptcy. We believe the lending institutions participating in our credit arrangements are financially stable.

Cash Flows

	Year Ended September 30,		
	2017	2016	2015
Net cash provided by operating activities	$ 307,537	$ 435,379	$ 295,990
Net cash used in investing activities	(91,866)	(173,946)	(284,083)
Net cash used in financing activities	(211,813)	(260,993)	(34,006)
Effect of exchange rate changes on cash and cash equivalents	2,604	(1,552)	(10,986)
Net change in cash and cash equivalents	6,462	(1,112)	(33,085)
Cash and cash equivalents at beginning of year	81,090	82,202	115,287
Cash and cash equivalents at end of year	$ 87,552	$ 81,090	$ 82,202

2017 Cash Flows Compared to 2016

Net cash flows provided by operating activities for fiscal year 2017 was $307,537, compared to $435,379 in fiscal year 2016. The decrease in cash provided by operating activities in fiscal year 2017 compared to fiscal year 2016 was primarily attributable to the JV Proceeds of $155,000 received in the prior year. This decrease was partially offset by an earnings increase of $19,669 in fiscal 2017 compared to the prior fiscal year and changes in working capital providing a net source of cash of $651 in fiscal year 2017 as compared to a net use of cash of $9,387 the prior fiscal year. Working capital changes reflected an increase in cash provided of $47,198 due mainly to accounts payable increasing in the current fiscal year compared to fiscal year 2016 related primarily to the timing of payments for various accounts payable for the current fiscal year that occurred after the fiscal year end, which was mostly offset by an increase in usage of cash of $43,961 due to accounts receivable increasing more in fiscal year 2017 compared to the increase in the prior fiscal year.

Net cash flows used in investing activities for fiscal year 2017 was $91,866, compared to $173,946 in fiscal year 2016. The decrease in cash used in investing activities compared to the prior fiscal year is due primarily to decreased payments for capital expenditures. Payments for property, plant and equipment decreased by $83,356 to $92,336 in fiscal year 2017, as compared to $175,692 in fiscal year 2016, related mainly to lower equipment purchases in the current year associated with the our Aerospace segment facility in the greater-Rockford, Illinois area and completion of our Industrial segment facility in Fort Collins, Colorado.

Net cash flows used in financing activities for fiscal year 2017 was $211,813, compared to $260,993 in fiscal year 2016. During fiscal year 2017, we had net debt payments of $124,512, compared to net debt payments of $123,875 in fiscal year 2016. We utilized $71,197 to repurchase 1,027 shares of our common stock in fiscal year 2017 under the 2016 Authorization, compared to $125,000 to repurchase 2,635 shares of our common stock in fiscal year 2016 under the then existing stock repurchase program.

2016 Cash Flows Compared to 2015

Net cash flows provided by operating activities for fiscal year 2016 was $435,379, compared to $295,990 in fiscal year 2015. The increase in net cash provided by operating activities is primarily attributable to the after-tax proceeds related to the formation of the JV between Woodward and GE.

Net cash flows used in investing activities for fiscal year 2016 was $173,946, compared to $284,083 in fiscal year 2015. The decrease in cash used in investing activities in fiscal year 2016 compared to fiscal year 2015 is due to decreased payments for capital expenditures. Payments for property, plant and equipment decreased by $110,920 to $175,692 in fiscal year 2016 as compared to $286,612 in fiscal year 2015 related mainly to the development of a

second campus in the greater-Rockford, Illinois area, a new facility in Niles, Illinois, and a new campus at our Fort Collins, Colorado headquarters. The manufacturing and office building in the greater-Rockford, Illinois area and the new facility in Niles, Illinois were both completed in fiscal year 2015. Our Fort Collins campus was completed in fiscal year 2016.

Net cash flows used in financing activities for fiscal year 2016 was $260,993, compared to $34,006 in fiscal year 2015. During fiscal year 2016, we had net debt payments of $123,875 compared to net debt borrowings of $143,361 in fiscal year 2015. We utilized $125,000 to repurchase 2,635 shares of our common stock in fiscal year 2016 under the then existing stock repurchase program, compared to $157,160 to repurchase 3,128 shares of our common stock in fiscal year 2015.

Off-Balance Sheet Arrangements

As of September 30, 2017, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K promulgated by the SEC, that have or are reasonably likely to have a current or future effect on our financial condition, changes in our financial condition, revenues, or expenses, results of operations, liquidity, capital expenditures, or capital resources, that are material to investors.

Contractual Obligations

A summary of our consolidated contractual obligations and commitments as of September 30, 2017 is as follows:

	Year Ending September 30,					
	2018	2019	2020	2021	2022	Thereafter
	(in thousands)					
Long-term debt principal	$ -	$ 143,000	$ -	$ 100,000	$ -	$ 339,080
Interest on debt obligations (1)	21,603	18,290	11,670	10,548	8,677	32,726
Operating leases	6,315	4,265	3,872	3,188	2,148	3,427
Capital leases	444	451	122	-	-	-
Purchase obligations (2)	299,267	17,993	232	66	-	-
Other (3)	-	-	-	-	-	20,132
Total	$ 327,629	$ 183,999	$ 15,896	$ 113,802	$ 10,825	$ 395,365

(1) Interest obligations on floating rate debt instruments are calculated for future periods using interest rates in effect as of September 30, 2017. See Note 12, Credit facilities, short-term borrowings and long-term debt, in the Notes to the Consolidated Financial Statements in “Item 8 – Financial Statements and Supplementary Data” for further details on our long-term debt.

(2) Purchase obligations include amounts committed under legally enforceable contracts or purchase orders for goods and services with defined terms as to price, quantity, delivery, and termination liability.

(3) The $20,132 included in other obligations in the “Thereafter” column represents our best reasonable estimate for uncertain tax positions at this time and may change in future periods, as the timing of the payments and whether such payments will actually be required cannot be reasonably estimated.

The above table does not reflect the following items:

- As of September 30, 2017, there were $32,600 of outstanding borrowings on our revolving credit facility, all of which were classified as short-term based on our intent and ability to pay this amount in the next twelve months. Our revolving credit facility matures in April 2020.
- Contributions to our retirement pension benefit plans, which we estimate will total approximately $614 in fiscal year 2018. As of September 30, 2017 our pension plans were net underfunded by $2,787 based on projected benefit obligations. Statutory pension contributions in future fiscal years will vary as a result of a number of factors, including actual plan asset returns and interest rates.
- Contributions to our other postretirement benefit plans, which we estimate will total $3,871 in fiscal year 2018. Other postretirement contributions are made on a “pay-as-you-go” basis as payments are made to healthcare providers, and such contributions will vary as a result of changes in the future cost of postretirement healthcare benefits provided for covered retirees. As of September 30, 2017, our other postretirement benefit plans were underfunded by $32,252 based on projected benefit obligations.
- Business commitments made to certain customers to perform under long-term product development projects, some of which may result in near-term financial losses. Such losses, if any, are recognized when they become likely to occur.

In connection with the sale of the Fuel & Pneumatics product line during fiscal year 2009, Woodward assigned to a subsidiary of the purchaser its rights and responsibilities related to certain contracts with the U.S. Government. Woodward provided to the U.S. Government a customary guarantee of the purchaser’s subsidiary’s obligations under the contracts. The purchaser and its affiliates have agreed to indemnify Woodward for any liability incurred with respect to the guarantee.

Guarantees and letters of credit totaling approximately $10,972 were outstanding as of September 30, 2017, some of which were secured by parent guarantees from Woodward or by Woodward line of credit facilities.

In the event of a change in control of Woodward, as defined in change-in-control agreements with our current corporate officers, we may be required to pay termination benefits to such officers.

New Accounting Standards

From time to time, the Financial Accounting Standards Board (“FASB”) or other standards-setting bodies issue new accounting pronouncements. Updates to the FASB Accounting Standards Codification are communicated through issuance of an Accounting

Standards Update. Unless otherwise discussed, we believe that the impact of recently issued guidance, whether adopted or to be adopted in the future, is not expected to have a material impact on our Consolidated Financial Statements upon adoption.

To understand the impact of recently issued guidance, whether adopted or to be adopted, please review the information provided in Note 2, New accounting standards, in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplementary Data."

Non-U.S. GAAP Financial Measures

EBIT, EBITDA, free cash flow, and adjusted free cash flow are financial measures not prepared and presented in accordance with U.S. GAAP. However, we believe these non-U.S. GAAP financial measures provide additional information that enables readers to evaluate our business from the perspective of management.

Earnings based non-U.S. GAAP financial measures

Management uses EBIT to evaluate Woodward's performance without financing and tax related considerations, as these elements may not fluctuate with operating results. Management uses EBITDA in evaluating Woodward's operating performance, making business decisions, including developing budgets, managing expenditures, forecasting future periods, and evaluating capital structure impacts of various strategic scenarios. Securities analysts, investors and others frequently use EBIT and EBITDA in their evaluation of companies, particularly those with significant property, plant, and equipment, and intangible assets subject to amortization.

EBIT and EBITDA for the fiscal years ended September 30, 2017, September 30, 2016, and September 30, 2015 were as follows:

	Year Ended September 30,		
	2017	2016	2015
Net earnings (U.S. GAAP)	$ 200,507	$ 180,838	$ 181,452
Income taxes	52,240	45,648	59,497
Interest expense	27,430	26,776	24,864
Interest income	(1,725)	(2,025)	(787)
EBIT (Non-U.S. GAAP)	278,452	251,237	265,026
Amortization of intangible assets	25,777	27,486	29,241
Depreciation expense	55,140	41,550	45,994
EBITDA (Non-U.S. GAAP)	$ 359,369	$ 320,273	$ 340,261

The use of these non-U.S. GAAP financial measures is not intended to be considered in isolation of, or as a substitute for, the financial information prepared and presented in accordance with U.S. GAAP. As EBIT and EBITDA exclude certain financial information compared with net earnings, the most comparable U.S. GAAP financial measure, users of this financial information should consider the information that is excluded. Our calculations of EBIT and EBITDA may differ from similarly titled measures used by other companies, limiting their usefulness as comparative measures.

Cash flow-based non-U.S. GAAP financial measures

Management uses free cash flow, which is defined by the Company as net cash flows provided by operating activities less payments for property, plant and equipment, as well as adjusted free cash flow, which is defined by the Company as free cash flow less the net after-tax JV Proceeds, in reviewing the financial performance of Woodward's various business groups and evaluating cash levels. We believe free cash flow and adjusted free cash flow are useful measures for investors because they portray our ability to generate cash from our businesses for purposes such as paying interest on our indebtedness, repaying maturing debt, funding business acquisitions, purchasing our common stock, and paying dividends. In addition, securities analysts, investors, and others frequently use free cash flow in their evaluation of companies. The use of these non-U.S. GAAP financial measures is not intended to be considered in isolation of, or as substitutes for, the financial information prepared and presented in accordance with U.S. GAAP. Neither free cash flow nor adjusted free cash flow necessarily represent funds available for discretionary use, and neither is necessarily a measure of our ability to fund our cash needs. In particular, the gross proceeds received in connection with the formation of the JV was a discrete positive cash flow event not expected to recur. Our calculations of free cash flow and adjusted free cash flow may differ from similarly titled measures used by other companies, limiting its usefulness as a comparative measure.

Free cash flow and adjusted free cash flow for the fiscal years ended September 30, 2017, September 30, 2016, and September 30, 2015 were as follows:

	Year Ended September 30,		
	2017	2016	2015
Net cash provided by operating activities (U.S. GAAP)	$ 307,537	$ 435,379	$ 295,990
Payments for property, plant and equipment	(92,336)	(175,692)	(286,612)
Free cash flow (Non-U.S. GAAP)	$ 215,201	$ 259,687	$ 9,378
Less: Gross proceeds from formation of joint venture	-	250,000	-
Tax payments related to formation of joint venture	-	(95,000)	-
Net after-tax proceeds from formation of joint venture	-	155,000	-
Adjusted free cash flow (Non-U.S. GAAP)	$ 215,201	$ 104,687	$ 9,378

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires us to make judgments, assumptions, and estimates that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. Note 1, Operations and summary of significant accounting policies, to the Consolidated Financial Statements describes the significant accounting policies and methods used in the preparation of the Consolidated Financial Statements. The estimates and assumptions described below are those that we consider to be most critical to an understanding of our financial statements because they involve significant judgments and uncertainties. All of these estimates reflect our best judgment about current, and for some estimates, future economic and market conditions and their effects based on information available as of the date of these financial statements. As estimates are updated or actual amounts are known, our critical accounting estimates are revised, and operating results may be affected by the revised estimates. Actual results may differ from these estimates under different assumptions or conditions.

Our management has discussed the development and selection of these critical accounting estimates with the Audit Committee of our Board of Directors, and the Audit Committee has reviewed our disclosures in this Management's Discussion and Analysis.

Revenue recognition

Woodward recognizes revenue when the following criteria are met:

1) persuasive evidence of an arrangement exists,

2) delivery of the product has occurred or services have been rendered,

3) price is fixed or determinable, and

4) collectability is reasonably assured.

In implementing the four criteria stated above, we have found that determining when the risks and rewards of ownership have passed to the customer, which determines whether persuasive evidence of an arrangement exists and if delivery has occurred, may require judgment. The passage of title indicates transfer of the risks and rewards of ownership from Woodward to the customer; however, contract- and customer-specific circumstances are reviewed by management to ensure that transfer of title constitutes the transfer of the risks and rewards of ownership.

Examples of situations requiring management review and judgment, with respect to the passage of the risks and rewards of ownership, include: interpretation of customer-specific contract terms, situations where substantive performance obligations exist, such as completion of product testing that remain after product delivery to the customer, situations that require customer acceptance (or in some instances regulatory acceptance) of the product, and situations in countries whose laws provide for retention of some form of title by sellers such that Woodward is able to recover goods in the event a customer defaults on payment.

Based on management’s determination, if the risks and rewards of ownership have not passed to the customer, revenue is deferred until this requirement is met.

Inventory

Inventories are valued at the lower of cost or net realizable value. Inventory cost is determined using methods that approximate the first-in, first-out basis. We include product costs, labor and related fixed and variable overhead in the cost of inventories.

Inventory net realizable values are determined by giving substantial consideration to the expected product selling price. We estimate expected selling prices based on our historical recovery rates, general economic and market conditions, the expected channel of disposition, and current customer contracts and preferences. Actual results may differ from our estimates due to changes in resale or market value and the mix of these factors. Management monitors inventory for events or circumstances, such as negative margins, recent sales history suggesting lower sales value, or changes in customer preferences, which would indicate the net realizable value of

inventory is less than the carrying value of inventory, and management records adjustments as necessary. When inventory is written down below cost, such reduced amount is considered the cost for subsequent accounting purposes. Our recording of inventory at the lower of cost or net realizable value has not historically required material adjustments once initially established.

The carrying value of inventory was $473,505 at September 30, 2017 and $461,683 at September 30, 2016. If economic conditions, customer product requirements, or other factors significantly reduce future customer demand for our products from forecast levels, then future adjustments to the carrying value of inventory may become necessary. We attempt to maintain inventory quantities at levels considered necessary to fill expected orders in a reasonable time frame, which we believe mitigates our exposure to future inventory carrying cost adjustments.

Depreciation and amortization

The carrying value of property, plant and equipment was $922,043 at September 30, 2017 and $876,350 at September 30, 2016. Depreciation expense was $55,140 in fiscal year 2017, $41,550 in fiscal year 2016 and $45,994 in fiscal year 2015. Depreciation of property, plant and equipment is generally computed using the straight-line method, which requires estimates of asset useful lives and ultimate salvage value.

In fiscal year 2015, we completed and placed into service a manufacturing and office building for our Aerospace segment on a second campus in the greater-Rockford, Illinois area and began occupying the new facility. This campus is intended to support the expected growth in our Aerospace segment over the next ten years and beyond, necessitated as a result of our being awarded a substantial number of new system platforms, particularly on narrow-body aircraft. In addition, in fiscal year 2015, we completed an addition to and renovation of a building in Niles, Illinois that we had acquired in September 2013. Most of our operations that formerly resided in nearby Skokie, Illinois, were relocated to this new facility in fiscal year 2015.

In fiscal year 2016, we completed construction of a manufacturing building for our Industrial segment and a corporate headquarters building on a second campus in Fort Collins, Colorado. This campus is intended to support the future growth of our Industrial segment by supplementing our existing Colorado manufacturing facilities. We began occupying the new campus in our second quarter of fiscal year 2016.

Concurrent with and in relation to our significant investment in three new campuses and related equipment, in fiscal year 2016, Woodward initiated a comprehensive review of its depreciation lives as required by U.S. GAAP to evaluate the estimates of the useful lives of Woodward assets. This review resulted in estimates of the useful lives of both existing and new assets generally in excess of those utilized prior to fiscal year 2016. The revised estimates were used in fiscal year 2016 and will be used going forward and resulted in a downward adjustment of depreciation on existing assets of approximately $12,000 for fiscal year 2016.

The carrying value of intangible assets was $171,882 at September 30, 2017 and $197,650 at September 30, 2016. Amortization expense was $25,777 in fiscal year 2017, $27,486 in fiscal year 2016 and $29,241 in fiscal year 2015. Amortization of intangible assets is generally computed using patterns that reflect the periods over which the economic benefits of the assets are expected to be realized. Impairment losses are recognized if the carrying amount of an intangible is both not estimated to be recoverable and exceeds it fair value.

Reviews for impairment of goodwill

At September 30, 2017, we had $556,545 of goodwill, representing 20% of our total assets. Goodwill is tested for impairment at the reporting unit level on an annual basis and more often if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Based on the relevant U.S. GAAP authoritative guidance, we aggregate components of a single operating segment into a reporting unit, if appropriate. For purposes of performing the impairment tests, we identify reporting units in accordance with

U.S. GAAP. The identification of reporting units and consideration of the aggregation of components into a single reporting unit requires management judgment. The impairment tests consist of comparing the fair value of reporting units, determined using discounted cash flows, with their carrying amount including goodwill. If the carrying amount of the reporting unit exceeds its fair value, we compare the implied fair value of goodwill with its carrying amount. If the carrying amount of goodwill exceeds the implied fair value of goodwill, an impairment loss would be recognized to reduce the carrying amount to its implied fair value. Woodward has not recorded any impairment charges.

During the fourth quarter, Woodward completed its annual goodwill impairment test as of July 31, 2017 for the fiscal year ended September 30, 2017. At that date, Woodward determined it was appropriate to aggregate certain components of the same operating segment into a single reporting unit. The fair value of each of Woodward's reporting units was determined using an income approach based on a discounted cash flow method. This method represents a Level 3 input (based upon a fair value hierarchy established by U.S. GAAP) and incorporates various estimates and assumptions, the most significant being projected revenue growth rates, earnings margins, future tax rates and the present value, based on an estimated weighted-average cost of capital (or the discount rate) and terminal growth rate, of forecasted cash flows. Management projects revenue growth rates, earnings margins and cash flows based on each reporting unit's current operational results, expected performance and operational strategies over a ten-year period. These projections are adjusted to reflect current economic conditions and demand for certain products, and require considerable management judgment.

Forecasted cash flows used in the July 31, 2017 impairment test were discounted using weighted-average cost of capital assumptions ranging from 9.57% to 13.86%. The terminal values of the forecasted cash flows were calculated using the Gordon Growth Model and assumed an annual compound growth rate after ten years of 3.39%. These inputs, which are unobservable in the market, represent management's best estimate of what market participants would use in determining the present value of the Company's forecasted cash flows. Changes in these estimates and assumptions can have a significant impact on the fair value of forecasted cash flows. Woodward evaluated the reasonableness of the reporting units resulting fair values utilizing a market multiple method.

The results of Woodward's annual goodwill impairment test performed as of July 31, 2017, indicated the estimated fair value of each reporting unit was significantly in excess of its carrying value, and accordingly, no impairment existed. Increasing the discount rate by 20%, decreasing the growth rate by 20%, or decreasing forecasted cash flow by 20%, would also not have resulted in an impairment charge at July 31, 2017.

As part of the Company's ongoing monitoring efforts to assess goodwill for possible indications of impairment, we will continue to consider a wide variety of factors, including but not limited to the global economic environment and its potential impact on Woodward's business. There can be no assurance that our estimates and assumptions regarding forecasted cash flows of certain reporting units, the current economic environment, or the other inputs used in forecasting the present value of forecasted cash flows will prove to be accurate projections of future performance.

Postretirement benefits

The Company provides various benefits to certain employees through defined benefit pension plans and other postretirement benefit plans. A September 30 measurement date is used to value plan assets and obligations for all Woodward defined benefit pension and other postretirement benefit plans. For financial reporting purposes, net periodic benefits expense and related obligations are calculated using a number of significant actuarial assumptions, including anticipated discount rates, rates of compensation increases, long-term return on defined benefit plan investments, and anticipated healthcare cost increases. Based on these actuarial assumptions, at September 30, 2017, our recorded assets and liabilities included a net liability of $2,787 for our defined benefit pension plans and a net liability of $32,252 for our other postretirement benefit plans. Changes in net periodic expense or the amounts of recorded assets and liabilities may occur in the future due to changes in these assumptions.

Estimates of the value of postretirement benefit obligations, and related net periodic benefits expense, are dependent on actuarial assumptions, including future interest rates, compensation rates, mortality trends, healthcare cost trends, termination and retirement rates, and returns on defined benefit plan investments.

It should be noted that economic factors and conditions often affect multiple assumptions simultaneously, and the effects of changes in assumptions are not necessarily linear due to factors such as the 10% corridor applied to the larger of the postretirement benefit obligation or the fair market value of plan assets used to determine the amortization of actuarial net gains or losses.

Mortality assumptions are based on published mortality studies developed primarily based on past experience of the broad population and modified for projected longevity trends. The projected benefit obligations in the United States as of September 30, 2017 and September 30, 2016 was based on the Society of Actuaries ("SOA") RP-2014 Mortality Tables Report projected back to 2006 using the SOA's Mortality Improvement Scale MP-2014 ("MP-2014") and projected forward using a custom projection scale based on MP-2014 with a 10-year convergence period and a long-term rate of 0.75%. As of September 30, 2017 and September 30, 2016, mortality assumptions in Japan were based on the Standard rates 2014, and mortality assumptions for the United Kingdom were based on the Self-administered pension scheme ("SAPS") S2 "all" tables with a projected 1.5% annual improvement rate.

Primary actuarial assumptions for our defined benefit pension plans were determined as follows:

· The discount rate assumption is intended to reflect the rate at which the retirement benefits could be effectively settled based upon the assumed timing of the benefit payments.

In the United States, Woodward uses a bond portfolio matching analysis based on recently traded, non-callable bonds rated AA or better that have at least $50 million outstanding to determine the benefit obligations at year end.

In the United Kingdom and Japan, Woodward uses a high-quality corporate bond yield curve matched with separate cash flows to develop a single rate to determine the single rate equivalent to settle the entire benefit obligations in each jurisdiction. For the fiscal years ended September 30, 2017 and 2016, the discount rate used to determine periodic service cost and interest cost components of the overall benefit costs was based on spot rates derived from the same high-quality corporate bond yield curve used to determine the September 30, 2016 and 2015 benefit obligation, respectively, matched with separate cash flows for each future year.

These rates are sensitive to changes in interest rates.

	Change In Discount Rate	
	1% increase	1% decrease
Defined benefit pension benefits:		
2018 Net Periodic Benefit Cost	$ (27)	$ 1,270
2018 Projected Service and Interest Costs	561	(1,045)
Accumulated Post Retirement Benefit Obligation as of September 30, 2017	(29,012)	36,375

- Compensation increase assumptions, where applicable, are based upon historical experience and anticipated future management actions. An increase in the rate would increase our obligation and expense.

- Mortality trends assumptions are based on published actuarial data and are sometimes modified to reflect projected longevity trends. Increases in life expectancy of participants greater than assumed would increase our obligation and expense.

In determining the long-term rate of return on plan assets, we consider the asset investment mix for each plan. For example, fixed-income securities generally have a lower rate of return than equity securities. We assume that the historical long-term compound growth rates of similar equity and fixed-income securities will predict the future returns of investments in the various plan portfolios. We consider the potential impacts of changes in general market conditions, but because our assumptions are based on long-term rates of return, short-term market conditions generally have an insignificant effect on our assumptions. Changes in asset allocations are managed on a plan-by-plan basis, taking into consideration factors such as the average age of the plan participants and the projected timing of future benefit payments.

	Change In Rate of Return on Plan Assets	
	0.5% increase	0.5% decrease
Defined benefit pension benefits:		
2018 Net Periodic Benefit Cost	$ 1,104	$ (1,104)

If, as of the beginning of the year, the net plan gain or loss recognized in accumulated other comprehensive income exceeds 10% of the greater of the plan projected benefit obligation or the market-related value of plan assets, the amortization out of accumulated other comprehensive income into current period expense is that excess divided by the average remaining service period of employees expected to receive benefits under the plan.

Primary actuarial assumptions for our other postretirement benefit plans were determined as follows:

· The discount rate assumption is intended to reflect the rate at which the postretirement benefits could be effectively settled based upon the assumed timing of the benefit payments.

In the United States, Woodward uses a bond portfolio matching analysis based on recently traded, non-callable bonds rated AA or better that have at least $50 million outstanding to determine the benefit obligations at year end.

In the United Kingdom, Woodward uses a high-quality corporate bond yield curve matched with separate cash flows to develop a single rate to determine the single rate equivalent to settle the entire benefit obligations in each jurisdiction. For the fiscal years ended September 30, 2017 and September 30, 2016, the discount rate used to determine periodic service cost and interest cost components of the overall benefit costs was based on spot rates derived from the same high-quality corporate bond yield curve used to determine the September 30, 2016 and 2015 benefit obligation, respectively, matched with separate cash flows for each future year.

These rates are sensitive to changes in interest rates.

	Change In Discount Rate	
	1% increase	1% decrease
Other postretirement benefits:		
2018 Net Periodic Benefit Cost	$ 158	$ (52)
2018 Projected Service and Interest Costs	186	(226)
Accumulated Post Retirement Benefit Obligation as of September 30, 2017	(2,582)	2,990

· Mortality trends assumptions are based on published actuarial data and are sometimes modified to reflect projected longevity trends. Increases in life expectancy of participants greater than assumed would increase our obligation and expense.

The assumed health care trend rate represents the rate at which health care costs are assumed to increase and is based on historical and expected experience. Changes in our projections of future health care costs due to general economic conditions and those specific to health care (e.g., technology driven cost changes) will impact this trend rate.

	Change In Health Care Cost Trend Rate	
	1% increase	1% decrease
Effect on projected fiscal year 2018 service and interest cost	$ 113	$ (99)
Effect on accumulated postretirement benefit obligation at September 30, 2017	2,960	(2,605)

- If, as of the beginning of the year, the net plan gain or loss recognized in accumulated other comprehensive income exceeds 10% of the plan accumulated postretirement benefit obligation, the amortization out of accumulated other comprehensive income into current period expense is that excess divided by the average remaining service period of employees expected to receive benefits under the plan.

Variances from our fiscal year end estimates for these variables could materially affect our recognized postretirement benefit obligation liabilities. On a near-term basis, such changes are unlikely to have a material impact on reported earnings, since such adjustments are recorded to other comprehensive earnings and recognized into expense over a number of years. Significant changes in estimates could, however, materially affect the carrying amounts of benefit obligation liabilities, including accumulated benefit obligations, which could affect compliance with the provisions of our debt arrangements and future borrowing capacity.

Income taxes

We are subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgment is required in evaluating our tax positions and determining our provision for income taxes.

During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. The reserves are established when we believe that certain positions are likely to be challenged and may not be fully sustained on review by tax authorities. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit or refinement of an estimate. Although we believe our reserves are reasonable, no assurance can be given that the final outcome of these matters will be consistent with what is reflected in our historical income tax provisions and accruals. To the extent that the final tax outcome of these matters is different from the amounts recorded, such differences will impact the current provision for income taxes. The provision for income taxes includes the impact of reserve positions and changes to reserves that are considered appropriate. As of September 30, 2017 and September 30, 2016, unrecognized gross tax benefits for which recognition has been deferred were $20,132 and $23,526, respectively.

Significant judgment is also required in determining any valuation allowance recorded against deferred tax assets. The determination of the amount of valuation allowance to be provided on recorded deferred tax assets involves estimates regarding the timing and amount of the reversal of taxable temporary differences, expected future

taxable income, and the impact of tax planning strategies. A valuation allowance is established to offset any deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax asset will not be realized. In assessing the need for a valuation allowance, we consider all available evidence including past operating results, estimates of future taxable income, and the feasibility of tax planning strategies. Changes in the relevant facts can significantly impact the judgment or need for valuation allowances. In the event we change our determination as to the amount of deferred tax assets that can be realized, we will adjust our valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made. Our valuation allowance was $3,714 as of September 30, 2017 and $3,317 as of September 30, 2016.

Our effective tax rates differ from the U.S. statutory rate primarily due to the tax impact of foreign operations, adjustments of valuation allowances, research tax credits, state taxes, and tax audit settlements. In addition to potential local country tax law and policy changes that could impact the provision for income taxes, management's judgment about and intentions concerning the repatriation of foreign earnings could also significantly impact the provision for income taxes. Management reassesses its judgment regularly, taking into consideration the potential tax impacts of these judgments and intentions.

Our provision for income taxes is subject to volatility and could be affected by earnings that are different than those anticipated in countries which have lower or higher tax rates; by transfer pricing adjustments; and/or changes in tax laws, regulations, and accounting principles, including accounting for uncertain tax positions, or interpretations thereof. There can be no assurance that these items will remain stable over time. Additionally, with the adoption of ASU 2016-09, "Improvements to Employee Share-Based Payments Accounting," in fiscal year 2016, Woodward is recording through income tax expense all future excess tax benefits and tax deficiencies from stock options exercised. This new guidance creates unpredictable volatility in the effective tax rate because the additional expense or benefit recognized each quarter is based on the timing of the employee's election to exercise any vested stock

options outstanding, which is outside Woodward's control, and the market price of Woodward's shares at the time of exercise, which is subject to market volatility.

In addition, we are subject to examination of our income tax returns by the relevant tax authorities in the jurisdictions in which we are subject to taxes. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. There can be no assurance that the outcomes from these examinations will not have a significant effect on our operating results, financial condition, and cash flows.

Item 7A.Quantitative and Qualitative Disclosures About Market Risk

In the normal course of business, we have exposures to interest rate risk from our long-term and short-term debt, and our postretirement benefit plans, and foreign currency exchange rate risk related to our foreign operations and foreign currency transactions.

Interest Rate Risk

We use derivative instruments as risk management tools that involve little complexity, and are not used for trading or speculative purposes. In June 2013, in connection with Woodward's expected refinancing of current maturities on its existing long-term debt, Woodward entered into a treasury lock agreement with a notional amount of $25,000 that qualified as a cash flow hedge under ASC Topic 815, "Derivatives and Hedging." The objective of this derivative instrument was to hedge the risk of variability in cash flows attributable to changes in the designated benchmark interest rate over a seven-year period related to the future interest payments on a portion of anticipated future debt issuances.

A portion of our long and short-term debt is sensitive to changes in interest rates. As of September 30, 2017 our Series J Notes of $50,000 and advances on our revolving credit facility are at interest rates that fluctuate with market rates. A hypothetical 1% increase in the assumed effective interest rates that apply to the variable rate loan outstanding as of September 30, 2017 and the average borrowings on our revolving credit facility in fiscal year 2017 would cause our annual interest expense to increase approximately $2,930. A hypothetical 1% decrease in the assumed effective interest rates that apply to the variable rate loan outstanding as of September 30, 2017 and the average borrowings on our revolving credit facility in fiscal year 2017 would decrease our annual interest expense by approximately $2,930.

The discount rate and future return on plan asset assumptions used to calculate the funding status of our retirement benefit plans are also sensitive to changes in interest rates. The weighted average discount rate assumption used to value the defined benefit pension plans as of September 30, 2017 was 3.80% in the United States, 2.56% in the United Kingdom, and 0.58% in Japan. The weighted average discount rate assumption used to value the other postretirement benefit plans was 3.78%.

In the United States, the discount rate used to determine the periodic benefit costs for the year ending September 30, 2018 is consistent with the discount rate used to determine the benefit obligation as of September 30, 2017, or 3.80%. Woodward derives this discount rate from a bond portfolio matching analysis based on recently traded, non-callable bonds rated AA or better that have at least $50 million outstanding.

In the United Kingdom and Japan, Woodward utilizes the spot rate approach to calculate the service cost and interest cost components for determining benefit costs for the year ending September 30, 2018. The weighted average discount rate assumption used to value the service costs for the defined benefit pension plans will be 2.58% in the United Kingdom, and 0.72% in Japan. The weighted average discount rate assumption used to value the interest costs for the defined benefit pension plans will be 2.59% in the United Kingdom, and 0.55% in Japan.

The weighted average discount rate assumption used to value the periodic benefits costs for the other postretirement plans in for the year ending September 30, 2018 is consistent with the discount rate used to determine the benefit obligation as of September 30, 2017, or 3.80% for the United States and 1.86% for the United Kingdom.

The following information illustrates the sensitivity of the net periodic benefit cost and the projected accumulated benefit obligation to a change in the discount rate assumed. Amounts relating to foreign plans are translated at the spot rate on September 30, 2017. It should be noted that economic factors and conditions often affect multiple assumptions simultaneously and the effects of changes in assumptions are not necessarily linear due to factors such as the 10% corridor applied to the larger of the postretirement benefit obligation or the fair market value of plan assets when determining amortization of actuarial net gains or losses.

Assumption	Change	Increase/(Decrease) In 2018 Net Periodic Benefit Cost	2018 Projected Service and Interest Costs	Accumulated Post Retirement Benefit Obligation as of September 30, 2017
Defined benefit pension benefits:				
Change in discount rate	1% increase	$ (27)	$ 561	$ (29,012)
	1% decrease	1,270	(1,045)	36,375
Other postretirement benefits:				
Change in discount rate	1% increase	158	186	(2,582)
	1% decrease	(52)	(226)	2,990

Foreign Currency Exchange Rate Risk and Related Hedging Activities

We are impacted by changes in foreign currency exchange rates when we sell product in currencies different from the currency in which product and manufacturing costs were incurred. The functional currencies and our purchasing and sales activities primarily include USD, EUR, RMB, JPY and GBP. We may also be impacted by changes in the relative buying power of our customers, which may impact sales volumes either positively or negatively. As these currencies fluctuate against each other, and other currencies, we are exposed to foreign currency exchange rate risk on sales, purchasing transactions, and labor. Foreign currency exchange rate risk is reduced through the maintenance of local production facilities in the markets we serve, which we believe creates a natural hedge to our foreign currency exchange rate exposure. For the years ended September 30, 2017 and 2016, the percentages of our net sales denominated in a currency other than the USD were as follows:

	Percentage of Net Sales For the Year Ended September 30, 2017	Percentage of Net Sales For the Year Ended September 30, 2016
Functional currency:		
EUR	10.3%	12.7%
RMB	5.4%	2.4%
JPY	2.5%	3.1%
GBP	1.9%	1.7%
All other foreign currencies	1.8%	2.3%
	21.9%	22.2%

Currency exchange rates vary daily and often one currency strengthens against the USD while another currency weakens. Because of the complex interrelationship of our worldwide supply chains and distribution channels, it is difficult to quantify the impact of a particular change in exchange rates.

From time to time, we will enter into a foreign currency exchange rate contract to hedge against changes in foreign currency exchange rates on liabilities expected to be settled at a future date. Market risk arises from the potential adverse effects on the value of derivative instruments that result from a change in foreign currency exchange rates. We minimize this market risk by establishing and monitoring parameters that limit the types of, and degree to which we enter into, derivative instruments. We enter into derivative instruments for risk management purposes only. We do not enter into or issue derivatives for trading or speculative purposes. As of September 30, 2017 and 2016, we had no open foreign currency exchange rate contracts and all previous derivative instruments were settled or terminated.

On September 23, 2016, Woodward and Woodward International Holding B.V., a wholly owned subsidiary of Woodward organized under the laws of The Netherlands (the "BV Subsidiary"), entered into note purchase agreements relating to the sale by Woodward and the BV Subsidiary of an aggregate principal amount of €160,000 of senior unsecured notes in a series of private placement transactions. Woodward issued €40,000 aggregate principal amount of Woodward's Series M Senior Notes due September 23, 2026. Woodward designated the €40,000 Series M Notes as a hedge of a foreign currency exposure of Woodward's net investment in its EUR denominated functional currency subsidiaries. Foreign exchange losses on the Series M Notes of $2,395 for the fiscal year ended September 30, 2017 and $47 for the fiscal year ended September 30, 2016 are included in foreign currency translation adjustments within total comprehensive earnings.

In June 2015, Woodward designated an intercompany loan of 160,000 RMB between two wholly owned subsidiaries as a hedge of a foreign currency exposure of the net investment of the borrower in the lender. In June 2016, the intercompany loan was repaid, resulting in a realized foreign exchange gain of $1,484 that was recognized within total comprehensive earnings, of which $912 was recognized in fiscal year 2016 and $572 was recognized in fiscal year 2015.

In July 2016, Woodward designated a new intercompany loan of 160,000 RMB between the same two wholly owned subsidiaries as a hedge of a foreign currency exposure of the net investment of the borrower in the lender. In July 2017, the intercompany loan was repaid, resulting in a realized foreign exchange gain of $380 that was recognized within total comprehensive earnings, of which a gain of $453 was recognized in fiscal year 2017 and a loss of $73 was recognized in fiscal year 2016.

For more information on derivative instruments, see Note 6, Derivative instruments and hedging activities, in the Notes to the Consolidated Financial Statements in “Item 8 – Financial Statements and Supplementary Data.”

Our reported financial results of operations, including the reported value of our assets and liabilities, are also impacted by changes in foreign currency exchange rates. The assets and liabilities of substantially all of our subsidiaries outside the United States are translated at period end rates of exchange for each reporting period. Earnings and cash flow statements are translated at weighted-average rates of exchange. Although these translation changes have no immediate cash impact, the translation changes may impact future borrowing capacity, debt covenants, and the overall value of our net assets. In addition, we also have assets and liabilities, specifically accounts receivable, accounts payable and current inter-company receivables and payables, whose carrying amounts approximate their fair value, which are denominated in currencies other than their relevant functional currencies. Foreign currency exchange rate risk is reduced through several means, including the invoicing of customers in the same currency as the source of the products, and the prompt settlement of inter-company balances utilizing a global netting system. We recognized a net foreign currency loss of $651 in fiscal year 2017, a net foreign currency gain of $701 in fiscal year 2016, and a net foreign currency loss of $1,721 in fiscal year 2015 in “Selling, general, and administrative expenses” of our Consolidated Statements of Earnings related to these assets and liabilities.

Item 8.Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Woodward, Inc.

Fort Collins, Colorado

We have audited the accompanying consolidated balance sheets of Woodward, Inc. and subsidiaries (the "Company") as of September 30, 2017 and 2016, and the related consolidated statements of earnings, comprehensive earnings, stockholders' equity, and cash flows for each of the three years in the period ended September 30, 2017. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Woodward, Inc. and subsidiaries as of September 30, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2017, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of September 30, 2017, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated November 10, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

Denver, Colorado

November 10, 2017

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PART I – FINANCIAL INFORMATION

Item 1.Financial Statements

WOODWARD, INC.

CONSOLIDATED STATEMENTS OF EARNINGS

(In thousands, except per share amounts)

	Year Ended September 30,		
	2017	2016	2015
Net sales	$ 2,098,685	$ 2,023,078	$ 2,038,303
Costs and expenses:			
Cost of goods sold	1,526,126	1,483,960	1,462,833
Selling, general and administrative expenses	176,633	174,017	177,121
Research and development costs	126,519	126,170	134,485
Interest expense	27,430	26,776	24,864
Interest income	(1,725)	(2,025)	(787)
Other (income) expense, net (Note 15)	(9,045)	(12,306)	(1,162)
Total costs and expenses	1,845,938	1,796,592	1,797,354
Earnings before income taxes	252,747	226,486	240,949
Income tax expense	52,240	45,648	59,497
Net earnings	$ 200,507	$ 180,838	$ 181,452
Earnings per share (Note 3):			
Basic earnings per share	$ 3.27	$ 2.92	$ 2.81
Diluted earnings per share	$ 3.16	$ 2.85	$ 2.75

Weighted Average Common Shares Outstanding (Note 3):

Basic	61,366	61,893	64,684
Diluted	63,512	63,556	66,056
Cash dividends per share paid to Woodward common stockholders	$ 0.485	$ 0.430	$ 0.380

See accompanying Notes to Consolidated Financial Statements

WOODWARD, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS

(In thousands)

	Year Ended September 30,		
	2017	2016	2015

Net earnings	$ 200,507	$ 180,838	$ 181,452
Other comprehensive earnings:			
Foreign currency translation adjustments	45	(6,615)	(34,989)
Net gain (loss) on foreign currency transactions designated as hedges of net investments in a foreign subsidiaries	(1,942)	792	572
Taxes on changes on foreign currency translation adjustments	588	1,462	1,988
	(1,309)	(4,361)	(32,429)
Reclassification of realized losses (gains) on derivatives to earnings	(72)	21	99
Taxes on changes on derivative transactions	28	(8)	(38)
	(44)	13	61
Minimum retirement benefit liability adjustments (Note 17):			
Net gain (loss) arising during the period	22,979	(19,718)	(26,866)
Loss due to settlement or curtailment arising during the period	-	47	-
Amortization of:			
Prior service benefit	(3,470)	226	225
Net loss	2,570	1,694	513
Foreign currency exchange rate changes on minimum retirement benefit liabilities	(43)	2,239	867
Taxes on changes on minimum retirement benefit liability adjustments	(8,164)	5,613	9,704
	13,872	(9,899)	(15,557)
Total comprehensive earnings	$ 213,026	$ 166,591	$ 133,527

See accompanying Notes to Consolidated Financial Statements

WOODWARD, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except per share amounts)

	September 30, 2017	September 30, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 87,552	$ 81,090
Accounts receivable, less allowance for uncollectible amounts of $3,776 and $2,540, respectively	402,182	343,768
Inventories	473,505	461,683
Income taxes receivable	19,376	20,358
Other current assets	38,574	37,525
Total current assets	1,021,189	944,424
Property, plant and equipment, net	922,043	876,350
Goodwill	556,545	555,684
Intangible assets, net	171,882	197,650
Deferred income tax assets	19,950	20,194
Other assets	65,500	48,060
Total assets	$ 2,757,109	$ 2,642,362
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings and current portion of long-term debt	$ 32,600	$ 150,000
Accounts payable	232,788	169,439
Income taxes payable	6,774	4,547
Accrued liabilities	155,072	156,627
Total current liabilities	427,234	480,613
Long-term debt, less current portion	580,286	577,153
Deferred income tax liabilities	33,408	3,777
Other liabilities	344,798	368,224
Total liabilities	1,385,726	1,429,767
Commitments and contingencies (Note 19)		
Stockholders' equity:		
Preferred stock, par value $0.003 per share, 10,000 shares authorized, no shares issued	-	-
Common stock, par value $0.001455 per share, 150,000 shares authorized, 72,960 shares issued	106	106
Additional paid-in capital	163,836	141,570
Accumulated other comprehensive losses	(53,186)	(65,705)
Deferred compensation	7,135	5,089

Retained earnings	1,820,268	1,649,506
	1,938,159	1,730,566
Treasury stock at cost, 11,739 shares and 11,374 shares, respectively	(559,641)	(512,882)
Treasury stock held for deferred compensation, at cost, 186 shares and 157 shares, respectively	(7,135)	(5,089)
Total stockholders' equity	1,371,383	1,212,595
Total liabilities and stockholders' equity	$ 2,757,109	$ 2,642,362

See accompanying Notes to Consolidated Financial Statements.

WOODWARD, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended September 30,		
	2017	2016	2015
Cash flows from operating activities:			
Net earnings	$ 200,507	$ 180,838	$ 181,452
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	80,917	69,036	75,235
Loss due to settlements or curtailments of postretirement plan (Note 17)	-	47	-
Net gain on sales of assets	(3,604)	(4,431)	(626)
Stock-based compensation	17,282	15,122	14,255
Deferred income taxes	22,772	(52,744)	15,504
(Gain) loss on derivatives reclassified from accumulated comprehensive earnings into earnings	(72)	21	99
Proceeds from formation of joint venture (Note 4)	-	250,000	-
Changes in operating assets and liabilities:			
Accounts receivable	(53,151)	(9,190)	14,845
Inventories	(10,857)	(17,658)	(8,824)
Accounts payable and accrued liabilities	64,659	17,461	3,029
Current income taxes	3,323	(834)	(7,487)
Retirement benefit obligations	(2,932)	(3,416)	(4,537)
Other	(11,307)	(8,873)	13,045
Net cash provided by operating activities	307,537	435,379	295,990
Cash flows from investing activities:			
Payments for purchase of property, plant, and equipment	(92,336)	(175,692)	(286,612)
Proceeds from sale of assets	3,743	6,664	2,529
Proceeds from sales of short-term investments	5,313	-	-
Purchases of short-term investments	(8,586)	(4,918)	-
Net cash used in investing activities	(91,866)	(173,946)	(284,083)
Cash flows from financing activities:			
Cash dividends paid	(29,745)	(26,606)	(24,646)
Proceeds from sales of treasury stock	14,195	15,892	8,400

Payments for repurchases of common stock	(71,751)	(125,541)	(158,762)
Borrowings on revolving lines of credit and short-term borrowings	1,506,000	695,000	999,971
Payments on revolving lines of credit and short-term borrowings	(1,630,100)	(890,896)	(856,610)
Proceeds from issuance of long-term debt	-	179,308	-
Payments of long-term debt and capital lease obligations	(412)	(107,287)	-
Payments of debt financing costs	-	(863)	(2,359)
Net cash used in financing activities	(211,813)	(260,993)	(34,006)
Effect of exchange rate changes on cash and cash equivalents	2,604	(1,552)	(10,986)
Net change in cash and cash equivalents	6,462	(1,112)	(33,085)
Cash and cash equivalents at beginning of year	81,090	82,202	115,287
Cash and cash equivalents at end of year	$ 87,552	$ 81,090	$ 82,202

See accompanying Notes to Consolidated Financial Statements

WOODWARD, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands)

	Number of shares				Stockholders' equity					
							Accumulated other comprehensive (earnings			
	Preferred stock	Common stock	Treasury stock	Treasury stock held for deferred compensation	Common stock	Additional paid-in capital	Foreign currency translation adjustments	Unrealized derivative gains (losses)	Minimum retirement benefit liability adjustments	To ac oth co (lo ear
Balances as of October 1, 2014	-	72,960	(7,397)	(198)	$ 106	$ 112,491	$ 10,819	$ 105	$ (14,457)	$ (
Net earnings	-	-	-	-	-	-	-	-	-	
Other comprehensive income (loss), net of tax	-	-	-	-	-	-	(32,429)	61	(15,557)	(
Cash dividends ($0.380 per share)	-	-	-	-	-	-	-	-	-	
Purchases of treasury stock	-	-	(3,193)	-	-	-	-	-	-	
Sales of treasury stock	-	-	568	-	-	(6,817)	-	-	-	
Common shares issued from treasury stock for benefit plans	-	-	259	-	-	4,490	-	-	-	
Tax benefit attributable to stock-based compensation	-	-	-	-	-	6,812	-	-	-	
Stock-based compensation	-	-	-	-	-	14,255	-	-	-	
Purchase of stock by deferred compensation plan	-	-	-	(18)	-	-	-	-	-	

Distribution of stock from deferred compensation plan	-	-	-	43	-	-	-	-	-	
Balances as of September 30, 2015	-	72,960	(9,763)	(173)	$ 106	$ 131,231	$ (21,610)	$ 166	$ (30,014)	$ (
Net earnings	-	-	-	-	-	-	-	-	-	
Other comprehensive income (loss), net of tax	-	-	-	-	-	-	(4,361)	13	(9,899)	(
Cash dividends paid ($0.430 per share)	-	-	-	-	-	-	-	-	-	
Purchases of treasury stock	-	-	(2,660)	-	-	-	-	-	-	
Sales of treasury stock	-	-	732	-	-	(10,137)	-	-	-	
Common shares issued from treasury stock for benefit plans	-	-	317	-	-	5,319	-	-	-	
Tax benefit attributable to stock-based compensation	-	-	-	-	-	35	-	-	-	
Stock-based compensation	-	-	-	-	-	15,122	-	-	-	
Purchases of stock by deferred compensation plan	-	-	-	(25)	-	-	-	-	-	
Distribution of stock from deferred compensation plan	-	-	-	41	-	-	-	-	-	
Balances as of September 30, 2016	-	72,960	(11,374)	(157)	$ 106	$ 141,570	$ (25,971)	$ 179	$ (39,913)	$ (
Net earnings	-	-	-	-	-	-	-	-	-	
Other comprehensive income (loss), net of tax	-	-	-	-	-	-	(1,309)	(44)	13,872	1
Cash dividends paid ($0.485	-	-	-	-	-	-	-	-	-	

per share)										
Purchases of treasury stock	-	-	(1,056)	-	-	-	-	-	-	
Sales of treasury stock	-	-	466	-	-	(2,257)	-	-	-	
Common shares issued from treasury stock for benefit plans	-	-	199	-	-	6,501	-	-	-	
Common shares issued from treasury stock to settle employee liabilities	-	-	26	(26)	-	740	-	-	-	
Stock-based compensation	-	-	-	-	-	17,282	-	-	-	
Purchases and transfers of stock by/to deferred compensation plan	-	-	-	(3)	-	-	-	-	-	
Distribution of stock from deferred compensation plan	-	-	-	-	-	-	-	-	-	
Balances as of September 30, 2017	-	72,960	(11,739)	(186)	$ 106	$ 163,836	$ (27,280)	$ 135	$ (26,041)	$ (

See accompanying Notes to Condensed Consolidated Financial Statements

WOODWARD, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(In thousands, except per share amounts)

Note 1. Operations and summary of significant accounting policies

Basis of presentation

The Consolidated Financial Statements are prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and include the accounts of Woodward, Inc. and its subsidiaries (collectively "Woodward" or "the Company"). Dollar amounts contained in these Consolidated Financial Statements are in thousands, except per share amounts.

Nature of operations

Woodward enhances the global quality of life, creating innovative energy control solutions that optimize the performance, efficiency and emissions of its customers' products. Woodward is an independent designer, manufacturer, and service provider of energy control and optimization solutions. Woodward designs, produces and services reliable, efficient, low-emission, and high-performance energy control products for diverse applications in challenging environments. Woodward has significant production and assembly facilities in the United States, Europe and Asia, and promotes its products and services through its worldwide locations.

Woodward's strategic focus is providing energy control and optimization solutions for the aerospace and industrial markets. The precise and efficient control of energy, including motion, fluid, combustion and electrical energy, is a growing requirement in the markets it serves. Woodward's customers look to it to optimize the efficiency, emissions and operation of power equipment in both commercial and defense operations. Woodward's core technologies leverage well across its markets and customer applications, enabling it to develop and integrate cost-effective and state-of-the-art fuel, combustion, fluid, actuation and electronic systems. Woodward focuses its solutions and services primarily on serving original equipment manufacturers ("OEMs") and equipment packagers, partnering with them to bring superior component and system solutions to their demanding applications. Woodward also provides aftermarket repair, maintenance, replacement and other service support for its installed products.

Woodward's components and integrated systems optimize performance of commercial aircraft, defense aircraft, military ground vehicles and other equipment, gas and steam turbines, wind turbines, including converters and power grid related equipment, industrial diesel, gas, bio-diesel and dual fuel reciprocating engines, and electrical power systems. Woodward's innovative motion, fluid, combustion and electrical energy control systems help its customers offer more cost-effective, cleaner, and more reliable equipment.

Summary of significant accounting policies

Principles of consolidation: These Consolidated Financial Statements are prepared in accordance with U.S. GAAP and include the accounts of Woodward and its wholly and majority-owned subsidiaries. Transactions within and between these companies are eliminated.

Use of estimates: The preparation of the Consolidated Financial Statements requires management to make use of estimates and assumptions that affect the reported amount of assets and liabilities, at the date of the financial statements and the reported revenues and expenses recognized during the reporting period, and certain financial

statement disclosures. Significant estimates include allowances for uncollectible amounts, net realizable value of inventories, customer rebates earned, useful lives of property and identifiable intangible assets, the evaluation of impairments of property, identifiable intangible assets and goodwill, the provision for income tax and related valuation reserves, the valuation of assets and liabilities acquired in business combinations, assumptions used in the determination of the funded status and annual expense of pension and postretirement employee benefit plans, the valuation of stock compensation instruments granted to employees, and contingencies. Actual results could differ from those estimates.

Foreign currency exchange rates: The assets and liabilities of substantially all subsidiaries outside the United States are translated at fiscal year-end rates of exchange, and earnings and cash flow statements are translated at weighted-average rates of exchange. Translation adjustments are accumulated with other comprehensive (losses) earnings as a separate component of stockholders' equity and are presented net of tax effects in the Consolidated Statements of Stockholders' Equity. The effects of changes in foreign currency exchange rates on loans between consolidated subsidiaries that are considered permanent in nature are also accumulated with other comprehensive earnings, net of tax.

The Company is exposed to market risks related to fluctuations in foreign currency exchange rates because some sales transactions, and certain of the assets and liabilities of its domestic and foreign subsidiaries, are denominated in foreign

currencies. Selling, general, and administrative expenses include a net foreign currency loss of $651 in fiscal year 2017, net foreign currency gain of $701 in fiscal year 2016, and a net foreign currency loss of $1,721 in fiscal year 2015.

Revenue recognition: Woodward recognizes revenue upon shipment or delivery of products or services and when collectability is reasonably assured. Delivery is upon completion of manufacturing, customer acceptance, and the transfer of the risks and rewards of ownership. In countries whose laws provide for retention of some form of title by sellers, enabling recovery of goods in the event of customer default on payment, product delivery is considered to have occurred when the customer has assumed the risks and rewards of ownership of the products.

Occasionally, Woodward transfers title of product to customers, but retains substantive performance obligations such as completion of product testing, customer acceptance or in some instances regulatory acceptance. In addition, occasionally customers pay Woodward for products or services prior to Woodward satisfying its performance obligation. Under these circumstances, revenue is deferred until the performance obligations are satisfied. In addition, service revenue is also recognized upon completion of applicable performance obligations.

Certain Woodward products include incidental software or firmware essential to the performance of the product as designed, which are treated as units of accounting associated with the related tangible product with which the software is included. Woodward does not generally sell software on a standalone basis, although software upgrades, if any, are generally paid for by the customer.

Revenue for certain non-recurring engineering projects is recognized when contractually specified milestones are achieved.

Product freight costs are included in cost of goods sold. Freight costs charged to customers are included in net sales.

Taxes collected from customers and remitted to government authorities are excluded from revenue and are recorded as liabilities until the taxes are remitted to the appropriate U.S. or foreign government authority.

Net sales generated through shipment of tangible products to customers represents more than 90% of total net sales for fiscal years 2017, 2016 and 2015.

Customer payments: Woodward occasionally agrees to make payments to certain customers in order to participate in anticipated sales activity. Payments made to customers are accounted for as a reduction of revenue unless they are made in exchange for identifiable goods or services with fair values that can be reasonably estimated. Reductions in revenue associated with these customer payments are recognized immediately to the extent that the payments cannot be attributed to anticipated future sales, and are recognized in future periods to the extent that the payments relate to anticipated future sales. Such determinations are based on the facts and circumstances underlying each payment.

Stock-based compensation: Compensation cost relating to stock-based payment awards made to employees and directors is recognized in the financial statements using a fair value method. Non-qualified stock option awards and restricted stock awards are issued under Woodward's stock-based compensation plans. The cost of such awards, measured at the grant date, is based on the estimated fair value of the award.

Forfeitures are estimated at the time of each grant in order to estimate the portion of the award that will ultimately vest. The estimate is based on Woodward's historical rates of forfeitures and is updated periodically. The portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods, which is generally the vesting period of the awards.

Research and development costs: Company funded expenditures related to new product development, and significant product enhancement and/or upgrade activities are expensed as incurred and are separately reported in the

Consolidated Statements of Earnings.

Income taxes: Deferred income taxes are provided for the temporary differences between the financial reporting basis and the tax basis of Woodward's assets, liabilities, and certain unrecognized gains and losses recorded in accumulated other comprehensive (losses) earnings. Woodward provides for taxes that may be payable if undistributed earnings of overseas subsidiaries were to be remitted to the United States, except for those earnings that it considers to be indefinitely invested.

Cash equivalents: Highly liquid investments purchased with an original maturity of three months or less are considered to be cash equivalents.

Cash and cash equivalents are maintained with multiple financial institutions. Generally, these deposits may be redeemed upon demand and are maintained with financial institutions with reputable credit and therefore bear minimal credit risk. Woodward holds cash and cash equivalents at financial institutions in excess of amounts covered by the Federal Depository Insurance Corporation (the "FDIC"), sometimes invests excess cash in money market funds or other highly liquid investments not insured by the FDIC, and holds cash and cash equivalents outside the United States that are not insured by the FDIC.

Accounts receivable: Almost all of Woodward's sales are made on credit and result in accounts receivable, which are recorded at the amount invoiced and are generally not collateralized. In the normal course of business, not all accounts receivable are collected and, therefore, an allowance for uncollectible amounts is provided equal to the amount that Woodward believes ultimately will not be collected. In establishing the amount of the allowance related to the credit risk of accounts receivable, customer-specific information is considered related to delinquent accounts, past loss experience, bankruptcy filings, deterioration in the customer's operating results or financial position, and current economic conditions. Accounts receivable losses are deducted from the allowance, and the related accounts receivable balances are written off when the receivables are deemed uncollectible. Recoveries of accounts receivable previously written off are recognized when received. In addition, an allowance associated with anticipated future sales returns is also established and is included in the allowance for uncollectible amounts.

Consistent with common business practice in China, Woodward's Chinese subsidiary accepts from Chinese customers, in settlement of certain customer accounts receivable, bankers' acceptance notes issued by Chinese banks that are believed to be creditworthy. Bankers' acceptance notes are financial instruments issued by Chinese financial institutions as part of financing arrangements between the financial institution and a customer of the financial institution. Bankers' acceptance notes represent a commitment by the issuing financial institution to pay a certain amount of money at a specified future maturity date to the legal owner of the bankers' acceptance note as of the maturity date. The maturity date of bankers' acceptance notes varies, but it is Woodward's policy to only accept bankers' acceptance notes with maturity dates no more than 180 days from the date of Woodward's receipt of such draft. The issuing financial institution is the obligor, not Woodward's customers. Upon Woodward's acceptance of a banker's acceptance note from a customer, such customer has no further obligation to pay Woodward for the related accounts receivable balance. Woodward only accepts bankers' acceptance notes issued by banks that are believed to be creditworthy and to which the credit risks associated with the bankers' acceptance notes are believed to be minimal.

The composition of Woodward's accounts receivable at September 30, 2017 and September 30, 2016 follows:

	September 30, 2017	September 30, 2016
Accounts receivable from:		
Customers	$ 367,715	$ 341,215
Other (Chinese financial institutions)	38,243	5,093
Allowance for uncollectible customer amounts	(3,776)	(2,540)
	$ 402,182	$ 343,768

Inventories: Inventories are valued at the lower of cost or net realizable value, with cost being determined using methods that approximate a first-in, first-out basis.

Short-term investments: From time to time, certain of Woodward's foreign subsidiaries will invest excess cash in short-term time deposits with a fixed maturity date of longer than three months but less than one year from the date the deposit. Woodward believes that the investments are with creditworthy financial institutions. Amounts with maturities of less than 365 days are classified as "Other current assets."

Property, plant, and equipment: Property, plant, and equipment are recorded at cost and are depreciated over the estimated useful lives of the assets. Assets are generally depreciated using the straight-line method. Assets are tested for recoverability whenever events or circumstances indicate the carrying value may not be recoverable.

Estimated lives over which fixed assets are generally depreciated at September 30, 2017 were as follows:

Land improvements	3 - 20	years
Buildings and improvements	3 - 40	years
Leasehold improvements	1 - 10	years
Machinery and production equipment	3 - 20	years
Computer equipment and software	3 - 10	years
Office furniture and equipment	3 - 13	years
Other	3 - 13	years

Included in computer equipment and software are Woodward's enterprise resource planning ("ERP") systems, which have an estimated useful life of 10 years. All other computer equipment and software is generally depreciated over three to five years.

Goodwill: Woodward tests goodwill for impairment at the reporting unit level on an annual basis and more often if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Based on the relevant U.S. GAAP authoritative guidance, Woodward aggregates components of a single operating segment into a reporting unit, if appropriate. The impairment tests consist of comparing the implied fair value of each reporting unit with its carrying amount that includes goodwill. If the carrying amount of the reporting unit exceeds its implied fair value, Woodward compares the implied fair value of goodwill with the recorded carrying amount of goodwill. If the carrying amount of goodwill exceeds the implied fair value of goodwill, an impairment loss would be recognized to reduce the carrying amount to its implied fair value. Based on the results of Woodward's goodwill impairment testing it has recorded no impairment charges.

Other intangibles: Other intangibles are recognized apart from goodwill whenever an acquired intangible asset arises from contractual or other legal rights, or whenever it is capable of being separated or divided from the acquired entity and sold, transferred, licensed, rented, or exchanged, either individually or in combination with a related contract, asset, or liability. All of Woodward's intangibles have an estimated useful life and are being amortized using patterns that reflect the periods over which the economic benefits of the assets are expected to be realized. Amortization expense is allocated to cost of goods sold and selling, general, and administrative expenses based on the nature of the intangible asset. Impairment losses are recognized if the carrying amount of an intangible is both not recoverable and exceeds its fair value. Woodward has recorded no impairment charges on its other intangibles.

Estimated lives over which intangible assets are amortized at September 30, 2017 were as follows:

Customer relationships	9 - 30	years
Intellectual property	10 - 17	years
Process technology	8 - 30	years
Other	15	years

Impairment of long-lived assets: Woodward reviews the carrying amount of its long-lived assets or asset groups to be used in operations whenever events or changes in circumstances indicate that the carrying amount of the assets might not be recoverable. Factors that would necessitate an impairment assessment include a significant adverse change in the extent or manner in which an asset is used, a significant adverse change in legal factors or the business climate that could affect the value of the asset, or a significant decline in the observable market value of an asset, among others.

If such facts indicate a potential impairment, the Company would assess the recoverability of an asset group by determining if the carrying amount of the asset group exceeds the sum of the projected undiscounted cash flows expected to result from the use and eventual disposition of the assets over the remaining economic life of the primary asset in the asset group. If the recoverability test indicates that the carrying amount of the asset group is not recoverable, the Company will estimate the fair value of the asset group using appropriate valuation methodologies, which would typically include an estimate of discounted cash flows. Any impairment would be measured as the difference between the asset groups carrying amount and its estimated fair value. There were no impairment charges recorded in fiscal years 2017, 2016 or 2015.

Investment in marketable equity securities: Woodward holds marketable equity securities related to its deferred compensation program. Based on Woodward's intentions regarding these instruments, marketable equity securities are classified as trading securities. The trading securities are reported at fair value, with realized gains and losses recognized in "Other (income) expense, net." The trading securities are included in "Other assets." The associated obligation to provide benefits is included in "Other liabilities."

Investments in unconsolidated subsidiaries: Investments in, and operating results of, entities in which Woodward does not have a controlling financial interest or the ability to exercise significant influence over the operations are included in the financial statements using the cost method of accounting. Investments and operating results of entities in which Woodward does not have a controlling interest but does have the ability to exercise significant influence over operations are included in the financial statements using the equity method of accounting.

Deferred compensation: The Company maintains a deferred compensation plan, or “rabbi trust,” as part of its overall compensation package for certain employees.

Deferred compensation obligations will be settled either by delivery of a fixed number of shares of Woodward’s common stock (in accordance with certain eligible members’ irrevocable elections) or in cash. Woodward has contributed shares of its common stock into a trust established for the future settlement of deferred compensation obligations that are payable in shares of Woodward’s common stock. Common stock held by the trust is reflected in the Consolidated Balance

Sheet as “Treasury stock held for deferred compensation” and the related deferred compensation obligation is reflected as a separate component of equity in amounts equal to the fair value of the common stock at the dates of contribution. These accounts are not adjusted for subsequent changes in the fair value of the common stock. Deferred compensation obligations that will be settled in cash are accounted for on an accrual basis in accordance with the terms of the underlying contract and are reflected in the Consolidated Balance Sheet as “Other liabilities.”

Derivatives: The Company is exposed to various market risks that arise from transactions entered into in the normal course of business. The Company has historically utilized derivative instruments, such as treasury lock agreements to lock in fixed rates on future debt issuances, which qualify as cash flow or fair value hedges to mitigate the risk of variability in cash flows related to future interest payments attributable to changes in the designated benchmark rate. The Company records all such interest rate hedge instruments on the balance sheet at fair value. Cash flows related to the instrument designated as a qualifying hedge are reflected in the accompanying Consolidated Statements of Cash Flows in the same categories as the cash flows from the items being hedged. Accordingly, cash flows relating to the settlement of interest rate derivatives hedging the forecasted future interest payments on debt have been reflected upon settlement as a component of financing cash flows. The resulting gain or loss from such settlement is deferred to other comprehensive income and reclassified to interest expense over the term of the underlying debt. This reclassification of the deferred gains and losses impacts the interest expense recognized on the underlying debt that was hedged and is therefore reflected as a component of operating cash flows in periods subsequent to settlement. The periodic settlement of interest rate derivatives hedging outstanding variable rate debt is recorded as an adjustment to interest expense and is therefore reflected as a component of operating cash flows.

From time to time, in order to hedge against foreign currency exposure, Woodward designates certain non-derivative financial instrument loans as net investment hedges. Foreign exchange gains or losses on the loans are recognized in foreign currency translation adjustments within total comprehensive (losses) earnings. Further information on net investment hedges can be found at Note 6, Derivative instruments and hedging activities.

Financial instruments: The Company’s financial instruments include cash and cash equivalents, short-term investments, investments in the deferred compensation program, notes receivable from municipalities, investments in term deposits and debt. Because of their short-term maturity, the carrying amount of cash and cash equivalents and short-term debt approximate fair value. The fair value of investments in the deferred compensation program are adjusted to fair value based on the quoted market prices for the investments in the various mutual funds owned. The fair value of the long-term notes from municipalities are estimated based on a model that discounts future principal and interest payments received at interest rates available to the Company at the end of the period for similarly rated municipality notes of similar maturity. The fair value of term deposits are estimated based on a model that discounts future principal and interest payments received at interest rates available to the Company at the end of the period for similar term deposits with the same maturity in the same jurisdictions. The fair value of long-term debt is estimated based on a model that discounts future principal and interest payments at interest rates available to the Company at the end of the period for similar debt with the same maturity. Further information on the fair value of financial instruments can be found at Note 5, Financial instruments and fair value measurements.

Financial assets and liabilities recorded at fair value in the Consolidated Balance Sheets are categorized based upon a fair value hierarchy established by U.S. GAAP, which prioritizes the inputs used to measure fair value into the following levels:

Level 1: Inputs based on quoted market prices in active markets for identical assets or liabilities at the measurement date.

Level 2: Quoted prices included in Level 1, such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable and can be corroborated by observable market data.

Level 3: Inputs reflect management's best estimates and assumptions of what market participants would use in pricing the asset or liability at the measurement date. The inputs are unobservable in the market and significant to the valuation of the instruments.

Postretirement benefits: The Company provides various benefits to certain current and former employees through defined benefit pension and postretirement plans. For financial reporting purposes, net periodic benefits expense and related obligations are calculated using a number of significant actuarial assumptions. Changes in net periodic expense and funding status may occur in the future due to changes in these assumptions. The funded status of defined pension and postretirement plans recognized in the statement of financial position is measured as the difference between the fair market value of the plan assets and the benefit obligation. For a defined benefit pension plan, the benefit obligation is the projected benefit obligation; for any other defined benefit postretirement plan, such as a retiree health care plan, the benefit obligation is the accumulated benefit obligation. Any over-funded status is recognized as an asset and any underfunded status is recognized as a liability.

Projected benefit obligation is the actuarial present value as of the measurement date of all benefits attributed by the plan benefit formula to employee service rendered before the measurement date using assumptions as to future compensation levels if the plan benefit formula is based on those future compensation levels. The accumulated benefit obligation is the actuarial present value of benefits (whether vested or unvested) attributed by the plan benefit formula to employee service rendered before the measurement date and based on employee service and compensation, if applicable, prior to that date. The accumulated benefit obligation differs from the projected benefit obligation in that it includes no assumption about future compensation levels.

Reclassification

In the Statements of Earnings for all periods presented amortization of intangible assets has been reclassified from a separate line to an allocated expense/cost component of cost of goods sold and selling, general and administrative expenses based on the nature of the intangible asset that is being amortized. Prior year amounts have been recast to reflect this reclassification. The following tables reflect the amounts reclassified.

	Year Ended September 30,		
	2017	2016	2015
Allocation to Cost of goods sold	$ 7,800	$ 8,420	$ 9,115
Allocation to Selling, general and administrative expenses	17,977	19,066	20,126
Total amortization of intangible assets	$ 25,777	$ 27,486	$ 29,241

	2017 Fiscal Quarters			
	First	Second	Third	Fourth
Allocation to Cost of goods sold	$ 1,954	$ 1,943	$ 1,948	$ 1,955
Allocation to Selling, general and administrative expenses	4,504	4,488	4,491	4,494
Total amortization of intangible assets	$ 6,458	$ 6,431	$ 6,439	$ 6,449

	2016 Fiscal Quarters			
	First	Second	Third	Fourth
Allocation to Cost of goods sold	$ 2,180	$ 2,162	$ 2,117	$ 1,961
Allocation to Selling, general and administrative expenses	4,766	4,764	4,770	4,766
Total amortization of intangible assets	$ 6,946	$ 6,926	$ 6,887	$ 6,727

Note 2. New accounting standards

From time to time, the Financial Accounting Standards Board ("FASB") or other standards setting bodies issue new accounting pronouncements. Updates to the FASB Accounting Standards Codification ("ASC") are communicated through issuance of an Accounting Standards Update ("ASU").

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities." ASU 2017-12 is intended to more closely align the financial statement reporting of hedging relationships with the economic results of an entity's risk management activities and to make certain targeted improvements to simplify the application of hedge accounting guidance in current GAAP. ASU 2017-12 is also intended to increase standardization of financial statement disclosures including requiring a tabular disclosure of the income statement effects of fair value and cash flow hedges. ASU 2017-12 is effective for fiscal years beginning after December 15, 2018 (fiscal year 2020 for Woodward) and early adoption is permitted in any interim period. Upon adoption, an entity should apply a cumulative-effect adjustment to accumulated other comprehensive earnings with a corresponding adjustment to retained earnings to eliminate the separate measurement of ineffectiveness for cash flow and net investment hedges, if any. Also upon adoption, the amended presentation and disclosure guidance should be applied prospectively. Woodward has not determined in which period it will adopt the new guidance. Woodward does not believe the application of the new guidance will have any impact on its current hedging arrangements.

In May 2017, the FASB issued ASU 2017-09, "Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting." ASU 2017-09 was issued to provide clarity and reduce both 1) diversity in practice and 2) cost

and complexity when applying the guidance in Topic 718 to a change in the terms or conditions of a share-based payment award. ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting under Topic 718. The amendments in ASU 2017-09 are effective for fiscal years, and interim periods within those years, beginning after December 15, 2017 (fiscal year 2019 for Woodward). Early adoption is permitted, including adoption in any interim period. The amendments in ASU 2017-09 should be applied prospectively to an award modified on or after the adoption date. Woodward adopted the new guidance in its third quarter of fiscal year 2017 and will apply the guidance to any future changes to the terms or conditions of its share-based payment awards.

In March 2017, the FASB issued ASU 2017-07, "Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." ASU 2017-07 requires that the service cost component of net periodic benefit costs from defined benefit and other postretirement benefit plans be included in the same Statement of Earnings captions as other compensation costs arising from services rendered by the covered employees during the period. The other components of net benefit cost will be presented in the Statement of Earnings separately from service costs. ASU 2017-07 is effective for fiscal years beginning after December 31, 2017 (fiscal year 2019 for Woodward). Following adoption, only service costs will be eligible for capitalization into manufactured inventories, which should reduce diversity in practice. The amendments of ASU 2017-07 should be applied retrospectively for the presentation of the service cost component and the other components of net periodic benefit costs from defined benefit and other postretirement benefit plans in the earnings statement and prospectively, on and after the effective date, for the capitalization of the service cost component into manufactured inventories. Early adoption is permitted as of the beginning of Woodward's fiscal year 2018. Woodward has not determined whether it will adopt the new guidance in fiscal year 2018 or fiscal year 2019, and expects changes to earnings before income taxes to be insignificant in the year of adoption.

In January 2017, the FASB issued ASU 2017-04, "Intangibles – Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment," to simplify financial reporting by eliminating the need to determine the fair value of individual assets and liabilities of a reporting unit to measure goodwill impairment. Under ASU 2017-04, an entity should perform its goodwill impairment test by comparing the fair value of the reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, up to the amount of goodwill allocated to that reporting unit. The new guidance effectively eliminates "Step 2" from the previous goodwill impairment test. ASU 2017-04 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2019 (fiscal year 2021 for Woodward). Early adoption is permitted for goodwill impairment tests performed on testing dates after January 1, 2017. Woodward adopted the new guidance in its fourth quarter of fiscal year 2017 when it performed its annual goodwill impairment test as of July 31, 2017. The adoption of ASU 2017-04 did not have a significant impact on the results of its goodwill impairment testing.

In October 2016, the FASB issued ASU 2016-16, "Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory." ASU 2016-16 eliminates the current U.S. GAAP exception deferring the tax effects of intercompany asset transfers (other than inventory) until the transferred asset is sold to a third party or otherwise recovered through use. After adoption of ASU 2016-16, Woodward will recognize the tax consequences of intercompany asset transfers in the buyer's and seller's tax jurisdictions when the transfer occurs, even though the pre-tax effects of these transactions are eliminated in consolidation. ASU 2016-16 is effective for fiscal years beginning after December 15, 2017 (fiscal year 2019 for Woodward), including interim periods within the year of adoption. Early adoption is allowed only in the first quarter of fiscal year 2017 or the first quarter of fiscal year 2018. Modified retrospective adoption is required with any cumulative-effect adjustment recorded to retained earnings as of the beginning of the period of adoption. Woodward has not determined in which period it will adopt the new guidance. Woodward currently anticipates the adoption of ASU 2016-16 will result in balance sheet reclassifications, but based on Woodward's current transactional activity, such adjustments are not expected to be significant.

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments." ASU 2016-13 adds a current expected credit loss ("CECL") impairment model to U.S. GAAP that is based on expected losses rather

than incurred losses. Modified retrospective adoption is required with any cumulative-effect adjustment recorded to retained earnings as of the beginning of the period of adoption. ASU 2016-13 is effective for fiscal years beginning after December 15, 2019 (fiscal year 2021 for Woodward), including interim periods within the year of adoption. Early adoption is permitted for fiscal years beginning after December 15, 2018 (fiscal year 2020 for Woodward), including interim periods within those fiscal years. Woodward has not determined in which period it will adopt the new guidance but does not expect the application of the CECL impairment model to have a significant impact on Woodward's allowance for uncollectible amounts for accounts receivable and notes receivable from municipalities.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)." The purpose of ASU 2016-02 is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. In addition, ASU 2016-02 modifies the definition of a lease to clarify

that an arrangement contains a lease when such arrangement conveys the right to control the use of an identified asset. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018 (fiscal year 2020 for Woodward), including interim periods within the year of adoption. In transition, Woodward will be required to recognize and measure leases beginning in the earliest period presented using a modified retrospective approach; therefore, Woodward anticipates restating its Consolidated Financial Statements for the two fiscal years prior to the year of adoption. Early adoption is permitted. Woodward has not determined in which period it will adopt the new guidance. Woodward is currently assessing the impact this guidance may have on its Consolidated Financial Statements, including which of its existing lease arrangements will be impacted by the new guidance and whether other arrangements not currently classified as leases may become subject to the guidance of ASU 2016-02. Rent expense for all operating leases in fiscal year 2017, none of which was recognized on the balance sheet, was $8,302. As of September 30, 2017, future minimum rental payments required under operating leases, none of which were recognized on the balance sheet, were $23,215.

In May 2014, the FASB issued ASU 2014-09, “Revenue from Contracts with Customers” and has subsequently issued several supplemental and/or clarifying ASUs (collectively “ASC 606”). ASC 606 prescribes a single common revenue standard that replaces most existing U.S. GAAP revenue recognition guidance. ASC 606 outlines a five-step model, under which Woodward will recognize revenue as performance obligations within a customer contract are satisfied. ASC 606 is intended to provide more consistent interpretation and application of the principles outlined in the standard across filers in multiple industries and within the same industries compared to current practices, which should improve comparability. Adoption of ASC 606 is required for annual reporting periods beginning after December 15, 2017 (fiscal year 2019 for Woodward), including interim periods within the reporting period. While Woodward could elect to adopt ASC 606 early, it will not be adopting the new standard in fiscal year 2018. Upon adoption, Woodward must elect to adopt either retrospectively to each prior reporting period presented or using the cumulative effect transition method with the cumulative effect of initial adoption recognized at the date of initial application. Woodward has not determined what transition method it will use.

Woodward is currently assessing the impact that the future adoption of ASC 606 may have on its Consolidated Financial Statements by analyzing its current portfolio of customer contracts, including a review of historical accounting policies and practices to identify potential differences in applying the guidance of ASC 606. Woodward is also performing a comprehensive review of its current processes and systems to determine and implement changes required to support the adoption of ASC 606 on October 1, 2018, the first day of Woodward’s fiscal year 2019. As part of this review process, Woodward is implementing new software solutions to support revenue reporting after adoption.

Based on Woodward’s review of its customer contracts, Woodward has determined that revenue on the majority of its customer contracts will continue to be recognized at a point in time, generally upon shipment of products, consistent with Woodward’s current revenue recognition model. Upon adoption of ASC 606, however, Woodward also believes some of its revenues from sales of products and services to customers will be recognized over time, rather than at a point in time, due primarily to the terms of certain customer contracts. As a result of recognizing some revenue over time, various balance sheet line items will be impacted. As such, Woodward believes the adoption of ASC 606 will have an impact on both the timing of revenue recognition and various line items within the Consolidated Balance Sheet.

Woodward generally expenses costs as incurred for the engineering and development of new products. Customer funding received for such engineering and development efforts is currently recognized as revenue when earned, with the corresponding costs recognized as cost of sales. ASC 606 requires customer funding of product engineering and development to be deferred and recognized as revenue as the related products are delivered to the customer. ASC 606 also requires product engineering and development costs to be capitalized as contract fulfillment costs, to the extent recoverable from the deferred customer funding, and subsequently amortized as the related products are delivered to the customer. Therefore, under ASC 606, Woodward expects to record both contract assets and contract liabilities related to such funded engineering and development efforts, which are expected to become material over

time. Recognized revenues and research and development costs are both expected to decrease in the year of adoption and for at least several years thereafter, due to the recognition of these contract assets and liabilities. However, recognition of these contract assets and liabilities are expected to have an immaterial impact on pre-tax earnings in future periods.

In addition, ASC 606 will require more comprehensive disclosures about revenue streams and contracts with customers, including significant judgments required. Woodward is currently evaluating potential changes to its processes for preparing required disclosures and to information systems that support the financial reporting process.

Woodward is also evaluating implications to the Company's system of internal controls, relative to revenue recognition and the related revenue disclosures, which are based on the criteria outlined in the Committee of Sponsoring Organizations of the Treadway Commission's 2013 Internal Control – Integrated Framework.

Note 3. Earnings per share

Basic earnings per share is computed by dividing net earnings available to common stockholders by the weighted-average number of shares of common stock outstanding for the period.

Diluted earnings per share reflects the weighted-average number of shares outstanding after consideration of the dilutive effect of stock options and restricted stock.

The following is a reconciliation of net earnings to basic earnings per share and diluted earnings per share:

	Year Ended September 30,		
	2017	2016	2015
Numerator:			
Net earnings	$ 200,507	$ 180,838	$ 181,452
Denominator:			
Basic shares outstanding	61,366	61,893	64,684
Dilutive effect of stock options and restricted stock	2,146	1,663	1,372
Diluted shares outstanding	63,512	63,556	66,056
Income per common share:			
Basic earnings per share	$ 3.27	$ 2.92	$ 2.81
Diluted earnings per share	$ 3.16	$ 2.85	$ 2.75

On June 2, 2015, Woodward entered into an accelerated share repurchase agreement (the “ASR Agreement”) with Goldman, Sachs & Co. (“Goldman”) under which Woodward repurchased shares of its common stock for an aggregate purchase price of $125,000. Upon execution of the ASR Agreement, Goldman initially delivered to Woodward 2,048 shares of common stock. Goldman completed the ASR Agreement on September 3, 2015 and delivered 458 additional shares to Woodward. The final number of shares delivered to Woodward was based generally on the average daily volume-weighted average price of Woodward stock during the term of the ASR Agreement of $49.89. The 2,506 shares of common stock delivered by Goldman to Woodward related to the ASR Agreement are reflected in the calculation of basic shares outstanding used in the calculation of earnings per share.

The following stock option grants were outstanding during the fiscal years ended September 30, 2017, 2016 and 2015, but were excluded from the computation of diluted earnings per share because their inclusion would have been anti-dilutive.

	Year Ended September 30,		
	2017	2016	2015
Options	68	-	697
Weighted-average option price	$ 63.23	$ n/a	$ 46.55

The weighted-average shares of common stock outstanding for basic and diluted earnings per share included the weighted-average treasury stock shares held for deferred compensation obligations of the following:

	Year Ended September 30,		
	2017	2016	2015
Weighted-average treasury stock shares held for deferred compensation obligations	180	171	190

Note 4. Joint venture

On January 4, 2016, Woodward and General Electric Company ("GE"), acting through its GE Aviation business unit, consummated the formation of a strategic joint venture between Woodward and GE (the "JV") to design, develop and source fuel systems for specified existing and all future GE commercial aircraft engines that produce thrust in excess of fifty thousand pounds.

As part of the JV formation, Woodward contributed to the JV certain contractual rights and intellectual property applicable to the existing GE commercial aircraft engine programs within the scope of the JV. Woodward had no initial cost basis in the JV because Woodward had no cost basis in the contractual rights and intellectual property contributed to the JV.

GE purchased from Woodward a 50% ownership interest in the JV for a $250,000 cash payment to Woodward. In addition, GE will pay contingent consideration to Woodward consisting of fifteen annual payments of $4,894 per year which began on January 4, 2017 subject to certain claw-back conditions. Woodward received its first annual payment of $4,894 during the fiscal year ended September 30, 2017, which was recorded as deferred income and is included in Net cash provided by operating activities under the caption “Other” on the Condensed Consolidated Statement of Cash Flows. Neither Woodward nor GE contributed any tangible assets to the JV.

Woodward determined that the JV formation was not the culmination of an earnings event because Woodward has significant performance obligations to support the future operations of the JV. Therefore, Woodward recorded the $250,000 consideration received from GE, in January of 2016, for its purchase of a 50% equity interest in the JV as deferred income. The $250,000 deferred income will be recognized as an increase to net sales in proportion to revenue realized on sales of applicable fuel systems within the scope of the JV in a particular period as a percentage of total revenue expected to be realized by Woodward over the estimated remaining lives of the underlying commercial aircraft engine programs assigned to the JV. Unamortized deferred income recorded in connection with the JV formation included accrued liabilities of $6,451 as of September 30, 2017 and $6,552 as of September 30, 2016, and other liabilities of $236,896 as of September 30, 2017 and $238,187 as of September 30, 2016. Amortization of the deferred income recognized as an increase to sales was $6,286 for the twelve months ended September 30, 2017, and $5,261 for the nine-months ended September 30, 2016.

Woodward and GE jointly manage the JV and any significant decisions and/or actions of the JV require the mutual consent of both parties. Neither Woodward nor GE has a controlling financial interest in the JV, but both Woodward and GE do have the ability to significantly influence the operating and financial decisions of the JV. Therefore, Woodward is accounting for its 50% ownership interest in the JV using the equity method of accounting. The JV is a related party to Woodward. Other income includes income of $2,568 for the fiscal year ended September 30, 2017, and income of $6,204 for the nine-months ended September 30, 2016 related to Woodward’s equity interest in the earnings of the JV. During the fiscal year ended September 30, 2017, Woodward received a $2,500 cash distribution from the JV which is included in Net cash provided by operating activities under the caption “Other” on the Consolidated Statement of Cash Flows. Woodward received no cash distributions from the JV in the fiscal year ended September 30, 2016. Woodward’s net investment in the JV, which is included in other assets, was $6,272 as of September 30, 2017 and $6,204 as of September 30, 2016.

Woodward’s net sales include $70,234 for the fiscal year ended September 30, 2017 of sales to the JV, compared to $46,973 for the nine-months ended September 30, 2016. Woodward recorded a reduction to sales of $26,133 for the fiscal year ended September 30, 2017 related to royalties paid to the JV by Woodward on sales by Woodward directly to third party aftermarket customers, compared to $21,391 for the nine-months ended September 30, 2016. The Consolidated Balance Sheets include “Accounts receivable” of $8,554 at September 30, 2017, and $5,326 at September 30, 2016 related to amounts the JV owed Woodward, and include “Accounts payable” of $6,741 at September 30, 2017, and $3,926 at September 30, 2016 related to amounts Woodward owed the JV.

Note 5. Financial instruments and fair value measurements

Financial assets and liabilities recorded at fair value in the Consolidated Balance Sheets are categorized based upon a fair value hierarchy established by U.S. GAAP.

The table below presents information about Woodward’s financial assets that are measured at fair value on a recurring basis and indicates the fair value hierarchy of the valuation techniques Woodward utilized to determine such fair value. Woodward had no financial liabilities required to be measured at fair value on a recurring basis as of September 30, 2017 or September 30, 2016.

	At September 30, 2017				At September 30, 2016			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets:								
Cash	$ 79,822	$ -	$ -	$ 79,822	$ 80,959	$ -	$ -	$ 80,959
Investments in money market funds	-	-	-	-	48	-	-	48
Investments in reverse repurchase agreements	1	-	-	1	83	-	-	83
Investments in term deposits with foreign banks	7,729	-	-	7,729	7,136	-	-	7,136
Equity securities	16,600	-	-	16,600	12,491	-	-	12,491
Total financial assets	$ 104,152	$ -	$ -	$ 104,152	$ 100,717	$ -	$ -	$ 100,717

Investments in money market funds: Woodward sometimes invests excess cash in money market funds not insured by the FDIC. Woodward believes that the investments in money market funds are on deposit with creditworthy financial

institutions and that the funds are highly liquid. The investments in money market funds are reported in "Cash and cash equivalents" at fair value, with realized gains from interest income recognized in earnings. The fair values of Woodward's investments in money market funds are based on the quoted market prices for the net asset value of the various money market funds.

Investments in reverse repurchase agreements: Woodward sometimes invests excess cash in reverse repurchase agreements. Under the terms of Woodward's reverse repurchase agreements, Woodward purchases an interest in a pool of securities and is granted a security interest in those securities by the counterparty to the reverse repurchase agreement. At an agreed upon date, generally the next business day, the counterparty repurchases Woodward's interest in the pool of securities at a price equal to what Woodward paid to the counterparty plus a rate of return determined daily per the terms of the reverse repurchase agreement. Woodward believes that the investments in these reverse repurchase agreements are with creditworthy financial institutions and that the funds invested are highly liquid. The investments in reverse repurchase agreements are reported at fair value, with realized gains from interest income recognized in earnings, and are included in "Cash and cash equivalents." Since the investments are generally overnight, the carrying value is considered to be equal to the fair value as the amount is deemed to be a cash deposit with no risk of change in value as of the end of each fiscal quarter.

Investments in term deposits with foreign banks: Woodward's foreign subsidiaries sometimes invest excess cash in various highly liquid financial instruments that Woodward believes are with creditworthy financial institutions. Such investments are reported in "Cash and cash equivalents" at fair value, with realized gains from interest income recognized in earnings. The carrying value of Woodward's investments in term deposits with foreign banks are considered equal to the fair value given the highly liquid nature of the investments.

Equity securities: Woodward holds marketable equity securities, through investments in various mutual funds, related to its deferred compensation program. Based on Woodward's intentions regarding these instruments, marketable equity securities are classified as trading securities. The trading securities are reported at fair value, with realized gains and losses recognized in "Other (income) expense, net." The trading securities are included in "Other assets." The fair values of Woodward's trading securities are based on the quoted market prices for the net asset value of the various mutual funds.

Accounts receivable, accounts payable, the current portion of long-term debt, and short-term borrowings are not remeasured to fair value, as the carrying cost of each approximates its respective fair value. The estimated fair values and carrying costs of other financial instruments that are not required to be remeasured at fair value in the Condensed Consolidated Balance Sheets were as follows:

		At September 30, 2017		At September 30, 2016	
	Fair Value Hierarchy Level	Estimated Fair Value	Carrying Cost	Estimated Fair Value	Carrying Cost
Assets:					
Notes receivable from municipalities	2	$ 15,848	$ 14,507	$ 17,501	$ 15,849
Investments in short-term time deposits	2	8,227	8,223	4,882	4,918
Liabilities:					
Long-term debt, excluding current portion	2	$ (592,317)	$ (582,080)	$ (617,857)	$ (579,244)

In fiscal years 2014 and 2013, Woodward received long-term notes from municipalities within the states of Illinois and Colorado in connection with certain economic incentives related to Woodward's development of a second campus in the greater-Rockford, Illinois area for its Aerospace segment and Woodward's development of a new campus at its corporate headquarters in Fort Collins, Colorado. The fair value of the long-term notes was estimated based on a model that discounted future principal and interest payments received at an interest rate available to the Company at the end of the period for similarly rated municipal notes of similar maturity, which is a level 2 input as defined by the U.S. GAAP fair value hierarchy. The interest rates used to estimate the fair value of the long-term notes were 2.6% at September 30, 2017 and 2.2% at September 30, 2016.

From time to time, certain of Woodward's foreign subsidiaries will invest excess cash in short-term time deposits with a fixed maturity date of longer than three months but less than one year from the date of the deposit. Woodward believes that the investments are with creditworthy financial institutions. The fair value of the investments in short-term time deposits was estimated based on a model that discounted future principal and interest payments to be received at an interest rate available to the foreign subsidiary entering into the investment for similar short-term time deposits of similar maturity. This was determined to be a level 2 input as defined by the U.S. GAAP fair value hierarchy. The interest rate used to estimate the fair value of the short-term time deposits was 5.3% at September 30, 2017 and 6.9% at September 30, 2016.

The fair value of long-term debt was estimated based on a model that discounted future principal and interest payments at interest rates available to the Company at the end of the period for similar debt of the same maturity, which is a level 2 input as defined by the U.S. GAAP fair value hierarchy. The weighted-average interest rates used to estimate the fair value of long-term debt were 2.4% at September 30, 2017 and 1.9% at September 30, 2016.

Note 6. Derivative instruments and hedging activities

Woodward has exposures related to global market risks, including the effect of changes in interest rates, foreign currency exchange rates, changes in certain commodity prices and fluctuations in various producer indices. From time to time, Woodward enters into derivative instruments for risk management purposes only, including derivatives designated as accounting hedges and/or those utilized as economic hedges. Woodward uses interest rate related derivative instruments to manage its exposure to fluctuations of interest rates. Woodward does not enter into or issue derivatives for trading or speculative purposes.

By using derivative and/or hedging instruments to manage its risk exposure, Woodward is subject, from time to time, to credit risk and market risk on those derivative instruments. Credit risk arises from the potential failure of the counterparty to perform under the terms of the derivative and/or hedging instrument. When the fair value of a derivative contract is positive, the counterparty owes Woodward, which creates credit risk for Woodward. Woodward mitigates this credit risk by entering into transactions with only counterparties that are believed to be creditworthy. Market risk arises from the potential adverse effects on the value of derivative and/or hedging instruments that result from a change in interest rates, commodity prices, or foreign currency exchange rates. Woodward minimizes this market risk by establishing and monitoring parameters that limit the types and degree of market risk that may be undertaken.

Other than the net investment hedges discussed below, Woodward did not enter into any derivatives or hedging transactions during any of the fiscal years ended September 30, 2017, September 30, 2016, and September 30, 2015.

Derivatives in cash flow hedging relationships

In June 2013, in connection with Woodward's expected refinancing of current maturities on its existing long-term debt, Woodward entered into a treasury lock agreement with a notional amount of $25,000 that qualified as a cash flow hedge under ASC Topic 815, "Derivatives and Hedging." The objective of this derivative instrument was to hedge the risk of variability in cash flows attributable to changes in the designated benchmark interest rate over a seven-year period related to the future interest payments on a portion of anticipated future debt issuances. The treasury lock agreement was settled in August 2013 and the resulting gain of $507 is being recognized as a reduction of interest expense over a seven-year period. The unrecognized portion of the gain is recorded in accumulated other comprehensive (losses) earnings, net of tax.

In March 2009, Woodward entered into LIBOR lock agreements that qualified as cash flow hedges under authoritative guidance for derivatives and hedging. The objective of this derivative instrument was to hedge the risk of variability in cash flows over a seven-year period related to future interest payments of a portion of anticipated future debt issuances attributable to changes in the designated benchmark interest rate associated with the then expected issuance of long-term debt to acquire HR Textron Inc. ("HRT"). The discontinuance of the LIBOR lock agreements resulted in a loss that was being recognized as an increase of interest expense over a seven-year period on the hedged Series E and F Notes, which were issued on April 3, 2009, using the effective interest method. The unrecognized portion of the loss was recorded in accumulated other comprehensive (losses) earnings, net of tax. The unrecognized portion of the loss was fully amortized to interest expense during the second quarter of fiscal year 2016, and as of September 30, 2016 there was no unrecognized loss associated with this cash flow hedge in Woodward's Consolidated Balance Sheet.

In September 2008, the Company entered into treasury lock agreements that qualified as cash flow hedges under authoritative guidance for derivatives and hedging. The objective of this derivative instrument was to hedge the risk of variability in cash flows related to future interest payments of a portion of the anticipated future debt issuances attributable to changes in the designated benchmark interest rate associated with the expected issuance of long-term debt to acquire Techni-Core, Inc. ("Techni-Core") and MPC Products Corporation ("MPC Products" and, together with Techni-Core, "MPC"). The discontinuance of these treasury lock agreements resulted in a gain that was being recognized as a reduction of interest expense over a seven-year period on the hedged Series C and D Notes, which were issued on October 1, 2008, using the effective interest method. The unrecognized portion of the gain was recorded in accumulated other comprehensive (losses) earnings, net of tax. The unrecognized portion of the gain was fully amortized to interest expense during the fourth quarter of fiscal year 2015, and as of September 30, 2015 there was no unrecognized gain associated with this cash flow hedge in Woodward's Consolidated Balance Sheet.

The remaining unrecognized gains and losses in Woodward's Condensed Consolidated Balance Sheets associated with derivative instruments that were previously entered into by Woodward, which are classified in accumulated other comprehensive (losses) earnings ("accumulated OCI"), were net gains of $218 as of September 30, 2017 and $290 as of September 30, 2016.

The following table discloses the impact of derivative instruments in cash flow hedging relationships on Woodward's Consolidated Statements of Earnings, recognized in interest expense:

	Year Ended September 30,		
	2017	2016	2015
Amount of (income) expense recognized in earnings on derivative	$ (72)	$ 21	$ 99
Amount of (gain) loss recognized in accumulated OCI on derivative	-	-	-
Amount of (gain) loss reclassified from accumulated OCI into earnings	(72)	21	99

Based on the carrying value of the realized but unrecognized gains on terminated derivative instruments designated as cash flow hedges as of September 30, 2017, Woodward expects to reclassify $72 of net unrecognized gains on terminated derivative instruments from accumulated other comprehensive (losses) earnings to earnings during the next twelve months.

Net investment hedges

On September 23, 2016, Woodward and Woodward International Holding B.V., a wholly owned subsidiary of Woodward organized under the laws of The Netherlands (the "BV Subsidiary"), each entered into a note purchase agreement (the "2016 Note Purchase Agreement") relating to the sale by Woodward and the BV Subsidiary of an aggregate principal amount of €160,000 of senior unsecured notes in a series of private placement transactions. Woodward issued €40,000 aggregate principal amount of Woodward's Series M Senior Notes due September 23, 2026. Woodward designated the €40,000 Series M Notes as a hedge of a foreign currency exposure of Woodward's net investment in its Euro denominated functional currency subsidiaries. Foreign exchange losses on the Series M Notes of $2,395 for the fiscal year ended September 30, 2017 and $47 for the fiscal year ended September 30, 2016 are included in foreign currency translation adjustments within total comprehensive (losses) earnings.

In June 2015, Woodward designated an intercompany loan of 160,000 Renminbi ("RMB") between two wholly owned subsidiaries as a hedge of a foreign currency exposure of the net investment of the borrower in the lender. In June 2016, the intercompany loan was repaid, resulting in a realized gain of $1,484 that was recognized within total comprehensive earnings, of which $912 was recognized in fiscal year 2016 and $572 was recognized in fiscal year 2015.

In July 2016, Woodward designated a new intercompany loan of 160,000 RMB between two wholly owned subsidiaries as a hedge of a foreign currency exposure of the net investment of the borrower in the lender. In July 2017, the intercompany loan was repaid, resulting in a realized gain of $380 that was recognized within total comprehensive earnings, of which a gain of $453 was recognized in fiscal year 2017 and a loss of $73 was recognized in fiscal year 2016.

Note 7. Supplemental statement of cash flows information

	Year Ended September 30,		
	2017	2016	2015
Interest paid, net of amounts capitalized	$ 27,752	$ 34,500	$ 32,608
Income taxes paid	33,926	99,468	51,218
Income tax refunds received	997	2,350	689
Non-cash activities:			
Purchases of property, plant and equipment on account	17,327	10,705	23,966
Property, plant and equipment acquired by capital lease	-	1,653	-
Common shares issued from treasury to settle employee liabilities	1,767	-	-
Common shares issued from treasury to settle benefit obligations (Note 17)	14,014	13,999	12,574
Cashless exercise of stock options	1,473	753	1,532

Note 8. Inventories

	September 30, 2017	September 30, 2016
Raw materials	$ 59,034	$ 54,246
Work in progress	103,790	109,756
Component parts (1)	262,755	249,307
Finished goods	47,926	48,374
	$ 473,505	$ 461,683

(1) Component parts include items that can be sold separately as finished goods or included in the manufacture of other products.

Note 9. Property, plant, and equipment

	September 30, 2017	September 30, 2016
Land and land improvements	$ 88,326	$ 87,696
Buildings and building improvements	514,453	527,704
Leasehold improvements	16,142	15,213
Machinery and production equipment	543,641	484,315
Computer equipment and software	124,723	117,984
Office furniture and equipment	24,308	29,344
Other	19,393	18,969
Construction in progress	111,910	88,909
	1,442,896	1,370,134
Less accumulated depreciation	(520,853)	(493,784)
Property, plant, and equipment, net	$ 922,043	$ 876,350

Included in “Office furniture and equipment” and “Other” is $1,653 at each of September 30, 2017 and September 30, 2016, of gross assets acquired on capital leases, and accumulated depreciation included $739 at September 30, 2017 and $322 at September 30, 2016 of amortization associated with the capital lease assets.

In fiscal year 2015, Woodward completed and placed into service a manufacturing and office building on a second campus in the greater-Rockford, Illinois area and has occupied the new facility for its Aerospace segment. This campus is intended to support Woodward’s expected growth in its Aerospace segment over the next ten years and

beyond, required as a result of Woodward being awarded a substantial number of new system platforms, particularly on narrow-body aircraft. Included in "Construction in progress" are costs of $49,347 at September 30, 2017 and $26,741 at September 30, 2016 associated with new equipment purchases for the second campus.

Concurrent with and in relation to Woodward's significant investment in three new campuses and related equipment in the greater-Rockford, Illinois area, the new campus at its corporate headquarters in Fort Collins, Colorado (both discussed above), and the new campus in Niles, Illinois that was completed in fiscal year 2015, Woodward initiated a comprehensive review of its depreciation lives as required by U.S. GAAP to evaluate the estimates of the useful lives of Woodward assets. This review resulted in estimates of the useful lives of both existing and new assets generally in excess of those utilized prior to fiscal year 2016. The revised estimates were used in fiscal year 2016 and will be used going forward and result in a downward adjustment of depreciation on existing assets of approximately $12,000 for fiscal year 2016.

For the fiscal years ended September 30, 2017, 2016, and 2015, Woodward had depreciation expense as follows:

	Year Ended September 30,		
	2017	2016	2015
Depreciation expense	$ 55,140	$ 41,550	$ 45,994

For the fiscal years ended September 30, 2017, 2016, and 2015, Woodward capitalized interest that would have otherwise been included in interest expense of the following:

	Year Ended September 30,		
	2017	2016	2015
Capitalized interest	$ 2,008	$ 5,455	$ 8,995

Note 10. Goodwill

	September 30, 2016	Effects of Foreign Currency Translation	September 30, 2017
Aerospace	$ 455,423	$ -	$ 455,423
Industrial	100,261	861	101,122
Consolidated	$ 555,684	$ 861	$ 556,545

	September 30, 2015	Effects of Foreign Currency Translation	September 30, 2016
Aerospace	$ 455,423	$ -	$ 455,423
Industrial	101,554	(1,293)	100,261
Consolidated	$ 556,977	$ (1,293)	$ 555,684

Woodward tests goodwill for impairment at the reporting unit level on an annual basis and more often if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Woodward completed its annual goodwill impairment test as of July 31, 2017 during the quarter ended September 30, 2017. At that date, Woodward determined it was appropriate to aggregate certain components of the same operating segment into a single reporting unit. The fair value of each of Woodward's reporting units was determined using a discounted cash flow method. This method represents a level 3 input and incorporates various estimates and assumptions, the most significant being projected revenue growth rates, earnings margins, future tax rates, and the present value, based on an estimated weighted-average cost of capital (or the discount rate) and terminal growth rate, of forecasted cash flows. Management projects revenue growth rates, earnings margins and cash flows based on each reporting unit's current operational results, expected performance and operational strategies over a ten-year period. These projections are adjusted to reflect current economic conditions and demand for certain products, and require considerable management judgment.

Forecasted cash flows used in the July 31, 2017 impairment test were discounted using weighted-average cost of capital assumptions ranging from 9.57% to 13.86%. The terminal values of the forecasted cash flows were calculated using the Gordon Growth Model and assumed an annual compound growth rate after ten years of 3.39%. These inputs, which are unobservable in the market, represent management's best estimate of what market participants would use in determining the present value of the Company's forecasted cash flows. Changes in these estimates and assumptions can have a significant impact on the fair value of forecasted cash flows. Woodward evaluated the reasonableness of the reporting units' resulting fair values utilizing a market multiple method.

The results of Woodward's goodwill impairment tests performed as of July 31, 2017 did not indicate impairment of any of Woodward's reporting units.

Note 11. Intangible assets, net

	September 30, 2017			September 30, 2016		
	Gross Carrying Value	Accumulated Amortization	Net Carrying Amount	Gross Carrying Value	Accumulated Amortization	Net Carrying Amount
Customer relationships and contracts:						
Aerospace	$ 282,225	$ (151,155)	$ 131,070	$ 282,225	$ (134,158)	$ 148,067
Industrial	40,962	(34,407)	6,555	40,969	(33,509)	7,460
Total	$ 323,187	$ (185,562)	$ 137,625	$ 323,194	$ (167,667)	$ 155,527
Intellectual property:						
Aerospace	$ -	$ -	$ -	$ -	$ -	$ -
Industrial	19,422	(18,196)	1,226	19,435	(17,876)	1,559
Total	$ 19,422	$ (18,196)	$ 1,226	$ 19,435	$ (17,876)	$ 1,559
Process technology:						
Aerospace	$ 76,605	$ (49,124)	$ 27,481	$ 76,605	$ (43,229)	$ 33,376
Industrial	22,950	(17,756)	5,194	22,965	(16,200)	6,765
Total	$ 99,555	$ (66,880)	$ 32,675	$ 99,570	$ (59,429)	$ 40,141
Other intangibles:						
Aerospace	$ -	$ -	$ -	$ -	$ -	$ -
Industrial	1,312	(956)	356	1,246	(823)	423
Total	$ 1,312	$ (956)	$ 356	$ 1,246	$ (823)	$ 423
Total intangibles:						
Aerospace	$ 358,830	$ (200,279)	$ 158,551	$ 358,830	$ (177,387)	$ 181,443
Industrial	84,646	(71,315)	13,331	84,615	(68,408)	16,207
Consolidated Total	$ 443,476	$ (271,594)	$ 171,882	$ 443,445	$ (245,795)	$ 197,650

For the fiscal years ended September 30, 2017, 2016, and 2015, Woodward recorded amortization expense associated with intangibles of the following:

	Year Ended September 30,		
	2017	2016	2015
Amortization expense	$ 25,777	$ 27,486	$ 29,241

Future amortization expense associated with intangibles is expected to be:

Year Ending September 30:	
2018	$ 24,995
2019	23,159
2020	20,372
2021	18,404
2022	16,249
Thereafter	68,703
	$ 171,882

Note 12. Credit facilities, short-term borrowings and long-term debt

As of September 30, 2017, Woodward's short-term borrowings and availability under its various short-term credit facilities follows:

	Total availability	Outstanding letters of credit and guarantees	Outstanding borrowings	Remaining availability
Revolving credit facility	$ 1,000,000	$ (10,621)	$ (32,600)	$ 956,779
Foreign lines of credit and overdraft facilities	7,530	-	-	7,530
Foreign performance guarantee facilities	10,058	(351)	-	9,707
	$ 1,017,588	$ (10,972)	$ (32,600)	$ 974,016

Revolving credit facility

Woodward maintains a $1,000,000 revolving credit facility established under a revolving credit agreement among Woodward, a syndicate of lenders and Wells Fargo Bank, National Association, as administrative agent (the "Revolving Credit Agreement"). The Revolving Credit Agreement provides for the option to increase available borrowings to up to $1,200,000, subject to lenders' participation. Borrowings under the Revolving Credit Agreement generally bear interest at LIBOR plus 0.85% to 1.65%. The Revolving Credit Agreement matures in April 2020. Under the Revolving Credit Agreement, there were $32,600 in principal amount of borrowings outstanding as of September 30, 2017, at an effective interest rate of 2.29%, and $156,700 in principal amount of borrowings outstanding as of September 30, 2016, at an effective interest rate of 1.77%. As of September 30, 2017, all of the borrowings under the Revolving Credit Agreement were classified as short-term based on Woodward's intent and ability to pay this amount in the next twelve months. As of September 30, 2016, $150,000 of the borrowings under the Revolving Credit Agreement were classified as short-term debt.

The Revolving Credit Agreement contains certain covenants customary with such agreements, which are generally consistent with the covenants applicable to Woodward's long-term debt agreements, and contains customary events of default, including certain cross default provisions related to Woodward's other outstanding debt arrangements in excess of $60,000, the occurrence of which would permit the lenders to accelerate the amounts due thereunder. In addition, the Revolving Credit Agreement includes the following financial covenants: (i) a maximum permitted leverage ratio of consolidated net debt to consolidated earnings before interest, taxes, depreciation, stock-based compensation, and amortization, plus any usual non-cash charges to the extent deducted in computing net income minus any usual non-cash gains to the extent added in computing net income ("Leverage Ratio") for Woodward and its consolidated subsidiaries of 3.5 to 1.0, which ratio, subject to certain restrictions, may increase to 4.0 to 1.0 for the fiscal quarter (and the immediately following fiscal quarter) during which a permitted acquisition occurs and to 3.75 to 1.0 for the following two succeeding fiscal quarters, and (ii) a minimum consolidated net worth of $800,000 plus (a) 50% of Woodward's positive net income for the prior fiscal year and (b) 50% of Woodward's net cash proceeds resulting from certain issuances of stock, subject to certain adjustments.

Woodward's obligations under the Revolving Credit Agreement are guaranteed by Woodward FST, Inc., Woodward MPC, Inc., and Woodward HRT, Inc., each of which is a wholly owned subsidiary of Woodward.

Short-term borrowings

Woodward has other foreign lines of credit and foreign overdraft facilities at various financial institutions, which are generally reviewed annually for renewal and are subject to the usual terms and conditions applied by the financial institutions. Pursuant to the terms of the related facility agreements, Woodward's foreign performance guarantee facilities are limited in use to providing performance guarantees to third parties. There were no borrowings outstanding as of September 30, 2017 and September 30, 2016 on Woodward's foreign lines of credit and foreign overdraft facilities.

Long-term debt

	September 30, 2017	September 30, 2016
Revolving credit facility - Floating rate (LIBOR plus 0.85% - 1.65%), due April 2020, unsecured	$ 32,600	$ 156,700
Series D notes – 6.39%, due October 2018; unsecured	100,000	100,000
Series F notes – 8.24%, due April 2019; unsecured	43,000	43,000
Series G notes – 3.42%, due November 2020; unsecured	50,000	50,000
Series H notes – 4.03%, due November 2023; unsecured	25,000	25,000
Series I notes – 4.18%, due November 2025; unsecured	25,000	25,000
Series J notes – Floating rate (LIBOR plus 1.25%), due November 2020; unsecured	50,000	50,000
Series K notes – 4.03%, due November 2023; unsecured	50,000	50,000
Series L notes – 4.18%, due November 2025; unsecured	50,000	50,000
Series M notes – 1.12% due September 2026; unsecured	47,270	44,886
Series N notes – 1.31% due September 2028; unsecured	90,995	86,406
Series O notes – 1.57% due September 2031; unsecured	50,815	48,252
Total debt	614,680	729,244
Less: Current portion of long-term debt	(32,600)	(150,000)
Unamortized debt issuance costs	(1,794)	(2,091)
Long-term debt, less current portion	$ 580,286	$ 577,153

The Notes

In October 2008, Woodward entered into a note purchase agreement relating to the Series D Notes (the “2008 Notes”). In April 2009, Woodward entered into a note purchase agreement relating to the Series F Notes (the “2009 Notes”).

On October 1, 2013, Woodward entered into a note purchase agreement relating to the sale by Woodward of an aggregate principal amount of $250,000 of its senior unsecured notes in a series of private placement transactions. Woodward issued the Series G, H and I Notes (the “First Closing Notes”) on October 1, 2013. Woodward issued the Series J, K and L Notes (the “Second Closing Notes,” and together with the 2008 Notes, 2009 Notes and the First Closing Notes, the “USD Notes”) on November 15, 2013.

On September 23, 2016, Woodward and the BV Subsidiary each entered into note purchase agreements relating to the sale by Woodward and the BV Subsidiary of an aggregate principal amount of €160,000 of senior unsecured notes in a series of private placement transactions. Woodward issued €40,000 aggregate principal amount of Woodward’s Series M Senior Notes (the “Series M Notes”). The BV Subsidiary issued (a) €77,000 aggregate principal amount of the BV Subsidiary’s Series N Senior Notes (the “Series N Notes”) and (b) €43,000 aggregate principal amount of the BV Subsidiary’s Series O Senior Notes (the “Series O Notes” and together with the Series M Notes and the Series N Notes, the “2016 Notes,” and together with the USD Notes, collectively, the “Notes”).

Interest on the 2008 Notes, the First Closing Notes, and the Series K and L Notes is payable semi-annually on April 1 and October 1 of each year until all principal is paid. Interest on the 2009 Notes is payable semi-annually on April 15 and October 15 of each year until all principal is paid. Interest on the 2016 Notes is payable semi-annually on March 23 and September 23 of each year, until all principal is paid. Interest on the Series J Notes is payable quarterly on January 1, April 1, July 1 and October 1 of each year until all principal is paid. As of September 30, 2017, the Series J Notes bore interest at an effective rate of 2.6%.

None of the Notes were registered under the Securities Act of 1933 and they may not be offered or sold in the United States absent registration or an applicable exemption from registration requirements. Holders of the Notes do not have any registration rights.

All of the issued Notes are held by multiple institutions.

Woodward's obligations under the Notes are guaranteed by (i) Woodward FST, Inc., Woodward MPC, Inc., and Woodward HRT, Inc., each of which is a wholly owned subsidiary of Woodward, and (ii) in the case of the BV Subsidiary's Series N and O Notes, by Woodward. Woodward's obligations under the Notes rank equal in right of payment with all of Woodward's other unsecured unsubordinated debt, including its outstanding debt under its revolving credit facility.

The USD Notes and the 2016 Notes contain covenants customary for such financings, including, among other things, covenants that place limits on Woodward's ability to incur liens on assets, incur additional debt (including a leverage or coverage based maintenance test), transfer or sell Woodward's assets, merge or consolidate with other persons and enter into material transactions with affiliates. Under the financial covenants contained in the note purchase agreement governing the USD Notes, Woodward's priority debt may not exceed, at any time, 25% of its consolidated net worth. Woodward's Leverage Ratio cannot exceed 4.0 to 1.0 during any material acquisition period, or 3.5 to 1.0 at any other time on a rolling four quarter basis. In the event that Woodward's Leverage Ratio exceeds 3.5 to 1.0 during any material acquisition period, the interest rate on each series of Notes will increase. Further for the Series D and F notes, Woodward's consolidated net worth must at all times equal or exceed $485,940 plus 50% of Woodward's consolidated net earnings for each fiscal year beginning with the fiscal year ending September 30, 2009. For the Series G, H, I, J, K, L, M, N, and O notes, Woodward's consolidated net worth must at all times equal or exceed $1,046,619 plus 50% of Woodward's positive net income for each completed fiscal year beginning with the fiscal year ending September 30, 2016.

Woodward, at its option, is permitted at any time to prepay all, or any part of the then-outstanding principal amount of any series of the Notes at 100% of the principal amount of the series of Notes to be prepaid (but, in the case of partial prepayment, not less than $1,000 for the USD Notes and not less than €1,000 for the 2016 Notes), together with interest accrued on such amount to be prepaid to the date of payment, plus any applicable prepayment compensation amount. The prepayment compensation amount, as to the USD Notes other than the Series J Notes, is computed by discounting the remaining scheduled payments of interest and principal of the USD Notes being prepaid at a discount rate equal to the sum of 50 basis points and the yield to maturity of U.S. Treasury securities having a maturity equal to the remaining average life of the USD Notes being prepaid. The prepayment compensation amount, as to the Series J Notes, generally is computed as a percentage of the principal amount of the Series J Notes equal to (a) 2%, on or prior to November 15, 2014, (b) 1%, after November 15, 2014 and on or prior to November 15, 2015, and (c) 0% after November 15, 2015. The prepayment compensation amount as to the 2016 Notes that is not subject to a swap agreement is computed by discounting the remaining scheduled payments of interest and principal of such notes being prepaid at a discount rate equal to the sum of 50 basis points and the yield to maturity of the German Bund having a maturity equal to the remaining average life of the 2016 Notes being prepaid. The prepayment compensation amount as to a 2016 Note that is subject to a swap agreement entered into by the holder of such note under which the holder will receive payment in U.S. dollars in exchange for scheduled Euro payments of principal and interest on the Euro denominated 2016 Notes, adjusted for theoretical holder returns foregone on hypothetical reinvestments in U.S. Treasury securities (the "Swapped Notes") is equal to the excess of an amount equal to the remaining scheduled payments to be paid in respect of such called principal under such swap agreement discounted at a rate equal to 50 basis points and the yield to maturity of U.S. Treasury securities having a maturity equal to the remaining average life of the Swapped Notes being prepaid over the amount of payments in U.S. dollars that would be paid to the holder of the Swapped Note in respect of the called principal under the swap agreement, which amount will be increased or reduced, as applicable, in an amount equal to any net gain or loss realized by the holder of such Swapped Note on swap transactions under such swap agreement as a result of such prepayment.

Required future principal payments of the Notes as of September 30, 2017 are as follows:

Year Ending September 30:	
2018	$ -
2019	143,000
2020	-
2021	100,000
2022	-

Thereafter	339,080
	$ 582,080

Certain financial and other covenants under Woodward's debt agreements contain customary restrictions on the operation of its business. Management believes that Woodward was in compliance with the covenants under the long-term debt agreements at September 30, 2017.

Debt Issuance Costs

In connection with the 2016 Note Purchase Agreements, in fiscal year 2016, Woodward incurred $863 in financing costs, which are deferred and will be amortized using the straight-line method over the life of the agreement.

In connection with the Revolving Credit Agreement, in fiscal year 2015, Woodward incurred $2,359 in financing costs, which are deferred and are being amortized using the straight-line method over the life of the agreement. As of April 28, 2015, Woodward also had $2,014 remaining of deferred financing costs incurred in connection with the prior revolving credit agreement, which have been combined with the financing costs associated with the Revolving Credit Agreement and are being amortized using the straight-line method over the life of the Revolving Credit Agreement.

Amounts recognized as interest expense from the amortization of debt issuance costs were $1,130 in fiscal year 2017, $1,165 in fiscal year 2016, and $1,114 in fiscal year 2015. Unamortized debt issuance costs associated with the Notes of $1,794 as of September 30, 2017 and $2,091 as of September 30, 2016 have been recorded as a reduction in "Long-term debt, less current portion" in the Consolidated Balance Sheets. Unamortized debt issuance costs associated with the Revolving Credit Agreement of $2,259 as of September 30, 2017 and $3,134 as of September 30, 2016 have been recorded as "Other assets" in the Consolidated Balance Sheets. Amortization of debt issuance costs is included in operating activities in the Consolidated Statements of Cash Flows.

Note 13. Accrued liabilities

	At September 30,	
	2017	2016
Salaries and other member benefits	$ 91,285	$ 87,197
Warranties	13,597	15,993
Interest payable	9,626	9,071
Current portion of acquired performance obligations and unfavorable contracts (1)	1,627	2,910
Accrued retirement benefits	2,413	2,505
Current portion of loss reserve on contractual lease commitments	1,343	1,840
Current portion of deferred income from JV formation (Note 4)	6,451	6,552
Deferred revenues	4,625	5,779
Taxes, other than income	14,401	14,580
Other	9,704	10,200
	$ 155,072	$ 156,627

(1) In connection with Woodward's acquisition of GE Aviation Systems LLC's (the "Seller") thrust reverser actuation systems business located in Duarte, California (the "Duarte Acquisition") in fiscal year 2013, Woodward assumed current and long-term performance obligations for contractual commitments that are expected to result in future economic losses. In addition, Woodward assumed current and long-term performance obligations for services to be provided to the Seller and others, partially offset by current and long-term assets related to contractual payments due from the Seller. The current portion of both obligations is included in Accrued liabilities.

Warranties

Provisions of Woodward's sales agreements include product warranties customary to these types of agreements. Accruals are established for specifically identified warranty issues that are probable to result in future costs. Warranty costs are accrued on a non-specific basis whenever past experience indicates a normal and predictable pattern exists. Changes in accrued product warranties were as follows:

	Twelve-Months Ended September 30,		
	2017	2016	2015
Warranties, beginning of year	$ 15,993	$ 13,741	$ 16,916
Expense, net of recoveries	9,135	9,902	10,117
Reductions for settling warranties	(11,692)	(7,802)	(12,416)
Foreign currency exchange rate changes	161	152	(876)
Warranties, end of year	$ 13,597	$ 15,993	$ 13,741

Loss reserve on contractual lease commitments

In connection with the construction of a new production facility in Niles, Illinois, Woodward vacated a leased facility in Skokie, Illinois. During the first quarter of fiscal year 2016, Woodward fully vacated the Skokie facility and therefore recorded a charge of $8,165 to recognize a loss reserve against the estimated remaining contractual lease commitments, less anticipated sublease income. During the third quarter of fiscal year 2017, Woodward entered into an additional sublease agreement with a third party related to a portion of the vacated Skokie facility. Woodward recorded a reduction in the loss reserve associated with the vacated Skokie facility of $2,322 related to the anticipated sublease income it will receive.

The summary for the activity in the loss reserve during the fiscal years ended September 30, 2017 and September 30, 2016 is as follows:

	Twelve-Months Ended September 30,		
	2017	2016	2015
Loss reserve on contractual lease commitments, beginning of year	$ 9,242	$ 2,464	$ 3,212
Additions	-	8,165	39
Payments	(1,650)	(1,387)	(787)
Non-cash adjustments	(2,322)	-	-

Loss reserve on contractual lease commitments, end of year	$ 5,270	$ 9,242	$ 2,464

Other liabilities included $3,927 of accrued loss reserve on contractual lease commitments that are not expected to be settled or paid within twelve months as of September 30, 2017.

Note 14. Other liabilities

	At September 30, 2017	2016
Net accrued retirement benefits, less amounts recognized within accrued liabilities	$ 52,211	$ 70,479
Noncurrent portion of deferred income from JV formation (1)	236,896	238,187
Total unrecognized tax benefits	20,949	17,239
Acquired unfavorable contracts (2)	2,076	3,148
Deferred economic incentives (3)	14,574	16,196
Loss reserve on contractual lease commitments (4)	3,927	7,402
Other	14,165	15,573
	$ 344,798	$ 368,224

(1) See Note 4, Joint venture for more information on the deferred income from JV formation.
(2) In connection with the Duarte Acquisition in fiscal year 2013, Woodward assumed current and long-term performance obligations for contractual commitments that are expected to result in future economic losses. The long-term portion of the acquired unfavorable contracts is included in Other liabilities.
(3) Woodward receives certain economic incentives from various state and local authorities related to capital expansion projects. Such amounts are initially recorded as deferred credits and are being recognized as a reduction to pre-tax expense over the economic lives of the related capital expansion projects.
(4) See Note 13, Accrued liabilities for more information on the loss reserve on contractual lease commitments.

Note 15. Other (income) expense, net

	Year Ended September 30, 2017	2016	2015
Equity interest in the earnings of the JV (Note 4)	$ (2,568)	$ (6,204)	$ -

Net gain on sales of assets	(3,604)	(4,431)	(626)
Rent income	(254)	(315)	(485)
Net (gain) loss on investments in deferred compensation program	(1,833)	(1,062)	33
Other	(786)	(294)	(84)
	$ (9,045)	$ (12,306)	$ (1,162)

Note 16. Income taxes

Income taxes consisted of the following:

	Year Ended September 30,		
	2017	2016	2015
Current:			
Federal	$ 17,872	$ 81,127	$ 23,923
State	1,379	6,067	3,108
Foreign	15,118	9,689	18,343
Deferred:			
Federal	16,907	(40,801)	19,236
State	(2,561)	(9,054)	751
Foreign	3,525	(1,380)	(5,864)
	$ 52,240	$ 45,648	$ 59,497

Earnings before income taxes by geographical area consisted of the following:

	Year Ended September 30,		
	2017	2016	2015
United States	$ 192,220	$ 175,146	$ 172,315
Other countries	60,527	51,340	68,634
	$ 252,747	$ 226,486	$ 240,949

Significant components of deferred income taxes presented in the Consolidated Balance Sheets are related to the following:

	At September 30,	
	2017	2016
Deferred tax assets:		
Defined benefit plans, other postretirement	$ 11,947	$ 13,017
Foreign net operating loss carryforwards	4,707	5,255
Inventory	29,444	27,332
Deferred and stock-based compensation	37,693	34,388
Defined benefit plans, pension	1,148	8,955
Deferred revenue	92,426	92,213
Other reserves	10,850	13,968
Tax credits and incentives	9,769	7,744
Other	7,700	7,411
Valuation allowance	(3,714)	(3,317)
Total deferred tax assets, net of valuation allowance	201,970	206,966
Deferred tax liabilities:		
Goodwill and intangibles - net	(103,781)	(99,030)
Property, plant and equipment	(109,229)	(88,986)
Other	(2,418)	(2,533)
Total deferred tax liabilities	(215,428)	(190,549)
Net deferred tax assets (liabilities)	$ (13,458)	$ 16,417

Woodward has recorded a net operating loss (“NOL”) deferred tax asset of $4,707 as of September 30, 2017 and $5,255 as of September 30, 2016. A portion of these NOL carryforwards will start to expire in 2018 and is currently offset by a valuation allowance. We have placed valuation allowances against all other NOL carryforwards that are less than 50 percent likely to be realized.

Deferred tax assets are reduced by a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Both positive and negative evidence are considered in forming Woodward’s judgment as to whether a valuation allowance is appropriate, and more weight is given to evidence that can be objectively verified. Valuation allowances are reassessed whenever there are changes in circumstances that may cause a change in judgment. The change in the valuation allowance was primarily the result of new valuation allowances placed on two wholly owned subsidiaries with net operating losses and a reassessment of another valuation allowance based on a change in estimate of future earnings.

At September 30, 2017, Woodward has not provided for taxes on undistributed foreign earnings of $405,286 that it considered indefinitely reinvested. These earnings could become subject to income taxes if they are remitted as dividends, are loaned to Woodward or any of Woodward's subsidiaries located in the United States, or if Woodward sells its stock in the foreign subsidiaries. Any additional U.S. taxes could be offset, in part or in whole, by foreign tax credits. The amount of such taxes and application of tax credits would be dependent on the income tax laws and other circumstances at the time these amounts are repatriated. Based on these variables, it is impractical to determine the income tax liability that might be incurred if these funds were to be repatriated.

The following is a reconciliation of the U.S. Federal statutory tax rate of 35 percent to Woodward's effective income tax rate:

	Year Ending September 30,		
Percent of pretax earnings	2017	2016	2015
Statutory tax rate	35.0 %	35.0 %	35.0 %
State income taxes, net of federal tax benefit	(0.3)	0.4	1.2
Taxes on international activities	(7.6)	(2.2)	(3.8)
Research credit	(3.2)	(3.6)	(0.8)
Retroactive extension of research credit	-	(3.2)	(2.4)
Net excess income tax benefit from stock-based compensation	(1.4)	(2.6)	-
Domestic production activities deduction	(1.5)	(2.1)	(1.6)
Adjustments of prior period tax items	(0.9)	(0.2)	(2.1)
Other items, net	0.6	(1.3)	(0.8)
Effective tax rate	20.7 %	20.2 %	24.7 %

In determining the tax amounts in Woodward's financial statements, estimates are sometimes used that are subsequently adjusted in the actual filing of tax returns or by updated calculations. In addition, Woodward occasionally has resolutions of tax items with tax authorities related to prior years due to the conclusion of audits and the lapse of applicable statutes of limitations. Such adjustments are included in the "Adjustments of prior period tax items" line in the above table. The majority of these adjustments are related to the conclusion of audits, effective settlement, and lapse of applicable statutes of limitations in various tax jurisdictions.

Income taxes for the fiscal year ended September 30, 2017 benefitted from impact of repatriation to the United States of certain net foreign profits and losses in the first quarter. The U.S. foreign tax credits available as a result of the repatriation of the foreign net earnings were greater than the U.S. taxes payable on these net foreign earnings. The excess U.S. foreign tax credit are expected to offset U.S. taxes on other foreign source income.

On December 18, 2015, the Protecting Americans from Tax Hikes ("PATH") Act of 2015 was enacted, which permanently extended the Research and Experimentation ("R&E") Tax Credit. As a result, income taxes for the year ended September 30, 2016 included a net benefit related to the retroactive impact from the last three quarters of fiscal year 2015 of the R&E Credit pursuant to the PATH Act. In addition, income taxes for the year ended September 30, 2016 included a net benefit related to the full year impact of fiscal year 2016 of the R&E Credit.

Woodward adopted ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting," in its second quarter of fiscal year 2016 resulting in the recognition through earnings of a net excess income tax benefit from stock-based compensation.

On December 19, 2014, the Tax Increase Prevention Act of 2014 was enacted, which retroactively extended the R&E Credit through December 31, 2014. As a result, income taxes for the year ended September 30, 2015 included a net benefit related to the retroactive impact from the last three quarters of fiscal year 2014 of the R&E Credit pursuant to the Tax Increase Prevention Act.

A reconciliation of the beginning and ending amounts of gross unrecognized tax benefits follows:

	Year Ending September 30,		
	2017	2016	2015
Beginning balance	$ 23,526	$ 21,469	$ 22,687
Additions to current year tax positions	2,560	3,588	2,234
Reductions to prior year tax positions	(5,753)	(2,292)	(7,785)
Additions to prior year tax positions	3,501	761	5,124
Lapse of applicable statute of limitations	(3,702)	-	(791)
Ending balance	$ 20,132	$ 23,526	$ 21,469

Included in the balance of unrecognized tax benefits were $9,677 as of September 30, 2017 and $11,426 as of September 30, 2016 of tax benefits that, if recognized, would affect the effective tax rate. At this time, Woodward estimates that it is reasonably possible that the liability for unrecognized tax benefits will decrease by as much as $7,726 in the next twelve

months due to the completion of reviews by tax authorities, lapses of statutes, and the settlement of tax positions. Woodward accrues for potential interest and penalties related to unrecognized tax benefits and all other interest and penalties related to tax payments in tax expense. Woodward had accrued gross interest and penalties of $1,123 as of September 30, 2017 and $1,273 as of September 30, 2016.

Woodward's tax returns are subject to audits by U.S. federal, state, and foreign tax authorities, and these audits are at various stages of completion at any given time. Reviews of tax matters by authorities and lapses of the applicable statutes of limitations may result in changes to tax expense. Fiscal years remaining open to examination in significant foreign jurisdictions include 2008 and thereafter. Woodward's fiscal years remaining open to examination in the United States include fiscal years 2014 and thereafter. Woodward is currently under examination by the Internal Revenue Service for fiscal year 2014. Woodward has concluded U.S. federal income tax examinations through fiscal year 2012. Woodward is generally subject to U.S. state income tax examinations for fiscal years 2012 and the periods thereafter.

Note 17. Retirement benefits

Woodward provides various retirement benefits to eligible members of the Company, including contributions to various defined contribution plans, pension benefits associated with defined benefit plans, postretirement medical benefits and postretirement life insurance benefits. Eligibility requirements and benefit levels vary depending on employee location.

Defined contribution plans

Most of the Company's U.S. employees are eligible to participate in the U.S. defined contribution plan. The U.S. defined contribution plan allows employees to defer part of their annual income for income tax purposes into their personal 401(k) accounts. The Company makes matching contributions to eligible employee accounts, which are also deferred for employee personal income tax purposes. Certain foreign employees are also eligible to participate in similar foreign plans.

Most of Woodward's U.S. employees with at least two years of service receive an annual contribution of Woodward stock, equal to 5% of their eligible prior year wages, to their personal Woodward Retirement Savings Plan accounts. In the second quarter of fiscal years 2017, 2016, and 2015, Woodward fulfilled its annual Woodward stock contribution obligation using shares held in treasury stock by issuing 199 shares of common stock for a value of $14,014 in fiscal year 2017, 317 shares of common stock for a value of $13,999 in fiscal year 2016, and 259 shares of common stock for a value of $12,574 in fiscal year 2015. The Woodward Retirement Savings Plan (the "WRS Plan") held 4,183 shares of Woodward stock as of September 30, 2017 and 4,488 shares as of September 30, 2016. The shares held in the WRS Plan participate in dividends and are considered issued and outstanding for purposes of calculating basic and diluted earnings per share. Accrued liabilities included obligations to contribute shares of Woodward common stock to the WRS Plan of $11,355 as of September 30, 2017 and $11,314 as of September 30, 2016.

The amount of expense associated with defined contribution plans was as follows:

	Year Ended September 30,		
	2017	2016	2015

Company costs	$ 32,008	$ 31,893	$ 30,933

Defined benefit plans

Woodward has defined benefit plans that provide pension benefits for certain retired employees in the United States, the United Kingdom, and Japan. Woodward also provides other postretirement benefits to its employees including postretirement medical benefits and life insurance benefits. Postretirement medical benefits are provided to certain current and retired employees and their covered dependents and beneficiaries in the United States and the United Kingdom. Life insurance benefits are provided to certain retirees in the United States under frozen plans, which are no longer available to current employees. A September 30 measurement date is utilized to value plan assets and obligations for all of Woodward's defined benefit pension and other postretirement benefit plans.

During the third quarter of fiscal year 2016, Woodward opened a lump-sum buy-out window, which closed in the fourth quarter of fiscal year 2016 and was fully settled during the first quarter of fiscal year 2017, for certain former U.S. employees and/or their dependents eligible to receive postretirement defined benefit pension payments for past employment services to the Company. Eligible pension plan participants were provided the opportunity to elect to receive a one-time lump-sum payment or an immediate annuity in lieu of future pension benefit payments. Pension benefit payments paid from available pension plan assets under the lump-sum buy-out options were $670 during fiscal year 2017. Woodward expects to make no further pension benefit payments under the lump-sum buy-out options.

Effective June 30, 2015, the Company terminated the defined benefit pension plan for employees at its Duarte, California manufacturing facility (the "Duarte Pension Plan"). The plan, which was established in fiscal year 2013 in connection with the December 2012 acquisition of the Duarte business, was amended in fiscal year 2013 to cease all future benefit accruals under the plan and was at that time closed to new entrants. Regulatory approval of the plan termination was received in the fourth quarter of fiscal year 2016. In exchange for the freeze and termination of the plan, which were agreed upon through negotiations with the applicable employee union, the employees were provided replacement benefits through full participation in the Woodward U.S. defined contribution plan. Woodward recorded settlement costs of $47 in fiscal year 2016 in connection with cash payouts to the beneficiaries of the plan and associated termination costs. As of September 30, 2017 and 2016, Woodward had no liability associated with the Duarte Pension Plan.

In addition to the Duarte Pension Plan, excluding the Woodward HRT Plan, the defined benefit plans in the United States were frozen in fiscal year 2007 and no additional employees may participate in the U.S. plans and no additional service costs will be incurred.

Pension plans

The actuarial assumptions used in measuring the net periodic benefit cost and plan obligations of retirement pension benefits were as follows:

	2017	2016	2015
United States:			
Weighted-average assumptions to determine benefit obligation at September 30:			
Discount rate	3.80 %	3.65 %	4.39 %
Weighted-average assumptions to determine periodic benefit costs for years ended September 30:			
Discount rate	3.65	4.39	4.40
Long-term rate of return on plan assets	7.38	7.62	7.62

The discount rate assumption is intended to reflect the rate at which the retirement benefits could be effectively settled based upon the assumed timing of the benefit payments.

In the United States, Woodward uses a bond portfolio matching analysis based on recently traded, non-callable bonds rated AA or better that have at least $50 million outstanding to determine the benefit obligations at year end.

	2017	2016	2015
United Kingdom:			
Weighted-average assumptions to determine benefit obligation at September 30:			
Discount rate	2.56 %	2.28 %	3.75 %
Rate of compensation increase	3.60	3.40	3.40

Weighted-average assumptions to determine periodic benefit costs for years ended September 30:			
Discount rate - service cost	2.33	3.86	4.10
Discount rate - interest cost	2.24	3.63	4.10
Rate of compensation increase	3.40	3.40	3.50
Long-term rate of return on plan assets	4.75	5.00	5.50

	2017	2016	2015
Japan:			
Weighted-average assumptions to determine benefit obligation at September 30:			
Discount rate	0.58 %	0.46 %	0.97 %
Rate of compensation increase	2.00	2.02	2.00
Weighted-average assumptions to determine periodic benefit costs for years ended September 30:			
Discount rate - service cost	0.59	1.27	1.10
Discount rate - interest cost	0.45	0.59	1.10
Rate of compensation increase	2.02	2.00	2.00
Long-term rate of return on plan assets	2.50	3.00	3.00

In the United Kingdom and Japan, Woodward uses a high-quality corporate bond yield curve matched with separate cash flows to develop a single rate to determine the single rate equivalent to settle the entire benefit obligations in each jurisdiction. For the fiscal year ended September 30, 2017 and 2016, the discount rate used to determine periodic service cost and interest cost components of the overall benefit costs was based on spot rates derived from the same high-quality corporate bond yield curve used to determine the September 30, 2017 and 2016, respectively, benefit obligation matched with separate cash flows for each future year. Prior to this change in method, the discount rate used to determine the periodic benefit costs for the year ending September 30, 2015 was based on a single rate equivalent.

Compensation increase assumptions, where applicable, are based upon historical experience and anticipated future management actions.

In determining the long-term rate of return on plan assets, Woodward assumes that the historical long-term compound growth rates of equity and fixed-income securities will predict the future returns of similar investments in the plan portfolio. Investment management and other fees paid out of the plan assets are factored into the determination of asset return assumptions.

Mortality assumptions are based on published mortality studies developed primarily based on past experience of the broad population and modified for projected longevity trends. The projected benefit obligations in the United States as of September 30, 2017 and September 30, 2016 and 2015 were based on the Society of Actuaries (“SOA”) RP-2014 Mortality Tables Report projected back to 2006 using the SOA’s Mortality Improvement Scale MP-2014 (“MP-2014”) and projected forward using a custom projection scale based on MP-2014 with a 10-year convergence period and a long-term rate of 0.75%. As of September 30, 2017, 2016, and 2015, mortality assumptions in Japan were based on the Standard rates 2014, and mortality assumptions for the United Kingdom pension scheme were based on the Self-administered pension scheme (“SAPS”) S2 “all” tables with a projected 1.5% annual improvement rate.

Net periodic benefit costs consist of the following components reflected as expense in Woodward’s Consolidated Statements of Earnings:

	Year Ended September 30,								
	United States			Other Countries			Total		
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Service cost	$ 1,675	$ 1,695	$ 2,018	$ 1,133	$ 749	$ 784	$ 2,808	$ 2,444	$ 2,802
Interest cost	5,757	5,236	5,956	1,208	1,637	2,128	6,965	6,873	8,084
Expected return on plan assets	(10,529)	(10,140)	(10,647)	(2,605)	(2,659)	(3,032)	(13,134)	(12,799)	(13,679)
Amortization of:									
Net losses	1,854	1,292	396	514	246	190	2,368	1,538	586
Net prior service (benefit) cost	383	384	383	-	-	-	383	384	383
Settlement costs	-	47	-	-	-	-	-	47	-
Net periodic (benefit) cost	$ (860)	$ (1,486)	$ (1,894)	$ 250	$ (27)	$ 70	$ (610)	$ (1,513)	$ (1,824)

The settlement loss in “United States” in the year ended September 30, 2016 pertained to cash payouts to the beneficiaries of the Duarte Pension Plan and associated termination costs.

The following tables provide a reconciliation of the changes in the projected benefit obligation and fair value of assets for the defined benefit pension plans:

	At or for the Year Ended September 30,					
	United States		Other Countries		Total	
	2017	2016	2017	2016	2017	2016
Changes in projected benefit obligation:						
Projected benefit obligation at beginning of year	$ 160,892	$ 145,870	$ 72,057	$ 62,231	$ 232,949	$ 208,101
Service cost	1,675	1,695	1,133	749	2,808	2,444
Interest cost	5,757	5,236	1,208	1,637	6,965	6,873
Net actuarial (gains) losses	(5,267)	17,786	(6,188)	17,190	(11,455)	34,976
Contribution by participants	55	47	14	20	69	67
Benefits paid	(5,676)	(9,789)	(2,235)	(2,656)	(7,911)	(12,445)
Plan amendments	3,694	-	-	-	3,694	-
Settlements	-	47	-	-	-	47
Foreign currency exchange rate changes	-	-	380	(7,114)	380	(7,114)
Projected benefit obligation at end of year	$ 161,130	$ 160,892	$ 66,369	$ 72,057	$ 227,499	$ 232,949
Changes in fair value of plan assets:						
Fair value of plan assets at beginning of year	$ 145,886	$ 135,590	$ 62,926	$ 60,663	$ 208,812	$ 196,253
Actual return on plan assets	20,067	19,859	2,542	10,202	22,609	30,061
Contributions by the Company	-	226	671	773	671	999
Contributions by plan participants	55	47	14	20	69	67
Benefits paid	(5,676)	(9,789)	(2,235)	(2,656)	(7,911)	(12,445)
Settlements	-	(47)	-	-	-	(47)
Foreign currency exchange rate changes	-	-	462	(6,076)	462	(6,076)
Fair value of plan assets at end of year	$ 160,332	$ 145,886	$ 64,380	$ 62,926	$ 224,712	$ 208,812
Net underfunded status at end of year	$ (798)	$ (15,006)	$ (1,989)	$ (9,131)	$ (2,787)	$ (24,137)

During fiscal year 2017, a plan amendment was adopted for one of our U.S. pension plans as a result of scheduled collective bargaining contract negotiations.

At September 30, 2017, the Company’s defined benefit pension plans in the United Kingdom represented $55,306 of the total projected benefit obligation and in Japan represented $11,063 of the total projected benefit obligation. At September 30, 2017, the United Kingdom represented $52,810 of the total fair value of plan assets and Japan represented $11,570 of the total fair value of plan assets.

The accumulated benefit obligations of the Company’s defined benefit pension plans at September 30, 2017 was $161,130 in the United States, $10,007 in Japan and $53,628 in the United Kingdom, and at September 30, 2016 was $160,892 in the United States, $10,924 in Japan, and $57,877 in the United Kingdom.

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	Plans with accumulated benefit obligation in excess of plan assets At September 30,		Plans with accumulated benefit obligation less than plan assets At September 30,	
	2017	2016	2017	2016
Projected benefit obligation	$ (82,447)	$ (220,788)	$ (145,052)	$ (12,161)
Accumulated benefit obligation	(80,759)	(218,769)	(144,006)	(10,924)
Fair value of plan assets	77,036	196,800	147,676	12,012

The following tables provide the amounts recognized in the statement of financial position and accumulated other comprehensive losses for the defined benefit pension plans:

	At or for the Year Ended September 30,					
	United States		Other Countries		Total	
	2017	2016	2017	2016	2017	2016
Amounts recognized in statement of financial position consist of:						
Other non-current assets	$ 1,726	$ -	$ 897	$ -	$ 2,623	$ -
Accrued liabilities	-	-	(3)	-	(3)	-
Other non-current liabilities	(2,524)	(15,006)	(2,883)	(9,131)	(5,407)	(24,137)
Net over/(under)funded status at end of year	$ (798)	$ (15,006)	$ (1,989)	$ (9,131)	$ (2,787)	$ (24,137)
Amounts recognized in accumulated other comprehensive income consist of:						
Unrecognized net prior service (benefit) cost	$ 7,169	$ 3,857	$ -	$ -	$ 7,169	$ 3,857
Unrecognized net (gains) losses	17,023	33,682	14,198	20,795	31,221	54,477
Total amounts recognized	24,192	37,539	14,198	20,795	38,390	58,334
Deferred taxes	(9,224)	(14,305)	(5,016)	(7,303)	(14,240)	(21,608)
Amounts recognized in accumulated other comprehensive income	$ 14,968	$ 23,234	$ 9,182	$ 13,492	$ 24,150	$ 36,726

The following table reconciles the changes in accumulated other comprehensive losses for the defined benefit pension plans:

	Year Ended September 30,					
	United States		Other Countries		Total	
	2017	2016	2017	2016	2017	2016
Accumulated other comprehensive losses at beginning of year	$ 37,539	$ 31,102	$ 20,795	$ 13,618	$ 58,334	$ 44,720
Net (gain) loss	(14,805)	8,160	(6,125)	9,646	(20,930)	17,806
	-	(47)	-	-	-	(47)

Loss due to settlement or curtailment arising during the period						
Amortization of:						
Net losses	(1,854)	(1,292)	(515)	(246)	(2,369)	(1,538)
Prior service benefit (cost)	3,312	(384)	-	-	3,312	(384)
Foreign currency exchange rate changes	-	-	43	(2,223)	43	(2,223)
Accumulated other comprehensive losses at end of year	$ 24,192	$ 37,539	$ 14,198	$ 20,795	$ 38,390	$ 58,334

The amounts expected to be amortized from accumulated other comprehensive losses and reported as a component of net periodic benefit cost during fiscal year 2018 are as follows:

	United States	Other Countries	Total
Prior service cost	$ 709	$ -	$ 709
Net actuarial losses	598	290	888

Pension benefit payments are made from the assets of the pension plans. Using foreign exchange rates as of September 30, 2017 and expected future service assumptions, it is anticipated that the future benefit payments will be as follows:

Year Ending September 30,	United States	Other Countries	Total
2018	$ 6,251	$ 2,225	$ 8,476
2019	6,911	2,578	9,489
2020	7,521	2,183	9,704
2021	8,065	2,396	10,461
2022	8,524	2,257	10,781
2023 – 2027	48,075	12,802	60,877

Woodward expects its pension plan contributions in fiscal year 2018 will be $397 in the United Kingdom and $217 in Japan. Woodward expects to have no pension plan contributions in fiscal year 2018 in the United States.

Pension plan assets

The overall investment objective of the pension plan assets is to earn a rate of return over time which, when combined with Company contributions, satisfies the benefit obligations of the pension plans and maintains sufficient liquidity to pay benefits.

As the timing and nature of the plan obligations varies for each Company sponsored pension plan, investment strategies have been individually designed for each pension plan with a common focus on maintaining diversified investment portfolios that provide for long-term growth while minimizing the risk to principal associated with short-term market behavior. The strategy for each of the plans balances the requirements to generate returns, using investments expected to produce higher returns, such as equity securities, with the need to control risk within the pension plans using less volatile investment assets, such as debt securities. A strategy of more equity-oriented allocation is adopted for those plans which have a longer-term investment plan based on the timing of the associated benefit obligations.

A pension oversight committee is assigned by the Company to each pension plan. Among other responsibilities, each committee is responsible for all asset class allocation decisions. Asset class allocations, which are reviewed by the respective pension committee on at least an annual basis, are designed to meet or exceed certain market benchmarks and align with each plan's investment objectives. In evaluating the asset allocation choices, consideration is given to the proper long-term level of risk for each plan, particularly with respect to the long-term nature of each plan's liabilities, the impact of asset allocation on investment results and the corresponding impact on the volatility and magnitude of plan contributions and expense and the impact certain actuarial techniques may have on the plans' recognition of investment experience. From time to time, the plans may move outside the prescribed asset class allocation in order to meet significant liabilities with respect to one or more individuals approaching retirement.

Risks associated with the plan assets include interest rate fluctuation risk, market fluctuation risk, risk of default by debt issuers and liquidity risk. To manage these risks, the assets are managed by established, professional investment firms and performance is evaluated regularly by the Company's pension oversight committee against specific benchmarks and each plan's investment objectives. Liability management and asset class diversification are central to the Company's risk management approach and overall investment strategy.

The assets of the U.S. plans are invested in actively managed mutual funds. The assets of the plans in Japan and the plan in the United Kingdom are invested in actively managed pooled investment funds. Each individual mutual fund or pooled investment fund has been selected based on the investment strategy of the related plan, which mirrors a specific asset class within the associated target allocation. Pension plan assets at September 30, 2017 and 2016 do not include any direct investment in Woodward's common stock.

The asset allocations are monitored and rebalanced regularly by investment managers assigned to the individual pension plans. The actual allocations of pension plan assets and target allocation ranges by asset class, are as follows:

	At September 30, 2017		2016	
	Percentage of Plan Assets	Target Allocation Ranges	Percentage of Plan Assets	Target Allocation Ranges
United States:				
Asset Class				
Equity Securities	64.6%	41.2% - 81.2%	56.4%	40.8% - 80.8%
Debt Securities	35.2%	28.8% - 48.8%	39.0%	29.2% - 49.2%
Other	0.2%	0.0%	4.6%	0.0%
	100.0%		100.0%	
United Kingdom:				
Asset Class				
Equity Securities	46.1%	30.0% - 60.0%	34.7%	25.0% - 45.0%
Debt Securities	53.8%	45.0% - 70.0%	65.2%	40.0% - 80.0%
Other	0.1%	0.0%	0.1%	0.0%
	100.0%		100.0%	
Japan:				
Asset Class				
Equity Securities	41.0%	36.0% - 44.0%	40.0%	36.0% - 44.0%
Debt Securities	58.1%	55.0% - 63.0%	59.1%	55.0% - 63.0%
Other	0.9%	0.0% - 2.0%	0.9%	0.0% - 2.0%
	100.0%		100.0%	

Actual allocations to each asset class can vary from target allocations due to periodic market value fluctuations, investment strategy changes, and the timing of benefit payments and contributions.

The following table presents Woodward's pension plan assets using the fair value hierarchy established by U.S. GAAP as of September 30, 2017 and September 30, 2016.

	At September 30, 2017						
	Level 1		Level 2		Level 3		
	United States	Other Countries	United States	Other Countries	United States	Other Countries	Total
Asset Category:							
Cash and cash equivalents	$ 291	$ 167	$ -	$ -	$ -	$ -	$ 458
Mutual funds:							
U.S. corporate bond fund	56,388	-	-	-	-	-	56,388
U.S. equity large cap fund	54,140	-	-	-	-	-	54,140
International equity large cap growth fund	49,513	-	-	-	-	-	49,513
Pooled funds:							
Japanese equity securities	-	-	-	2,487	-	-	2,487
International equity securities	-	-	-	2,260	-	-	2,260
Japanese fixed income securities	-	-	-	4,987	-	-	4,987
International fixed income securities	-	-	-	1,730	-	-	1,730
Global target return equity/bond fund	-	-	-	13,103	-	-	13,103
Index linked U.K. equity fund	-	-	-	4,940	-	-	4,940
Index linked international equity fund	-	-	-	6,285	-	-	6,285
Index linked U.K. corporate bonds fund	-	-	-	16,540	-	-	16,540
Index linked U.K. government securities fund	-	-	-	4,980	-	-	4,980
Index linked U.K. long-term government securities fund	-	-	-	6,901	-	-	6,901
Total assets	$ 160,332	$ 167	$ -	$ 64,213	$ -	$ -	$ 224,712

	At September 30, 2016						
	Level 1		Level 2		Level 3		
	United States	Other Countries	United States	Other Countries	United States	Other Countries	Total
Asset Category:							
Cash and cash equivalents	$ 6,741	$ 163	$ -	$ -	$ -	$ -	$ 6,904
Mutual funds:							
U.S. corporate bond fund	56,813	-	-	-	-	-	56,813
U.S. equity large cap fund	48,506	-	-	-	-	-	48,506
International equity large cap growth fund	33,834	-	-	-	-	-	33,834
Pooled funds:							
Japanese equity securities	-	-	-	2,536	-	-	2,536
International equity securities	-	-	-	2,258	-	-	2,258
Japanese fixed income securities	-	-	-	5,321	-	-	5,321
International fixed income securities	-	-	-	1,777	-	-	1,777
Index linked U.K. equity fund	-	-	-	7,982	-	-	7,982
Index linked international equity fund	-	-	-	9,694	-	-	9,694
Index linked U.K. corporate bonds fund	-	-	-	16,180	-	-	16,180
	-	-	-	5,009	-	-	5,009

Index linked U.K. government securities fund							
Index linked U.K. long-term government securities fund	-	-	-	11,998	-	-	11,998
Total assets	$ 145,894	$ 163	$ -	$ 62,755	$ -	$ -	$ 208,812

Cash and cash equivalents: Cash and cash equivalents held by the Company's pension plans are held on deposit with creditworthy financial institutions. The fair value of the cash and cash equivalents are based on the quoted market price of the respective currency in which the cash is maintained.

Pension assets invested in mutual funds: The assets of the Company's U.S. pension plans are invested in various mutual funds which invest in both equity and debt securities. The fair value of the mutual funds is determined based on the quoted market price of each fund.

Pension assets invested in pooled funds: The assets of the Company's Japan and United Kingdom pension plans are invested in pooled investment funds, which include both equity and debt securities. The assets of the United Kingdom pension plan are invested in index-linked pooled funds which aim to replicate the movements of an underlying market index to which the fund is linked. Fair value of the pooled funds is based on the net asset value of shares held by the plan as reported by the fund sponsors. All pooled funds held by plans outside of the United States are considered to be invested in international equity and debt securities. Although the underlying securities may be largely domestic to the plan holding the investment assets, the underlying assets are considered international from the perspective of the Company.

There were no transfers into or out of Level 3 assets in fiscal years 2017 or 2016.

Other postretirement benefit plans

Woodward provides other postretirement benefits to its employees including postretirement medical benefits and life insurance benefits. Postretirement medical benefits are provided to certain current and retired employees and their covered dependents and beneficiaries in the United States and the United Kingdom. Benefits include the option to elect company provided medical insurance coverage to age 65 and a Medicare supplemental plan after age 65. Life insurance benefits are also provided to certain retirees in the United States under frozen plans which are no longer available to current employees. A September 30 measurement date is utilized to value plan assets and obligations for Woodward's other postretirement benefit plans.

The postretirement medical benefit plans, other than the plan assumed in an acquisition in fiscal year 2009, were frozen in fiscal year 2006 and no additional employees may participate in the plans. Generally, employees who had attained age 55 and had rendered 10 or more years of service before the plans were frozen were eligible for these postretirement medical benefits.

Certain participating retirees are required to contribute to the plans in order to maintain coverage. The plans provide postretirement medical benefits for approximately 770 retired employees and their covered dependents and beneficiaries and may provide future benefits to 13 active employees and their covered dependents and beneficiaries, upon retirement, if the employees elect to participate. Six beneficiaries participate in the United Kingdom plan. All the postretirement medical plans are fully insured for retirees who have attained age 65.

The actuarial assumptions used in measuring the net periodic benefit cost and plan obligations of postretirement benefits were as follows:

	2017	2016	2015
Weighted-average discount rate used to determine benefit obligation at September 30	3.78 %	3.63 %	4.01 %
Weighted-average discount rate used to determine net periodic benefit cost for years ended September 30	3.63	4.01	4.40

The discount rate assumption is intended to reflect the rate at which the postretirement benefits could be effectively settled based upon the assumed timing of the benefit payments.

In the United States, Woodward used a bond portfolio matching analysis based on recently traded, non-callable bonds rated AA or better that have at least $50 million outstanding to determine the benefit obligations at year end.

In the United Kingdom, Woodward uses a high-quality corporate bond yield curve matched with separate cash flows to develop a single rate to determine the single rate equivalent to settle the entire benefit obligations in each jurisdiction. For the fiscal years ended September 30, 2017 and September 30, 2016, the discount rate used to determine periodic service cost and interest cost components of the overall benefit costs was based on spot rates derived from the same high-quality corporate bond yield curve used to determine the September 30, 2016 and 2015, respectively, benefit obligation matched with separate cash flows for each future year.

Mortality assumptions are based on published mortality studies developed primarily based on past experience of the broad population and modified for projected longevity trends. The projected benefit obligations in the United States as of September 30, 2017, 2016, and 2015 were based on the SOA's RP-2014 Mortality Tables Report projected back to 2006 using the SOA's MP-2014 and projected forward using a custom projection scale based on MP-2014 with a 10-year convergence period and a long-term rate of 0.75%. As of September 30, 2017 and September 30, 2016, mortality assumptions for the United Kingdom postretirement medical plan were based on the SAPS S2 "all" tables with a projected 1.5% annual improvement rate.

Assumed healthcare cost trend rates at September 30, were as follows:

	2017	2016
Health care cost trend rate assumed for next year	6.75 %	7.00 %
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2025	2025

Healthcare costs have generally trended upward in recent years, sometimes by amounts greater than 5%. Assumed health care cost trend rates have a significant effect on the amounts reported for postretirement medical plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	Change In Health Care Cost Trend Rate	
	1% increase	1% decrease
Effect on projected fiscal year 2018 service and interest cost	$ 113	$ (99)
Effect on accumulated postretirement benefit obligation at September 30, 2017	2,960	(2,605)

Net periodic benefit costs consist of the following components reflected as expense in Woodward's Consolidated Statements of Earnings:

	Year Ended September 30,		
	2017	2016	2015
Service cost	$ 14	$ 22	$ 30
Interest cost	1,244	1,048	1,233
Amortization of:			
Net (gains) losses	201	156	(73)
Net prior service benefit	(158)	(158)	(158)
Net periodic cost	$ 1,301	$ 1,068	$ 1,032

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The following table provides a reconciliation of the changes in the accumulated postretirement benefit obligation and fair value of assets for the postretirement benefits for the fiscal years ended September 30:

	Year Ended September 30,	
	2017	2016
Changes in accumulated postretirement benefit obligation:		
Accumulated postretirement benefit obligation at beginning of year	$ 35,630	$ 34,927
Service cost	14	22
Interest cost	1,244	1,048
Premiums paid by plan participants	1,365	1,299
Net actuarial (gains) losses	(2,049)	1,912
Benefits paid	(3,964)	(3,503)
Foreign currency exchange rate changes	12	(75)
Accumulated postretirement benefit obligation at end of year	$ 32,252	$ 35,630
Changes in fair value of plan assets:		
Fair value of plan assets at beginning of year	$ -	$ -
Contributions by the company	2,599	2,204
Premiums paid by plan participants	1,365	1,299
Benefits paid	(3,964)	(3,503)
Fair value of plan assets at end of year	$ -	$ -
Funded status at end of year	$ (32,252)	$ (35,630)

The Company’s postretirement medical plan in the United Kingdom represents $409 of the total benefit obligation at September 30, 2017. The Company paid $21 in medical benefits to participants of the United Kingdom postretirement medical plan in fiscal year 2017.

The following tables provide the amounts recognized in the statement of financial position and accumulated other comprehensive losses (earnings) for the postretirement plans:

	Year Ended September 30,	
	2017	2016
Amounts recognized in statement of financial position consist of:		
Accrued liabilities	$ (2,410)	$ (2,505)
Other non-current liabilities	(29,842)	(33,125)
Funded status at end of year	$ (32,252)	$ (35,630)
Amounts recognized in accumulated other comprehensive income consist of:		
Unrecognized net prior service benefit	$ (160)	$ (318)
Unrecognized net losses	3,234	5,484
Total amounts recognized	3,074	5,166
Deferred taxes	(1,183)	(1,979)
Amounts recognized in accumulated other comprehensive income	$ 1,891	$ 3,187

Woodward pays plan benefits from its general funds; therefore, there are no segregated plan assets as of September 30, 2017 or September 30, 2016.

The accumulated benefit obligations of the Company’s postretirement plans were $32,252 at September 30, 2017 and $35,630 at September 30, 2016.

The following table reconciles the changes in accumulated other comprehensive losses (earnings) for the other postretirement benefit plans:

	Year Ended September 30,	
	2017	2016
Accumulated other comprehensive losses at beginning of year	$ 5,166	$ 3,268
Net (gain) loss	(2,049)	1,912
Amortization of:		
Net losses	(201)	(156)
Prior service benefit	158	158
Foreign currency exchange rate changes	-	(16)
Accumulated other comprehensive losses at end of year	$ 3,074	$ 5,166

Using foreign currency exchange rates as of September 30, 2017 and expected future service, it is anticipated that the future Company contributions to pay benefits, excluding participate contributions, will be as follows:

Year Ending September 30,	
2018	$ 3,871
2019	3,890
2020	3,871
2021	3,852
2022	3,818
2023 – 2027	17,812

Multiemployer defined benefit plans

Woodward operates two multiemployer defined benefit plans for certain employees in the Netherlands and Japan. The amounts of contributions associated with the multiemployer plans were as follows:

	Year Ended September 30,		
	2017	2016	2015
Company contributions	$ 292	$ 475	$ 600

The plan in the Netherlands is a quasi-mandatory plan that covers all of Woodward’s employees in the Netherlands and is part of the Dutch national pension system.

The Company may elect to withdraw from its multiemployer plan in Japan, although it has no plans to do so. If the Company elects to withdraw from the Japanese plan, it would incur an immaterial one-time contribution cost. Changes in Japanese regulations could trigger reorganization of or abolishment of the Japanese multiemployer plan, which could impact future funding levels.

Note 18. Stockholders' equity

Common Stock

Holders of Woodward's common stock are entitled to receive dividends when and as declared by Woodward's Board of Directors and have the right to one vote per share on all matters requiring stockholder approval.

Dividends declared and paid during the 2017, 2016 and 2015 fiscal years were:

	Year Ended September 30,		
	2017	2016	2015
Dividends declared and paid	$ 29,745	$ 26,606	$ 24,646
Dividend per share amount	0.485	0.430	0.380

Stock repurchase program

In the first quarter of fiscal year 2017, Woodward's Board of Directors terminated the Company's prior stock repurchase program (the "Prior Repurchase Program") and replaced it with a new program for the repurchase of up to $500,000 of Woodward's outstanding shares of common stock on the open market or in privately negotiated transactions over a three-year period that will end in 2019 (the "2016 Authorization"). Under the 2016 Authorization, in fiscal year 2017, Woodward purchased 1,027 shares of its common stock for $71,197, of which 491 shares were purchased pursuant to 10b5-1 plans and 536 shares were purchased pursuant to a 10b-18 plan.

In the third quarter of fiscal year 2015, Woodward entered into an ASR Agreement with Goldman under which Woodward repurchased shares of its common stock for an aggregate purchase price of $125,000. A total of 2,506 shares of common stock were repurchased pursuant to the ASR Agreement under the Prior Repurchase Program.

Under the Prior Repurchase Program, in the first quarter of fiscal year 2016, Woodward executed a 10b5-1 plan to repurchase up to $125,000 of its common stock for a period that ended on April 20, 2016. During fiscal year 2016, Woodward purchased 2,635 shares of its common stock for $125,000.

Stock-based compensation

Non-qualified stock option awards and restricted stock awards are granted to key management members and directors of the Company. The grant date for these awards is used for the measurement date. Vesting would be accelerated in the event of retirement, disability, or death of a participant, or change in control of the Company, as defined in the individual stock option agreements. These awards are valued as of the measurement date and are amortized on a straight-line basis over the requisite vesting period for all awards, including awards with graded vesting. Stock for exercised stock options and for restricted stock awards is issued from treasury stock shares.

Provisions governing outstanding stock option awards are included in the 2006 Omnibus Incentive Plan (the "2006 Plan") and the 2002 Stock Option Plan (the "2002 Plan"). The 2002 Plan provided that no further grants would be made after December 31, 2006. The 2006 Plan, which was approved by Woodward's stockholders and became effective January 25, 2006, expired in fiscal year 2016, therefore, no further grants will be made under the 2006 Plan.

The 2017 Omnibus Incentive Plan (the "2017 Plan") was approved by Woodward's stockholders in January 2017 and is a successor plan to the 2006 Plan. As of September 14, 2016, the effective date of the 2017 Plan, Woodward's Board of Directors delegated authority to administer the 2017 Plan to the compensation committee of the board (the "Committee"), including, but not limited to, the power to determine the recipients of awards and the terms of those awards. The Committee approved issuance of options under the 2017 Plan, with an award date of October 3, 2016 conditional and subject to approval of the 2017 Plan by the stockholders. The stock options conditionally awarded under the 2017 Plan were not granted or outstanding for accounting purposes prior to stockholder approval of the 2017 Plan, and as such no stock-based compensation expense was recognized on these stock options during the three-months ended December 31, 2016. Stock-based compensation expense recognized on these stock options for the nine-months ended September 30, 2017 includes recognition of the elapsed service period of these stock options from October 3, 2016 through September 30, 2017.

Stock-based compensation expense recognized was as follows:

	Year Ended September 30,		
	2017	2016	2015

Employee stock-based compensation expense	$ 17,282	$ 15,122	$ 14,255

Stock options

Woodward's 2017 Plan, which was approved by Woodward's stockholders, provides for the grant of up to 2,000 shares of Woodward's common stock, including in the form of stock options to its employees and directors. To date, equity awards under the 2017 Plan have consisted of grants of stock options to Woodward employees and directors. Woodward believes that these stock options align the interests of its employees and directors with those of its stockholders. Stock option awards are granted with an exercise price equal to the market price of Woodward's stock at the date of grant, a ten-year term, and generally a four-year vesting schedule at a rate of 25% per year.

The date of grant for stock options is the date when the grants become unconditionally awarded and an employer and grantee reach a mutual understanding of the key terms and conditions of the grant. Stock options awarded as of October 3, 2016 were conditional and subject to the approval of the 2017 Plan by the stockholders. As such, those awards have a date of grant for accounting purposes of January 25, 2017, the date the 2017 Plan was approved by stockholders.

The fair value of options granted is estimated as of the grant date using the Black-Scholes-Merton option-valuation model using the assumptions in the following table. Woodward calculates the expected term, which represents the average period of time that stock options granted are expected to be outstanding, based upon historical experience of plan participants. Expected volatility is based on historical volatility using daily stock price observations. The estimated dividend yield is based upon Woodward's historical dividend practice and the market value of its common stock. The risk-free rate is based on the U.S. treasury yield curve, for periods within the contractual life of the stock option, at the time of grant.

	Year Ended September 30,		
	2017	2016	2015
Weighted-average exercise price per share	62.74	40.26	46.55
Weighted-average grant date market value of Woodward stock	69.45	40.26	46.55
Expected term (years)	6.0 - 8.7	6.3 - 8.7	6.2 - 8.8
Estimated volatility	30.6% - 33.7%	34.5% 35.1%	36.5%
Estimated dividend yield	0.7%	1.0%	0.7%
Risk-free interest rate	2.0% - 2.5%	1.7% - 2.0%	2.0% - 2.3%

The weighted average grant date fair value of options granted follows:

	Year Ended September 30,		
	2017	2016	2015
Weighted-average grant date fair value of options	$ 24.98	$ 13.39	$ 17.02

The following is a summary of the activity for stock option awards during the fiscal year ended September 30, 2017:

Number

		Weighted-Average Exercise Price Per Share
Balance at September 30, 2016	4,944	$ 35.35
Options granted	791	62.74
Options exercised	(466)	33.65
Options forfeited	(33)	44.21
Balance at September 30, 2017	5,236	39.58

Exercise prices of stock options outstanding as of September 30, 2017 range from $18.67 to $70.39.

Changes in non-vested stock options during the fiscal year ended September 30, 2017 were as follows:

	Number	Weighted-Average Grant Date Fair Value Per Share
Balance at September 30, 2016	2,075	$ 14.90
Options granted	791	24.98
Options vested	(763)	15.26
Options forfeited	(31)	15.40
Balance at September 30, 2017	2,072	18.61

Information about stock options that have vested, or are expected to vest, and are exercisable at September 30, 2017 was as follows:

	Number	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Life in Years	Aggregate Intrinsic Value
Options outstanding	5,236	$ 39.58	5.9	$ 199,098
Options vested and exercisable	3,164	32.80	4.5	141,785
Options vested and expected to vest	5,164	39.39	5.9	197,348

Other information follows:

	Year Ended September 30,		
	2017	2016	2015
Total fair value of stock options vested	$ 11,639	$ 10,374	$ 9,656
Total intrinsic value of options exercised	16,416	23,178	18,876
Cash received from exercises of stock options	14,196	15,892	8,400
Excess tax benefit realized from exercise of stock options	4,383	6,472	6,959

Restricted Stock

In the first quarter of fiscal year 2014, Woodward granted an award of 24 shares of restricted stock under the 2006 Plan to its Chief Executive Officer and President, Thomas A. Gendron, pursuant to a form restricted stock agreement approved by Woodward's Compensation Committee of the Board of Directors. Subject to Mr. Gendron's continued employment by the Company, 100% of these shares of restricted stock would have vested following the end of the Company's fiscal year 2017 if a specified cumulative earnings per share ("EPS") target was met or exceeded for fiscal years 2014 through 2017. The cumulative EPS target for fiscal years 2014 through 2017 was not met, and therefore the restricted stock was forfeited by Mr. Gendron as of September 30, 2017.

A summary of the activity for restricted stock awards in the fiscal year ended September 30, 2017 follows:

	Number	Fair Value per Share
Balance at September 30, 2016	24	$ 39.43
Shares granted	-	n/a

Shares vested	-	n/a
Shares forfeited	(24)	39.43
Balance at September 30, 2017	-	n/a

Stock-based compensation cost

Woodward recognizes stock-based compensation expense on a straight-line basis over the requisite service period. Pursuant to form stock option agreements used by the Company, with terms approved by the administrator of the applicable plan, the requisite service period can be less than the four-year vesting period based on the grantee's retirement eligibility. As such, the recognition of stock-based compensation expense associated with some stock option grants can be accelerated to a period of less than four years, including immediate recognition of stock-based compensation expense on the date of grant.

At September 30, 2017, there was approximately $8,823 of total unrecognized compensation expense related to non-vested stock-based compensation arrangements, both stock options and restricted stock awards, granted under the 2006 Plan (for which no further grants will be made) and stock options granted under the 2017 Plan. The pre-vesting forfeiture rates for purposes of determining stock-based compensation expense recognized were estimated to be 0% for members of Woodward's board of directors and 9% for all others. The remaining unrecognized compensation cost is expected to be recognized over a weighted-average period of approximately 2 years.

Note 19. Commitments and contingencies

Woodward has entered into operating leases for certain facilities, equipment, and software with terms in excess of one year under agreements that expire at various dates. Some leases require the payment of property taxes, insurance, and maintenance costs in addition to rental payments. Woodward has also entered into capital leases for equipment with terms in

excess of one year under agreements that expire at various dates. Future minimum payments required under these leases, excluding available option renewals, are as follows:

Year Ending September 30,	Operating Leases	Capital Leases
2018	$ 6,315	$ 444
2019	4,265	451
2020	3,872	122
2021	3,188	-
2022	2,148	-
Thereafter	3,427	-
Total	$ 23,215	$ 1,017

Rent expense for all operating leases totalled:

	Year Ended September 30,		
	2017	2016	2015
Rent expense	$ 8,302	$ 7,359	$ 7,299

Woodward enters into unconditional purchase obligation arrangements (i.e. issuance of purchase orders, obligations to transfer funds in the future for fixed or minimum quantities of goods or services at fixed or minimum prices, such as "take-or-pay" contracts) in the normal course of business to ensure that adequate levels of sourced product are available to Woodward. Future minimum unconditional purchase obligations are as follows:

Year Ending September 30,	
2018	$ 299,267
2019	17,993
2020	232
2021	66
2022	-
Thereafter	-
Total	$ 317,558

The U.S. Government, and other governments, may terminate any of Woodward’s government contracts (and, in general, subcontracts) at their convenience, as well as for default based on specified performance measurements. If any of Woodward’s government contracts were to be terminated for convenience, the Company generally would be entitled to receive payment for work completed and allowable termination or cancellation costs. If any of Woodward’s government contracts were to be terminated for Woodward’s default, the U.S. Government generally would pay only for the work accepted, and could require Woodward to pay the difference between the original contract price and the cost to re-procure the contract items, net of the work accepted from the original contract. The U.S. Government could also hold Woodward liable for damages resulting from the default.

Woodward is currently involved in claims, pending or threatened litigation or other legal proceedings, investigations and/or regulatory proceedings arising in the normal course of business, including, among others, those relating to product liability claims, employment matters, worker's compensation claims, contractual disputes, product warranty claims and alleged violations of various laws and regulations. Woodward accrues for known individual matters where it believes that it is probable the matter will result in a loss when ultimately resolved using estimates of the most likely amount of loss.

Legal costs are expensed as incurred and are classified in "Selling, general and administrative expenses" on the Consolidated Statements of Earnings.

Woodward is partially self-insured in the United States for healthcare and worker's compensation up to predetermined amounts, above which third party insurance applies. Management regularly reviews the probable outcome of these claims and proceedings, the expenses expected to be incurred, the availability and limits of the insurance coverage, and the established accruals for liabilities.

While the outcome of pending claims, legal and regulatory proceedings, and investigations cannot be predicted with certainty, management believes that any liabilities that may result from these claims, proceedings and investigations will not have a material effect on Woodward's liquidity, financial condition, or results of operations.

In the event of a change in control of Woodward, as defined in change-in-control agreements with its current corporate officers, Woodward may be required to pay termination benefits to such officers.

Note 20. Segment information

Woodward serves the aerospace and industrial markets through its two reportable segments – Aerospace and Industrial. When appropriate, Woodward's reportable segments are aggregations of Woodward's operating segments. Woodward uses operating segment information internally to manage its business, including the assessment of operating segment performance and decisions for the allocation of resources between operating segments.

The accounting policies of the reportable segments are the same as those of the Company. Woodward evaluates segment profit or loss based on internal performance measures for each segment in a given period. In connection with that assessment, Woodward generally excludes matters such as certain charges for restructuring costs, interest income and expense, certain gains and losses from asset dispositions, or other non-recurring and/or non-operationally related expenses.

A summary of consolidated net sales and earnings by segment follows:

	Year Ended September 30,		
	2017	2016	2015
Segment external net sales:			
Aerospace	$ 1,342,339	$ 1,233,176	$ 1,160,883
Industrial	756,346	789,902	877,420
Total consolidated net sales	$ 2,098,685	$ 2,023,078	$ 2,038,303
Segment earnings:			
Aerospace	$ 257,813	$ 232,166	$ 187,747
Industrial	78,991	82,237	126,641
Nonsegment expenses	(58,352)	(63,166)	(49,362)
Interest expense, net	(25,705)	(24,751)	(24,077)
Consolidated earnings before income taxes	$ 252,747	$ 226,486	$ 240,949

Segment assets consist of accounts receivable, inventories, property, plant, and equipment, net, goodwill, and other intangibles, net. A summary of consolidated total assets, consolidated depreciation and amortization and consolidated capital expenditures follows:

	Year Ended September 30,		
	2017	2016	2015
Segment assets:			
Aerospace	$ 1,722,789	$ 1,637,522	$ 1,566,421
Industrial	695,264	705,169	653,848
Unallocated corporate property, plant and equipment, net	104,755	89,988	85,834
Other unallocated assets	234,301	209,683	206,301
Consolidated total assets	$ 2,757,109	$ 2,642,362	$ 2,512,404
Segment depreciation and amortization:			
Aerospace	$ 47,277	$ 40,825	$ 46,488
Industrial	24,421	20,412	20,768
Unallocated corporate amounts	9,219	7,799	7,979
Consolidated depreciation and amortization	$ 80,917	$ 69,036	$ 75,235
Segment capital expenditures:			
Aerospace	$ 62,812	$ 90,749	$ 150,021
Industrial	12,189	62,065	113,292
Unallocated corporate amounts	17,335	22,878	23,299
Consolidated capital expenditures	$ 92,336	$ 175,692	$ 286,612

Sales to General Electric Company were made by both of Woodward's reportable segments and totaled approximately 16% of net sales in fiscal year 2017, 17% of net sales in fiscal year 2016, and 18% of net sales in fiscal year 2015. Sales to The Boeing Company were made by Woodward's Aerospace segment and totaled approximately 11% of net sales in fiscal year 2017, 8% of net sales in fiscal year 2016, and 7% of net sales in fiscal year 2015.

Accounts receivable from General Electric Company totaled approximately 10% of accounts receivable at September 30, 2017 and 14% of accounts receivable at September 30, 2016. Accounts receivable from Weichai Westport, Inc. totaled approximately 14% of accounts receivable at September 30, 2017 and 3% of accounts receivable at September 30, 2016.

U.S. Government related sales from Woodward's reportable segments were as follows:

	Direct U.S. Government Sales	Indirect U.S. Government Sales	Total U.S. Government Related Sales
Fiscal year ended September 30, 2017			
Aerospace	$ 106,685	$ 362,536	$ 469,221
Industrial	3,726	10,814	14,540
Total net external sales	$ 110,411	$ 373,350	$ 483,761
Percentage of total net sales	5%	18%	23%
Fiscal year ended September 30, 2016			
Aerospace	$ 103,026	$ 310,952	$ 413,978
Industrial	6,550	9,845	16,395
Total net external sales	$ 109,576	$ 320,797	$ 430,373
Percentage of total net sales	5%	16%	21%
Fiscal year ended September 30, 2015			
Aerospace	$ 92,322	$ 258,391	$ 350,713
Industrial	4,836	8,839	13,675
Total net external sales	$ 97,158	$ 267,230	$ 364,388
Percentage of total net sales	5%	13%	18%

Accounts receivable from the U.S. Government totaled approximately 3% of accounts receivable at September 30, 2017 and 2% of accounts receivable at September 30, 2016.

The customers who account for approximately 10% or more of sales to each of Woodward's reportable segments for the fiscal year ended September 30, 2017 follow:

	Customer
Aerospace	The Boeing Company, United Technologies Corporation, General Electric Company
Industrial	General Electric Company

Net sales by geographical area, as determined by the location of the customer invoiced, were as follows:

	Year Ended September 30,		
	2017	2016	2015
United States	$ 1,211,902	$ 1,118,833	$ 1,054,895
Europe (1)	478,725	537,901	569,322
Asia	288,252	228,683	241,875
Other countries	119,806	137,661	172,211

Consolidated net sales	$ 2,098,685	$ 2,023,078	$ 2,038,303

(1) As a percentage of consolidated net sales, net sales to customers in Germany accounted for 8% for the year ended September 30, 2017, 10% for the year ended September 30, 2016 and 10% for the year ended September 30, 2015.

Property, plant, and equipment, net by geographical area, as determined by the physical location of the assets, were as follows:

	At September 30,	
	2017	2016
United States	$ 872,947	$ 826,225
Germany	24,541	24,468
Other countries	24,555	25,657
Consolidated property, plant and equipment, net	$ 922,043	$ 876,350

Note 21. Supplemental quarterly financial data (Unaudited)

Quarterly results for the fiscal years ended September 30, 2017 and September 30, 2016 follow:

	2017 Fiscal Quarters			
	First	Second	Third	Fourth
Net sales	$ 442,894	$ 500,381	$ 548,622	$ 606,788
Gross margin (1) (2)	113,746	133,282	153,872	171,659
Earnings before income taxes	47,059	50,236	68,687	86,765
Net earnings	46,548	38,105	53,626	62,228
Earnings per share				
Basic earnings per share	0.76	0.62	0.87	1.02
Diluted earnings per share	0.73	0.60	0.85	0.98
Cash dividends per share	0.110	0.125	0.125	0.125

	2016 Fiscal Quarters			
	First (3)	Second	Third	Fourth
Net sales	$ 445,110	$ 479,382	$ 507,664	$ 590,922
Gross margin (1) (2)	109,553	131,081	134,825	163,659
Earnings before income taxes	27,956	54,366	63,408	80,756
Net earnings	25,820	40,824	51,047	63,147
Earnings per share				
Basic earnings per share	0.41	0.66	0.83	1.03
Diluted earnings per share	0.40	0.65	0.81	0.99
Cash dividends per share	0.100	0.110	0.110	0.110

Notes:

1. Gross margin represents net sales less cost of goods sold.
2. Gross margin for all periods presented has been recast from previously reported quarterly results due to reclassification of amortization as a separate line to an allocated expense/cost component of cost of goods sold and

selling, general and administrative expenses. See “Note 1 - Operations and summary of significant accounting policies” for further information on reclassification.

3. Results for the first quarter of fiscal year 2016 include special charges totaling approximately $16,100 related to Woodward's efforts to consolidate facilities, reduce costs and address current market conditions.

Quarterly results by segment for the fiscal years ended September 30, 2017 and September 30, 2016 follow:

	2017 Fiscal Quarters			
	First	Second	Third	Fourth
Segment external net sales:				
Aerospace	$ 266,680	$ 320,526	$ 355,992	$ 399,141
Industrial	176,214	179,855	192,630	207,647
Total	$ 442,894	$ 500,381	$ 548,622	$ 606,788
Segment earnings:				
Aerospace	$ 46,877	$ 58,227	$ 67,173	$ 85,536
Industrial	17,998	17,089	20,870	23,034
Nonsegment expenses	(11,381)	(18,764)	(12,945)	(15,262)
Interest expense, net	(6,435)	(6,316)	(6,411)	(6,543)
Consolidated earnings before income taxes	$ 47,059	$ 50,236	$ 68,687	$ 86,765

	2016 Fiscal Quarters			
	First	Second	Third	Fourth
Segment external net sales:				
Aerospace	$ 268,599	$ 290,690	$ 308,582	$ 365,305
Industrial	176,511	188,692	199,082	225,617
Total	$ 445,110	$ 479,382	$ 507,664	$ 590,922
Segment earnings:				
Aerospace	$ 43,486	$ 50,578	$ 57,726	$ 80,376
Industrial	21,551	19,469	21,963	19,254
Nonsegment expenses (1)	(30,620)	(9,888)	(10,369)	(12,289)
Interest expense, net	(6,461)	(5,793)	(5,912)	(6,585)
Consolidated earnings before income taxes	$ 27,956	$ 54,366	$ 63,408	$ 80,756

Notes:

1. The results for Nonsegment expenses for the first quarter of fiscal year 2016 include special charges totaling approximately $16,100 related to Woodward's efforts to consolidate facilities, reduce costs and address current market conditions.

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

There have been no disagreements or any reportable events requiring disclosure under Item 304(b) of Regulation S-K.

Item 9A.Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We have established disclosure controls and procedures, which are designed to ensure that information required to be disclosed in reports filed or submitted under the Securities Exchange Act of 1934 (the "Act") is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. These disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in the reports that we file or submit under the Act is accumulated and communicated to management, including our Principal Executive Officer (Thomas A. Gendron, Chairman of the Board, Chief Executive Officer and President) and Principal Financial and Accounting Officer (Robert F. Weber, Jr., Vice Chairman, Chief Financial Officer and Treasurer), as appropriate, to allow timely decisions regarding required disclosures.

Thomas A. Gendron and Robert F. Weber, Jr., evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Form 10-K. Based on their evaluations, they concluded that our disclosure controls and procedures were effective as of September 30, 2017.

Management's Annual Report on Internal Control Over Financial Reporting

We are responsible for establishing and maintaining adequate internal control over financial reporting for the Company. We have evaluated the effectiveness of internal control over financial reporting using the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and, based on that evaluation, have concluded that the Company's internal control over financial reporting was effective as of September 30, 2017, the end of the Company's most recent fiscal year.

Deloitte & Touche LLP, an independent registered public accounting firm, conducted an audit of Woodward's internal control over financial reporting as of September 30, 2017, as stated in their report included in "Item 9A. – Controls and Procedures."

Internal control over financial reporting is a process designed by, or under the supervision of, our principal executive and principal financial officers, or persons performing similar functions, and effected by our Board of Directors, management, and other personnel, to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that:

· Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;

- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorization of management and directors of the Company; and
- 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.

There have been no changes in our internal control over financial reporting during the fourth fiscal quarter ended September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Woodward, Inc.
Fort Collins, Colorado

We have audited the internal control over financial reporting of Woodward, Inc. and subsidiaries (the "Company") as of September 30, 2017, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2017, based on the criteria established in Internal Control — Integrated Framework (2013) issued by

the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended September 30, 2017 of the Company and our report dated November 10, 2017 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ DELOITTE & TOUCHE LLP

Denver, Colorado
November 10, 2017

Item 9B.Other Information

None.

PART III

Item 10.Directors, Executive Officers and Corporate Governance

The information required by this item relating to our directors and nominees, regarding compliance with Section 16(a) of the Securities Act of 1934, and regarding our Audit Committee is included under the captions “Board of Directors,” “Board Meetings and Committees – Audit Committee” (including information with respect to audit committee financial experts), “Stock Ownership of Management,” and “Section 16(a) Beneficial Ownership Reporting Compliance” in our Proxy Statement related to the Annual Meeting of Stockholders to be held January 24, 2018 and is incorporated herein by reference. There have been no material changes to the procedures by which security holders may recommend nominees to our board of directors.

The information required by this item relating to the identities and background of our executive officers and other corporate officers is included under the caption “Executive Officers of the Registrant” in Item 1 of this report.

We have adopted a code of ethics that applies to all of our employees, including our principal executive officer and our principal financial and accounting officer. This code of ethics is posted on our Website. The Internet address for our Website is www.woodward.com, and the code of ethics may be found from our main Web page by clicking first on “Investors” and then on “Corporate Governance,” and then on “Woodward Codes of Business Conduct and Ethics.”

We intend to satisfy any disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of this code of ethics by posting such information to our Website, at the address and location specified above.

Item 11.Executive Compensation

Information regarding executive compensation is under the captions “Board Meetings and Committees – Director Compensation,” “Board Meetings and Committees – Compensation Committee Interlocks and Insider Participation,” “Compensation Discussion and Analysis,” “Compensation Committee Report,” “Executive Compensation” and “Board Meetings and Committees – Compensation Committee – Risk Assessment” in our Proxy Statement, and is incorporated herein by reference, except the section captioned “Compensation Committee Report on Compensation Discussion and Analysis” is hereby “furnished” and not “filed” with this Form 10-K.

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

Information regarding security ownership of certain beneficial owners and management and related stockholder matters is under the tables captioned “Stock Ownership of Management,” “Persons Owning More Than Five Percent of Woodward Stock,” and “Executive Compensation – Equity Compensation Plan Information” in our Proxy Statement, and is incorporated herein by reference.

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

The information set forth under “Board Meetings and Committees – Related Person Transaction Policies and Procedures,” “Board of Directors” and “Audit Committee Report to Stockholders” in our Proxy Statement and is incorporated herein by reference except the section captioned “Audit Committee Report” is hereby “furnished” and not

“filed” with this Form 10-K.

Item 14.Principal Accountant Fees and Services

Information regarding principal accountant fees and services is under the captions “Audit Committee Report to Stockholders – Audit Committee’s Policy on Pre-Approval of Services Provided by Independent Registered Public Accounting Firm” and “Audit Committee Report to Stockholders – Fees Paid to Independent Registered Public Accounting Firm” in our Proxy Statement, and is incorporated herein by reference.

Item 15.Exhibits and Financial Statement Schedules

		Page Number in Form 10-K
(a) (1)	Consolidated Financial Statements:	
	Report of Independent Registered Public Accounting Firm	50
	Consolidated Statements of Earnings for the fiscal years ended September 30, 2017, 2016, and 2015	51
	Consolidated Statements of Comprehensive Earnings for the fiscal years ended September 30, 2017, 2016, and 2015	52
	Consolidated Balance Sheets at September 30, 2017 and 2016	53
	Consolidated Statements of Cash Flows for the fiscal years ended September 30, 2017, 2016, and 2015	54
	Consolidated Statements of Stockholders' Equity for the fiscal years ended September 30, 2017, 2016, and 2015	55
	Notes to Consolidated Financial Statements	56
(a) (2)	Consolidated Financial Statement Schedule:	
	Valuation and Qualifying Accounts	109

Financial statements and schedules other than those listed above are omitted for the reason that they are not applicable, are not required, or the information is included in the financial statements or the footnotes.

(a) (3) Exhibits Filed as Part of This Report:

‡ 3.1 Restated Certificate of Incorporation, as amended October 3, 2007, filed as Exhibit 3(i)(a) to Annual Report on Form 10-K filed November 20, 2008

‡ 3.2 Bylaws of Woodward, Inc., as amended and restated on November 10, 2015, filed as Exhibit 3.2 to Annual Report on Form 10-K filed November 12, 2015

‡ 3.3 Certificate of Amendment of Certificate of Incorporation, dated January 23, 2008, filed as Exhibit 3(i)(b) to Annual Report on Form 10-K filed November 20, 2008

‡ 3.4 Certificate of Amendment of the Restated Certificate of Incorporation, dated January 26, 2011, filed as Exhibit 3.1 to Current Report on Form 8-K filed January 28, 2011

†‡ 10.1 Long-Term Management Incentive Compensation Plan, filed as Exhibit 10(c) to Annual Report on Form 10-K filed December 22, 2000

†‡ 10.2 Summary Description of the Woodward Variable Incentive Plan, filed as Exhibit 10.2 to Annual Report on Form 10-K filed November 16, 2016

†‡ 10.3 2002 Stock Option Plan, effective January 1, 2002, filed as Exhibit 10(iii) to Quarterly Report on Form 10-Q filed May 9, 2002

†‡ 10.4 Form of Outside Director Stock Purchase Agreement with James L. Rulseh, filed as Exhibit 10(j) to Annual Report on Form 10-K filed December 9, 2002

†‡ 10.5 2006 Omnibus Incentive Plan, effective January 25, 2006, filed as Exhibit 4.1 to Registration Statement on Form S-8 filed April 28, 2006

†‡10.6	Amendment No. 1 to the Woodward, Inc. 2006 Omnibus Incentive Plan, effective as of January 26, 2011, filed as Exhibit 10.10 to Annual Report on Form 10-K filed November 16, 2011
†‡10.7	Material Definitive Agreement with A. Christopher Fawzy, filed as Exhibit 10.12 to Quarterly Report on Form 10-Q filed July 25, 2007
†‡10.8	Form of Non-Qualified Stock Option Agreement, filed as Exhibit 99.2 to Current Report on Form 8-K filed November 21, 2007
†‡10.9	Form of Non-Qualified Stock Option Agreement, filed as Exhibit 10.12 to Annual Report on Form 10-K filed November 15, 2012
†‡10.10	Form of Non-Qualified

		Stock Option Agreement, filed as Exhibit 10.13 to Annual Report on Form 10-K filed November 14, 2013
†‡	10.11	Form of Restricted Stock Agreement, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q filed January 22, 2014
†‡	10.12	2017 Omnibus Incentive Plan, effective September 14, 2016, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q filed January 25, 2017
†‡	10.13	Form of Non-Qualified Stock Option Agreement, filed as Exhibit 10.2 to Quarterly Report on Form 10-Q filed January 25, 2017
‡	10.14	Credit Agreement, dated as of July 10, 2013, by and among the Company, the foreign subsidiary borrowers

		party thereto, the institutions party thereto as lenders, and Wells Fargo Bank, National Association, as administrative agent, filed as Exhibit 10.1 to Current Report on Form 8-K filed July 16, 2013
‡	10.15	Amendment No. 1 to Credit Agreement, dated April 28, 2015, and the conformed Credit Agreement by and among the Company, certain foreign subsidiary borrowers of the Company from time to time parties thereto, the institutions from time to time parties thereto, as lenders, Wells Fargo Bank, National Association, as administrative agent, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q filed July 21, 2015
†‡	10.16	Chad Preiss Promotion Letter dated October 1,

		2008, filed as Exhibit 10.19 to Annual Report on Form 10-K filed November 20, 2008
‡	10.17	Note Purchase Agreement, dated October 1, 2008, by and among the Company and the purchasers named therein, filed as Exhibit 10.2 to Current Report on Form 8-K filed October 7, 2008
‡	10.18	Amendment No. 1 to 2008 Note Purchase Agreement, dated as of October 1, 2013, by and among the Company and the noteholders named therein, filed as Exhibit 10.2 to Current Report on Form 8-K filed October 4, 2013
‡	10.19	Note Purchase Agreement, dated April 3, 2009, by and among the Company and the purchasers named therein, filed as Exhibit 10.2 to Current Report on Form 8-K filed

		April 8, 2009
‡	10.20	Amendment No. 1 to 2009 Note Purchase Agreement, dated as of October 1, 2013, by and among the Company and the noteholders named therein, filed as Exhibit 10.3 to Current Report on Form 8-K filed October 4, 2013
‡	10.21	Note Purchase Agreement, dated October 1, 2013, by and among the Company and the purchasers named therein, filed as Exhibit 10.1 to Current Report on Form 8-K filed October 4, 2013

‡	10.22	Note Purchase Agreement, dated September 23, 2016, by and among the Company and the purchasers named therein, filed as Exhibit 10.20 to Annual Report on Form 10-K filed November 16, 2016
‡	10.23	Note Purchase Agreement, dated September 23, 2016, by and among Woodward International Holding B.V. and the purchasers named therein, filed as Exhibit 10.21 to Annual Report on Form 10-K filed November 16, 2016
†‡	10.24	Form of Change in Control Agreement for the Company's principal executive officer and other executive officers other than the Company's principal financial officer, filed as Exhibit 10.25 to Annual Report on Form 10-K filed November 12, 2014
†‡	10.25	Form of Change in Control Agreement for the Company's principal financial officer, filed as Exhibit 10.26 to Annual Report on Form 10-K filed November 12, 2014
†‡	10.26	Executive Benefit Plan, as amended and restated as of September 18, 2013,

	filed as Exhibit 10.31 to Annual Report on Form 10-K filed November 14, 2013
†‡10.27	James D. Rudolph Promotion Letter, dated February 10, 2011, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q filed April 27, 2011
†‡10.28	Mr. Martin V. Glass employment letter, dated April 27, 2011, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q filed July 26, 2011
†‡10.29	Sagar Patel employment letter, dated June 17, 2011, filed as Exhibit 10.2 to Quarterly Report on Form 10-Q filed July 26, 2011
†‡10.30	Woodward Retirement Savings Plan, as amended and restated effective as of January 1, 2016, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q filed February 9, 2016
‡ 10.31	Purchase and Sale Agreement between Woodward, Inc. and General Electric Company dated January 4, 2016 filed as Exhibit 2.1 to Current Report on Form 8-K filed January 8, 2016
‡ 10.32	Amended and Restated Limited Liability Company

		Agreement of Convergence Fuel Systems, LLC, dated January 4, 2016 filed as Exhibit 10.1 to Current Report on Form 8-K filed January 8, 2016
‡	10.33	Accelerated Share Repurchase (ASR) Master Confirmation Agreement dated June 2, 2015, filed as Exhibit 10.3 to Quarterly Report on Form 10-Q filed July 21, 2015
‡	10.34	Accelerated Share Repurchase (ASR) Supplemental Confirmation Agreement dated June 2, 2015, filed as Exhibit 10.4 to Quarterly Report on Form 10-Q filed July 21, 2015
*	21.1	Subsidiaries
*	23.1	Consent of Independent Registered Public Accounting Firm
*	31.1	Rule 13a-14(a)/15d-14(a) certification of Thomas A. Gendron
*	31.2	Rule 13a-14(a)/15d-14(a) certification of Robert F. Weber, Jr.
*	32.1	Section 1350 certifications
*	101.INS	XBRL Instance Document.
*	101.SCH	XBRL Taxonomy Extension Schema Document
*	101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document

*	101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
*	101.LAB	XBRL Taxonomy Extension Label Linkbase Document

*	101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

Attached as Exhibit 101 to this report are the following materials from Woodward, Inc.'s Annual Report on Form 10-K for the year ended September 30, 2017, formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Statements of Earnings, (ii) the Consolidated Statements of Comprehensive Earnings, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Stockholders' Equity, and (vi) the Notes to the Consolidated Financial Statements.

† ‡ Management contract or compensatory plan or arrangement.

Incorporated by reference as an exhibit to this Report (file number 000-08408, unless otherwise

indicated).

* Filed as an exhibit to this Report.

Item 16. Form 10-K Summary

Not applicable

SIGNATURES

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

WOODWARD, INC.

Date: November 13, 2017 /s/ Thomas A. Gendron
Thomas A. Gendron
Chairman of the Board, Chief Executive Officer, and President

(Principal Executive Officer)

Date: November 13, 2017 /s/ Robert F. Weber, Jr.
Robert F. Weber, Jr.
Vice Chairman, Chief Financial Officer and Treasurer

(Principal Financial and Accounting Officer)

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 D. Cohn John D. Cohn	Director	November 10, 2017
/s/ Paul Donovan Paul Donovan	Director	November 10, 2017
/s/ Eileen P. Drake Eileen P. Drake	Director	November 10, 2017
/s/ Thomas A. Gendron Thomas A. Gendron	Chairman of the Board and Director	November 10, 2017

/s/ John A. Halbrook John A. Halbrook	Director	November 10, 2017
/s/ Daniel G. Korte Daniel G. Korte	Director	November 10, 2017
/s/ Mary L. Petrovich Mary L. Petrovich	Director	November 10, 2017
/s/ James R. Rulseh James R. Rulseh	Director	November 10, 2017
/s/ Ronald M. Sega Ronald M. Sega	Director	November 10, 2017
/s/ Gregg C. Sengstack Gregg C. Sengstack	Director	November 10, 2017
/s/ Jonathan W. Thayer Jonathan W. Thayer	Director	November 10, 2017

WOODWARD, INC. AND SUBSIDIARIES

SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS

For the years ended September 30, 2017, 2016, and 2015

(in thousands)

Column A	Column B	Column C Additions		Column D	Column E
Description	Balance at Beginning of Year	Charged to Costs and Expenses	Charged to Other Accounts (a)	Deductions (b)	Balance at End of Year
Fiscal year 2017					
Allowance for uncollectible accounts	$ 2,540	$ 1,063	$ 449	$ (276)	$ 3,776
Deferred tax asset valuation allowance	3,317	77	-	320	3,714
Fiscal year 2016					
Allowance for uncollectible accounts	3,841	255	233	(1,789)	2,540
Deferred tax asset valuation allowance	6,804	53	-	(3,540)	3,317
Fiscal year 2015					
Allowance for uncollectible accounts	7,078	364	487	(4,088)	3,841
Deferred tax asset valuation allowance	9,486	209	-	(2,891)	6,804

Notes:

(a) Includes recoveries of accounts previously written off.

(b) Represents accounts receivable written off against the allowance for collectible accounts and releases of valuation reserves to income tax expense. Also included are foreign currency exchange rate adjustments. Currency translation adjustments resulted in an increase in the reserves of $64 in fiscal year 2017, an increase in the reserve of $77 in fiscal year 2016, and a decrease in the reserve of $934 in fiscal year 2015.