

LEADING THE WAY

ALWAYS INNOVATING FOR A BETTER FUTURE

2023 ANNUAL REPORT

WOODWARD SHAREHOLDERS

Woodward built greater resilience and agility in 2023, delivered strong performance in challenging environments, and continued to lead the way on energy control solutions for aerospace and industrial customers.

The company delivered solid growth and ended the year with a strong balance sheet:

- \$2.9B of revenue, a 22% increase
- Adj EPS¹ increased 53% to \$4.21
- Adj Free Cash Flow¹ increased 65% to \$238M

This year we focused on increasing capacity and output to meet strong demand across the end markets we serve. We made strategic investments in areas such as Rapid Response Machining centers, accelerated training programs, and predictive capabilities to identify and proactively address supply chain disruptions.

We also renewed our focus on our lean transformation and launched our first two deep-dive value stream transformations. We reinforced our commitment to safety by launching the Human and Organizational Performance model. Our work will enable us to initiate several more value stream transformations in the coming year and continue to build competitiveness through operational excellence.

Our members made these things possible through their unwavering dedication to innovation, operational excellence, and customer satisfaction.

We welcomed our new CFO, Bill Lacey, who hit the ground running and is making a positive impact. We thank our entire Board of Directors for their many contributions to our company. We also added two new board members, Tana Utley and Mary Petryszyn, who are both adding tremendous value to our strategy and governance.

We continued our strong tradition of investing in value creation for all stakeholders, including our customers, members, shareholders, and the communities where we operate.

VALUE CREATION FOR CUSTOMERS

Over the past year, our segment leaders and I spent time with our customers to listen, understand their needs, and proactively resolve issues. Our customers' ongoing trust and confidence in Woodward are paramount, and we have been working to recover on all delivery commitments and maintain our leadership position.

In 2023, global passenger traffic recovered to near 2019 levels. Our teams worked diligently to meet demands for current programs and growth platforms, such as LEAP, GTF, GEnx, F-35, 737 MAX and A320neo, while partnering with

customers on solutions for next generation aircraft. We are also continuing to invest in capacity to serve the expected aftermarket growth in the years ahead.

Our Industrial segment experienced growth across its end markets, including transportation, oil & gas, and power generation. This also placed additional demand on the supply chain.

This past year we took necessary measures to improve on delivery times. Our customers know we maintain unwavering commitment to delivering quality products on time, even when conditions test us as they did over the past few years.

We're working in close collaboration with our key suppliers to improve our ability to quickly identify and resolve any disruptions and best serve our customers. We are grateful for our customers' continued partnership and trust in Woodward, and remain steadfast in our commitment to their long-term success.

TALENT DEVELOPMENT

We amplified efforts to make Woodward a talent powerhouse and a great place to work. We expanded training and development for members to further develop their skills and capabilities, set rewarding career paths, and feel a sense of inclusion and belonging. We want every current and future Woodward member to have the opportunity to reach their greatest potential.

In 2023 we expanded collaboration with universities and technical schools for internships and early career programs. This included establishing a dedicated University Relations program. Whenever I talk with students, I feel inspired by their energy and passion to join our mission to innovate for a better future.

CREATING SHAREHOLDER VALUE

Woodward's long-term shareholders recognize that we are an exceptional company. This past year we built upon our long-time legacy of innovation to show resiliency and agility in overcoming challenges in inflation, supply chain disruptions and labor constraints. I believe our countermeasures and learnings will make us stronger.

We started the year in post-pandemic recovery mode and finished strong in the second half as we gained traction on output and margin expansion. We improved productivity, streamlined product portfolios, drove strong price realization, and proactively managed the supply chain. Our teams also delivered on a sharp uptick in demand for our China on-highway gas truck business.



FINANCIAL HIGHLIGHTS

We returned \$177M to shareholders in the year through dividends and share repurchases. We look forward to continuing to deliver strong returns for shareholders. Thank you for investing in Woodward.

SUPPORTING COMMUNITIES

In addition, I'd like to mention the communities where we operate, which are also important Woodward stakeholders. We serve and support them through our ongoing outreach programs, member volunteer efforts, and annual grants through the Woodward Charitable Trust. Contributing to our communities reflects our values and is a rewarding aspect of being part of Woodward.

AN EXTRAORDINARY YEAR

In 2023, we harnessed the power of Woodward's legacy of innovation, while building the next generation of solutions for the energy transition. We worked closely with customers to prioritize and deliver on their critical needs today, while also creating technologies for tomorrow. We embraced lean thinking to empower our members to problem solve and transform value streams. We also delivered on key financial performance targets for the year.

These accomplishments will help us continue to create value for all our stakeholders. Thank you for being part of our journey.

> Chip Blankenship

Chairman, CEO and President









AEROSPACE 2023 HIGHLIGHTS

During 2023, our Aerospace segment continued its leading position in energy control solutions as the markets recovered to near post-pandemic levels. Across our Aerospace operations, we achieved many accomplishments and launched several initiatives that we will fully execute in the coming year.

Notable among these were transformation of our Loves Park, Illinois, and Prestwick, Scotland, sites, which along with capacity across our other sites, prepares us to deliver on continued strong demand for fuel controls and further growth in Maintenance, Repair and Overhaul (MRO) services. Our Aerospace teams delivered on current programs, including LEAP, GTF, GEnx, F-35, 737 MAX and A320neo, and partnered with our customers on next generation technologies, such as the Airbus ZEROe demonstrator for hydrogen-powered aviation.

Across our Aerospace sites, we're also expanding automation capabilities with advanced robotic, Rapid Response Manufacturing, and machine vision technologies. The segment put our lean transformation into action, setting the stage for focused Kaizen activity in fiscal 2024.

In addition, our Aerospace teams have successfully implemented accelerated training programs to get new members up and running, while maintaining product quality and safety.

Ultimately, it was another strong year for our Aerospace team, preparing us to deliver on additional growth in 2024.





INDUSTRIAL 2023 HIGHLIGHTS

2023 was a year of accelerated improvement in our Industrial segment. We began to see positive impacts from our streamlined structure, new segment leadership, supply/ demand planning, and pricing discipline. We navigated continued strong demand, a significant uptick in the China on-highway gas market, supply chain challenges and labor constraints to end the year strong.

We delivered major programs for our Industrial customers across end markets, including power generation, oil & gas, and transportation. We also continued to innovate and collaborate with customers to help them meet their energy transition goals. In addition, we completed integration of our PM Control acquisition, which supports continued global expansion of our services offerings.

The industrial gas flow value stream transformation is underway reducing lead time and reinforcing members' enthusiasm for problem solving.

Our improvements and accomplishments in Industrial position us well to meet customer demands and realize the full potential of this segment in coming years.



2023 BOARD OF DIRECTORS I

STANDING (from left to right)

Ronald M. Sega

Emeritus Professor and Director, Systems Engineering, Colorado State University

Eileen P. Drake

Former Chief Executive Officer and President, Aerojet Rocketdyne Holdings, Inc.

Charles Blankenship, Jr.

Chairman, Chief Executive Officer and President, Woodward, Inc.

John D. Cohn

President, CrossBorder Strategic Solutions, LLC

Mary D. Petryszyn

Former Corporate Vice President, President Defense Systems, Northrop Grumman Corporation

Rajeev Bhalla

Former Operating Partner, Cerberus Operating and Advisory Company

Daniel G. Korte

Global Vice President, Aerospace PPG Industries, Inc.

SITTING (from left to right)

David P. Hess

Former Chief Executive Officer, Arconic Corporation

Gregg C. Sengstack

Chairman, Chief Executive Officer and President, Franklin Electric Co., Inc.

Tana L. Utley

Former Vice President, Large Power Systems, Caterpillar, Inc.





LEADING THE WAY

ALWAYS INNOVATING FOR A BETTER FUTURE

FORM 10-K

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, 2023

	or	
☐ TRANSITION REPORT PURSUANT TO	• •	
For the	transition period from to	
Co	mmission file number <u>000-0840</u>	<u>80</u>
WO	ODWARD,	INC.
	e of registrant as specified in i	
<u>Delaware</u>	- '	<u>36-1984010</u>
(State or other jurisdiction of incorporation or orga	nization)	(I.R.S. Employer Identification No.)
1081 Woodward Way, Fort Collins, Colora	<u>ido</u>	<u>80524</u>
(Address of principal executive offices)		(Zip Code)
(Registrant'	(970) 482-5811 's telephone number, including	area code)
Securities regi	istered pursuant to Section 12((b) of the Act:
Title of each class	Trading Symbol(s)	Name of exchange on which registered
Common Stock, par value \$0.001455 per share	<u>wwD</u>	NASDAQ Global Select Market
Indicate by check mark if the registrant is a well-known seasoned issue	r, as defined in Rule 405 of the Secur	ities Act. Yes ⊠ No □
Indicate by check mark if the registrant is not required to file reports pr	•	•
Indicate by check mark whether the registrant (1) has filed all reports r months (or for such shorter period that the registrant was required to	•	
Indicate by check mark whether the registrant has submitted electronic of this chapter) during the preceding 12 months (or for such shorter pe		
Indicate by check mark whether the registrant is a large accelerated filer. See definitions of "large accelerated filer," "accelerated filer," "smaller		
Large Accelerated Filer \boxtimes Accelerated Filer \square Non-accelerated Filer \square	Smaller Reporting Company □	
Emerging Growth Company \square		
If an emerging growth company, indicate by check mark if the registra accounting standards provided pursuant to Section 13(a) of the Exchange $(1,0)$		ded transition period for complying with any new or revised financia
Indicate by check mark whether the registrant has filed a report on a reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 72 $$	_	
If securities are registered pursuant to Section 12(b) of the Act, indicate of an error to previously issued financial statements. \Box	by check mark whether the financial	statements of the registrant included in the filing reflect the correction
Indicate by check mark whether any of those error corrections are registrant's executive officers during the relevant recovery period purs	· ·	ery analysis of incentive-based compensation received by any of the
Indicate by check mark whether the registrant is a shell company (as de	efined in Rule 12b-2 of the Exchange	Act). Yes □ No ⊠
Aggregate market value of registrant's common stock held by non-affill 31, 2023 as reported on The NASDAQ Global Select Market on that dat than 5% of the outstanding shares of stock, (ii) officers and directors of Company Deferred Shares Trust or the Woodward Charitable Trust as	e: \$3,553,994. For purposes of this ca the registrant, and (iii) the Woodwa	alculation, shares of common stock held by (i) persons holding more rd Governor Company Profit Sharing Trust, Woodward Governor

As of November 16, 2023, 60,032,056 shares of the registrant's common stock with a par value of \$0.001455 per share were outstanding.

is not necessarily conclusive of affiliate status.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of our proxy statement for the Annual Meeting of Stockholders to be held virtually on January 24, 2024, are incorporated by reference into Parts II and III of this Form 10-K, to the extent indicated.

TABLE OF CONTENTS

		Page
	PART I	
	Forward Looking Statements	1
Item 1.	<u>Business</u>	2
Item 1A.	Risk Factors	8
Item 1B.	Unresolved Staff Comments	19
Item 2.	<u>Properties</u>	20
Item 3.	Legal Proceedings	20
Item 4.	Mine Safety Disclosures	20
	PART II	
Item 5.	Market Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	21
Item 6.	<u>Reserved</u>	22
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	23
Item 7A.	Quantitative and Qualitative Disclosures about Market Risk	38
Item 8.	Financial Statements and Supplementary Data	39
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosures	89
Item 9A.	Controls and Procedures	89
Item 9B.	Other Information	90
Item 9C.	Disclosures Regarding Foreign Jurisdictions that Prevent Inspections	90
	PART III	
Item 10.	<u>Directors, Executive Officers and Corporate Governance</u>	91
Item 11.	Executive Compensation	91
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	91
Item 13.	Certain Relationship and Related Transactions, and Director Independence	91
Item 14.	Principal Accountant Fees and Services	91
	PART IV	
Item 15.	Exhibits and Financial Statement Schedules	92
Item 16.	Form 10-K Summary	95
	Signatures	96

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," "outlook," "plan," "project," "target," "strive," "can," "could," "may," "should," "will," "would," variations of such words, and similar expressions are 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:

- the impacts on our business relating to the macroeconomic environment, including ongoing global supply chain disruptions, rising labor costs, commodity price fluctuations, tariffs, and material inflation;
- future sales, earnings, cash flow, uses of cash, and other measures of financial performance, including our assumptions underlying our expectations;
- trends in our business and the markets in which we operate, including expectations for those markets, our customers and their business and products;
- expectations regarding demand for our products;
- our expected expenses in future periods and trends in such expenses over time;
- descriptions of our plans and expectations for future operations, including our strategic initiatives and impact of such initiatives;
- plans and expectations relating to the performance of our joint venture with General Electric Company;
- 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;
- 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 dividends and repurchases of common stock;
- future levels of indebtedness and capital spending;
- the stability of financial institutions, including those lending to us;
- pension and other postretirement plan assumptions and future contributions; and
- our tax rate and other effects of the changes in U.S. federal tax law.
- availability of raw materials and components used in our products;
- expectations relating to environmental and emissions regulations;
- effects of data privacy, data protection, and information security regulations;
- our ability to develop competitive technologies;
- our consolidated customer base;
- expectations regarding U.S. Government defense spending and contracting;
- our ability to attract and retain qualified personnel;
- the impact of our ability to protect our intellectual property on our business, financial condition, results of operations, and cash flows; and
- impact of any potential physical or cybersecurity attacks on our operations, business, including our financial condition, operating results, and reputation.

All these forward-looking statements are only predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Factors that could cause actual results and the timing of certain events to differ materially from the forward-looking statements include the factors described in Item 1A, Risk Factors. 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

We are an independent designer, manufacturer, and service provider of control solutions for the aerospace and industrial markets. Our innovative fluid energy, combustion control, electrical energy, and motion control systems help customers offer cleaner, more reliable, and more efficient equipment. Our customers include leading original equipment manufacturers and end users of their products. We have production and assembly facilities primarily 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.

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 cost of operation of their products.

Within the aerospace market, we provide systems, components, and solutions for both commercial and defense applications. Our aerospace systems and components optimize the performance of fixed wing and rotorcraft platforms in commercial, business and military aircraft, missiles, weapons and space, ground vehicles, and other equipment. 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 alternative energy sources; and fluid, motion, and combustion control solutions for complex oil and gas, industrial, power generation, and transportation applications.

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, 787, Bell 429, and Gulfstream G650. We also have significant content on defense applications such as Blackhawk and Apache helicopters, F-35 and F-15 fighter jets, and guided tactical weapons.

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. 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 energy in the form of fuel, air, fluids, gases, motion, combustion, and electricity. These products include actuators, valves, pumps, fuel injection systems, solenoids, ignition systems, control systems, electronics and software, and sensors. Our products are used on industrial gas turbines (including heavy frame, aeroderivative, and small industrial gas turbines), steam turbines, compressors, and reciprocating engines (including low speed, medium speed, and high-speed engines, that operate on various fuels, including natural gas, diesel, heavy fuel oil and dual-fuel). The equipment on which our products are found is used to generate power; to extract and distribute fossil fuels; to mine other commodities; and to convert fuel to work in transportation and freight (both marine and locomotives), 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

Sales to our five largest customers represented approximately 40% of our consolidated net sales for the fiscal year ended September 30, 2023 and 43% in fiscal year ended September 30, 2022.

The customers who account for approximately 10% or more of our consolidated net sales are the General Electric Company ("GE") and RTX Corporation. Sales to GE accounted for approximately 12% of our consolidated net sales in the fiscal year ended September 30, 2023 and 11% in the fiscal year ended September 30, 2022. Accounts receivable from GE represented approximately 7% of accounts receivable at September 30, 2023 and 10% at September 30, 2022. Sales to RTX Corporation accounted for approximately 10% of our consolidated net sales in the fiscal year ended September 30, 2023 and 11% in the fiscal year ended September 30, 2022. Accounts receivable from RTX Corporation totaled approximately 4% of accounts receivable at September 30, 2023, and 6% at September 30, 2022. We believe GE, RTX Corporation, and our other significant customers are creditworthy and will be able to satisfy their credit obligations to us.

The customers who account for approximately 10% or more of net sales of each of Woodward's reportable segments are as follows:

	For the Year Ended September 30,				
	2023	2022			
Aerospace	RTX Corporation, GE, The Boeing Company	RTX Corporation, The Boeing Company, GE			
Industrial	Rolls-Royce PLC, Caterpillar Inc., Weichai Westport	Rolls-Royce PLC, Wärtsilä, Caterpillar Inc.			

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

Aerospace 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 including increased efficiency and thrust, 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.

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, Parker Hannifin, and RTX Corporation. 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 RTX Corporation.

Some of our customers are affiliated with our competitors through ownership or joint venture agreements. For example, Pratt & Whitney, one of our customers, is affiliated with RTX Corporation, one of our competitors. Similarly, GE Aerospace has a joint venture with Parker Hannifin for the supply of fuel nozzles. We also have partnered with our customers in the past, such as our strategic joint venture with one of our largest customers, GE, acting through its GE Aerospace business unit.

We believe our products offer high levels of field reliability, which provides end users with 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. We also compete in part by establishing relationships with our customers' engineering organizations, and by offering innovative technical and commercial solutions to meet their market requirements. Our ability to design, develop, and test an integrated system with a customer is a competitive differentiator, offering the customer savings in both resources and time.

Industrial

Industrial operates in the global markets for industrial turbines and reciprocating engines, which are used in power generation systems, transportation, and oil and gas markets. Many of these markets are subject to regulatory 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 similar 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 Emerson, EControls, Heinzmann GmbH & Co., Hoerbiger, Meggitt, Robert Bosch AG, and Triconix. OEM customers with internal capabilities for similar products include Caterpillar, Cummins, GE, Rolls-Royce Power Systems, Wärtsilä, and Weichai Westport.

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.

For additional information about our markets and trends in our markets, please see Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

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.

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 nongovernment 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 17% of our sales for fiscal year 2023 and 23% of our sales for fiscal year 2022.

Seasonality

We believe our sales, in total or in either reportable segment, are not 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

For each of our reportable segments, we have elected to quantify backlog in a manner consistent with the definition of remaining performance obligations. Our remaining performance obligations by segment, excluding material rights, is shown in the table below:

	o	october 31, 2023	ctober 31, 2022	Percent Expected to be satisfied by September 30, 2023		
Aerospace	\$	1,716,613	63%	\$	1,198,571	74%
Industrial		773,240	93%		374,324	94%
	\$	2,489,853	73%	\$	1,572,895	79%

Our remaining performance obligations relate to the aggregate amount of the total contract transaction price of firm orders for which the performance obligation has not yet been recognized in revenue.

Manufacturing

We operate manufacturing and assembly plants primarily 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.

Research and Development

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

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, new systems, and products that are aligned with our customers' needs and future performance, which 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. This preliminary work may include opportunities to test new products in order to validate concepts and demonstrate performance in challenging environments. We strive to stay ahead of the competition through our modeling, prototyping, and state of the art test capabilities.

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. We support our engine and airframe customers as they develop next generation designs across the commercial aviation, general aviation, civil private, and military markets. 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.

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.

We developed the fuel system, air management system, and actuation hardware for CFM International's LEAP engine program. We also developed actuation system, combustion system, and oil system components for Pratt & Whitney's Geared Turbo Fan ("GTF" or "PurePower") engine program. We continue to support GE and CFM for improvements to the LEAP fuel system, and Collins Aerospace and Pratt & Whitney for improvements to the PurePower engine programs.

Industrial is focused on developing innovative technologies, including integrated control systems and system components, that enable our 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), and reduce total cost of ownership. Our development efforts support technology for a wide range of:

- products that improve the quality of combustion processes and provide more precise flow of various fuels and gases in our customers' gas turbines and bio-diesel and dual-fuel industrial reciprocating engines;
- electronic devices and software solutions that provide improved control and protection of reciprocating engines, gas turbines, steam turbines, and engine- and turbine-powered equipment; and
- advanced predictive intelligence that is integrated into many of our complex products and systems.

Human Capital

Our employees (whom we call "members") are Woodward's most valuable resource for current and future success. We promote an environment that ensures safety, encourages diversity and inclusion, fosters growth and self-development, and provides meaningful work. All members participate in our success through attractive and aligned total rewards programs. Notable programs we offer to our full-time members include:

- employer sponsored health insurance;
- employer 401(k) matching contributions;
- annual Woodward stock contributions for U.S. members;
- a tuition assistance program;
- training and professional development courses through our Woodward University curriculum; and
- other values-based and technical development training

Tenure of all employees averages over ten years, reflective of our positive workplace culture. Our recruiting team uses internal and external resources to recruit highly skilled and talented workers, and we encourage and reward employee referrals for open positions.

In addition to our comprehensive investment in our members' success, we strive to maintain an inclusive environment that values and leverages the uniqueness of each member to the benefit of all our stakeholders. We view the combination of diverse perspectives and backgrounds as a powerful force for innovation. To promote diversity and our core principles, we emphasize dignity, value, and equality of all members, regardless of race, color, religion, age, gender or sexual orientation, through our actions and the workplace training programs we provide. We continually strive to harness the

diversity of our global workforce by cultivating a climate that permits all our members to bring their authentic selves to work every day.

The health and safety of our members is also a top priority. We have implemented appropriate procedures and precautions to ensure the continued safety and well-being of members. We strive to comply with all federal and local workplace laws and regulations where we do business. We are always looking for ways to exceed compliance standards by utilizing continuous improvement discipline to proactively eliminate risks in the workplace.

As of October 31, 2023, we employed approximately 8,800 full-time members of which approximately 2,600 were located outside of the United States, with the majority of such members located in Germany, Poland, and China.

Member engagement drives better business results, and Woodward conducts biannual employee engagement surveys to give our members a voice in their work experience. In 2023, more than 71% of our members participated in our employee engagement surveys. These surveys help identify key engagement drivers at Woodward and areas where we have opportunity to improve. This has resulted in action plans at all levels of the organization and drives continuous conversations on the things that matter most to members and their teams.

In the United States, approximately 14% of our total full-time workforce were union members as of October 31, 2023. All union members in the United States work for our Aerospace segment. The collective bargaining agreements with our union members are generally renewed through contract renegotiation near the contract expiration dates. The MPC Employees Representative Union contract, which covered 773 members as of October 31, 2023, expires September 30, 2025. The Local Lodge 727-N International Association of Machinists and Aerospace Workers agreement, which covers 427 members as of October 31, 2023, expires April 23, 2024.

In Germany, approximately 12% of our total full-time workforce were union members as of October 31, 2023, all of whom work for our Industrial segment. Our Woodward L'Orange members are part of the IG Metall union in Germany. IG Metall covered 1,086 members as of October 31, 2023.

We believe we have good, collaborative relationships with our union members and the representative unions.

Almost all of our other members in the United States were at-will members as of October 31, 2023, and therefore, not subject to any type of employment contract or agreement. Our executive officers each have severance and change-incontrol 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, 2023, our Consolidated Balance Sheets includes \$452,363 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, 2023.

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, have acquired, and may in the future acquire facilities that were formerly owned and operated by others that used such materials. We believe 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 remediation activities, 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 that we will incur 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 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 energy control products that help our customers maximize engine efficiency and minimize wasteful emissions, including greenhouse gases.

Available Information

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 Securities and Exchange Commission (the "SEC") also maintains a website that contains our SEC filings. The address of the site is www.sec.gov. 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:

- X: Twitter.com/@woodward_inc
- Facebook: Facebook.com/woodwardinc
- Instagram: Instagram.com/@woodward_inc
- LinkedIn: Linkedin.com/company/woodwardinc
- YouTube: YouTube.com/user/woodwardinc

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

Item 1A. Risk Factors

The following summarizes important factors that could individually, or together with one or more other factors, affect our business, financial condition, results of operations, and/or cash flows:

Industry Risks

We operate in highly competitive industries and, if we are unable to compete effectively in one or more of our markets, our business, financial condition, and results of operations will 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. Changes in competitive conditions, including the availability of new technologies, products and services, the introduction of new channels of distribution, changes in OEM and aftermarket pricing, and further consolidation of companies in our industries, could impact our relationships with our customers and may adversely affect future sales and margins, 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. Our technologies and the technological expertise we have developed and maintained could become less valuable if a competitor were to develop a new 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.

A significant portion of our revenue is concentrated among a relatively small number of customers, which makes our business more vulnerable to fluctuations in sales to these customers and changes in their financial condition.

A significant portion of our revenue is concentrated among a relatively small number of customers. We have fewer customers than many companies with similar sales volumes. For the fiscal year ended September 30, 2023, sales to our largest 5 customers represented approximately 40% of our consolidated net sales and approximately 38% of our accounts receivable. 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.

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 and require significant capital commitments. Prospective customers generally must commit significant resources to test and evaluate our products and to install and integrate them into larger systems. Accordingly, 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 to commit to an order. In addition, 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. 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 strategic joint venture with GE may make it more difficult to secure long-term sales in certain aerospace markets.

In January 2016, Woodward and GE, acting through its GE Aerospace 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 markets the JV operates. 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.

Commercial, Financial, and Regulatory Risks

Suppliers may be unable to provide us with materials of sufficient quality or quantity to meet our production needs at favorable prices or at all which may adversely affect our revenue and margins.

We are dependent upon suppliers for parts and raw materials used in the manufacture of products that we sell to our customers, and our raw material costs are subject to commodity market fluctuations and have been impacted by the current inflationary environment. We have experienced shortages of certain parts and raw materials due to challenges in our supply chain, although we have made strategic investments to simplify and strengthen our supply chain. We may continue to experience shortages of parts or raw materials for the same or other 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, the imposition of tariffs or other duties, or production or distribution difficulties that may affect one or more of our suppliers. In some instances, we depend upon a single source of supply, manufacturing, or logistics support or participate in commodity markets that may be subject to allocations of limited supplies by suppliers. Some of our suppliers have experienced, and others may similarly experience, financial difficulties, delivery delays or other performance problems, and, as a result, we have from time to time been, and may in the future be, unable to meet commitments to our customers and/or incur additional costs. 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, inflationary pressures, and/or the imposition of tariffs, or a protracted interruption of supplies for any reason, could result in the delay of one or more of our customer contracts, increase our costs, result in lost revenue 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.

Our profitability may suffer if we are unable to manage our expenses in connection with sales increases, sales decreases, 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 costs, capital expenditures, and research and development expenses may be difficult to reduce in a timely manner in response to a reduction in sales. In periods of rapid sales increases it may be difficult to quickly increase our production of finished goods because of our long manufacturing lead times. If a sudden, unanticipated need for raw materials, components and labor arises, we could experience difficulties in sourcing these items at a favorable cost, in sufficient quantities or at all. These factors could result in delays in fulfilling customer sales contracts, lost revenue, damage to our reputation and relationships with our customers, and an inability to meet market demand, which in turn could prevent us from taking advantage of business opportunities or responding to competitive pressures and could result in an increase in costs leading to a decrease in net earnings or even net losses. In addition, we sell products that have varying profit margins, and fluctuations in the mix of sales of our various products may affect our overall profitability.

Reductions, delays or changes in U.S. Government spending could adversely affect our business.

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 17% of total sales in fiscal year 2023 and 23% in fiscal year 2022.

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 is subject to periodic congressional authorization and appropriation actions. The level of U.S. defense spending are hard to predict and may be impacted by numerous factors outside of our control such as changes in the perceived threat environment, prevailing U.S. foreign policy, changes in security, defense, and intelligence strategies and priorities, shifts in domestic and international spending, the macroeconomic environment, tax policy, budget deficits and competing budget priorities, and the political environment and future potential government shutdowns.

Defense budgets tend to rise when perceived threats to national security increase the level of concern over the country's safety, but we can provide no assurance that an increase in defense spending will be allocated to programs that would benefit our business. Decreases in U.S. Government defense spending, changes in the spending allocation, phase-outs or terminations of certain aerospace and defense programs on which we have content could have a material adverse effect on our sales unless they are offset by other aerospace and defense programs and opportunities. If the priorities of

the U.S. Government change and/or defense spending is reduced or delayed for any of the reasons discussed above, our business, financial condition, results of operations, and cash flows may be adversely affected.

Our business may be adversely affected by risks unique to government contracting.

As a result of our contracts with the U.S. Government, we are subject to certain unique risks, including the risks set forth below:

- 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, financial condition, results of operations, and cash flows.

The occurrence of one or more of these risks, some of which are out of our control, 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, 2023, our total debt was \$721,526, including \$550,000 in unsecured notes denominated in U.S. dollars issued in private placements and \$169,121 of unsecured notes denominated in Euros issued in private placements. We are obligated to make interest and scheduled principal payments under the agreements governing our long-term debt, which requires us to dedicate a portion of our cash flow from operations to payments on our indebtedness, and which may reduce the availability of our cash flow for other purposes, including business development efforts and mergers and acquisitions. These 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. Further, we may require additional capital to repay our debt obligations when they mature, and such capital may not be available on terms acceptable to us or at all.

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 covenants 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 available cash balances 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.

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

We are subject to income taxes in both the United States and jurisdictions outside of the United States. 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 rules or interpretations of existing tax laws;
- changes in U.S. federal tax legislation and tax rates;
- changes in state or non-U.S. government 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;
- changes in management's intentions regarding the amount of earnings 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 amount of revenue and obtain components from outside of the United States; accordingly, we are subject to the risks of doing business in other countries.

In fiscal year 2023, approximately 47% 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). 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:

- transportation delays and interruptions;
- political, social and economic instability and disruptions;
- natural disasters or pandemics;
- terrorism, war, and international tensions and conflicts;
- the imposition of taxes, import and export controls, duties and tariffs, embargoes, sanctions and other trade restrictions;
- fluctuations in currency exchange rates;
- different and changing regulatory environments;
- cost of compliance with increasingly complex and often conflicting regulations governing various matters worldwide:
- cost of labor, labor shortages, and other changes in labor conditions;
- the potential for nationalization of enterprises;
- potential 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;
- potentially adverse tax consequences, including limitations on repatriations of earnings; and
- difficulties in implementing restructuring actions on a timely basis.

The implementation of tariffs could increase the cost of certain commodities and/or limit their supply. Over the longer term, tariffs could significantly increase our costs and our ability to pass such increased costs along to our customers may be limited, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

We are subject to and must comply with U.S. laws restricting or otherwise prohibiting companies from doing business in certain countries and with certain parties, including those 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 sales to other countries or parties.

We are subject to the U.S. Foreign Corrupt Practices Act ("FCPA") and similar anti-bribery and anti-corruption laws and regulations in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to government officials for the purpose of obtaining or retaining business or securing an improper business advantage. 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, 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.

Also, 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.

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, and results of operation.

At September 30, 2023, we had \$791,468 of goodwill, representing approximately 20% of our total assets. We test goodwill for impairment at the reporting unit level on at least an annual basis or more frequently 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. Future goodwill impairment charges may occur if estimates of fair values decrease, which would reduce future earnings. In addition, we may incur asset impairment charges 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, and results of operations.

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.

Our inability to retain key personnel or attract and retain new qualified personnel could adversely affect our business and limit our ability to operate successfully.

Due to the specialized nature of our business, competition for technical personnel is intense and our future performance is highly dependent on our ability to hire, train, assimilate, and retain a qualified workforce. Additionally, it is important we hire and retain personnel with relevant experience in local laws, regulations, customs, traditions, and business practices to support our international operations. Achieving this objective may be difficult due to many factors, including fluctuations in global economic and industry conditions, management changes, increasing local and global competition for talent, the availability of qualified employees, challenges associated with retaining qualified employees, restructuring and alignment activities, and the attractiveness of our compensation and benefit programs.

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

We rely on a highly trained workforce due to the specialized nature of our business. Further, approximately 14% of our workforce in the United States is unionized, and certain of our operations in the United States and internationally involve different employee/employer relationships and the existence of works' councils. 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, failure to have a collaborative and effective relationship with our employees, including our union employees, or an effective collective bargaining agreement in place with our union employees, or otherwise, could impair our ability to supply products or fulfill orders, and could otherwise have a material adverse effect on our business, our relationships with customers, and our financial condition, results of operations, and cash flows. In 2023, we experienced an increase in labor costs in the countries in which we operate due to rising labor inflation. Further increases in labor costs could significantly reduce our profit margins if we are unable to flow such costs through to our customers.

Our operations and suppliers may be subject to physical and other risks that could disrupt our operations.

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 and pandemics, war, political unrest, terrorist activity, equipment failures, power outages, threats to physical security or our information security systems or other unforeseen events could result in physical damage to or other disruption of, 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 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.

Failure to develop, obtain, enforce, and protect intellectual property rights or third parties claims that we are infringing their intellectual property could harm our business.

Our success depends in part on our ability to develop technologies and inventions and other intellectual property, and obtain intellectual property rights and enforce such intellectual property rights worldwide. In this regard, we rely on patent, trademark, copyright, and trade secret laws in the United States and in other jurisdictions where we do business, as well as license agreements, nondisclosure agreements, and confidentiality and other contractual provisions.

However, we cannot be certain we will be able to obtain patents or other intellectual property rights in our new technologies and inventions or, if we do, the scope of such rights may not be sufficiently broad to afford us any significant commercial advantage over our competitors. Further, our existing and future intellectual property rights may not provide us with competitive advantages or distinguish our products and services from those of our competitors. The technologies

and inventions developed by us in the future may not be considered valuable by customers or provide us with a competitive advantage, or competitors may develop similar or identical technologies and inventions independently of us and before we do.

Effective protection of intellectual property rights is expensive and difficult to maintain, both in terms of application and maintenance costs, as well as the costs of defending and enforcing those rights. Competitors and other third parties may also challenge the ownership, validity, and/or enforceability of our patents or other intellectual property rights. Moreover, the laws of certain foreign jurisdictions do not recognize intellectual property rights or protect them to the same extent as do the laws of the United States. To the extent we do assert our intellectual property rights against third parties, we may not be successful and adequate remedies may not be available in the event of infringement or unauthorized use of our intellectual property rights, or disclosure of our trade secrets.

Third parties may in the future assert, that we have infringed, misappropriated, or otherwise violated their intellectual property rights. We cannot assure you that our current or future technologies are not, infringing or violating intellectual property rights of third parties, or will not do so in the future. In the event we face claims of infringement or misappropriation, we may face expensive litigation or indemnification obligations, be required to enter into licenses, and may be prevented from selling existing products and pursuing product development or commercialization. Even if such claims are without merit, we may be required to expend significant time and resources on the defense of such claims. If we are unable to sufficiently protect our patent and other proprietary rights or if we infringe on or misappropriate proprietary rights of others, our business, financial condition, results of operations, and cash flows could be materially adversely affected.

We are subject to legal proceedings, investigations, claims and/or regulatory proceedings which could have a significant impact on our business and operations.

We are currently involved or may become involved in legal, regulatory, and other proceedings. These proceedings may include, without limitation, product liability matters, intellectual property matters, contract disputes or claims, pending or threatened litigation, governmental investigations, as well as employment, tax, environmental, or other matters. These proceedings could lead to enforcement actions, adverse changes to our business practices, fines and penalties, business remedies, or the assertion of private litigation claims and/or damages that could be material, and of which could have a material adverse effect on our business, financial condition, results of operations, and cash flows. Even if the legal proceedings we face are decided in our favor, or are unfounded, we may incur material expenses and such matters may require significant management attention, and may harm our reputation with customers, employees or investors. 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. However, estimating possible losses involves significant judgment and outcomes are unpredictable, therefore, actual losses may exceed our estimates.

Our business and operations may be adversely affected by cybersecurity breaches or other information technology system or network interruptions or intrusions.

We depend heavily on the confidentiality, integrity and availability of our information technology ("IT") and computerized systems to communicate and operate effectively. We store sensitive data including proprietary business information, intellectual property, classified information, customer information, supplier information, and confidential employee or other personal data on our servers and databases. Also, due to political uncertainty and hostile military actions, we may be subject to heightened risks of cybersecurity incidents and security breaches initiated by nation-state or affiliated actors.

From time to time, we have experienced cyberattacks on our IT infrastructure and systems. We may become the target of cyber-attacks by third parties, either directly or indirectly via our supply chain or third-party vendors, seeking unauthorized access to our data or our customers' data or to disrupt our operations or our ability to provide services. There is also a danger of loss, misuse, theft, unavailability, or unauthorized disclosure or other processing of information or assets (including source code), or damage to or other compromise of systems, components and other IT assets, including the introduction of malicious code or other vulnerabilities by people who obtain unauthorized access to our facilities, systems or information. There are many different techniques used to obtain unauthorized access to systems and data, and such techniques continue to evolve and become more sophisticated, and the adversaries are becoming more advanced, including nation states and actors sponsored by or affiliated with nation states, which target us and other defense contractors because we protect national security information, and other actors with substantial financial and technological resources. These techniques include, but are not limited to, the use of malicious software, destructive malware, ransomware, denial of service attacks, phishing and other means of social engineering, and other means of causing system

or network disruptions, obtaining unauthorized access to data or systems, or causing other cybersecurity breaches and incidents. Additionally, system and service disruptions, and cybersecurity breaches or incidents, may result from employee or contractor error, negligence, or malfeasance. Further, there have been and may continue to be cyberattacks on, and other attempts to compromise the security of, the supply chain. We may experience security breaches or incidents resulting from tools, services, or other third-party components and security vulnerabilities within, or introduced by, such tools, services, or components. Due to the rapidly evolving threat environment and other factors, we may not be successful in defending against all such attacks. Further, due to the evolving nature of these security threats and the national security aspects of much of the data we protect, the full impact of any future security breach or incident cannot be predicted.

We have implemented various measures, including technical security controls, employee training, comprehensive monitoring of our networks and systems, independent third party security assessments, maintenance of backup systems, and the use of disaster recovery sites. In addition, we have, among other things, endeavored to align our practices and procedures with recognized IT security frameworks and recommended practices, and the corroboration with local and federal agencies. Although we have implemented measures to prevent, detect, and respond to malicious activity, we cannot guarantee that such measures will be effective or sufficient to prevent a cyberattack. Nonetheless, our IT infrastructure, systems, networks, products, solutions, and services remain potentially vulnerable to numerous additional known or unknown threats.

If any of our IT infrastructure or systems are damaged, disrupted, or are impacted by security breaches or incidents, whether from cybersecurity attacks or other causes, or if we suffer any security breach or incident involving unauthorized access to, misuse, acquisition, disclosure, loss, alteration, or destruction of our data or other data we maintain or otherwise process, we could experience significant operational stoppages, disruptions, delays, and/or other detrimental impacts on our operations or investment in research, and may face increased costs, including increased costs of implementing new data protection and security measures, policies, and procedures, and costs associated with remediating and otherwise responding to the security breach or incident. Any such security breach or incident or the perception that it has occurred, also may result in diminished competitive advantages through reputational damage and increased operational costs, regulatory investigations, proceedings, and orders, litigation or other demands, indemnity obligations, damages for contract breach, fines or penalties relating to actual or alleged violation of applicable laws, regulations, or contractual obligations, incentives offered to customers or other business partners in an effort to maintain business relationships, and other costs and liabilities. Such events could result in fines, penalties, litigation or governmental investigations and proceedings, diminished competitive advantages through reputational damages, and increased operational costs, any of which could have a material adverse effect on our business, financial condition, results of operations, and cash flows. Further, any unauthorized disclosure or use or acquisition of our intellectual property and/or confidential business information could harm our competitive position, result in a loss of intellectual property protection, and otherwise reduce the value of our investment in research and development and other strategic initiatives or otherwise adversely affect our business.

Our insurance coverage may not be sufficient to compensate for all liability relating to any actual or potential disruption or other security breach or incident. We cannot be certain that our coverage will be adequate for liabilities actually incurred, that insurance will continue to be available to us on economically reasonable terms, or at all, or that any insurer will not deny coverage as to any future claim. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, including our financial condition, operating results, and reputation.

Data privacy, data protection, and information security may require significant resources and present certain risks.

We collect, store, and otherwise process certain confidential or sensitive data, including personal data and other information that is subject to laws, regulations, customer-imposed controls, or other actual or asserted obligations. The laws, regulations, standards, and other actual and asserted obligations relating to privacy and information security to which we may be subject, in the U.S. and globally, are evolving. For example, in the European Union, the General Data Protection Regulation imposes stringent requirements applicable to processing personal data and provides for substantial penalties for noncompliance, and in the U.S., California and numerous other states have adopted comprehensive privacy laws, with other states considering such laws. Many jurisdictions around the world have passed or are considering laws and regulations relating to privacy, data protection, and cybersecurity, including laws that impose cross-border data transfer restrictions and require certain personal data to be maintained on local servers.

Any actual or perceived failure to comply with laws, regulations, or contractual or other actual or asserted obligations to which we are or are alleged to be subject relating to privacy, data protection, or cybersecurity could result in claims,

litigation, and regulatory investigations and other proceedings, as well as damage to our reputation. These could result in substantial costs, diversion of resources, fines, penalties, and other damages and liabilities, and harm to our customer relationships, our market position, and our ability to attract new customer engagements. Any of these could harm our business, financial condition, results of operations, and cash flows, potentially in a material manner.

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.

Prices for fossil fuels 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, results of operations, and cash flows.

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.

Business Risks

Our product development activities may not be successful, may be more costly than 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. Additionally, our competitors may develop new technology, or more efficient ways to produce their existing products that could cause our existing products or services to become 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.

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.

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.

Acquisitions, joint ventures, divestitures, and other transactions we enter into could fail to achieve strategic objectives, disrupt our ongoing operations, result in operating difficulties, harm our business, and negatively impact our results of operations.

As part of our business strategy, we have pursued, and expect to pursue acquisitions of other companies and assets. The identification, evaluation, and negotiation of potential acquisitions and other strategic transactions may divert the attention of management and entail various expenses, whether or not such transactions are ultimately completed. If we are able to complete a transaction. The success of these transactions depends on, among other things, our ability to integrate these businesses into our operations and realize the planned synergies. Integration of acquired operations may take longer, or be more costly or disruptive to our business, than originally anticipated. The integration of these acquisitions may require significant attention from our management, and the diversion of management's attention and resources could have a material adverse effect on our ability to manage our business. We may also incur costs and divert management attention to acquisitions that are never consummated.

Difficulties in the integration of the acquired business may include consolidating the operations, processes and systems of the acquired business, retaining and motivating key management and employees, and integrating existing business relationships with suppliers and customers. Even if integration is successful, the financial and operational results may differ materially from our assumptions and forecasts due to unforeseen expenses, delays, conditions, and liabilities. Evolving regulations such as changes in tax, trade, environmental, labor, safety, payroll, or pension policies could increase the expected costs of acquisitions, and fluctuations in foreign currency exchange rates may impact the agreed upon purchase price. In addition, we may incur unanticipated costs or expenses following an acquisition, including post-closing asset impairment charges, expenses associated with eliminating duplicate facilities, and other liabilities.

Many of these factors are outside of our control and any one of them could result in increased costs, decreases in the amount of expected revenues, and diversion of management's time and attention. Failure to successfully implement our acquisition strategy, including successfully integrating acquired businesses, could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

We also may make strategic divestitures from time to time. These types of transactions may result in continued financial involvement in the divested businesses, such as through guarantees or other financial arrangements, following the transaction. Nonperformance by those divested businesses could affect our future financial results through additional payment obligations, higher costs or asset write-downs, any of which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Our restructuring activities may increase our expenses and reduce our profitability, and may not have the intended effects.

From time to time, we have implemented restructuring and other actions designed to reduce structural costs, improve operational efficiency, and position the Company for long-term profitable growth. Historically, our restructuring activities have included workforce management and other restructuring charges related to acquired businesses. Due to cost reduction measures or changes in the industries 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 also 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, higher than expected severance costs related to staff reductions, higher than expected costs of closing plants, higher costs to hire new employees or delays or difficulty hiring the employees needed, higher than expected operating costs associated with moving production lines, 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.

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, have acquired, and may in the future 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 and we must conform our operations to applicable regulatory requirements in all countries in which we operate. To the best of our knowledge, we have been and should be at all times, in complete compliance with all environmental requirements; however, we cannot be certain that we will not incur additional material costs or liabilities as a result of complying with these requirements.

In addition, we may be subject to other environmental remediation 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.

Failure of our production lines, or those of our subcontractors, to meet required certification standards could disrupt production.

Our existing production lines, as well as the production lines of our subcontractors, are sometimes required to pass varying levels of qualification with certain of our customers. Some of our customers require that our production lines pass their specific qualification standards and that we, and any subcontractors that we may use, be registered under or certified to certain U.S. or international quality standards. We may be unable to obtain, maintain, or we may experience delays in obtaining, a certification or registration to a required quality standard. A delay in obtaining, or the failure to obtain a necessary quality certification or registration could result in significant out-of-sequence work and increased production costs, as well as delayed deliveries to customers, which could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

Item 1B. Unresolved Staff Comments

None.

Item 2 Properties

The following is a summary of our principal facilities as of September 30, 2023:

Country	Location	Plants	Owned/Leased	Segment	Purpose
United States	Fort Collins, CO	2	Owned	Aerospace &	Corporate Headquarters; Manufacturing and
				Industrial	engineering
United States	Greenville, SC	1	Leased	Industrial	Manufacturing and engineering
United States	Loveland, CO	1	Leased	Aerospace &	Manufacturing and engineering
				Industrial	
United States	Niles, IL	1	Owned	Aerospace	Manufacturing and engineering
United States	Rockford, IL	2	Owned	Aerospace	Manufacturing and engineering
United States	Santa Clarita, CA	1	Owned	Aerospace	Manufacturing and engineering
United States	Windsor, CO	1	Owned	Aerospace &	Manufacturing and engineering
				Industrial	
United States	Zeeland, MI	1	Owned	Aerospace	Manufacturing and engineering
Germany	Aken	1	Leased	Industrial	Manufacturing and engineering
Germany	Glatten	1	Owned	Industrial	Manufacturing
Germany	Stuttgart	2	Owned/Leased	Industrial	Engineering
Germany	Wolfratshausen	1	Owned/Leased	Industrial	Manufacturing
Poland	Krakow	1	Owned	Aerospace &	Manufacturing and engineering
				Industrial	
China	Suzhou	1	Leased	Industrial	Manufacturing
China	Tianjin	1	Leased	Industrial	Assembly
United Kingdom	Prestwick	1	Owned	Aerospace	Assembly
Bulgaria	Sofia	1	Leased	Aerospace	Manufacturing

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 Australia, Brazil, China, India, Japan, the Netherlands, the Republic of Korea, Saudi Arabia, Singapore, 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 pending or threatened litigation or other legal proceedings, investigations, claims 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 using estimates of the most likely amount of loss where it believes that it is probable the matter will result in a loss when ultimately resolved and such loss is reasonably estimable.

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

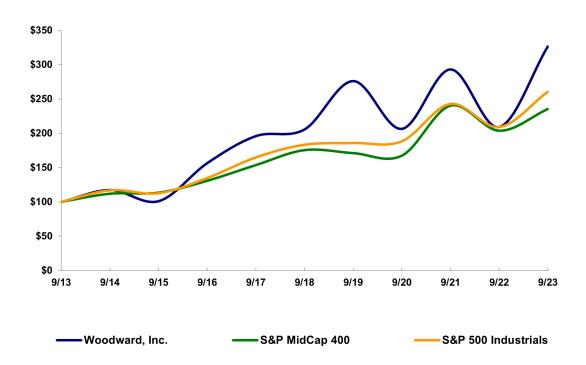
Our common stock is listed on The NASDAQ Global Select Market and is traded under the symbol "WWD." At November 16, 2023, there were approximately 500 holders of record.

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 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, 2013 in our common stock and in each of the two indexes and tracks relative performance through September 30, 2023. 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.

COMPARISON OF 10 YEAR CUMULATIVE TOTAL RETURN*

Among Woodward, Inc., the S&P MidCap 400 Index and the S&P 500 Industrials Index



^{*\$100} invested on 9/30/13 in stock or index, including reinvestment of dividends. Fiscal year ending September 30.

Copyright© 2023 Standard & Poor's, a division of S&P Global. All rights reserved.

	9/13	9/14	9/15	9/16	9/17	9/18	9/19	9/20	9/21	9/22	9/23
Woodward, Inc.	\$ 100.00	\$ 117.47	\$ 101.18	\$ 156.63	\$ 195.98	\$ 205.65	\$ 276.02	\$ 206.48	\$ 293.02	\$ 209.16	\$ 326.35
S&P Midcap 400	100.00	111.82	113.38	130.76	153.66	175.49	171.12	167.42	240.56	203.87	235.50
S&P Industrials	100.00	116.78	112.52	134.73	164.85	183.28	185.82	188.28	242.81	209.14	260.55

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 share amounts)

					IV	laxilliulli
					Nu	umber (or
					Ap	proximate
					Doll	ar Value) of
				Total Number of	Shar	es that may
				Shares Purchased	yet b	e Purchased
		W	eighted	as Part of Publicly	und	er the Plans
	Total Number of	Avei	rage Price	Announced Plans	or P	rograms at
	Shares Purchased	Paid	Per Share	or Programs (1)	Per	iod End (1)
July 1, 2023 through July 31, 2023 (2)	162	\$	120.38	_	\$	327,590
August 1, 2023 through August 31, 2023 (2)	716,394		126.94	716,300		236,664
September 1, 2023 through September 30, 2023 (2)	71,962		126.26	71,962		227,578

Maximum

- (1) In January 2022, the Board of Directors (the "Board") terminated the 2019 Authorization and concurrently authorized a program for the repurchase of up to \$800,000 of Woodward's outstanding shares of common stock on the open market or in privately negotiated transactions over a two-year period ending in January 2024 (the "2022 Authorization").
- (2) Under a trust established for the purposes of administering the Woodward Executive Benefit Plan (the "Executive Benefit Plan Trust"), 162 shares of common stock were acquired in July 2023, and no shares of common stock were acquired in August or September 2023, 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, 94 shares of common stock were acquired in August 2023 on the open market related to the reinvestment of dividends for shares of treasury stock held for deferred compensation. Shares owned by the Executive Benefit Plan Trust, which is a separate legal entity, are included in "Treasury stock held for deferred compensation" in the Consolidated Balance Sheets.

Item 6. Reserved

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

This 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. For a discussion of the 2022 Results of Operations, including a discussion of the financial results for the fiscal year ended September 30, 2022 compared to the fiscal year ended September 30, 2021, refer to Part I, Item 7 of our Form 10-K filed with the SEC on November 18, 2022.

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 control solutions for the aerospace and industrial markets. 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 primarily 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, and we have developed and are executing on strategies to leverage the macro trends of reducing greenhouse gases, commercializing space, and accelerating the digital age. To facilitate a cleaner world, we are partnering with our customers to enable their equipment to be more efficient, capable of utilizing clean burning fuels, advancing fuel cells, and the integration of renewable power in both commercial and defense operations. Our core technologies can be leveraged 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, 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.

Global Business Conditions

During fiscal year 2023, we experienced strong end market demand for our products and services across aerospace and industrial markets; however, our financial performance continued to be adversely affected by macroeconomic issues, including global supply chain disruptions, rising labor costs, and material inflation. We remain intent on actively implementing strategic initiatives focused on increasing profitability through operational excellence, talent development, and simplifying and strengthening our supply chain. Our output is increasing, and we are seeing efficiency gains as our new members continue to gain additional experience and become more proficient in their jobs, and we continue to benefit from a more stable workforce. The strategic investments we made to simplify and strengthen our supply chain have improved stability and performance of our supply base; however, the environment remains challenging and we continue to actively manage and problem solve with our suppliers. We also continue to assess the environment and are executing multiple work streams to capture prices that better reflect the value we deliver.

We are unable to predict the full extent to which macroeconomic factors will continue to adversely impact our business, including our operational performance, results of operations, cash flows, financial position, and the achievement of our strategic objectives. Such uncertainty may affect our ability to accurately predict our future performance and forecast our financial results.

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 2023 as domestic passenger traffic surpassed pre-pandemic years and international travel has largely recovered. Aircraft

operators are taking delivery of next generation aircraft models to meet the growing demand for passenger air travel, the need to replace aging aircraft, and the demand for more fuel efficient and lower emission aircraft. The delivery of the newest generation of aircraft is expected to favor our product offerings because we have more content on those aircraft. We expect production levels to continue to grow due to strong OEM order backlogs for the new aircraft models and pent-up demand. Demand in the narrowbody aviation market improved in fiscal year 2023 compared to recent years due to increasing production rates on the A320neo and the 737 MAX. We expect narrowbody deliveries to further improve in fiscal year 2024 due to backlog associated with single aisle programs and planned production ramps.

We have content on the Airbus A220, A320neo, A330neo, Bell 429, Boeing 737 MAX, 777, 787, and Comac C919. We have been awarded content on the 777-9 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.

The Boeing 737 MAX has returned to service in every jurisdiction. As the aircraft's return to service progresses, we anticipate a large majority of the deliveries missed in fiscal year 2019 through 2022 will be fulfilled in future periods. With the full return to service of the 737 MAX aircraft and increasing deliveries, initial provisioning sales related to aircraft and the CFM LEAP engine have accelerated. We anticipate further recovery of OEM 737 MAX sales in fiscal year 2024.

Defense – In recent years, the defense industry has been strong as budgetary allocations have generally increased since 2016. Global conflicts are leading to higher global defense budgets. The U.S. National Defense Authorization Act for fiscal year 2023 resulted in higher levels of funding for procurement, research and development, and maintenance, and we believe budget increases in recent years will support growth in fiscal year 2024, with the exception of our guided tactical weapons programs. We expect defense research and development, as well as procurement, to increase, which is beneficial for future opportunities in defense markets. 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 T-7A Trainer), and some legacy programs decrease (e.g., F/A-18 E/F Super Hornet and V-22 Osprey). Other programs are relatively steady (e.g., KC-46A Tanker, UH-60 Black Hawk and A-64 Apache helicopter programs) and some legacy programs, such as the F-15, should maintain or potentially increase production. Guided tactical weapons programs for which we have sales include the Joint Direct Attack Munition ("JDAM"), Small Diameter Bomb ("SDB"), and AIM-9X guided tactical weapon systems. Following multiple years of decline from very strong demand levels, we expect overall demand to flatten for these weapons programs, with production of some programs decreasing and other programs increasing.

Aftermarket – Our commercial aftermarket business increased significantly in fiscal year 2023, as global air traffic continued to grow and OEM production rates have increased. In addition, 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. As aircraft production levels increase to accommodate rising passenger demand and to mitigate higher operating costs driven largely by higher fuel costs on older and less fuel-efficient aircraft, we expect airlines will retire older generation aircraft as they reach certain age thresholds (typically around twenty-five years on average). However, in the past few years, aircraft retirements have decreased because passenger demand has outpaced deliveries of next generation aircraft, forcing older generation legacy aircraft to remain in service longer than anticipated. This has led to increased demand for repairs and spare parts for older engine programs remaining in service, consistent with air traffic growth. This dynamic applies to commercial aftermarket related to repairs and spare parts for mature legacy programs with large in-service fleets, such as the Airbus A320 and the Boeing 777.

Our defense aftermarket sales increased during fiscal year 2023 due to increased defense budgets resulting in operations and maintenance upgrades. Global conflicts and growing international demand for various other military programs continue to drive demand for operations of defense aircraft, including fighter jets, transports and both utility and attack rotorcraft, which are all supported by our products and systems. Although we expect variability, which is generally attributable to the cycling of various maintenance and upgrade programs, as well as actual usage, our outlook for the defense aftermarket is strong. This is due primarily to growing fleets, the service lives of existing military programs being extended and increased demand for repairs and spare parts for older military aircraft programs remaining in service.

Industrial Markets

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

Power Generation – The demand for power generation, which consists mainly of heavy frame, aero derivative, and steam industrial gas turbines, increased in fiscal year 2023 due to increased demand from power generation and process

industries, particularly in Asia, and more broadly in support of fixed generation capacity to backstop the growing renewable energy installed base. Start reliability, fuel flexibility, safety, and part-load efficiency are all key drivers of the power generation market as the conversion from coal to natural gas usage continues, and we believe Woodward continues to be well positioned to meet these market needs on the existing and next generation turbines. We project continued growth as demand for electricity is met through a balance of renewable power sources and newer industrial gas turbines for which Woodward has been awarded increased content.

Transportation – Woodward's key markets for transportation include compressed natural gas and liquified natural gas trucks in Asia, mining, and commercial and defense marine markets. During fiscal year 2023, demand increased across all key markets. Chinese heavy duty truck output increased significantly during the last three quarters of fiscal year 2023, as did the portion that is natural gas powered. The natural gas-powered production rate has been improving since the first quarter of fiscal year 2023, but future demand remains uncertain. Further, demand in the global marine market increased due to increased ship build rates and higher ship utilization, driving current and future aftermarket activity. Both commercial and defense marine customers continue to launch additional projects to support new programs or modernize fleets, including incorporating alternative fuels capability, which should drive expanded OEM and service opportunities, as multi-fuel engines contain greater Woodward content.

Oil and Gas – Due to increased demand for fuel flexibility as well as natural gas price variability and global supply chain disruptions, power plant operations have transitioned to higher dual fuel use, thereby increasing the demand for our liquid fuel system and related products. During fiscal year 2023, we experienced increased demand due to increased global rig counts and an increase in global large natural gas infrastructure. We anticipate strong demand in fiscal year 2024 for new highspeed engines and new marine engines. We expect market share gains by our customers and increased scope on the next generation reciprocating engines as energy policies in some countries encourage the use of compressed natural gas, liquefied 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.

RESULTS OF OPERATIONS

Financial Highlights

		Year Ended September 30,			
		2023		2022	
Net sales:				_	
Aerospace segment	\$	1,768,103	\$	1,519,322	
Industrial segment		1,146,463		863,468	
Consolidated net sales	\$	2,914,566	\$	2,382,790	
Earnings:					
Aerospace segment	\$	290,104	\$	230,933	
Segment earnings as a percent of segment net sales		16.4%		15.2%	
Industrial segment	\$	161,622	\$	82,788	
Segment earnings as a percent of segment net sales		14.1%		9.6%	
Consolidated net earnings	\$	232,368	\$	171,698	
Adjusted net earnings	\$	258,576	\$	173,823	
Effective tax rate		15.7%		14.1%	
Adjusted effective tax rate		16.8%		14.3%	
Consolidated diluted earnings per share	\$	3.78	\$	2.71	
Consolidated adjusted diluted earnings per share	\$	4.21	\$	2.75	
Formings hafare interest and tayes ("FRIT")	ć	220.015	\$	222 620	
Earnings before interest and taxes ("EBIT")	\$	320,915		232,629	
Adjusted EBIT	\$	355,791	\$	235,463	
Earnings before interest, taxes, depreciation, and amortization ("EBITDA")	\$	440,658	\$	353,257	
Adjusted EBITDA	\$	475,534	\$	356,091	

Adjusted net earnings, adjusted earnings per share, adjusted effective tax rate, EBIT, adjusted EBITDA, adjusted EBITDA, free cash flow, and adjusted free cash flow are non-U.S. GAAP financial measures. A description of these measures as well as a reconciliation of these non-U.S. GAAP financial measures to the closest U.S. GAAP financial measures 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.

Liquidity Highlights

Net cash provided by operating activities for fiscal year 2023 was \$308,543, compared to \$193,638 for fiscal year 2022. The increase in net cash provided by operating activities in fiscal year 2023 compared to fiscal year 2022 is primarily attributable to increased earnings, partially offset by working capital increases, and the timing of certain tax payments.

For fiscal year 2023, free cash flow was \$232,043, compared to \$140,770 for fiscal year 2022. We define free cash flow as net cash flows from operating activities less payments for property, plant and equipment. Adjusted free cash flow, which we define as free cash flow, plus the payments for costs related to business development activities, restructuring activities, and certain non-restructuring separation costs, was \$238,227, compared to \$144,257 for fiscal year 2022. The increase in free cash flow and adjusted free cash flow for fiscal year 2023 as compared to the prior fiscal year was primarily due to increased earnings, partially offset by higher capital expenditures.

At September 30, 2023, we held \$137,447 in cash and cash equivalents and had total outstanding debt of \$721,526 with additional borrowing availability of \$991,044, net of outstanding letters of credit, under our revolving credit agreement. At September 30, 2023, we also had additional borrowing capacity of \$25,143 under various foreign lines of credit and foreign overdraft facilities.

Consolidated Statements of Earnings and Other Selected Financial Data

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

	Year Ended September 30,					
		% of Net				
	2023	Sales	2022	% of Net Sales		
Net sales	\$ 2,914,566	100%	\$ 2,382,790	100%		
Costs and expenses:						
Cost of goods sold	2,236,983	76.8	1,857,485	78.0		
Selling, general, and administrative expenses	269,692	9.3	203,005	8.5		
Research and development costs	132,095	4.5	119,782	5.0		
Restructuring charges	5,172	0.2	(3,420)	(0.1)		
Interest expense	47,898	1.6	34,545	1.4		
Interest income	(2,751)	(0.1)	(1,814)	(0.1)		
Other (income) expense, net	(50,291)	(1.7)	(26,691)	(1.1)		
Total costs and expenses	2,638,798	90.5	2,182,892	91.6		
Earnings before income taxes	275,768	9.5	199,898	8.4		
Income tax expense	43,400	1.5	28,200	1.2		
Net earnings	\$ 232,368	8.0	\$ 171,698	7.2		

Other select financial data:

	Septemb	per 30, 2023	Se	ptember 30, 2022
Working capital	\$	852,256	\$	772,856
Total debt		721,526		777,416
Total stockholders' equity		2,070,989		1,901,122

2023 RESULTS OF OPERATIONS

2023 Net Sales Compared to 2022

Consolidated net sales for fiscal year 2023 increased by \$531,776, or 22.3%, compared to fiscal year 2022.

Details of the changes in consolidated net sales are as follows:

Consolidated net sales for the year ended September 30, 2022	\$ 2,382,790
Aerospace volume	144,254
Industrial volume	249,722
Noncash consideration	(13,434)
Effects of changes in price	181,140
Effects of changes in foreign currency rates	 (29,906)
Consolidated net sales for the year ended September 30, 2023	\$ 2,914,566

In the Aerospace segment, the increase in net sales for fiscal year 2023 as compared to fiscal year 2022 was primarily attributable to a significant increase in commercial OEM and aftermarket sales driven by higher OEM production rates, continued recovery in passenger traffic, increasing aircraft utilization, and price realization, partially offset by lower defense OEM sales primarily driven by reduced demand for guided weapons.

In the Industrial segment, the increase in net sales for fiscal year 2023 as compared to fiscal year 2022 was primarily attributable to volume increases across all markets and price realization. Industrial sales benefited from significant operational improvements from our strategic initiatives including increased output and other efficiency gains as well as increased demand for on-highway natural gas truck production in China in the second half of fiscal year 2023.

2023 Costs and Expenses Compared to 2022

Cost of goods sold increased by \$379,498 to \$2,236,983 for fiscal year 2023, from \$1,857,485 for fiscal year 2022. The increase in cost of goods sold on an absolute basis in fiscal year 2023 compared to the prior fiscal year was primarily due to higher sales volume and net inflationary impacts on material and labor costs.

Gross margin (as measured by net sales less cost of goods sold, divided by net sales) was 23.2% for fiscal year 2023, compared to 22.0% for fiscal year 2022. The increase in gross margin for fiscal year 2023 is primarily attributable to higher sales volume and price realization, partially offset by net inflationary impacts on material and labor costs, as well as non-recurring, specific charges for excess and obsolete inventory and product rationalization.

Selling, general and administrative expenses increased by \$66,687, or 32.8%, to \$269,692 for fiscal year 2023, compared to \$203,005 for fiscal year 2022. Selling, general, and administrative expenses as a percentage of net sales increased to 9.3% for fiscal year 2023, compared to 8.5% for fiscal year 2022. The increase in selling, general, and administrative expenses, both in dollars and as a percentage of sales, for fiscal year 2023 as compared to prior fiscal year is primarily due to increased annual variable incentive compensation costs, increased expenses relating to inflation, increased headcount, and expenses relating to our deferred compensation program, as well as a non-recurring charge related to customer collections, and a product rationalization charge related to the write-off of assets. Such charges did not occur in the prior fiscal year.

Research and development costs increased by \$12,313, or 10.3%, to \$132,095 for fiscal year 2023, as compared to \$119,782 for fiscal year 2022. Research and development costs as a percentage of net sales decreased to 4.5% for fiscal year 2023, as compared to 5.0% for fiscal year 2022. The increase in research and development costs in dollars for fiscal year 2022 as compared to the prior fiscal year is primarily due to variability in the timing of projects and expenses. The decrease in research and development costs as a percentage of net sales for fiscal year 2023 as compared to the prior fiscal year is primarily due to net sales increases in fiscal year 2023 compared to fiscal year 2022. Our research and development activities extend across both our operating segments and almost all of our customer base, and we anticipate ongoing variability in research and development costs due to the timing of customer business needs on current and future programs.

Restructuring activities of \$5,172 were recognized in fiscal year 2023, primarily related to workforce management to implement a streamlined Aerospace and Industrial organizational and leadership structure designed to enhance the sales experience for customers, simplify operations, and increase profitability through improved execution. In fiscal year 2022, restructuring activities resulted in a benefit of \$3,420, due primarily to a reversal of unpaid accrued amounts for restructuring activities as a result of changes in business conditions, including plans to insource work from suppliers, and to manage workforce levels through attrition.

Interest expense increased by \$13,353, or 38.7%, to \$47,898, for fiscal year 2023, compared to \$34,545 for fiscal year 2022. Interest expense as a percentage of net sales increased to 1.6% for fiscal year 2023, as compared to 1.4% for fiscal year 2022. Interest expense increased for fiscal year 2023 as compared to fiscal year 2022 primarily due to increased borrowings and interest rates on our revolving credit agreement.

Other income, net was \$50,291 for fiscal year 2023, compared to \$26,691 for fiscal year 2022. The increase in other income in fiscal year 2023 compared to fiscal year 2022 was primarily attributable to increased earnings in the JV and a gain on investments in our deferred compensation program, whereas a loss on such investments was recognized in the prior fiscal year.

Income taxes were provided at an effective rate on earnings before income taxes of 15.7% for fiscal year 2023, compared to 14.1% for fiscal year 2022. The increase in the effective tax rate for fiscal year 2023 compared to fiscal year 2022 is primarily attributable to projected future withholding taxes on unremitted earnings recorded in fiscal year 2023,

partially offset by a larger stock-based compensation tax benefit and larger favorable return to provision adjustments in fiscal year 2023.

Segment Results

The following table presents sales by segment:

		Year Ended September 30,					
	202	23	2022				
Net sales:							
Aerospace	\$ 1,768,103	60.7%	\$ 1,519,322	63.8%			
Industrial	1,146,463	39.3%	863,468	36.2%			
Consolidated net sales	\$ 2,914,566	100%	\$ 2,382,790	100%			

The following table presents earnings by segment and reconciles segment earnings to consolidated net earnings:

	Year Ended September 30,			
	 2023 20			
Aerospace	\$ 290,104	\$	230,933	
Industrial	161,622		82,788	
Nonsegment expenses	(130,811)		(81,092)	
Interest expense, net	(45,147)		(32,731)	
Consolidated earnings before income taxes	275,768		199,898	
Income tax expense	43,400		28,200	
Consolidated net earnings	\$ 232,368	\$	171,698	

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

	Year Ended S	eptember 30,
	2023	2022
Aerospace	16.4%	15.2%
Industrial	14.1%	9.6%

2023 Segment Results Compared to 2022

Aerospace

Aerospace segment net sales increased by \$248,781, or 16.4% to \$1,768,103 for fiscal year 2023, compared to \$1,519,322 for fiscal year 2022. Segment net sales increased for fiscal year 2023 as compared to fiscal year 2022, primarily due to higher commercial OEM and aftermarket sales as well as price realization, partially offset by the reduced demand for guided weapons.

Defense OEM sales decreased in fiscal year 2023 compared to prior fiscal year, primarily driven by the reduced demand for guided weapons. However, with the exception of guided weapons, defense OEM demand remained stable at elevated levels. Our defense aftermarket sales increased in fiscal year 2023 compared to the prior fiscal year, primarily driven by increased defense budgets resulting in operations and maintenance upgrades.

Aerospace segment earnings increased by \$59,171, or 25.6%, to \$290,104 for fiscal year 2023, compared to \$230,933 for fiscal year 2022.

The net increase in Aerospace segment earnings for fiscal year 2023 was due to the following:

Earnings for the period ended September 30, 2022	\$ 230,933
Sales volume	62,420
Price, sales mix, inflation, and productivity	55,040
Manufacturing costs related to hiring and training	(20,326)
Annual variable incentive compensation costs	(44,667)
Other, net	6,704
Earnings for the period ended September 30, 2023	\$ 290,104

Aerospace segment earnings as a percentage of segment net sales were 16.4% for fiscal year 2023 and 15.2% for fiscal year 2022.

Industrial

Industrial segment net sales increased by \$282,995, or 32.8%, to \$1,146,463 for fiscal year 2023, compared to \$863,468 for fiscal year 2022. The increase in Industrial segment net sales in fiscal year 2023 as compared to the prior fiscal year was primarily attributable to volume increases across all markets. Industrial sales in the fiscal year benefited from significant operational improvements including increased output and other efficiency gains as well as significantly increased demand for on-highway natural gas truck production in China in the second half of 2023.

Industrial segment earnings increased by \$78,834, or 95.2%, to \$161,622 for fiscal year 2023, compared to \$82,788 for fiscal year 2022.

The net increase in Industrial segment earnings for fiscal year 2023 was due to the following:

Earnings for the period ended September 30, 2022	\$ 82,788
Sales volume	110,970
Price, sales mix, inflation, and productivity	29,918
Manufacturing costs related to hiring and training	(19,000)
Effects of changes in foreign currency rates	(6,808)
Annual variable incentive compensation costs	(26,503)
Other, net	(9,743)
Earnings for the period ended September 30, 2023	\$ 161,622

Industrial segment earnings as a percentage of segment net sales were 14.1% for fiscal year 2023, compared to 9.6% for fiscal year 2022.

Industrial earnings in the fiscal year benefited from significant operational improvements including increased output and other efficiency gains as well as significantly increased demand for on-highway natural gas truck production in China in the second half of 2023.

Nonsegment

Nonsegment expenses increased by \$49,719 to \$130,811 for fiscal year 2023, compared to \$81,092 for fiscal year 2022. The increase in nonsegment expenses is primarily due to the increase in the annual variable incentive compensation costs as compared to the prior fiscal year. Further, nonsegment expenses for fiscal year 2023 included a specific charge for excess and obsolete inventory of \$11,995, a product rationalization charge of \$10,504, a restructuring charge of \$5,172, a non-recurring charge related to customer collections of \$4,997, and certain non-restructuring separation costs of \$2,208. Excluding these charges from 2023, nonsegment expenses increased by \$14,843 in fiscal year 2023 compared to the prior fiscal year.

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. We have also issued debt to supplement our cash needs, repay our other indebtedness, or finance our acquisitions. 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 for the next 12 months and the foreseeable future.

Our aggregate cash and cash equivalents were \$137,447 at September 30, 2023 and \$107,844 at September 30, 2022, and our working capital was \$852,256 at September 30, 2023 and \$772,856 at September 30, 2022. Of the cash and cash equivalents held at September 30, 2023, \$132,069 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 certain 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.

Our revolving credit facility, as amended, provides a borrowing capacity of up to \$1,000,000 with the option to increase total available borrowings to up to \$1,500,000, subject to lenders' participation. We can borrow against our revolving credit facility as long as we are in compliance with all of our debt covenants. Borrowings under the revolving credit facility can be made in U.S. dollars or in foreign currencies other than the U.S. dollar provided that the U.S. dollar equivalent of any foreign currency borrowings and U.S. dollar borrowings does not, in total, exceed the borrowing capacity of the revolving credit facility. 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 facility expansions.

In addition to our revolving credit facility, 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 revolving credit facility and our other credit facilities, see Note 15, *Credit facilities, short-term borrowings and long-term debt* in the Notes to the Consolidated Financial Statements in Part II, Item 8 of this Form 10-K.

At September 30, 2023, we had total outstanding debt of \$721,526 consisting of various series of unsecured notes due between 2023 and 2033, and amounts borrowed under our revolving credit facility, and our finance leases. On November 15, 2023, Woodward paid the entire principal balance of \$75,000 on the Series H and K Notes using proceeds from borrowings under its existing revolving credit facility.

At September 30, 2023, we had additional borrowing availability of \$991,044 under our revolving credit facility, net of outstanding letters of credit, and additional borrowing availability of \$25,143 under various foreign credit facilities.

At September 30, 2023, we had no outstanding amount borrowed under our revolving credit facility. Revolving credit facility and short-term borrowing activity during the fiscal year ended September 30, 2023 were as follows:

Maximum daily balance during the period	\$ 317,800
Average daily balance during the period	210,924
Weighted average interest rate on average daily balance	5.79%

We believe we were in compliance with all our debt covenants as of September 30, 2023. See Note 15, *Credit facilities, short-term borrowings and long-term debt* in the Notes to the Consolidated Financial Statements in "Item 8 – Financial Statements and Supplemental 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. In January 2022, the Board terminated the 2019 Authorization and concurrently authorized a program for the repurchase of up to \$800,000 of Woodward's outstanding shares of common stock on the open market or in privately negotiated transactions over a two-year period ending in January 2024 (the "2022 Authorization"). During fiscal year 2023, we repurchased 1,060 shares of our common stock for \$126,380 under the 2022 Authorization, as compared to 3,890 shares of our common stock for \$446,042 under the 2022 Authorization during fiscal year 2022.

From time to time, the Company enters into various factoring agreements with third-party financial institutions to sell certain of its receivables. Factoring activity resulted in an increase of approximately \$26,273 in cash provided by operating activities during the year ended September 30, 2023, compared to an increase in cash provided by operating activities of approximately \$35,296 during the year ended September 30, 2022.

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.

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,			
		2023		2022
Net cash provided by operating activities	\$	308,543	\$	193,638
Net cash used in investing activities		(73,551)		(65,449)
Net cash used in financing activities		(196,473)		(442,378)
Effect of exchange rate changes on cash and cash equivalents		(8,916)		(26,429)
Net change in cash and cash equivalents		29,603		(340,618)
Cash and cash equivalents, including restricted cash, at beginning of year		107,844		448,462
Cash and cash equivalents, including restricted cash, at end of year	\$	137,447	\$	107,844

2023 Cash Flows Compared to 2022

Net cash flows provided by operating activities for fiscal year 2023 was \$308,543, compared to \$193,638 for fiscal year 2022. The increase in net cash provided by operating activities in fiscal year 2023 compared to fiscal year 2022 is primarily attributable to increased earnings, partially offset by working capital increases, and timing of tax payments.

Net cash flows used in investing activities for fiscal year 2023 was \$73,551, compared to \$65,449 in fiscal year 2022. The increase in cash used in investing activities in fiscal year 2023 compared to fiscal year 2022 is primarily due to increased payments for property, plant, and equipment, partially offset by the purchase of PM Control in the prior fiscal year.

Net cash flows used in financing activities for fiscal year 2023 was \$196,473, compared to \$442,378 in fiscal year 2022. The decrease in net cash flows used in financing activities in fiscal year 2023 compared to fiscal year 2022 was attributable to the decrease in repurchases of common stock and a change in net debt payments as compared to borrowings. During fiscal year 2023, we made \$126,380 of cash repurchases of common stock, compared to \$485,300 of cash repurchases of common stock during fiscal year 2022. During fiscal year 2023, we had net debt payments in the amount of \$67,579, compared to net debt borrowings in the amount of \$66,003 in fiscal year 2022.

New Accounting Standards

From time to time, the 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.

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 included in Part II, Item 8 of this Form 10-K. 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.

Non-U.S. GAAP Financial Measures

Adjusted net earnings, adjusted earnings per share, adjusted effective tax rate, EBIT, adjusted EBITDA, adjusted 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

Adjusted net earnings is defined by the Company as net earnings excluding, as applicable, (i) a specific charge for excess and obsolete inventory, (ii) product rationalization, (iii) a restructuring charge, (iv) a non-recurring charge related to customer collections, (v) certain non-restructuring separation costs, (vi) a charge in connection with a non-recurring matter unrelated to the ongoing operations of the business, and (vii) costs related to business development activities. The product rationalization adjustment pertains to a non-recurring write-off of inventory and assets related to the elimination of certain product lines. The specific charge for excess and obsolete inventory pertains to a non-recurring process change that resulted in the identification and write down of certain excess inventory unrelated to product rationalization. The non-recurring charge related to customer collections pertains to a discrete process issue that was identified and corrected. The Company believes that these excluded items are short-term in nature, not directly related to the ongoing operations of the business and therefore, the exclusion of them illustrates more clearly how the underlying business of Woodward is performing. Management uses adjusted net earnings to evaluate the Company's performance excluding these infrequent or unusual period expenses that are not necessarily indicative of the Company's operating performance for the period. Management defines adjusted earnings per share as adjusted net earnings, as defined above, divided by the weighted-

average number of diluted shares of common stock outstanding for the period. Management uses both adjusted net earnings and adjusted earnings per share when comparing operating performance to other periods which may not have similar infrequent or unusual charges.

The reconciliation of net earnings and earnings per share to adjusted net earnings and adjusted earnings per share, respectively, for the fiscal years ended and are shown in the table below:

	Year Ended September 30,							
	2023				2022			
	Ne	t Earnings	Ea	rnings Per Share	Ne	t Earnings	Ea	rnings Per Share
Net earnings (U.S. GAAP)	\$	232,368	\$	3.78	\$	171,698	\$	2.71
Non-U.S. GAAP adjustments, net of tax:								
Specific charge for excess and obsolete inventory ¹		9,016		0.15		_		_
Product rationalization ²		7,896		0.13		_		_
Non-recurring charge related to customer collections ³		3,761		0.06		_		_
Certain non-restructuring separation costs ³		1,661		0.03		_		_
Restructuring activities		3,874		0.06		(2,565)		(0.04)
Non-recurring matter unrelated to the ongoing operations of the business ³						2,454		0.04
Business development activities ³				<u> </u>		2,434		0.04
			_					_
Total non-U.S. GAAP adjustments		26,208		0.43		2,125		0.04
Adjusted net earnings (Non-U.S. GAAP)	\$	258,576	\$	4.21	\$	173,823	\$	2.75

- (1) Presented in the line item "Cost of goods sold" in Woodward's Consolidated Statements of Earnings.
- (2) \$4,374 is presented in the line item "Cost of goods sold" and \$3,522 is presented in the line item "Selling, general and administrative" expenses in Woodward's Consolidated Statements of Earnings.
- (3) Presented in the line item "Selling, general, and administrative" expenses in Woodward's Consolidated Statements of Earnings.

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. The Company believes that EBIT and EBITDA are useful measures to the investor when measuring operating performance as they eliminate the impact of financing and tax expenses, which are non-operating expenses and may be driven by factors outside of our operations, such as changes in tax laws or regulations, and, in the case of EBITDA, the noncash charges associated with depreciation and amortization. Further, as interest from financing, income taxes, depreciation, and amortization can vary dramatically between companies and between periods, management believes that the removal of these items can improve comparability.

Adjusted EBIT and adjusted EBITDA represent further non-U.S. GAAP adjustments to EBIT and EBITDA, in each case adjusted to exclude, as applicable, (i) a specific charge for excess and obsolete inventory, (ii) product rationalization, (iii) a restructuring charge, (iv) a non-recurring charge related to customer collections, (v) certain non-restructuring separation costs, (vi) a charge in connection with a non-recurring matter unrelated to the ongoing operations of the business, and (vii) costs related to business development activities. The product rationalization adjustment pertains to a non-recurring write-off of inventory and assets related to the elimination of certain product lines. The specific charge for excess and obsolete inventory pertains to a non-recurring process change that resulted in the identification and write down of certain excess inventory unrelated to product rationalization. The non-recurring charge related to customer collections pertains to a discrete process issue that was identified and corrected. As these charges are infrequent or unusual items that can be variable from period to period and do not fluctuate with operating results, management believes that by removing these gains and charges from EBIT and EBITDA it improves comparability of past, present and future operating results and provides consistency when comparing EBIT and EBITDA between periods.

EBIT and adjusted EBIT reconciled to net earnings were as follows:

	Year Ended September 30,			
	2023			2022
Net earnings (U.S. GAAP)	\$	232,368	\$	171,698
Income tax expense		43,400		28,200
Interest expense		47,898		34,545
Interest income		(2,751)		(1,814)
EBIT (Non-U.S. GAAP)		320,915		232,629
Non-U.S. GAAP adjustments:				
Specific charge for excess and obsolete inventory ¹		11,995		_
Product rationalization ²		10,504		_
Non-recurring charge related to customer collections ³		4,997		_
Certain non-restructuring separation costs ³		2,208		_
Restructuring activities		5,172		(3,420)
Non-recurring matter unrelated to the ongoing operations of the business ³		_		3,272
Business development activities ³		_		2,982
Total non-U.S. GAAP adjustments		34,876		2,834
Adjusted EBIT (Non-U.S. GAAP)	\$	355,791	\$	235,463

- (1) Presented in the line item "Cost of goods sold" in Woodward's Consolidated Statements of Earnings.
- (2) \$5,822 is presented in the line item "Cost of goods sold" and \$4,682 is presented in the line item "Selling, general and administrative" expenses in Woodward's Consolidated Statements of Earnings.
- (3) Presented in the line item "Selling, general, and administrative" expenses in Woodward's Consolidated Statements of Earnings.

EBITDA and adjusted EBITDA reconciled to net earnings were as follows:

	Year Ended September 30,		
	 2023		2022
Net earnings (U.S. GAAP)	\$ 232,368	\$	171,698
Income tax expense	43,400		28,200
Interest expense	47,898		34,545
Interest income	(2,751)		(1,814)
Amortization of intangible assets	37,589		37,609
Depreciation expense	82,154		83,019
EBITDA (Non-U.S. GAAP)	440,658		353,257
Non-U.S. GAAP adjustments:			
Specific charge for excess and obsolete inventory ¹	11,995		_
Product rationalization ²	10,504		_
Non-recurring charge related to customer collections ³	4,997		_
Certain non-restructuring separation costs ³	2,208		_
Restructuring activities	5,172		(3,420)
Non-recurring matter unrelated to the ongoing operations of the business ³	_		3,272
Business development activities ³	_		2,982
Total non-U.S. GAAP adjustments	34,876		2,834
Adjusted EBITDA (Non-U.S. GAAP)	\$ 475,534	\$	356,091

- (1) Presented in the line item "Cost of goods sold" in Woodward's Consolidated Statements of Earnings.
- (2) \$5,822 is presented in the line item "Cost of goods sold" and \$4,682 is presented in the line item "Selling, general and administrative" expenses in Woodward's Consolidated Statements of Earnings.
- (3) Presented in the line item "Selling, general, and administrative" expenses in Woodward's Consolidated Statements of Earnings.

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 adjusted net earnings, adjusted net earnings per share, adjusted effective tax rate, EBIT, adjusted EBIT, EBITDA, and adjusted 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 adjusted net earnings, adjusted net earnings per share, EBIT, adjusted EBITDA, and adjusted 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, in reviewing the financial performance of and cash generation by Woodward's various business groups and evaluating cash levels. We believe free cash flow is a useful measure for investors because it portrays our ability to grow organically and generate cash from our businesses for purposes such as paying interest on our indebtedness, repaying maturing debt, funding business acquisitions, investing in research and development, purchasing our common stock, and paying dividends. In addition, securities analysts, investors, and others frequently use free cash flow in their evaluation of companies. Adjusted free cash flow represents a further non-U.S. GAAP adjustment to free cash flow to exclude the effect of cash paid for business development activities, restructuring activities, and certain non-restructuring separation costs. Management believes that excluding these infrequent or unusual items from free cash flow better portrays our ability to generate cash, as such items are not indicative of the Company's operating performance for the period.

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. Free cash flow and adjusted free cash flow do not necessarily represent funds available for discretionary use and are not necessarily a measure of our ability to fund our cash needs. Our calculation of free cash flow and adjusted free cash flow may differ from similarly titled measures used by other companies, limiting their usefulness as a comparative measure.

Free cash flow and adjusted free cash flow were as follows:

	Year Ended September 30,					
	2023			2022		
Net cash provided by operating activities (U.S. GAAP)	\$	308,543	\$	193,638		
Payments for property, plant and equipment		(76,500)		(52,868)		
Free cash flow (Non-U.S. GAAP)	\$	232,043	\$	140,770		
Cash paid for certain non-restructuring separation costs		977				
Cash paid for restructuring activities		5,207		505		
Cash paid for business development activities		_		2,982		
Adjusted free cash flow (Non-U.S. GAAP)	\$	238,227	\$	144,257		

CRITICAL ACCOUNTING 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

Revenue is recognized on contracts with customers for arrangements in which quantities and pricing are fixed and/or determinable and are generally based on customer purchase orders, often within the framework of a long-term supply arrangement with the customer. We recognize revenue for performance obligations within a customer contract when control of the associated product or service is transferred to the customer. Some of our contracts with customers contain a single performance obligation, while other contracts contain multiple performance obligations. Each product within a contract generally represents a separate performance obligation as we do not provide significant installation and integration services, the products do not customize each other, and the products can function independently of each other.

A contract's transaction price is allocated to each performance obligation and recognized as revenue when, or as, the customer obtains control of the associated product or service. When there are multiple performance obligations within a contract, we generally use the observable standalone sales price for each distinct product or service within the contract to allocate the transaction price to the distinct products or services. In instances when a standalone sales price for each product or service is not observable within the contract, we allocate the transaction price to each performance obligation using an estimate of the standalone selling price for each product or service, which is generally based on incurred costs plus a reasonable margin, for each distinct product or service in the contract.

When determining the transaction price of each contract, we consider contractual consideration payable by the customer and variable consideration that may affect the total transaction price. Variable consideration, consisting of early payment discounts, rebates, and other sources of price variability, are included in the estimated transaction price based on both customer-specific information as well as historical experience. We regularly review our estimates of variable consideration on the transaction price and recognize changes in estimates on a cumulative catch-up basis as if the most current estimate of the transaction price adjusted for variable consideration had been known as of the inception of the contract.

Point in time and over time revenue recognition

Control of the products generally transfers to the customer at a point in time, if the customer does not control the products as they are produced. We exercise judgment and consider the timing of right of payment, transfer of the risk and rewards, transfers of title, transfer of physical possession, and customer acceptance when determining when control of the product transfers to the customer, generally upon shipment of products. Performance obligations are satisfied and revenue is recognized over time if: (i) the customer receives the benefits as we perform work, if the customer controls the asset as it is being enhanced, or if the product being produced for the customer has no alternative use to us; and (ii) we have an enforceable right to payment with a profit. When services are provided, revenue from those services is recognized over time because control is transferred continuously to customers as we perform the work.

For services that are not short-term in nature, manufacturing, repair, and overhaul ("MRO"), and sales of products that have no alternative use to us and an enforceable right to payment with a profit, we use an actual cost input measure to determine the extent of progress towards completion of the performance obligation. For these revenue streams, revenue is recognized over time as work is performed based on the relationship between actual costs incurred to-date for each contract and the total estimated costs for such contract at completion of the performance obligation (the cost-to-cost method). We have concluded that this measure of progress best depicts the transfer of assets to the customer, because incurred costs are integral to our completion of the performance obligation under the specific customer contract and correlate directly to the transfer of control to the customer. Contract costs include labor, material, and overhead. Contract cost estimates are based on various assumptions to project the outcome of future events. These assumptions include labor productivity, and availability; the complexity of the work to be performed; the cost and availability of materials; the performance of subcontractors; and the availability and timing of funding from the customer. Revenues, including estimated fees or profits, are recorded proportionally as costs are incurred.

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.

We monitor 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 \$517,843 at September 30, 2023 and \$514,287 at September 30, 2022. 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 firm and expected orders in a reasonable time frame, which we believe mitigates our exposure to future inventory carrying cost adjustments.

Reviews for impairment of goodwill and other indefinitely lived intangible assets

Goodwill

At September 30, 2023, we had \$791,468 of goodwill representing approximately 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 indicate the fair value of a reporting unit may be below its carrying amount.

The identification of reporting units and consideration of the aggregation of components into a single reporting unit under U.S. GAAP requires management judgment. The impairment test consists 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.

During the fourth quarter, we completed our annual goodwill impairment test as of July 31, 2023 for the fiscal year ended September 30, 2023. The results of our annual goodwill impairment test performed as of July 31, 2023, indicated the estimated fair value of each reporting unit was in excess of its carrying value, and accordingly, no impairment existed.

Indefinitely lived intangible asset

We have one indefinitely lived intangible asset consisting of the Woodward L'Orange trade name. At September 30, 2023, the carrying value of the Woodward L'Orange trade name intangible asset was \$61,307, representing approximately 2% of our total assets. The Woodward L'Orange trade name intangible asset is tested for impairment on an annual basis and more often if an event occurs or circumstances change that indicate the fair value of the Woodward L'Orange intangible asset may be below its carrying amount. The impairment test consists of comparing the fair value of the Woodward L'Orange trade name intangible asset, determined using discounted cash flows based on the relief from royalty method under the income approach, with its carrying amount. If the carrying amount of the Woodward L'Orange trade name intangible asset exceeds its fair value, an impairment loss would be recognized to reduce the carrying amount to its fair value. Woodward has not recorded any impairment charges associated with the indefinitely lived intangible asset.

During the fourth quarter, we completed the annual impairment test, for the fiscal year ended September 30, 2023, of the Woodward L'Orange trade name intangible asset as of July 31, 2023. The results of the annual impairment test performed as of July 31, 2023 indicated the estimated fair value of the Woodward L'Orange trade name intangible asset was in excess of its carrying value, and accordingly, no impairment existed.

As part of our ongoing monitoring efforts to assess goodwill and the Woodward L'Orange trade name indefinite lived asset 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 our business. There can be no assurance that our estimates and assumptions regarding forecasted cash flows of certain reporting units or the Woodward L'Orange business, 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.

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.

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 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, Woodward records through income tax expense all future excess tax benefits and tax deficiencies from stock options exercised. This 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.

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.

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.

Foreign Currency Exchange Rate Risk, Interest 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.

The percentages of our net sales denominated in a currency other than the USD were as follows:

	For the Year Ended September 30,			
	2023			
Functional currency:				
EUR	14.8%	15.7%		
RMB	6.3%	3.4%		
JPY	2.4%	2.9%		
GBP	2.1%	1.7%		
All other foreign currencies	2.9%	1.9%		
	28.5%	25.6%		

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.

We use derivative instruments as risk management tools that involve complexity and are not used for trading or speculative purposes. 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, 2023 and 2022, we had no open foreign currency exchange rate contracts and all previous exchange rate derivative instruments were settled or terminated.

For more information on derivative instruments, see Note 8, *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 mitigated 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.

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Woodward, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Woodward, Inc. and subsidiaries (the "Company") as of September 30, 2023 and 2022, 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, 2023, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of September 30, 2023, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 30, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2023, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2023, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

Basis for Opinions

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

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

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

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Intangible Assets, net - Trade name - Refer to Notes 1 and 14 to the financial statements

Critical Audit Matter Description

The Company has one indefinitely lived intangible asset consisting of the Woodward L'Orange trade name ("trade name"). As of September 30, 2023, the carrying value of the trade name is \$61.3 million. The trade name is tested for impairment on an annual basis and more often if an event occurs or circumstances change that indicate the fair value of the trade name may be below its carrying amount. The Company completed its annual impairment test of the trade name as of July 31, 2023. The results of the impairment test indicated the estimated fair value of the trade name was in excess of its carrying value and, accordingly, no impairment existed.

The fair value of the trade name was determined using discounted cash flows based on the relief from royalty method under the income approach. This method incorporates various estimates and assumptions, the most significant being projected revenue growth rates, royalty rates and the present value of the forecasted cash flows based on the discount rate and terminal growth rate. The Company projects revenue growth rates and cash flows based on Woodward L'Orange's current operational results, expected performance and operational strategies over a five-year period. The terminal growth rate of the expected cash flow is applied after five years. These projections are adjusted to reflect current economic conditions and demand for certain products and require considerable management judgment. Changes in these estimates and assumptions can have a significant impact on the fair value.

We identified the fair value of the trade name as a critical audit matter because of the significant judgments and assumptions management makes related to the projection of revenue growth rates and the selection of the discount rate, terminal growth rate and royalty rate. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's projection of revenue growth rates and selection of the discount rate, terminal growth rate and royalty rate.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the projection of revenue growth rates and selection of the discount rate, terminal growth rate, and royalty rate used in determining the fair value of the trade name included the following, among others:

- We tested the effectiveness of controls over the fair value of the trade name, including those over the
 projection of revenue growth rates and the selection of the discount rate, terminal growth rate, and royalty
 rate.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the discount rate, terminal growth rate and royalty rate by:
 - Testing the source information underlying the determination of the discount rate, terminal growth rate and royalty rate and recalculating the mathematical accuracy of management's calculation of the discount rate
 - o Developing a range of independent estimates over the discount rate and terminal growth rate and comparing those to the discount and terminal growth rates selected by management
 - Comparing the royalty rate from comparable licensing agreements to the rate selected by management

- o Searching for any events which could adversely impact the fair value of the brand
- We evaluated the reasonableness of management's projected revenue growth rates by:
 - o Comparing management's projections to:
 - Historical revenue results for Woodward L'Orange
 - Internal communications to management and the board of directors
 - Analyst and industry reports
 - Peer company forecasts
 - o Considering the impact of changes in management's projections from the July 31, 2023 annual assessment date to September 30, 2023 by comparing actual results for the period to management projections within the original valuation model.
- We evaluated whether a triggering event existed subsequent to management's impairment testing date, but prior to the balance sheet date.

/s/ DELOITTE & TOUCHE LLP Denver, Colorado November 17, 2023

We have served as the Company's auditor since 2008.

CONSOLIDATED STATEMENTS OF EARNINGS

(In thousands, except per share amounts)

	Year Ended September 30,								
		2023		2022		2021			
Net sales	\$	2,914,566	\$	2,382,790	\$	2,245,832			
Costs and expenses:									
Cost of goods sold		2,236,983		1,857,485		1,694,774			
Selling, general and administrative expenses		269,692		203,005		186,866			
Research and development costs		132,095		119,782		117,091			
Restructuring activities		5,172		(3,420)		5,008			
Interest expense		47,898		34,545		34,282			
Interest income		(2,751)		(1,814)		(1,495)			
Other (income) expense, net		(50,291)		(26,691)		(36,493)			
Total costs and expenses		2,638,798		2,182,892		2,000,033			
Earnings before income taxes		275,768		199,898		245,799			
Income tax expense		43,400		28,200		37,150			
Net earnings	\$	232,368	\$	171,698	\$	208,649			
	_			-					
Earnings per share:									
Basic earnings per share	\$	3.88	\$	2.79	\$	3.30			
Diluted earnings per share	\$	3.78	\$	2.71	\$	3.18			
Weighted Average Common Shares Outstanding:									
Basic		59,908		61,517		63,287			
Diluted		61,482		63,254		65,555			

CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS

(In thousands)

	Year Ended September 30,						
	2023	2022	2021				
Net earnings	\$ 232,368	\$ 171,698	\$ 208,649				
Other comprehensive earnings:							
Foreign currency translation adjustments	21,180	(63,026)	8,628				
Net (loss) gain on foreign currency transactions designated as hedges of net investments in							
foreign subsidiaries	(3,090)	7,206	592				
Taxes on changes on foreign currency translation adjustments	1,011	2,230	(1,433)				
Foreign currency translation and transactions adjustments, net of tax	19,101	(53,590)	7,787				
Unrealized gain (loss) on fair value adjustment of derivative instruments	(36,587)	89,048	(1,672)				
Reclassification of net realized (gains) losses on derivatives to earnings	33,224	(68,880)	(3,702)				
Taxes on changes on derivative transactions	(141)	(786)	234				
Derivative adjustments, net of tax	(3,504)	19,382	(5,140)				
Minimum retirement benefit liability adjustments:							
Net gain arising during the period	9,401	6,318	27,809				
Prior service cost arising during the period	_	_	(611)				
Amortization of:							
Prior service cost	720	1,004	995				
Net (gain) loss	(823)	720	1,502				
Foreign currency exchange rate changes on minimum retirement benefit liabilities	247	1,158	(855)				
Taxes on changes on minimum retirement benefit liability adjustments	(3,250)	(1,936)	(7,312)				
	6,295	7,264	21,528				
Total comprehensive earnings	\$ 254,260	\$ 144,754	\$ 232,824				

CONSOLIDATED BALANCE SHEETS

(In thousands, except per share amounts)

	September 30,		Sep	otember 30,
		2023		2022
ASSETS				_
Current assets:				
Cash and cash equivalents	\$	137,447	\$	107,844
Accounts receivable, less allowance for uncollectible amounts of \$5,847 and \$3,922, respectively		749,859		609,964
Inventories		517,843		514,287
Income taxes receivable		14,120		5,179
Other current assets		50,183		74,695
Total current assets		1,469,452		1,311,969
Property, plant and equipment, net		913,094		910,472
Goodwill		791,468		772,559
Intangible assets, net		452,363		460,580
Deferred income tax assets		58,550		23,447
Other assets		325,276		327,419
Total assets	\$	4,010,203	\$	3,806,446
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Short-term debt	\$	_	\$	66,800
Current portion of long-term debt	•	75,817	•	856
Accounts payable		234,328		230,519
Income taxes payable		44,435		34,655
Accrued liabilities		262,616		206,283
Total current liabilities		617,196		539,113
Long-term debt, less current portion		645,709		709,760
Deferred income tax liabilities		132,819		127,195
Other liabilities		543,490		529,256
Total liabilities		1,939,214		1,905,324
Commitments and contingencies (Note 22)				, ,
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		327,941		293,540
Accumulated other comprehensive losses		(70,671)		(92,563)
Deferred compensation		2,776		6,781
Retained earnings		2,908,574		2,727,233
ŭ		3,168,726		2,935,097
Treasury stock at cost, 13,070 shares and 13,207 shares, respectively		(1,094,961)		(1,027,194)
Treasury stock held for deferred compensation, at cost, 55 shares and 139 shares, respectively		(2,776)		(6,781)
Total stockholders' equity		2,070,989		1,901,122
Total liabilities and stockholders' equity	Ś	4,010,203	\$	3,806,446
	<u> </u>	1,010,203	<u> </u>	3,000,440

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended September 30,						
		2023	2022		20)21	
Cash flows from operating activities:							
Net earnings	\$	232,368	\$ 171,6	98	\$ 20	08,649	
Adjustments to reconcile net earnings to net cash provided by operating activities:							
Depreciation and amortization		119,743	120,6	28	12	9,524	
Net loss (gain) on sales of assets and businesses		1,491	(1,7	75)	((4,452)	
Stock-based compensation		23,383	20,1	09	2	21,475	
Deferred income taxes		(40,155)	(23,2	26)	(1	1,964)	
Changes in operating assets and liabilities:							
Trade accounts receivable		(113,119)	(54,3	80)	4	1,241	
Unbilled receivables (contract assets)		(23,879)	(44,4	51)	(1	6,491)	
Costs to fulfill a contract		(11,544)	(17,1	18)	(1	19,761)	
Inventories		3,234	(110,1	96)	1	8,871	
Accounts payable and accrued liabilities		67,447	122,9	63	6	51,793	
Contract liabilities		20,115	12,4	66	2	24,848	
Income taxes		(3,652)	29,6	44	2	21,509	
Retirement benefit obligations		(909)	(4,4	24)	((6,848)	
Other		34,020	(28,3	00)	((3,725)	
Net cash provided by operating activities		308,543	193,6			64,669	
Cash flows from investing activities:							
Payments for purchase of property, plant, and equipment		(76,500)	(52,8	68)	(3	37,689)	
Proceeds from sale of assets		488		43		154	
Payments for business acquisition, net of cash acquired		878	(21,5	49)		_	
Proceeds from sale of the renewable power systems business and other related business		_	6,0	00		_	
Proceeds from sales of short-term investments		7,692	12,5	57	1	6,575	
Payments for purchases of short-term investments		(6,109)	(9,6	32)	(1	4,337)	
Net cash used in investing activities		(73,551)	(65,4	49)	(3	35,297)	
•							
Cash flows from financing activities:							
Cash dividends paid		(51,027)	(44,9	78)	(3	36,041)	
Proceeds from sales of treasury stock		50,749	21,8		-	34,706	
Payments for repurchases of common stock		(126,380)	(485,3			3,344)	
Borrowings on revolving lines of credit and short-term borrowings		2,323,500	952,0			4,400	
Payments on revolving lines of credit and short-term borrowings		2,390,300)	(885,2			, 4,400)	
Payments of debt financing costs	,	(2,236)	, ,	_			
Payments of long-term debt and finance lease obligations		(779)	(7	97)	(10	1,639)	
Net cash used in financing activities	_	(196,473)	(442,3			36,318)	
Effect of exchange rate changes on cash and cash equivalents		(8,916)	(26,4			2,138	
Net change in cash and cash equivalents	_	29,603	(340,6			5,192	
Cash and cash equivalents, including restricted cash, at beginning of year		107,844	448,4	•		3,270	
Cash and cash equivalents, including restricted cash, at end of year	\$	137,447	\$ 107,8			18,462	
cash and cash equivalents, including restricted cash, at the or year	<u>ب</u>	137,777	7 107,8		7 44	0,702	

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except per share amounts)

Part		N	Number of sha	ires	Stockholders' equity										
Figure 1. The section of the section							Accumul	ated other co	mprehensive (I	oss) earnings					-
Part									Minimum	Total					
Part				Treasury			Foreign	Unrealized						Treasury	
Part				•		Additional	•			other			Treasury	•	Total
Second September 9, 2020 1,75		Common	Treasury	deferred	Common	paid-in	•	gains	liability	comprehensive	Deferred	Retained	•	deferred	stockholders'
Balances and September 30, 2020 7, 596 (10, 277) (10, 278) (10, 277) (10, 211) (10, 27			•			•		•	•						
Net earnings	Balances as of September 30, 2020	72,960	(10,277)		\$ 106								\$ (577,476)		
Cash dividendes pair (150.05880) Farmer Fa	Net earnings	_	_	_	_	_	_	_		_	_	208,649			208,649
Purchases of treasury stock	Other comprehensive income (loss), net of tax	_	_	_	_	_	7,787	(5,140)	21,528	24,175	_	_	_	_	24,175
Sales of treasury stock	Cash dividends paid (\$0.56880 per share)	_	_	_	_	_	_	_	_	_	_	(36,041)	_	_	(36,041)
Commonshares issued for benefit planes 12	Purchases of treasury stock	_	(404)	_	_	_	_	_	_	_	_	_	(45,860)	_	(45,860)
Stock-based compensation	Sales of treasury stock	_	851	_	_	(1,218)	_	_	_	_	_	_	36,024	_	34,806
Purchases and transfers of stock by/for deferred compensation plan	Common shares issued for benefit plans	_	128	_	_	9,542	_	_	_	_	_	_	5,358	_	14,900
Compensation plan	Stock-based compensation	_	_	_	_	21,475	_	_	_	_	_	_	_	_	21,475
Set Distribution of stock from defered compensation plan 1,666 1,066	Purchases and transfers of stock by/to deferred														
Balances as of September 30, 2021 72,960 (9,702) (167) \$ 106 \$ 261,735 \$ (32,904) \$ (25,597) \$ (7,118) \$ (65,619) \$ 7,949 \$ (2,60,513) \$ (581,954) \$ (7,949) \$ (2,214,781) \$ (8,749) \$ (8,	compensation plan	_	_	(3)	_	_	_	_	_	_	393	_	_	(393)	_
Balances as of September 30, 2021 72,960 (9,702) (167) \$ 106 \$ 261,735 \$ (32,904) \$ (25,597) \$ (7,118) \$ (65,619) \$ 7,949 \$ \$ 2,600,513 \$ (581,954) \$ (7,949) \$ 2,214,781 Net earnings Cash dividends paid (50,7325 per share)	Distribution of stock from deferred compensation plan	_	_	35	_	_	_	_	_	_	(1,666)	_	_	1,666	_
Net earnings	Balances as of September 30, 2021	72,960	(9,702)	(167)	\$ 106	\$ 261,735	\$ (32,904)	\$ (25,597)	\$ (7,118)	\$ (65,619)	\$ 7,949	\$ 2,600,513	\$ (581,954)	\$ (7,949)	\$ 2,214,781
Net earnings															
Check comprehensive earnings (loss), net of tax	Balances as of September 30, 2021	72,960	(9,702)	(167)	\$ 106	\$ 261,735	\$ (32,904)	\$ (25,597)	\$ (7,118)	\$ (65,619)	\$ 7,949	\$ 2,600,513	\$ (581,954)	\$ (7,949)	\$ 2,214,781
Cash dividends paid (SD,7325 per share)	Net earnings	_	_	_	_	_	_	_	_	_	_	171,698	_	_	171,698
Purchases of treasury stock	Other comprehensive earnings (loss), net of tax	_	_	_	_	_	(53,590)	19,382	7,264	(26,944)	_	_	_	_	(26,944)
Sales of treasury stock — 468 — 1,131 —	Cash dividends paid (\$0.7325 per share)	_	_	_	_	_	_	_	_	_	_	(44,978)	_	_	(44,978)
Common shares issued for benefit plans	Purchases of treasury stock	_	(4,123)	_	_	_	_	_	_	_	_	_	(472,784)	_	(472,784)
Stock-based compensation	Sales of treasury stock	_	468	_	_	1,131	_	_	_	_	_	_	20,977	_	22,108
Purchases and transfers of stock by/to deferred compensation plan	Common shares issued for benefit plans	_	150	_	_	10,565	_	_	_	_	_	_	6,567	_	17,132
Compensation plan	Stock-based compensation	_	_	_	_	20,109	_	_	_	_	_	_	_	_	20,109
Distribution of stock from deferred compensation plan	Purchases and transfers of stock by/to deferred														
Balances as of September 30, 2022 72,960 (13,207) (139) \$ 106 \$ 293,540 \$ (86,494) \$ (6,215) \$ 146 \$ (92,563) \$ 6,781 \$ 2,727,233 \$ (1,027,194) \$ (6,781) \$ 1,901,122 \$ (1,027)	compensation plan	_	_	(3)	_	_	_	_	_	_	252	_	_	(252)	_
Balances as of September 30, 2022 72,960 (13,207) (139) \$ 106 \$ 293,540 \$ (86,494) \$ (6,215) \$ 146 \$ (92,563) \$ 6,781 \$ 2,727,233 \$ (1,027,194) \$ (6,781) \$ 1,901,122 \$ (1,027)	Distribution of stock from deferred compensation plan	_	_	31	_	_	_	_	_	_	(1,420)	_	_	1,420	_
Net earnings	Balances as of September 30, 2022	72,960	(13,207)	(139)	\$ 106	\$ 293,540	\$ (86,494)	\$ (6,215)	\$ 146	\$ (92,563)	\$ 6,781	\$ 2,727,233	\$ (1,027,194)	\$ (6,781)	\$ 1,901,122
Net earnings															
Other comprehensive earnings (loss), net of tax	Balances as of September 30, 2022	72,960	(13,207)	(139)	\$ 106	\$ 293,540	\$ (86,494)	\$ (6,215)	\$ 146	\$ (92,563)	\$ 6,781	\$ 2,727,233	\$ (1,027,194)	\$ (6,781)	\$ 1,901,122
Cash dividends paid (\$0.85 per share)	Net earnings	_	_	_	_	_	_	_	_	_	_	232,368	_	_	232,368
Purchases of treasury stock - (1,060) (302) (126,380) - (126,682) Sales of treasury stock - 1,009 3777 50,090 - 50,467 Common shares issued for benefit plans - 188 10,943 8,523 - 19,466 Stock-based compensation 23,383 23,383 Purchases and transfers of stock by/to deferred compensation plan	Other comprehensive earnings (loss), net of tax	_	_	_	_	_	19,101	(3,504)	6,295	21,892	_	_	_	_	21,892
Sales of treasury stock - 1,009 377 50,090 - 50,467 Common shares issued for benefit plans - 188 10,943 8,523 - 19,466 Stock-based compensation 23,383 8,523 - 19,466 Stock-based compensation plan	Cash dividends paid (\$0.85 per share)	_	_	_	_	_	_	_	_	_	_	(51,027)	_	_	(51,027)
Common shares issued for benefit plans - 188 10,943 8,523 - 19,466 Stock-based compensation 23,383 8,523 - 19,466 Stock-based compensation plan	Purchases of treasury stock	_	(1,060)	_	_	(302)	_	_	_	_	_	_	(126,380)	_	(126,682)
Stock-based compensation	Sales of treasury stock	_	1,009	_	_	377	_	_	_	_	_	_	50,090	_	50,467
Purchases and transfers of stock by/to deferred compensation plan - - (2) - - - - 178 - - (178) - Distribution of stock from deferred compensation plan - - 86 - - - - - 4,183 - - 4,183 -	Common shares issued for benefit plans	_	188	_	_	10,943	_	_	_	_	_	_	8,523	_	19,466
compensation plan - - (2) - - - - 178 - - (178) - Distribution of stock from deferred compensation plan - - 86 - - - - - 4,183 - - 4,183 - - 4,183 - - - 4,183 - - - 4,183 - - - 4,183 - </td <td>Stock-based compensation</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>23,383</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>23,383</td>	Stock-based compensation	_	_	_	_	23,383	_	_	_	_	_	_	_	_	23,383
Distribution of stock from deferred compensation plan <u> 86 (4,183) 4,183</u> -	Purchases and transfers of stock by/to deferred														
	compensation plan	_	_	(2)	_	_	_	_	_	_	178	_	_	(178)	_
Balances as of September 30, 2023 72,960 (13,070) (55) \$ 106 \$ 327,941 \$ (67,393) \$ (9,719) \$ 6,441 \$ (70,671) \$ 2,776 \$ 2,908,574 \$ (1,094,961) \$ (2,776) \$ 2,070,989	Distribution of stock from deferred compensation plan	_	_	86	_	_	_	_	_	_	(4,183)	_	_	4,183	_
	Balances as of September 30, 2023	72,960	(13,070)	(55)	\$ 106	\$ 327,941	\$ (67,393)	\$ (9,719)	\$ 6,441	\$ (70,671)	\$ 2,776	\$ 2,908,574	\$ (1,094,961)	\$ (2,776)	\$ 2,070,989

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").

Nature of operations

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 primarily 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 Woodward 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, industrial diesel, gas, biodiesel 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. The exchange rate in effect at the time of the cash flow is used for significant or infrequent cash flows, such as payments for a business acquisition, for which the use of weighted-average rates of exchange would result in a substantially different cash flow. 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 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 \$1,020 in fiscal year 2023, a net foreign currency gain of \$1,450 in fiscal year 2022, and a net foreign currency loss of \$1,986 in fiscal year 2021.

Revenue recognition: Revenue is recognized on contracts with customers for arrangements in which quantities and pricing are fixed and/or determinable and are generally based on customer purchase orders, often within the framework of a long-term supply arrangement with the customer. Woodward has determined that it is the principal in its sales transactions, as Woodward is primarily responsible for fulfilling the promised performance obligations, has discretion to establish the selling price, and generally assumes the inventory risk. Woodward recognizes revenue for performance obligations within a customer contract when control of the associated product or service is transferred to the customer. Some of Woodward's contracts with customers contain a single performance obligation, while other contracts contain multiple performance obligations. Each product within a contract generally represents a separate performance obligation as Woodward does not provide significant installation and integration services, the products do not customize each other, and the products can function independently of each other.

A contract's transaction price is allocated to each performance obligation and recognized as revenue when, or as, the customer obtains control of the associated product or service. When there are multiple performance obligations within a contract, Woodward generally uses the observable standalone sales price for each distinct product or service within the contract to allocate the transaction price to the distinct products or services. In instances when a standalone sales price for each product or service is not observable within the contract, Woodward allocates the transaction price to each performance obligation using an estimate of the standalone selling price for each product or service, which is generally based on incurred costs plus a reasonable margin, for each distinct product or service in the contract.

When determining the transaction price of each contract, Woodward considers contractual consideration payable by the customer and variable consideration that may affect the total transaction price. Variable consideration, consisting of early payment discounts, rebates, and other sources of price variability, are included in the estimated transaction price based on both customer-specific information as well as historical experience.

Customers sometimes trade in used products in exchange for new or refurbished products. In addition, Woodward's customers sometimes provide inventory to Woodward which will be integrated into final products sold to those customers. Woodward obtains control of these exchanged products and customer provided inventory, and therefore, both are forms of noncash consideration. Noncash consideration paid by customers on overall sales transactions is additive to the transaction price. Woodward's net sales and cost of goods sold include the value of such noncash consideration for the same amount, with no resulting impact to earnings before income taxes. Upon receipt of such inventory, Woodward recognizes an inventory asset and a contract liability.

Point in time and over time revenue recognition: Control of the products generally transfers to the customer at a point in time, if the customer does not control the products as they are produced. Performance obligations are satisfied and revenue is recognized over time if: (i) the customer receives the benefits as Woodward performs work, if the customer controls the asset as it is being enhanced, or if the product being produced for the customer has no alternative use to Woodward; and (ii) Woodward has an enforceable right to payment with a profit. For products being produced for the customer that have no alternative use to Woodward and Woodward has an enforceable right to payment with a profit, and where the products are substantially the same and have the same pattern of transfer to the customer, revenue is recognized as a series of distinct products. As Woodward satisfies MRO performance obligations, revenue is recognized over time, as the customer, rather than Woodward, controls the asset being enhanced. When services are provided, revenue from those services is recognized over time because control is transferred continuously to customers as Woodward performs the work.

For services that are not short-term in nature, MRO, and sales of products that have no alternative use to Woodward and an enforceable right to payment with a profit, Woodward uses an actual cost input measure to determine the extent of progress towards completion of the performance obligation. For these revenue streams, revenue is recognized over time as work is performed based on the relationship between actual costs incurred to-date for each contract and the total estimated costs for such contract at completion of the performance obligation (the cost-to-cost method). Woodward has concluded that this measure of progress best depicts the transfer of assets to the customer because incurred costs are integral to Woodward's completion of the performance obligation under the specific customer contract and correlate directly to the transfer of control to the customer. Contract costs include labor, material, and overhead. Contract cost estimates are based on various assumptions to project the outcome of future events. These assumptions include labor

productivity, and availability; the complexity of the work to be performed; the cost and availability of materials; the performance of subcontractors; and the availability and timing of funding from the customer. Revenues, including estimated fees or profits, are recorded proportionally as costs are incurred.

If at any time the estimate of contract profitability indicates an anticipated loss on the contract, Woodward recognizes provisions for estimated losses on uncompleted contracts in the period in which such losses are determined. In situations where the creditworthiness of a customer becomes in doubt, Woodward ceases to recognize the over-time revenue on the associated customer contract.

Occasionally, Woodward sells maintenance or service arrangements, extended warranties, or other stand ready services. Woodward recognizes revenue from such arrangements as a series of performance obligations over the time period in which the services are available to the customer.

Purchase accounting: Business combinations are accounted for using the purchase method of accounting. Under this method, assets and liabilities, including intangible assets, are recorded at their fair values as of the acquisition date. Acquisition costs in excess of amounts assigned to assets acquired and liabilities assumed are recorded as goodwill. Transaction-related costs associated with business combinations are expensed as incurred.

Material rights and costs to fulfill a contract: Customers sometimes pay consideration to Woodward for product engineering and development activities that do not result in the immediate transfer of distinct products or services to the customer. There is an implicit assumption that without the customer making such advance payments to Woodward, Woodward's future sales of products or services to the customer would be at a higher selling price; therefore, such payments create a "material right" to the customer that effectively gives the customer an option to acquire future products or services, at a discount, that are dependent upon the product engineering and development. Material rights are recorded as contract liabilities and will be recognized when control of the related products or services are transferred to the customer.

Woodward capitalizes costs of product engineering and development identified as material rights up to the amount of customer funding as costs to fulfill a contract are incurred because the costs incurred up to the amount of the customer funding commitment are recoverable. Due to the uncertainty of the product success and/or demand, fulfillment costs in excess of the customer funding are expensed as incurred. Woodward recognizes the deferred material rights as revenue based on a percentage of actual sales to total estimated lifetime sales of the related developed products as the customers exercise their option to acquire additional products or services at a discount. Woodward amortizes the capitalized costs to fulfill a contract as cost of goods sold proportionally to the recognition of the associated deferred material rights. Estimated total lifetime sales are reviewed at least annually and more frequently when circumstances warrant a modification to the previous estimate.

Woodward does not capitalize incremental costs of obtaining a contract, as Woodward does not pay sales commissions or incur other incremental costs related to contracts with Woodward's customers for arrangements in which quantities and pricing are fixed and/or determinable.

Contract liabilities: Advance payments and billings in excess of revenue recognized represent contract liabilities and are recorded as deferred revenues when customers remit contractual cash payments in advance of Woodward satisfying performance obligations under contractual arrangements, including those with performance obligations satisfied over time. Woodward generally receives advance payments from customers related to maintenance or service arrangements, extended warranties, or other stand ready services, which it recognizes over the performance period. Contract liabilities are satisfied when revenue is recognized and the performance obligation is satisfied. Advance payments and billings in excess of revenue recognized are included in deferred revenue, which is classified as current or noncurrent based on the timing of when Woodward expects to recognize revenue.

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.

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, either from credit risk or other adjustments to the original selling price or anticipated cash discounts. 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, current and forecasted economic conditions, and other relevant factors. Bad debt 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. The allowance associated with anticipated other adjustments to the selling price or cash discounts is also established and is included in the allowance for uncollectible amounts. In establishing this amount, both customer-specific information as well as historical experience is considered.

In coordination with its customers and when terms are considered favorable to Woodward, Woodward from time-to-time transfers ownership to collect amounts due to Woodward for outstanding accounts receivable to third parties in exchange for cash. When the transfer of accounts receivable meets the criteria of Financial Accounting Standards Board ("FASB") ASC Topic 860-10, "Transfers and Servicing," and are without recourse, it is recognized as a sale and the accounts receivable is derecognized, resulting in an increase of approximately \$26,273 in cash provided by operating activities during fiscal year 2023, compared to an increase in cash provided by operating activities of approximately \$35,296 during fiscal year 2022.

Unbilled receivables (contract assets) arise when the timing of billing differs from the timing of revenue recognized, such as when contract provisions require revenue to be recognized over time rather than at a point in time. Unbilled receivables primarily relate to performance obligations satisfied over time when the cost-to-cost method is utilized and the revenue recognized exceeds the amount billed to the customer as there is not yet a right to payment in accordance with contractual terms. Unbilled receivables are recorded as a contract asset when the revenue associated with the contract is recognized prior to billing and derecognized when billed in accordance with the terms of the contract.

Consistent with common business practice in China, Woodward's Chinese subsidiaries accept bankers' acceptance notes from Chinese customers in settlement of certain customer billed 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 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. Woodward has elected to adopt the practical expedient to not adjust the promised amounts of consideration for the effects of a significant financing component at contract inception as the financing component associated with

accepting bankers' acceptance notes has a duration of less than one year. Woodward's contracts with customers generally have no other financing components.

For composition of accounts receivable, see Note 3, Revenue.

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 of 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, 2023 were as follows:

Land improvements	6	-	20 years
Buildings and improvements	10	_	40 years
Leasehold improvements	1	-	10 years
Machinery and production equipment	3	_	25 years
Computer equipment and software	3	-	10 years
Office furniture and equipment	3	_	10 years
Other	3	-	10 years

Included in computer equipment and software are Woodward's enterprise resource planning ("ERP") systems, which have an estimated useful life of 15 years. All other computer equipment and software is generally depreciated over three years to five years.

Leases: Right-of-use ("ROU") assets and lease liabilities are recognized at the lease commencement date based on the estimated present value of the remaining fixed lease payments over the lease term. In determining the estimated present value of lease payments, Woodward discounts the fixed lease payments using the rate implicit in the agreement or, if the implicit rate is not known, using the incremental borrowing rate. Woodward's incremental borrowing rate is based on the information available at the lease commencement date, with consideration given to Woodward's recent debt issuances as well as publicly available data for instruments with similar characteristics.

For operating leases, lease expense is recognized over the expected lease term and classified as a cost of goods sold or selling, general, and administrative expense based on the nature of the underlying leased asset. For finance leases, the ROU asset is recognized over the shorter of the useful life of the asset, consistent with Woodward's normal depreciation policy, or the lease term, and is classified as a cost of goods sold, selling, general, and administrative expense, or research and development expense, based on the nature and use of the underlying leased asset.

Certain of Woodward's operating lease agreements include variable payments that are passed through by the landlord, such as insurance, taxes, and common area maintenance, payments based on the usage of the asset, and rental payments adjusted periodically for inflation. Pass-through charges, payments due to changes in usage of the asset, and payments due to changes in indexation are included within variable rent expense and are recognized in the period in which the variable obligation for the payments was incurred.

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 indicates the fair value of a reporting unit may be 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 test consists 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 annual goodwill impairment testing, no impairment charges were recorded in the year ended September 30, 2023, 2022, or 2021 or since the goodwill was originally recorded.

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. Woodward amortizes the cost of other intangibles over their useful lives unless such lives are deemed indefinite. The cost of finite-lived other intangibles are amortized over their respective useful life 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. Finite-lived other intangible assets are reviewed for impairment whenever an event occurs or circumstances change indicating that the related carrying amount of the other intangible asset may not be recoverable. 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 related to its other intangibles in the year ended September 30, 2023, 2022, or 2021.

Estimated lives over which intangible assets are amortized at September 30, 2023 were as follows:

Customer relationships and contracts	11	-	30 years
Intellectual property		17 years	
Process technology	10	-	30 years
Other		1 vear	

Woodward has one indefinitely lived intangible asset consisting of the Woodward L'Orange trade name. The Woodward L'Orange trade name intangible asset is tested for impairment on an annual basis and more often if an event occurs or circumstances change that indicate the fair value of the Woodward L'Orange intangible asset may be below its carrying amount. The impairment test consists of comparing the fair value of the Woodward L'Orange trade name intangible asset, determined using discounted cash flows, with its carrying amount. If the carrying amount of the Woodward L'Orange intangible asset exceeds its fair value, an impairment loss would be recognized to reduce the carrying amount to its fair value. Woodward has not recorded any impairment charges against the L'Orange trade name intangible asset since it was acquired.

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 group's carrying amount and its estimated fair value.

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 under the deferred compensation program 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

Sheets 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."

Financial instruments: The Company's financial instruments include cash and cash equivalents, short-term investments in the deferred compensation program, notes receivable from municipalities, investments in term deposits, cross-currency interest rate swaps, and debt. Because of their short-term maturity, the carrying amount of cash and cash equivalents, and short-term debt approximate fair value. 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.

Further information on the fair value of financial instruments can be found at Note 7, *Financial instruments and fair value measurements*.

Derivatives: The Company is exposed to various 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 only with 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.

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 these loans are recognized in foreign currency translation adjustments within total comprehensive (losses) earnings. Also, to hedge against the foreign currency exposure attributable to non-functional currency denominated intercompany loans, Woodward has entered into derivative instruments in fair value hedging relationships and cash flow hedging relationships.

Further information on net investment hedges and derivative instruments in fair value and cash flow hedging relationships, including the Company's policy in accounting for these derivatives, can be found at Note 8, *Derivative instruments and hedging activities*.

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.

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").

No new accounting standards have been issued, or are pending issuance, that are expected to have a material impact on the Consolidated Financial Statements upon adoption.

Note 3. Revenue

Sales of products

Woodward primarily generates revenue through the manufacture and sale of engineered aerospace and industrial products, including revenue derived from MRO performance obligations performed on products originally manufactured by Woodward and subsequently returned by OEM or other end-user customers. The majority of Woodward's costs incurred to satisfy MRO performance obligations are related to replacing and/or refurbishing component parts of the returned products to restore the units back to a condition generally comparable to that of the unit upon its initial sale to an OEM customer. Therefore, Woodward considers almost all of its revenue to be derived from product sales, including those related to MRO.

	Year	Year Ended September 30,							
	2023	2022	2021						
Manufactured products	84%	84%	86%						
MRO	14%	14%	13%						
Services	2%	2%	1%						

Point in time and over time revenue recognition

The amount of revenue recognized as point in time or over time follows:

		For the Year Ended September 30,																
		2023 2022									2021							
	P	erospace	- II	ndustrial	Co	onsolidated	7	Aerospace	li li	ndustrial	Co	onsolidated	7	Aerospace	lı	ndustrial	C	onsolidated
Point in time	\$	748,278	\$	708,458	\$	1,456,736	\$	593,233	\$	509,737	\$	1,102,970	\$	481,422	\$	527,233	\$	1,008,655
Over time		1,019,825		438,005		1,457,830		926,089		353,731		1,279,820		922,695		314,482		1,237,177
Total net sales	\$	1,768,103	\$	1,146,463	\$	2,914,566	\$	1,519,322	\$	863,468	\$	2,382,790	\$	1,404,117	\$	841,715	\$	2,245,832

Material rights and costs to fulfill a contract

Amounts recognized related to changes in estimated total lifetime sales for material rights and costs to fulfill contracts with customers follows:

	 Year Ended September 30,								
	2023		2022		2021				
Revenue	\$ 1,460	\$	1,514	\$	2,671				
Cost of goods sold	1,736		667		1,961				

Amounts recognized related to amortization of costs to fulfill contracts and contract liabilities, which were not related to changes in estimate, follows:

		Year Ended September 30, 2023 2022 2021 \$ 6,741 \$ 4,107 \$ 4,455						
	2	.023		2022		2021		
Revenue	\$	6,741	\$	4,107	\$	4,455		
Cost of goods sold		5,559		3,077		3,466		

As of September 30, 2023, "Other assets" on the Consolidated Balance Sheets included \$180,228 of capitalized costs to fulfill contracts with customers, compared to \$167,610 as of September 30, 2022.

Accounts receivable and contract assets

Customer receivables include amounts billed and currently due from customers as well as unbilled amounts (contract assets) and are included in "Accounts receivable" in Woodward's Consolidated Balance Sheets. Amounts are billed in accordance with contractual terms, which are generally tied to shipment of the products to the customer, or as work progresses in accordance with contractual terms. Billed accounts receivable are typically due within 60 days. Woodward's contracts with customers generally have no financing components.

Accounts receivable consisted of the following:

Septeml	ber 30, 2023	September 30, 2022			
\$	434,287	\$	359,364		
	50,940		9,405		
	485,227		368,769		
	270,479		245,117		
	755,706		613,886		
	(5,847)		(3,922)		
\$	749,859	\$	609,964		
	\$ \$ \$	50,940 485,227 270,479 755,706 (5,847)	\$ 434,287 \$ 50,940 485,227 270,479 755,706 (5,847)		

As of September 30, 2023, "Other assets" on the Consolidated Balance Sheets includes \$7,332 of unbilled receivables not expected to be invoiced and collected within a period of twelve months, compared to \$6,649 as of September 30, 2022. Unbilled receivables not expected to be invoiced and collected within a period of twelve months are primarily attributable to the timing of revenue recognized in excess of billings primarily in the Aerospace segment.

Billed and unbilled accounts receivable from the U.S. Government were less than 10% of total billed and unbilled accounts receivable at September 30, 2023 and September 30, 2022.

The allowance for uncollectible amounts and change in expected credit losses for trade accounts receivable and unbilled receivables (contract assets) consisted of the following:

	Year Ended September 30,						
		2023		2022	2021		
Balance, beginning	\$	3,922	\$	3,664	\$	8,359	
Changes in estimates		7,211		447		2,382	
Write-offs		(5,305)		(46)		(7,255)	
Other ¹		19		(143)		178	
Balance, ending	\$	5,847	\$	3,922	\$	3,664	

(1) Includes effects of foreign exchange rate changes during the period.

Woodward adopted ASU 2016-13 on October 1, 2021. The change in the allowance for uncollectible amounts during the fiscal year ended September 30, 2021, is based on incurred losses rather than expected credit losses per the CECL impairment model.

Contract liabilities

Contract liabilities consisted of the following:

	September 30, 2023				Septembe	r 30, 2022	
		Current	N	oncurrent	 Current	No	ncurrent
Deferred revenue from material rights from GE joint venture							
formation	\$	6,147	\$	233,997	\$ 5,754	\$	234,516
Deferred revenue from advanced invoicing and/or prepayments							
from customers		6,868		2,196	4,120		38
Liability related to customer supplied inventory		14,543		_	12,442		_
Deferred revenue from material rights related to engineering and							
development funding		6,190		178,464	8,347		161,791
Net contract liabilities	\$	33,748	\$	414,657	\$ 30,663	\$	396,345

The current portion of contract liabilities is included in "Accrued liabilities" and the noncurrent portion is included in "Other liabilities" of Woodward's Consolidated Balance Sheets. Woodward recognized revenue of \$25,190 in the year ended September 30, 2023 from contract liabilities balances recorded as of September 30, 2022, compared to \$22,313 in the year ended September 30, 2022 from contract liabilities balances recorded as of September 30, 2021.

Woodward recognized revenue of \$52,268 for the fiscal year ended September 30, 2023, compared to \$65,702 for the fiscal year ended September 30, 2021 and \$71,517 for the fiscal year ended September 30, 2021, related to noncash consideration received from customers. The Aerospace segment recognized \$50,329 for the fiscal year ended September 30, 2023, compared to \$63,358 for the fiscal year ended September 30, 2022 and \$69,195 for the fiscal year ended September 30, 2021, while the Industrial segment recognized \$1,939 for the fiscal year ended September 30, 2023, compared to \$2,343 for the fiscal year ended September 30, 2021 and \$2,322 for the fiscal year ended September 30, 2021.

Remaining performance obligations

Remaining performance obligations related to the aggregate amount of the total contract transaction price of firm orders for which the performance obligation has not yet been recognized in revenue as of September 30, 2023 was \$2,325,533, compared to \$1,558,588 as of September 30, 2022, the majority of which in both periods relate to Woodward's Aerospace segment. Woodward expects to recognize almost all of these remaining performance obligations within two years after September 30, 2023.

Remaining performance obligations related to material rights that have not yet been recognized in revenue as of September 30, 2023 was \$457,391, of which \$11,085 is expected to be recognized in fiscal year 2024, and the balance is expected to be recognized thereafter. Woodward expects to recognize revenue from performance obligations related to material rights over the life of the underlying programs, which may be as long as forty years.

Disaggregation of revenue

Woodward designs, produces and services reliable, efficient, low-emission, and high-performance energy control products for diverse applications in markets throughout the world. Woodward reports financial results for each of its Aerospace and Industrial reportable segments. Woodward further disaggregates its revenue from contracts with customers by primary market and by geographical area as Woodward believes this best depicts how the nature, amount, timing and uncertainty of its revenue and cash flows are affected by economic factors.

Revenue by primary market for the Aerospace reportable segment was as follows:

	Year Ended September 30,							
	2023 2022			2021				
Commercial OEM	\$	651,275	\$	499,438	\$	386,543		
Commercial aftermarket		547,625		420,881		306,547		
Defense OEM		368,653		422,016		509,815		
Defense aftermarket		200,550		176,987		201,212		
Total Aerospace segment net sales	\$	1,768,103	\$	1,519,322	\$	1,404,117		

Revenue by primary market for the Industrial reportable segment was as follows:

	_	Year Ended September 30,						
	_	2023			2022		2021	
Power generation	Ç	\$	382,536	\$	317,026	\$	292,470	
Transportation			527,498		354,682		399,002	
Oil and gas			236,429		191,760		150,243	
Total Industrial segment net sales	2	5 1	,146,463	\$	863,468	\$	841,715	

During fiscal year 2023, for purposes of how we assess performance, we determined that certain revenue was better aligned with our markets consisting of power generation, transportation, and oil and gas, rather than the reciprocating engines and industrial turbines, how it was previously reported. For comparability, we have reclassified revenue for the years ended September 30, 2022 and 2021 to conform to the new presentation. This reclassification of revenue had no impact on our consolidated financial results.

The customers who account for approximately 10% or more of net sales of each of Woodward's reportable segments are as follows:

	For the Year Ended September 30,							
	2023	2022						
Aerospace	RTX Corporation, GE, The Boeing Company	RTX Corporation, The Boeing Company, GE						
Industrial	Rolls-Royce PLC, Caterpillar Inc., Weichai Westport	Rolls-Royce PLC, Wärtsilä, Caterpillar Inc.						

Net sales by geographic area, as determined based on the location of the customer, were as follows:

					Year Ended Sep	tember 30,			
		2023			2022			2021	
	Aerospace	Industrial	Consolidated	Aerospace	Industrial	Consolidated	Aerospace	Industrial	Consolidated
United States	\$ 1,254,954	\$ 283,121	\$ 1,538,075	\$ 1,105,860	\$ 205,740	\$ 1,311,600	\$ 1,103,373	\$ 174,750	\$ 1,278,123
Germany	80,450	193,392	273,842	57,840	174,216	232,056	31,005	152,691	183,696
Europe, excluding									
Germany	163,222	273,757	436,979	128,719	234,795	363,514	95,984	195,957	291,941
China	56,773	186,713	243,486	49,407	86,972	136,379	35,286	178,983	214,269
Asia, excluding									
China	37,107	162,922	200,029	23,334	128,855	152,189	23,363	114,137	137,500
Other countries	175,597	46,558	222,155	154,162	32,890	187,052	115,106	25,197	140,303
Total net sales	\$ 1,768,103	\$ 1,146,463	\$ 2,914,566	\$ 1,519,322	\$ 863,468	\$ 2,382,790	\$ 1,404,117	\$ 841,715	\$ 2,245,832

Note 4. 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,						
		2023		2022		2021	
Numerator:							
Net earnings	\$	232,368	\$	171,698	\$	208,649	
Denominator:							
Basic shares outstanding		59,908		61,517		63,287	
Dilutive effect of stock options and restricted stock units		1,574		1,737		2,268	
Diluted shares outstanding		61,482		63,254		65,555	
Income per common share:							
Basic earnings per share	\$	3.88	\$	2.79	\$	3.30	
Diluted earnings per share	\$	3.78	\$	2.71	\$	3.18	

The following stock option grants were outstanding but were excluded from the computation of diluted earnings per share because their inclusion would have been anti-dilutive:

	 Year Ended September 30,						
	 2023		2022		2021		
Options	561		1,019		41		
Weighted-average option price	\$ 114.88	\$	110.71	\$	116.38		

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,						
	2023	2022	2021				
Weighted-average treasury stock shares held for deferred compensation							
obligations	88	151	186				

Note 5. Leases

Woodward is primarily a lessee in lease arrangements but has some embedded lessor arrangements.

Lessee arrangements

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

None of Woodward's lease agreements contain significant residual value guarantees, restrictions, or covenants. As of September 30, 2023, Woodward has not entered into any lease arrangements that have not yet commenced but would create significant rights and obligations. Woodward does not have any lease transactions between related parties.

Lease-related assets and liabilities follows:

	Classification on the Consolidated Balance Sheets	Septen	nber 30, 2023	Septer	nber 30, 2022
Assets:					
Operating lease assets	Other assets	\$	24,680	\$	25,144
Finance lease assets	Property, plant, and equipment, net		3,337		5,474
Total lease assets			28,017		30,618
Current liabilities:					
Operating lease liabilities	Accrued liabilities		4,594		4,587
Finance lease liabilities	Current portion of long-term debt		817		856
Noncurrent liabilities:					
Operating lease liabilities	Other liabilities		20,685		21,443
Finance lease liabilities	Long-term debt, less current portion		2,733		4,405
Total lease liabilities		\$	28,829	\$	31,291

Supplemental lease-related information follows:

	September 30, 2023	September 30, 2022
Weighted average remaining lease term		
Operating leases	8.6 years	8.3 years
Finance leases	4.6 years	9.7 years
Weighted average discount rate		
Operating leases	4.0%	3.6%
Finance leases	4.6%	3.4%

Lease-related expenses were as follows:

	Year Ended September 30,							
		2023		2022		2021		
Operating lease expense	\$	6,213	\$	6,335	\$	6,559		
Amortization of financing lease assets		914		454		425		
Interest on financing lease liabilities		157		51		58		
Variable lease expense		917		929		1,495		
Short-term lease expense		196		190		283		
Sublease income ¹		_		(192)		(680)		
Total lease expense	\$	8,397	\$	7,767	\$	8,140		

(1) Relates to two separate subleases Woodward has entered into for a leased manufacturing building in Niles, Illinois, each of which expired during fiscal year 2022.

Lease-related supplemental cash flow information was as follows:

Year Ended September 30,					
	2022		2021		
151 \$	5,303	\$	5,707		
157	51		58		
779	796		1,639		
230	14,678		6,871		
48	4,046		35		
	151 \$ 157 779	2022 151 \$ 5,303 157 51 779 796 230 14,678	2022 151 \$ 5,303 \$ 157 51 779 796 230 14,678		

Maturities of lease liabilities were as follows:

Year Ending September 30:	Operation	ng Leases	ises Finance Le		
2024	\$	5,329	\$	954	
2025		4,491		821	
2026		3,823		822	
2027		3,109		820	
2028		2,662		234	
Thereafter		10,491		258	
Total lease payments		29,905		3,909	
Less: imputed interest		(4,626)		(359)	
Total lease obligations	\$	25,279	\$	3,550	

Lessor arrangements

Woodward has assessed its manufacturing contracts and concluded that certain of the contracts for the manufacture of customer products met the criteria to be considered a leasing arrangement ("embedded leases") with Woodward as the lessor. The specific manufacturing contracts that met the criteria were those that utilized Woodward property, plant, and equipment and which is substantially (more than 90%) dedicated to the manufacturing of the product(s) for a single customer. Woodward has dedicated manufacturing lines with four of its customers representing embedded leases, all of which qualified as operating leases with undefined quantities of future customer purchase commitments.

Although Woodward expects to allocate some portion of future net sales to these customers to embedded lessor arrangements, it cannot provide expected future undiscounted lease payments from property, plant, and equipment leased to customers as of September 30, 2023. If, in the future, customers reduce purchases of related products from Woodward, the Company believes it will derive additional value from the underlying equipment by repurposing its use to support other customer arrangements.

Woodward recognizes revenue from the embedded lessor arrangements based on the value of the underlying dedicated property, plant, and equipment. There are no fixed payments that the customers under the embedded lessor arrangements are obligated to pay. Therefore, all the customer payments under the embedded lessor arrangements are considered variable with the associated leasing revenue recognized when the revenue from underlying product sale related to variable lease payment is recognized. Revenue from contracts with customers that included embedded operating leases, which is included in "Net sales" at the Consolidated Statements of Earnings, was \$5,030 for the fiscal year ended September 30, 2023, compared to \$5,528 for the fiscal year ended September 30, 2022.

The carrying amount of property, plant, and equipment leased to others through embedded leasing arrangements, included in "Property, plant, and equipment, net" at the Consolidated Balance Sheets, was as follows:

	September 30, 2023	September 30, 2022
Property, plant, and equipment	\$ 45,766	\$ 44,912
Less accumulated depreciation	(28,128)	(25,508)
Property, plant, and equipment, net	\$ 17,638	\$ 19,404

Note 6. Joint venture

In fiscal year 2016, Woodward and GE, acting through its GE Aerospace business unit, consummated the formation of a strategic joint venture between Woodward and GE (the "JV") to develop, manufacture, and support fuel systems for specified existing and all future GE commercial aircraft engines that produce thrust in excess of fifty thousand pounds.

Unamortized deferred revenue from material rights in connection with the JV formation included:

Accrued liabilities	Se	September 30, 2023					
Accrued liabilities	\$	6,147	\$	5,754			
Other liabilities		233,997	2	34,516			

Amortization of the deferred revenue (material right) recognized as an increase to sales was \$5,020 for the fiscal year ended September 30, 2023, \$3,633 for the fiscal year ended September 30, 2022, and \$4,191 for the fiscal year ended September 30, 2021.

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. In addition, GE will continue to pay contingent consideration to Woodward consisting of fifteen annual payments of \$4,894 each, which began on January 4, 2017, subject to certain claw-back conditions. Woodward received its sixth and seventh annual payments of \$4,894 during the three-months ended March 31, 2022 and March 31, 2023, respectively, which were recorded as deferred income and included in net cash provided by operating activities on the Consolidated Statements of Cash Flows. Neither Woodward nor GE contributed any tangible assets to the JV.

Other income related to Woodward's equity interest in the earnings of the JV was as follows:

	For the	Year	Ended Septen	nber 3	30,
	2023		2022		2021
\$	36,846	\$	18,193	\$	11,366

Cash distributions to Woodward from the JV, recognized in net cash provided by operating activities on the Consolidated Statements of Cash Flows, include:

	Yea	r End	led Septembei	r 30 ,	
	2023		2022	2021	
\$	29,000	\$	17,000	\$	13,500

Net sales to the JV were as follows:

	For the	Year	Ended Septen	nber 3	30,	
	2023		2022		2021	
\$	47,607	\$	28,100	\$	35,957	

(1) Net sales include a reduction of \$49,624 for the fiscal year ended September 30, 2023, \$28,054 for the fiscal year ended September 30, 2021 related to royalties owed to the JV by Woodward on sales by Woodward directly to third party aftermarket customers.

The Consolidated Balance Sheets include "Accounts receivable" related to amounts the JV owed Woodward, "Accounts payable" related to amounts Woodward owed the JV, and "Other assets" related to Woodward's net investment in the JV, as follows:

Accounts receivable	September 30, 2023	September 30, 2022				
Accounts receivable	\$ 3,666	\$ 4,172				
Accounts payable	6,276	4,069				
Other assets	16,028	8,181				

Woodward records in "Other liabilities" amounts invoiced to the JV for support of the JV's engineering and development projects as an increase to contract liabilities and records in "Other assets" related incurred expenditures as costs to fulfill a contract. Woodward's contract liabilities classified as "Other liabilities" included amounts invoiced to the JV as of September 30, 2023 of \$84,059, compared to \$79,257 as of fiscal year ended September 30, 2022. Woodward's costs to fulfill a contract included in "Other assets" related to JV activities were \$84,059 as of September 30, 2023 and \$79,257 as of fiscal year ended September 30, 2023, Woodward recognized a \$870 reduction in the contract liability in "Other liabilities" and a \$870 reduction in costs to fulfill a contract in "Other assets" related to the recognition of revenue and cost of goods sold that was included in the contract liability and contract asset, respectively, at the beginning of the fiscal year. In the fiscal year ended September 30, 2022, Woodward recognized a \$1,146 reduction in the contract liability in "Other liabilities" and a \$1,146 reduction in costs to fulfill a contract in "Other assets" related to the termination of a JV engineering and development project previously recognized as a material right. No reductions in costs to fulfill a contract or contract liabilities were recorded during the fiscal years ended September 30, 2023 and September 30, 2022 as a result of the termination of joint venture engineering and development projects.

Note 7. Financial instruments and fair value measurements

The table below presents information about Woodward's financial assets and liabilities 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.

		At Septemb	oer 30, 2023					
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets:								
Investments in banks and financial								
institutions	\$ 28,560	_	_	\$ 28,560	\$ 37,605	_	_	\$ 37,605
Equity securities	24,913	_	_	24,913	22,800	_	_	22,800
Cross currency interest rate swaps	_	5,389	_	5,389	_	38,168	_	38,168
Total financial assets	\$ 53,473	\$ 5,389	\$ —	\$ 58,862	\$ 60,405	\$ 38,168	\$ —	\$ 98,573

Investments in banks and financial institutions: Woodward's and its 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 banks and financial institutions 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" on the Consolidated Statements of Earnings. The trading securities are included in "Other assets" in the Consolidated Balance Sheets. 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.

Cross-currency interest rate swaps: Woodward holds cross currency interest rate swaps, which are accounted for at fair value. The swaps in an asset position are included in "Other current assets" and "Other assets" in the Consolidated Balance Sheets. The fair values of Woodward's cross currency interest rate swaps are determined using a market approach that is based on observable inputs other than quoted market prices, including contract terms, interest rates, currency rates, and other market factors.

Cash, trade accounts receivable, accounts payable, 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 Consolidated Balance Sheets were as follows:

	At September 30, 2023				At September 30,			0, 2022			
			Estimated Fair Value				arrying Cost		imated r Value		arrying Cost
Assets:											
Notes receivable from municipalities	2	\$	7,794	\$	7,688	\$	9,010	\$	8,992		
Investments in short-term time deposits	2		6,095		6,107		8,026		7,893		
Liabilities:											
Long-term debt	2	\$ (661,507	\$.	722,671	\$ 6	646,696	\$	712,054		

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, Woodward received long-term notes from municipalities within the states of Illinois and 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 3.6% at September 30, 2023 and 3.5% at September 30, 2022.

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 rates used to estimate the fair value of the short-term time deposits was 6.8% at September 30, 2023 and 6.1% at September 30, 2022.

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 5.9% at September 30, 2023 and 5.6% at September 30, 2022.

Note 8. Derivative instruments and hedging activities

Derivative instruments not designated or qualifying as hedging instruments

In May 2020, Woodward entered into a floating-rate cross-currency interest rate swap (the "2020 Floating-Rate Cross-Currency Swap"), with a notional value of \$45,000, and five fixed-rate cross-currency interest rate swap agreements (the "2020 Fixed-Rate Cross-Currency Swaps"), with an aggregate notional value of \$400,000, which effectively reduced the interest rates on the underlying fixed and floating-rate debt, respectively, under the 2018 Notes (as defined in Note 15, Credit facilities, short-term borrowings and long-term debt) and Woodward's then existing revolving credit agreement.

The net interest income of the cross-currency interest rate swaps is recorded as a reduction to "Interest expense" in Woodward's Consolidated Statements of Earnings. The 2020 Floating-Rate Cross-Currency Swap expired on May 31, 2023 and, as such, is no longer recorded on the Consolidated Balance Sheets. During the fiscal year ended September 30, 2023, \$63 was reclassified from Accumulated other comprehensive losses to interest expense on the Consolidated Statements of Earnings. As of September 30, 2023, the total notional value of the 2020 Fixed-Rate Cross-Currency Swaps was \$400,000. See Note 7, Financial instruments and fair value measurements, for the related fair value of the derivative instruments as of September 30, 2023.

Derivatives instruments in fair value hedging relationships

In May 2020, Woodward entered into a US dollar denominated intercompany loan payable with identical terms and notional value as the 2020 Floating-Rate Cross-Currency Swap, together with a reciprocal intercompany floating-rate cross-currency interest rate swap. The agreements were entered into by Woodward Barbados Euro Financing SRL ("Euro Barbados"), a wholly owned subsidiary of Woodward. The US dollar denominated intercompany loan and reciprocal intercompany floating-rate cross-currency interest rate swap are designated as a fair value hedge under the criteria

prescribed in ASC 815. The objective of the derivative instrument is to hedge against the foreign currency exchange risk attributable to the spot remeasurement of the US dollar denominated intercompany loan, as Euro Barbados maintains a Euro functional currency.

For each floating-rate intercompany cross-currency interest rate swap, only the change in the fair value related to the cross-currency basis spread, or excluded component, of the derivative instrument is recognized in accumulated other comprehensive income ("OCI"). The remaining change in the fair value of the derivative instrument is recognized in foreign currency transaction gain or loss included in "Selling, general and administrative costs" in Woodward's Consolidated Statements of Earnings. The change in the fair value of the derivative instrument in foreign currency transaction gain or loss offsets the change in the spot remeasurement of the intercompany Euro and US dollar denominated loans. Hedge effectiveness is assessed based on the fair value changes of the derivative instrument, after excluding any fair value changes related to the cross-currency basis spread. The initial cost of the cross-currency basis spread is recorded in earnings each period through the swap accrual process. There are no credit-risk-related contingent features associated with the intercompany floating-rate cross-currency interest rate swap.

Derivative instruments in cash flow hedging relationships

In May 2020, Woodward entered into five US dollar intercompany loans payable, with identical terms and notional values of each tranche of the 2020 Fixed-Rate Cross-Currency Swaps, together with reciprocal fixed-rate intercompany cross-currency interest rate swaps. The agreements were entered into by Euro Barbados and are designated as cash flow hedges under the criteria prescribed in ASC 815. The objective of these derivative instruments is to hedge the risk of variability in cash flows attributable to the foreign currency exchange risk of cash flows for future principal and interest payments associated with the US dollar denominated intercompany loans over a thirteen-year period, as Euro Barbados maintains a Euro functional currency.

For each of the fixed-rate intercompany cross-currency interest rate swaps, changes in the fair values of the derivative instruments are recognized in accumulated OCI and reclassified to foreign currency transaction gain or loss included in "Selling, general and administrative costs" in Woodward's Consolidated Statements of Earnings. Reclassifications out of accumulated OCI of the change in fair value occur each reporting period based upon changes in the spot rate remeasurement of the Euro and US dollar denominated intercompany loans, including associated interest. Hedge effectiveness is assessed based on the fair value changes of the derivative instruments and such hedges are deemed to be highly effective in offsetting exposure to variability in foreign exchange rates. There are no credit-risk-related contingent features associated with these fixed-rate cross-currency interest rate swaps.

Derivatives instruments in net investment hedging relationships

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 (the "Series M Notes"). Woodward designated the Series M Notes as a hedge of a foreign currency exposure of Woodward's net investment in its Euro denominated functional currency subsidiaries. Related to the Series M Notes, included in foreign currency translation adjustments within total comprehensive (losses) earnings are net foreign exchange losses of \$3,090 for the fiscal year ended September 30, 2023, compared to net foreign exchanges gains of \$7,206 for the fiscal year ended September 30, 2021.

Impact of derivative instruments designated as qualifying hedging instruments

The following table discloses the amount of (income) expense recognized in earnings on derivative instruments designated as qualifying hedging instruments:

		Year Ended September 30,							
Location		2023 2022			2023 2022				2021
Selling, general and						_			
administrative expenses	\$	939	\$	(2,844)	\$	23			
Selling, general and									
administrative expenses		32,285		(66,036)		(3,725)			
	\$	33,224	\$	(68,880)	\$	(3,702)			
	Selling, general and administrative expenses Selling, general and	Selling, general and administrative expenses \$ Selling, general and	Location2023Selling, general and administrative expenses\$ 939Selling, general and administrative expenses32,285	Location 2023 Selling, general and administrative expenses \$ 939 \$ Selling, general and administrative expenses 32,285	Location 2023 2022 Selling, general and administrative expenses \$ 939 \$ (2,844) Selling, general and administrative expenses 32,285 (66,036)	Location20232022Selling, general and administrative expenses\$ 939\$ (2,844)\$Selling, general and administrative expenses32,285(66,036)			

The following table discloses the amount of (gain) loss recognized in accumulated OCI on derivative instruments designated as qualifying hedging instruments:

	 Year Ended September 30,						
Derivatives in:	Location	2023	2022	2021			
Cross-currency interest rate swap agreement	Selling, general and						
designated as fair value hedges	administrative expenses	\$ 875	\$	(2,854)	\$	60	
Cross-currency interest rate swap agreements	Selling, general and						
designated as cash flow hedges	administrative expenses	 35,712		(86,194)		1,612	
		\$ 36,587	\$	(89,048)	\$	1,672	

The following table discloses the amount of (gain) loss reclassified from accumulated OCI on derivative instruments designated as qualifying hedging instruments:

		 Year Ended September 30,							
Derivatives in:	Location	 2023	2022			2021			
Cross-currency interest rate swap agreement	Selling, general and					_			
designated as fair value hedges	administrative expenses	\$ 939	\$	(2,844)	\$	23			
Cross-currency interest rate swap agreements	Selling, general and								
designated as cash flow hedges	administrative expenses	 32,285		(66,036)		(3,725)			
		\$ 33,224	\$	(68,880)	\$	(3,702)			

The remaining unrecognized gains and losses in Woodward's Consolidated Balance Sheets associated with derivative instruments that were previously entered into by Woodward, which are classified in accumulated OCI were net losses of \$9,701 as of September 30, 2023 and \$6,338 as of September 30, 2022.

Note 9. Supplemental statement of cash flows information

	Year Ended September 30,									
		2023 2022				2021				
Interest paid	\$	35,306	\$	27,435	\$	27,574				
Income taxes paid		92,509		29,560		38,949				
Income tax refunds received		3,661		7,481		14,044				
Non-cash activities:										
Purchases of property, plant and equipment on account		11,276		6,452		7,771				
Common shares issued from treasury to settle benefit obligations		19,466		17,132		14,900				
Purchases of treasury stock on account		_		_		12,516				

Note 10. Acquisitions

On August 2, 2022, we entered into a series of Purchase Agreements with one of our Asia pacific channel partners, PM Control PLC (the "PM Agreements"). Pursuant to the PM Agreements, we agreed to acquire business assets and shares of stock of PM Control PLC and its affiliates (collectively, "PM Control"), for a total consideration (net of a working capital adjustment, excluding cash acquired from the acquisition, and including the settlement of pre-existing relationships) of \$21,421 (the "PM Acquisition"). The PM Acquisition closed on August 31, 2022 (the "PM Closing") and PM Control PLC became a wholly owned subsidiary of the Company.

ASC Topic 805, "Business Combinations" ("ASC 805"), provides a framework to account for acquisition transactions under U.S. GAAP. The purchase price of PM Control, prepared consistent with the required ASC 805 framework, is allocated as follows:

Cash paid to Sellers	\$ 22,890
Working capital adjustment	(878)
Less acquired cash and restricted cash	(1,341)
Plus settlement of pre-existing relationships	750
Total purchase price	\$ 21,421

The allocation of the purchase price to the assets acquired and liabilities assumed was finalized as of June 30, 2023 using the purchase method of accounting in accordance with ASC 805. Assets acquired and liabilities assumed in the transaction were recorded at their acquisition date fair values, while transaction costs associated with the acquisition were expensed as incurred. Woodward's allocation was based on an evaluation of the appropriate fair values and represents management's best estimate.

The following table summarizes, which was final as of June 30, 2023, the estimated fair values of the assets acquired and liabilities assumed at the PM Closing:

Accounts receivable	\$ 4,334
Inventories	2,464
Other current assets	386
Property, plant, and equipment	2,488
Goodwill	8,705
Intangible assets	8,874
Total assets acquired	27,251
Other current liabilities	(2,703)
Deferred income tax liabilities	(1,842)
Other noncurrent liabilities	(1,285)
Total liabilities assumed	(5,830)
Net assets acquired	\$ 21,421

During the first quarter of fiscal year 2023, we made certain measurement period adjustments to the acquired assets and the assumed certain liabilities due to clarification of the information we initially utilized to determine fair value during the measurement period. The measurement period adjustment was related to the PM Control trade name. Further, management determined that the PM Control trade name would no longer be used after calendar year 2023, thus resulting in a measurement period adjustment of \$1,042, which reduced intangible assets and increased goodwill. Additionally, in the first quarter of 2023, a working capital adjustment was made that resulted in a reduction of goodwill of \$863.

The final purchase price allocation resulted in the recognition of \$8,705 of goodwill, which is expected to be non-deductible for tax purposes. The Company has included all the goodwill in its Industrial segment. The goodwill represents the estimated value of potential expansion with new customers, the opportunity to further develop sales opportunities with new customers, other synergies expected to be achieved through the integration of PM Control with Woodward's Industrial segment.

A summary of the intangible assets acquired, weighted-average useful lives, and amortization methods follows:

			Weighted-	
		nated ounts	Average Useful Life	Amortization Method
Intangible assets with finite lives:	•			
Customer relationships and contracts	!	\$ 8,332	11 years	Straight-line
Trade name		542	15 months	Straight-line
Total		\$ 8,874		

Future amortization expense associated with the acquired intangibles for the fiscal year ended September 30, 2024 is expected to be \$865, and \$757 for the next four fiscal years ended September 30, 2025, 2026, 2027, and 2028.

We have not presented pro forma results because the PM Acquisition was not deemed significant at the date of PM Closing.

Note 11. Inventories

	Septe	ember 30, 2023	Sej	otember 30, 2022
Raw materials	\$	133,699	\$	126,264
Work in progress		127,438		123,005
Component parts (1)		327,522		329,962
Finished goods		74,594		70,019
Customer supplied inventory		14,543		12,442
On-hand inventory for which control has transferred to the customer		(159,953)		(147,405)
	\$	517,843	\$	514,287

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

Note 12. Property, plant, and equipment

	September 30, 2023	September 30, 2022
Land and land improvements	\$ 89,352	\$ 84,057
Buildings and building improvements	589,735	555,387
Leasehold improvements	21,079	19,392
Machinery and production equipment	807,244	779,514
Computer equipment and software	120,290	122,670
Office furniture and equipment	41,943	39,749
Other	20,073	20,162
Construction in progress	55,487	58,789
	1,745,203	1,679,720
Less accumulated depreciation	(832,109)	(769,248)
Property, plant, and equipment, net	\$ 913,094	\$ 910,472

For the fiscal years ended September 30, 2023, 2022, and 2021, Woodward had depreciation expense as follows:

	 Year Ended September 30, 2023 2022 2021 82 154 \$ 83 019 \$ 87 6						
	2023				2021		
Depreciation expense	\$ 82,154	\$	83,019	\$	87,631		

Note 13. Goodwill

			Effects of Foreign								
	Septe	September 30, 2022		Additions		Translation	September 30, 2023				
Aerospace	\$	455,423	\$	_	\$	_	\$	455,423			
Industrial		317,136		_		18,909		336,045			
Consolidated	\$	772,559	\$	_	\$	18,909	\$	791,468			

			Effects of Foreign								
			Currency								
	Septem	September 30, 2021		Additions		Translation	on September 30,				
Aerospace	\$	455,423	\$	_	\$	_	\$	455,423			
Industrial		349,910		8,526		(41,300)		317,136			
Consolidated	\$	805,333	\$	8,526	\$	(41,300)	\$	772,559			

On August 31, 2022, Woodward completed the acquisition of PM Control (see Note 10, *Acquisitions*) which resulted in the recognition of \$8,526 in goodwill in the Company's Industrial segment.

Woodward tests goodwill for impairment at the reporting unit level on an annual basis or at any time there is an indication goodwill may be impaired, commonly referred to as triggering events. Woodward completed its annual goodwill impairment test as of July 31, 2023 during the quarter ended September 30, 2023. 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 five-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, 2023 impairment test were discounted using weighted-average cost of capital assumptions ranging from 9.66% to 17.99%. The terminal values of the forecasted cash flows were calculated using the Gordon Growth Model and assumed an annual compound growth rate after five years of 4.59%. 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 test performed as of July 31, 2023 did not indicate impairment of any of Woodward's reporting units.

Note 14. Intangible assets, net

	September 30, 2023							Se	pte	mber 30, 20	2022				
		Gross				Net		Gross				Net			
	C	arrying	Αc	cumulated	(Carrying	C	arrying	Αc	cumulated	C	Carrying			
	'	Value	Ar	nortization	1	Amount		Value	Amortization		Amount				
Intangible assets with finite lives:															
Customer relationships and contracts:															
Aerospace	\$:	281,683	\$	(236,143)	\$	45,540	\$	281,683	\$	(223,565)	\$	58,118			
Industrial		378,804		(90,084)		288,720		352,917		(66,812)		286,105			
Total	\$	660,487	\$	(326,227)	\$	334,260	\$	634,600	\$	(290,377)	\$	344,223			
Intellectual property:															
Aerospace	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_			
Industrial		3,139		(3,139)		_		12,361		(12,361)		_			
Total	\$	3,139	\$	(3,139)	\$	_	\$	12,361	\$	(12,361)	\$	_			
Process technology:					_		_								
Aerospace	\$	44,570	\$	(39,551)	\$	5,019	\$	76,370	\$	(69,471)	\$	6,899			
Industrial		83,456		(31,709)		51,747		78,524		(27,464)		51,060			
Total	\$	128,026	\$	(71,260)	\$	56,766	\$	154,894	\$	(96,935)	\$	57,959			
Other intangibles:					_						_				
Aerospace	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_			
Industrial		554		(524)		30		1,560		_		1,560			
Total	\$	554	\$	(524)	\$	30	\$	1,560	\$	_	\$	1,560			
Intangible asset with indefinite life:					_										
Trade name:															
Aerospace	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_			
Industrial		61,307		<u> </u>		61,307		56,838		<u> </u>		56,838			
Total	\$	61,307	\$	_	\$	61,307	\$	56,838	\$	_	\$	56,838			
Total intangibles:															
Aerospace	\$	326,253	\$	(275,694)	\$	50,559	\$	358,053	\$	(293,036)	\$	65,017			
Industrial		527,260		(125,456)		401,804		502,200		(106,637)		395,563			
Consolidated Total	\$	853,513	\$	(401,150)	\$	452,363	\$	860,253	\$	(399,673)	\$	460,580			

Indefinite lived intangible assets

The Woodward L'Orange trade name intangible asset is tested for impairment on an annual basis and more often if an event occurs or circumstances change that indicate the fair value of the Woodward L'Orange intangible asset may be below its carrying amount. The impairment test consists of comparing the fair value of the Woodward L'Orange trade name intangible asset, determined using discounted cash flows based on the relief from royalty method under the income approach, with its carrying amount. If the carrying amount of the Woodward L'Orange trade name intangible asset exceeds its fair value, an impairment loss would be recognized to reduce the carrying amount to its fair value. Woodward has not recognized any impairment charges for this asset.

During the fourth quarter, Woodward completed its annual impairment test of the Woodward L'Orange trade name intangible asset as of July 31, 2023 for the fiscal year ended September 30, 2023. The fair value of the Woodward L'Orange trade name intangible assets was determined using discounted cash flows based on the relief from royalty method under the income approach. This method represents a Level 3 input and incorporates various estimates and assumptions, the most significant being projected revenue growth rates, royalty rates, 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 the forecasted cash flow. Management projects revenue growth rates and cash flows based on Woodward L'Orange's current operational results, expected performance, and operational strategies over a five year period. These projections are adjusted to reflect current economic conditions and demand for certain products and require considerable management judgment.

The forecasted cash flow used in the July 31, 2023 impairment test was discounted using weighted-average cost of capital assumption of 10.30%. The terminal value of the forecasted cash flow was calculated using the Gordon Growth Model and assumed an annual compound growth rate after five years of 4.59%. 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 the forecasted cash flow. The results of impairment test performed as of July 31, 2023 indicated the estimated fair value of the Woodward L'Orange trade name intangible asset was in excess of its carrying value, and accordingly, no impairment existed.

Finite-lived intangible assets

2028

Thereafter

Woodward recorded amortization expense associated with intangibles of the following:

	2023		2022			2021	
Amortization expense	\$	37,589	\$	37,609	\$	41,893	
Future amortization expense associated with intangibles is exp Year Ending September 30:	pected to b	pe:					
2024				\$		33,260	
2025						28,011	
2026						28,001	
2027						27,954	

Year Ended September 30,

27,353

246,477 391,056

Note 15. Credit facilities, short-term borrowings and long-term debt

As of September 30, 2023, Woodward's short-term borrowings and availability under its various short-term credit facilities follows:

	Tot	al availability	let	Outstanding tters of credit nd guarantees	Outstanding borrowings	Remaining availability
Revolving credit facility	\$	1,000,000	\$	(8,956)	\$ _	\$ 991,044
Foreign lines of credit and overdraft facilities		25,754		(611)	_	25,143
Foreign performance guarantee facilities		112		(78)	_	34
	\$	1,025,866	\$	(9,645)	\$ _	\$ 1,016,221

Revolving credit facility

Woodward is a party to the Second Amended and Restated Revolving Credit Agreement (as defined below) with certain foreign subsidiaries party thereto from time to time as borrowers, a syndicate of lenders and Wells Fargo bank, National Association, as administrative agent. Pursuant to the Second Amended and Restated Revolving Credit Agreement, the lenders party thereto have agreed to extend revolving loans and letters of credit to Woodward and certain of its foreign subsidiaries in an aggregate amount not to exceed \$1,000,000. The Second Amended and Restated Revolving Credit Agreement provides for the option to increase available borrowings up to \$1,500,000, in the aggregate, subject to lenders' participation.

On October 21, 2022, Woodward amended and restated the Amended and Restated Credit Agreement (the "Second Amended and Restated Credit Agreement"). Effective as of October 21, 2022, the Second Amended and Restated Credit Agreement, extended the termination date of the revolving loan commitments of all the lenders from June 19, 2024 to October 21, 2027; removed the covenants restricting investments, acquisitions, dividends and distributions; and, subject to removal from the Company's existing note purchase agreements or the termination or maturation of such note purchase agreements, removed the minimum consolidated net worth covenant. Borrowings under the Amended and Restated Revolving Credit Agreement could, and borrowings under the Second Amended and Restated Revolving Credit Agreement can, be made by Woodward and certain of its foreign subsidiaries in U.S. dollars or in foreign currencies other than the U.S. dollar and generally bear interest at the new base rates listed below plus 0.875% to 1.75%. As of September 30, 2023, there were no borrowings outstanding.

As of October 1, 2021, Woodward maintained a revolving credit agreement dated as of June 19, 2019 (the "2019 Revolving Credit Agreement"). On November 24, 2021, Woodward amended the 2019 Revolving Credit Agreement (such amended agreement, the "Amended and Restated Revolving Credit Agreement") to, among other things, (i) replace the Euro London Interbank Offered Rate ("LIBOR"), the British pound sterling LIBOR, and the Japanese yen LIBOR rates with the Euro Interbank Offered Rate ("Euribor"), Sterling Overnight Index Average ("SONIA"), and Tokyo Interbank Offered Rate ("TIBOR") rates, respectively, and (ii) replace the US LIBOR with the Secured Overnight Financing Rate ("SOFR"). The Amended and Restated Revolving Credit Agreement was set to mature on June 19, 2024. As of September 30, 2022, there were \$66,800 in principal amount of borrowings outstanding, at an effective interest rate of 4.24% under the Amended and Restated Revolving Credit Agreement. As of September 30, 2022, all of borrowings outstanding were classified as short-term borrowings based on Woodward's intent and ability to pay this amount in the next twelve months.

The revolving credit agreements described in this Note 15 all contain (or contained, as applicable) 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 material debt arrangements, 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 and transaction costs associated with permitted acquisitions (incurred within six-months of the permitted acquisition), 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 each period of four consecutive quarters during which a permitted acquisition occurs, and (ii) a minimum consolidated net worth of \$1,156,000 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.

The obligations of Woodward and from time-to-time certain of Woodward's foreign subsidiaries, under the Second Amended and Restated Revolving Credit Agreement are guaranteed by Woodward MPC, Inc., Woodward HRT, Inc., or in case of obligations with any foreign subsidiaries of Woodward that are borrowers thereunder, Woodward L'Orange GmbH, 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 on Woodward's foreign lines of credit and foreign overdraft facilities as of both September 30, 2023 and September 30, 2022.

Long-term debt

	September 30, 2023	September 30, 2022		
Series H notes – 4.03%, due November 15, 2023; unsecured	\$ 25,000	\$ 25,000		
Series I notes – 4.18%, due November 15, 2025; unsecured	25,000	25,000		
Series K notes – 4.03%, due November 15, 2023; unsecured	50,000	50,000		
Series L notes – 4.18%, due November 15, 2025; unsecured	50,000	50,000		
Series M notes – 1.12% due September 23, 2026; unsecured	42,280	39,198		
Series N notes – 1.31% due September 23, 2028; unsecured	81,390	75,457		
Series O notes – 1.57% due September 23, 2031; unsecured	45,451	42,138		
Series P notes – 4.27% due May 30, 2025; unsecured	85,000	85,000		
Series Q notes – 4.35% due May 30, 2027; unsecured	85,000	85,000		
Series R notes – 4.41% due May 30, 2029; unsecured	75,000	75,000		
Series S notes – 4.46% due May 30, 2030; unsecured	75,000	75,000		
Series T notes – 4.61% due May 30, 2033; unsecured	80,000	80,000		
Finance leases (Note 5)	3,550	5,261		
Unamortized debt issuance costs	(1,145)	(1,438)		
Total long-term debt	721,526	710,616		
Less: Current portion of long-term debt	75,817	856		
Long-term debt, less current portion	\$ 645,709	\$ 709,760		

The 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 H and I Notes (the "First Closing Notes") on October 1, 2013. Woodward issued the Series K and L Notes (the "Second Closing Notes" and with the First Closing Notes, collectively the "USD Notes") on November 15, 2013. On November 15, 2023, Woodward paid the entire principal balance of \$75,000 on the Series H and K Notes using proceeds from borrowings under its existing revolving credit facility.

On September 23, 2016, Woodward and the BV Subsidiary each entered into note purchase agreements (the "2016 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 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").

On May 31, 2018, Woodward entered into a note purchase agreement (the "2018 Note Purchase Agreement") relating to the sale by Woodward of an aggregate principal amount of \$400,000 of senior unsecured notes comprised of (a) \$85,000 aggregate principal amount of its Series P Senior Notes (the "Series P Notes"), (b) \$85,000 aggregate principal amount of its Series Q Senior Notes (the "Series Q Notes"), (c) \$75,000 aggregate principal amount of its Series R Senior Notes (the "Series R Notes"), (d) \$75,000 aggregate principal amount of its Series S Senior Notes (the "Series S Notes"), and (e) \$80,000 aggregate principal amount of its Series T Senior Notes (the "Series T Notes", and together with the Series P Notes, the Series Q Notes, the Series R Notes, and the Series S Notes, the "2018 Notes," and, together with the USD Notes and 2016 Notes, the "Notes"), in a series of private placement transactions.

In connection with the issuance of the 2018 Notes, the Company entered into cross currency swap transactions in respect of each tranche of the 2018 Notes, which effectively reduced the interest rates on the Series P Notes to 1.82% per annum, the Series Q Notes to 2.15% per annum, the Series R Notes to 2.42% per annum, the Series S Notes to 2.55% per annum and the Series T Notes to 2.90% per annum. The Company entered into the 2020 Floating-Rate Cross-Currency Swap and 2020 Fixed-Rate Cross-Currency Swaps, which effectively resulted in the interest rates on the Series P Notes being 3.44% per annum, the Series Q Notes to 3.44% per annum, the Series R Notes to 3.45% per annum, the Series S Notes to 3.50% per annum and the Series T Notes to 3.62% per annum (see Note 8, *Derivative instruments and hedging activities*).

Interest on the USD Notes are payable semi-annually on April 1 and October 1 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.

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 payment and performance obligations under the Notes, including without limitation the obligations for payment of all principal, interest and any applicable prepayment compensation amount, 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 Notes contain restrictive 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 each series of the Notes, Woodward's priority debt may not exceed, at any time, 15% 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. The minimum consolidated net worth, prior year positive net income, and net cash proceeds resulting from certain issuances of stock for satisfaction of Woodward's leverage ratio are consistent between the Notes and Revolving Credit Agreement.

Required future principal payments of the Notes and financing leases as of September 30, 2023 are as follows:

Year Ending September 30:	
2024	\$ 75,000
2025	85,000
2026	117,280
2027	85,000
2028	81,390
Thereafter	275,451
	\$ 719,121

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, 2023.

Debt Issuance Costs

In connection with the Second Amended and Restated Revolving Credit Agreement, Woodward incurred \$2,236 in debt issuance costs, which are deferred and are being amortized using the straight-line method over the life of the agreement. Amounts recognized as interest expense from the amortization of debt issuance costs were \$963 in fiscal year 2023, \$917 in fiscal year 2022, and \$922 in fiscal year 2021. Unamortized debt issuance costs associated with the Notes of \$1,145 as of September 30, 2023 and \$1,438 as of September 30, 2022 were recorded as a reduction in "Long-term debt, less current portion" in the Consolidated Balance Sheets. Unamortized debt issuance costs associated with Woodward's Revolving Credit Agreements of \$2,636 as of September 30, 2023 and \$1,046 as of September 30, 2022 were 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 16. Accrued liabilities

	Se	ptember 30, 2023	September 30, 2022
Salaries and other member benefits	\$	146,713	\$ 75,665
Product warranties and related liabilities (1)		18,162	40,042
Interest payable		13,611	13,481
Accrued retirement benefits		2,822	2,779
Net current contract liabilities (Note 3)		33,748	30,663
Current portion of accrued restructuring charges		_	1,083
Taxes, other than income		13,436	21,159
Other		34,124	21,411
	\$	262,616	\$ 206,283

(1) In fiscal year 2022, product warranties and related liabilities include estimates related to product liabilities expected to be fully recoverable from insurance.

Product warranties and related liabilities

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

		Year Ended September 30,								
		2023 2022			2021					
Beginning of period	\$	40,042	\$	17,481	\$	18,972				
Additions, net of recoveries		25,984		29,827		1,164				
Reductions for settlement		(47,949)		(6,937)		(2,718)				
Foreign currency exchange rate changes		85		(329)		63				
End of period	\$	18,162	\$	40,042	\$	17,481				

Restructuring charges

During fiscal year 2023, the Company committed to a cost reduction plan ("Cost Reduction Plan") to better align the cost structure and recorded \$5,172 of restructuring charges. The charges recognized under the Cost Reduction Plan consist of workforce management costs primarily related to aligning the cost structure of the Company's Industrial segment with the current market conditions. All of the restructuring charges were recorded as nonsegment expenses and were paid as of September 30, 2023.

In fiscal year 2022, the Company determined to implement a streamlined Aerospace and Industrial organizational and leadership structure designed to enhance the sales experience for customers, simplify operations, and increase profitability through improved execution. In connection with leadership changes arising from such reorganization, we recorded \$1,083 of restructuring charges as nonsegment expenses and were paid as of September 30, 2023.

In fiscal year 2021, the Company recorded aggregate restructuring charges totaling \$5,008 as nonsegment expenses for two separate workforce management actions, one in our hydraulics systems business and one in our engine systems business. In fiscal year 2022, we experienced a challenging operating environment that included the ongoing impact of global supply chain and labor disruptions, along with high inflation, which resulted in changed business conditions as compared to when we initially recorded the restructuring charges in fiscal year 2021. We adapted to the changed business conditions by, among other initiatives, (i) developing and implementing plans to insource select machined components, (ii) redeploying talent and adding indirect resources to our factories to stabilize the production environment, and (iii) determining to retain employees that otherwise would have been impacted by the planned restructuring activities to support a stable workforce and effectively manage through attrition. As such, the remaining unpaid accrued restructuring charges, which amounted to \$4,503, were no longer needed and were reversed.

The summary of activity in accrued restructuring charges is as follows:

					Pe	riod Activity	/				
	•	mber 30, 022	С	harges	Р	ayments		Non-cash activity		Septemb 202	•
Workforce management costs associated with:											
Cost reduction plan	\$	_	\$	5,172	\$	(5,207)	\$	3	35	\$	_
Aerospace		139		_		(139)		-	_		_
Industrial		944		_		(944)		-	_		_
Total	\$	1,083	\$	5,172	\$	(6,290)	\$	3	35	\$	_

		Period Activity								
	Sept	tember 30, 2021		Charges		Payments		Non-cash activity	Se	ptember 30, 2022
Workforce management costs associated with:										
Hydraulics Systems Realignment	\$	3,758	\$	_	\$	(505)	\$	(3,253)	\$	_
Engine Systems Realignment		1,250		_		_		(1,250)		_
Aerospace		_		139		_		_		139
Industrial		_		944		_		_		944
Total	\$	5,008	\$	1,083	\$	(505)	\$	(4,503)	\$	1,083

Note 17. Other liabilities

	Septe	mber 30, 2023	Sep	tember 30, 2022
Net accrued retirement benefits, less amounts recognized within accrued liabilities	\$	72,570	\$	70,168
Total unrecognized tax benefits		8,020		9,757
Noncurrent income taxes payable		10,714		14,329
Deferred economic incentives (1)		5,797		7,029
Noncurrent operating lease liabilities		20,685		21,443
Net noncurrent contract liabilities		414,657		396,345
Other		11,047		10,185
	\$	543,490	\$	529,256

(1) 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.

Note 18. Other (income) expense, net

	Year Ended September 30,						
		2023	2022			2021	
Equity interest in the earnings of the JV (Note 6)	\$	(36,846)	\$	(18,193)	\$	(11,366)	
Net loss (gain) on sales of assets and businesses		1,491		(1,775)		(4,452)	
Rent income		(360)		(672)		(1,355)	
Net (gain) loss on investments in deferred compensation program		(3,265)		6,295		(4,929)	
Other components of net periodic pension and other postretirement benefit,							
excluding service cost and interest expense		(10,547)		(11,572)		(14,127)	
Other		(764)		(774)		(264)	
	\$	(50,291)	\$	(26,691)	\$	(36,493)	

Note 19. Income taxes

Income taxes consisted of the following:

		Year Ended September 30,						
	_	2023	2022	2021				
rent:								
eral	\$	41,195	\$ 21,869	\$	15,109			
2		2,641	2,310		853			
gn		39,719	27,577		34,354			
		(38,136)	(13,216)		(8,369)			
		(10,006)	(8,623)		(2,658)			
		7,987	(1,717)		(2,139)			
	\$	43,400	\$ 28,200	\$	37,150			

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

	Year Ended September 30,								
	2023		2022		2021				
United States	\$ 122,389	\$	99,427	\$	136,280				
Other countries	153,379		100,471		109,519				
	\$ 275,768	\$	199,898	\$	245,799				

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

	Sept	ember 30, 2023	September 30, 2022
Deferred tax assets:			
Defined benefit plans, other postretirement	\$	3,769	\$ 4,144
Foreign net operating loss carryforwards		3,748	3,449
Inventory		68,034	57,102
Stock-based and other compensation		51,099	42,428
Deferred revenue net of unbilled receivables		46,283	49,491
Other reserves		8,244	8,017
Tax credits and incentives		28,319	25,623
Lease obligations		6,103	7,150
Other		4,476	3,402
Capitalized research and development costs		37,328	_
Valuation allowance		(3,827)	(2,537)
Total deferred tax assets, net of valuation allowance		253,576	198,269
Deferred tax liabilities:			
Goodwill and intangibles - net		(194,891)	(187,988)
Property, plant and equipment		(99,547)	(100,215)
Right of use assets		(5,948)	(7,013)
Defined benefit plans, pension		(9,892)	(3,969)
Other		(17,568)	(2,832)
Total deferred tax liabilities		(327,846)	(302,017)
Net deferred tax liabilities	\$	(74,270)	\$ (103,748)

Woodward has recorded a net operating loss ("NOL") deferred tax asset of \$3,748 as of September 30, 2023 and \$3,449 as of September 30, 2022. The majority of the NOL carryforwards as of September 30, 2023 expire at various times beginning in fiscal years 2027 through 2029.

Woodward has recorded tax credits and incentives deferred tax assets of \$28,319 as of September 30, 2023 and \$25,623 as of September 30, 2022. The majority of the tax credit and incentive carryforwards as of September 30, 2023 expire at various times beginning in fiscal year 2024 through 2035.

Deferred tax assets are reduced by a valuation allowance when the realization of the deferred tax asset is less than 50 percent likely. 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 adjusting an existing valuation allowance for a current year foreign net operating loss that we assess is not realizable.

At September 30, 2023, Woodward has not provided for taxes on undistributed foreign earnings of \$273,200 that it considered indefinitely reinvested. This balance has been reduced for foreign earnings that are now considered distributable and resulted in the booking of an associated net deferred tax liability of approximately \$12,800 in the quarter. 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 21% in the fiscal years ended September 30, 2023, September 30, 2022, and September 30, 2021 to Woodward's effective income tax rate:

	Year Ending September 30,									
	2023	2022	2021							
Percent of pretax earnings										
Statutory tax rate	21.0%	21.0%	21.0%							
State income taxes, net of federal tax benefit	(1.6)	(2.5)	(0.5)							
Taxes on international activities	(0.6)	0.8	(0.1)							
Research credit	(3.9)	(4.5)	(3.1)							
Net excess income tax benefit from stock-based compensation	(3.7)	(2.5)	(4.2)							
Adjustments of prior period tax items	(1.3)	_	0.4							
Compensation and benefits	0.6	0.3	0.5							
Distributable foreign earnings	4.6	_	_							
Other items, net	0.6	1.5	1.1							
Effective tax rate	15.7%	14.1%	15.1%							

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 increase in the effective tax rate for fiscal year 2023 compared to fiscal year 2022 is primarily attributable to projected future withholding taxes on unremitted earnings recorded in the current fiscal year. This increase is partially offset by a larger current fiscal year stock-based compensation tax benefit and larger favorable return to provision adjustments in the current fiscal year.

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

	Year Ending September 30,											
	2023			2022		2021						
Beginning balance	\$	11,938	\$	15,199	\$	9,851						
Additions to current year tax positions		3,933		1,783		2,289						
Reductions to prior year tax positions		(141)		(963)		_						
Additions to prior year tax positions		_		112		3,166						
Lapse of applicable statute of limitations		(4,618)		(4,193)		(107)						
Ending balance	\$	11,112	\$	11,938	\$	15,199						

Included in the balance of unrecognized tax benefits were \$6,963 as of September 30, 2023 and \$8,092 as of September 30, 2022 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 \$2,478 in the next twelve months due to the completion of review 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'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. Woodward's fiscal years remaining open to examination for U.S. Federal income taxes include fiscal years 2020 and thereafter. Woodward's fiscal years remaining open to examination for significant U.S. state income tax jurisdictions include fiscal years 2019 and thereafter. Woodward's, fiscal years remaining open to examination in significant foreign jurisdictions include 2018 and thereafter.

Note 20. 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 non-U.S. employees are also eligible to participate in similar non-U.S. plans.

Prior to January 1, 2021 most of Woodward's U.S. employees with at least two years of qualifying service (such two years of service, the "Initial Period of Service") received an annual contribution of Woodward stock, generally equal to 5% of their eligible prior year wages, to their personal Woodward Retirement Savings Plan accounts (the "Stock Contribution"). Effective as of January 1, 2021, the Board amended the Woodward Retirement Savings Plan to eliminate the Initial Period Service for purposes of the Stock Contribution. Eligible U.S. employees are now generally eligible to receive the Stock Contribution if they are employed by the Company on the last day of the applicable calendar year without regard to service time. The first Company Stock Contribution under the amended contribution rules were made during the second quarter of fiscal year 2022.

In the second quarters of fiscal years 2023, 2022, and 2021, Woodward fulfilled its annual Woodward stock contribution obligation using shares held in treasury stock by issuing a total of 188 shares of common stock for a value of \$19,466 in fiscal year 2023, 150 total shares of common stock for a value of \$17,132 in fiscal year 2022, and 128 shares of common stock for a value of \$14,900 in fiscal year 2021. The Woodward Retirement Savings Plan (the "WRS Plan") held 2,441 shares of Woodward stock as of September 30, 2023 and 2,553 shares as of September 30, 2022. 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 in the amount of \$16,634 as of September 30, 2023 and \$14,769 as of September 30, 2022.

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

	Yea	ear Ended September 30,								
	2023		2022		2021					
\$	44,202	\$	40,898	\$	33,717					

V - - - F - - d - - d C - - - t - - - - b - - - 20

Defined benefit plans

Woodward has defined benefit plans that provide pension benefits for certain retired employees in the United States, the United Kingdom, Japan, and Germany. 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.

Excluding the Woodward HRT Plan, which is only partially frozen to salaried participants, the defined benefit plans in the United States were frozen in fiscal year 2007; 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:

	At September 30,								
	2023	2022	2021						
United States:									
Weighted-average assumptions to determine benefit obligation:									
Discount rate	6.20%	5.70%	3.05%						
Weighted-average assumptions to determine periodic benefit costs:									
Discount rate	5.70	3.05	2.75						
Long-term rate of return on plan assets	5.53	5.00	7.15						

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.

At September 30,								
2023	2022	2021						
5.85%	5.35%	2.05%						
3.60	4.00	3.80						
4.99	2.15	1.71						
5.71	1.83	1.41						
4.00	4.00	3.30						
4.80	3.80	4.00						
	5.85% 3.60 4.99 5.71 4.00	2023 2022 5.85% 5.35% 3.60 4.00 4.99 2.15 5.71 1.83 4.00 4.00						

	At September 30,								
	2023	2022	2021						
Japan:									
Weighted-average assumptions to determine benefit obligation:									
Discount rate	2.01%	1.60%	0.92%						
Rate of compensation increase	2.00	2.00	2.00						
Weighted-average assumptions to determine periodic benefit costs:									
Discount rate - service cost	1.78	1.13	1.33						
Discount rate - interest cost	1.17	0.65	0.74						
Rate of compensation increase	2.00	2.25	2.00						
Long-term rate of return on plan assets	2.75	2.00	2.00						

	At September 30,							
	2023	2022	2021					
Germany:								
Weighted-average assumptions to determine benefit obligation:								
Discount rate	4.27%	3.97%	1.36%					
Rate of compensation increase	2.50	2.50	2.50					
Weighted-average assumptions to determine periodic benefit costs:								
Discount rate - service cost	3.95	1.54	1.11					
Discount rate - interest cost	3.91	1.06	0.76					
Rate of compensation increase	2.50	2.50	2.50					

At Contombou 20

In the United Kingdom, Germany, 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, 2023 and 2022, 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, 2022 and 2021 benefit obligation, respectively, matched with separate cash flows for each future year.

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, 2023 and September 30, 2022 were based on the Society of Actuaries ("SOA") Pri-2012 Mortality Tables Report using the SOA's Mortality Improvement Scale MP-2019 ("MP-2019") and projected forward using a custom projection scale based on MP-2019 with a 5-year convergence period and a long-term rate of 0.75%.

As of September 30, 2023 and September 30, 2022, mortality assumptions in Japan were based on the Standard rates 2020, and mortality assumptions for the United Kingdom pension scheme were based on the self-administered pension scheme ("SAPS") S3 "all" tables with a projected 1.5% annual improvement rate. As of September 30, 2023 and September 30, 2022, mortality assumptions in Germany were based on the Heubeck 2018 G mortality tables.

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

		Year Ended September 30,														
		United States				Other Countries						Total				
	2	023	2	022	2021	_	2023		2022		2021		2023	2	2022	2021
Service cost	\$	893	\$	1,554	\$ 1,729	ζ	1,333	\$	2,339	\$	2,922	\$	2,226	\$	3,893	\$ 4,651
Interest cost		7,297		5,281	4,957		3,137		1,612		1,361		10,434		6,893	6,318
Expected return on plan assets	(8,297)	(1	10,853)	(14,144)		(2,300)		(2,434)		(2,482)	(10,597)	(:	13,287)	(16,626)
Amortization of:																
Net loss (gain)		292		259	541		(620)		555		931		(328)		814	1,472
Net prior service cost		698		981	969		22		23		25		720		1,004	994
Net periodic (benefit) cost	\$	883	\$ ((2,778)	\$ (5,948)	Ş	1,572	\$	2,095	\$	2,757	\$	2,455	\$	(683)	\$ (3,191)

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 Co	our	ntries		То	tal		
	2023	2022		2023		2022		2023		2022	
Changes in projected benefit obligation:											
Projected benefit obligation at beginning of year	\$ 132,444	\$ 177,346	\$	65,477	\$	122,018	\$	197,921	\$	299,364	
Service cost	893	1,554		1,333		2,339		2,226		3,893	
Interest cost	7,297	5,281		3,137		1,612		10,434		6,893	
Net actuarial gains	(4,946)	(43,639)		(4,442)		(40,968)		(9,388)		(84,607)	
Contribution by participants	_	_		11		10		11		10	
Benefits paid	(8,466)	(8,098)		(3,365)		(3,487)		(11,831)		(11,585)	
Foreign currency exchange rate changes		_		5,112		(16,047)		5,112		(16,047)	
Projected benefit obligation at end of year	\$ 127,222	\$ 132,444	\$	67,263	\$	65,477	\$	194,485	\$	197,921	
Changes in fair value of plan assets:											
Fair value of plan assets at beginning of year	\$ 154,481	\$ 221,263	\$	47,579	\$	69,844	\$	202,060	\$	291,107	
Actual return on plan assets	9,355	(58,684)		573		(9,822)		9,928		(68,506)	
Contributions by the Company	_	_		2,322		2,370		2,322		2,370	
Contributions by plan participants	_	_		11		10		11		10	
Benefits paid	(8,466)	(8,098)		(3,365)		(3,487)		(11,831)		(11,585)	
Foreign currency exchange rate changes	_	_		3,655		(11,336)		3,655		(11,336)	
Fair value of plan assets at end of year	\$ 155,370	\$ 154,481	\$	50,775	\$	47,579	\$	206,145	\$	202,060	
Net over/(under) funded status at end of year	\$ 28,148	\$ 22,037	\$	(16,488)	\$	(17,898)	\$	11,660	\$	4,139	

At September 30, 2023, the Company's defined benefit pension plans in the United Kingdom, Japan, and Germany represented \$30,466, \$6,249, and \$30,548 of the total projected benefit obligation, respectively. At September 30, 2023, the United Kingdom and Japan pension plan assets represented \$42,194 and \$8,581 of the total fair value of all plan assets, respectively. The German pension plans are unfunded and have no plan assets.

The largest contributor to the net actuarial gains affecting the funded status for the defined benefit pension plans in the United States is due to an increase in the discount rate. The largest contributor to the net actuarial gains affecting the benefit obligation for the defined benefit pension plans in the United Kingdom, Japan, and Germany is due to an increase in the discount rate.

The accumulated benefit obligations of the Company's defined benefit pension plans at September 30, 2023 was \$127,222 in the United States, \$30,067 in the United Kingdom, \$5,790 in Japan, and \$30,547 in Germany, and at September 30, 2022 was \$132,444 in the United States, \$30,342 in the United Kingdom, \$6,432 in Japan, and \$27,707 in Germany.

	 Plans with a benefit ob excess of p	ligat	ion in	 Plans with a benefit obli than pla	on less			
	At Septe	mbei	· 30,	At Septe	mbe	er 30,		
	2023		2022	2023	2022			
Projected benefit obligation	\$ (49,726)	\$	(48,371)	\$ (144,759)	\$	(149,550)		
Accumulated benefit obligation	(49,711)		(48,354)	(143,914)		(148,571)		
Fair value of plan assets	18,047		18,459	188,098		183,601		

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

	Year Ended September 30,											
		United States				Other Co	oun	tries		То		
		2023		2022		2023		2022	2023			2022
Amounts recognized in statement of financial position												
consist of:												
Other non-current assets	\$	29,172	\$	24,159	\$	14,167	\$	9,892	\$	43,339	\$	34,051
Accrued liabilities		_		_		(1,084)		(976)		(1,084)		(976)
Other non-current liabilities		(1,024)		(2,122)		(29,571)		(26,814)		(30,595)		(28,936)
Net over/(under) funded status at end of year	\$	28,148	\$	22,037	\$	(16,488)	\$	(17,898)	\$	11,660	\$	4,139
Amounts recognized in accumulated other comprehensive (earnings) losses consist of:			_						_			
Unrecognized net prior service cost	\$	2.777	Ś	3,475	Ś	487	Ś	462	\$	3,264	\$	3,937
	Ş	,	Ş	,	Ş	_	Ş		Ş	680	Ş	,
Unrecognized net losses (gains)		8,527	_	14,822	_	(7,847)	_	(5,459)	_		_	9,363
Total amounts recognized		11,304		18,297		(7,360)		(4,997)		3,944		13,300
Deferred taxes		(6,101)		(7,801)		808		(697)		(5,293)		(8,498)
Amounts recognized in accumulated other												
comprehensive (earnings) losses	\$	5,203	\$	10,496	\$	(6,552)	\$	(5,694)	\$	(1,349)	\$	4,802

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

	Year Ended September 30,											
		United	Sta	tes	Other Countries				To			
		2023		2022		2023		2022		2023		2022
Beginning of year	\$	18,297	\$	(6,361)	\$	(4,997)	\$	25,444	\$	13,300	\$	19,083
Net (gain) loss		(6,003)		25,898		(2,716)		(28,712)		(8,719)		(2,814)
Amortization of:												
Net (loss) gain		(292)		(259)		620		(555)		328		(814)
Prior service cost		(698)		(981)		(22)		(23)		(720)		(1,004)
Foreign currency exchange rate changes		_		_		(245)		(1,151)		(245)		(1,151)
End of year	\$	11,304	\$	18,297	\$	(7,360)	\$	(4,997)	\$	3,944	\$	13,300

Pension benefit payments are made from the assets of the pension plans. The German pension plans are unfunded; therefore, benefit payments are made from Company contributions into these plans as required to meet the payment obligations. Using foreign exchange rates as of September 30, 2023 and expected future service assumptions, it is anticipated that the future benefit payments will be as follows:

		Otner	
Year Ending September 30,	United States	Countries	Total
2024	\$ 9,358	\$ 3,292	\$ 12,650
2025	9,737	3,333	13,070
2026	10,008	3,375	13,383
2027	10,253	3,476	13,729
2028	10,443	3,742	14,185
2029-2033	53,023	21,530	74,553

Woodward expects its pension plan contributions in fiscal year 2024 will be \$1,154 in the United Kingdom, \$126 in Japan, and \$1,106 in Germany. Woodward expects to have no pension plan contributions in fiscal year 2024 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.

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 the United Kingdom and Japan 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. The plans in Germany are unfunded and have no plan assets. Pension plan assets at September 30, 2023 and 2022 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,									
		2023				2022	2			
	Percentage of Plan Assets	Targ	get Alloca Ranges	tion	Percentage of Plan Assets	Tar	get Alloca Ranges	ition		
United States:										
Asset Class										
Equity Securities	31.9%	2.3%	_	51.2%	29.5%	2.4%	_	51.2%		
Debt Securities	66.6%	58.8%	_	96.5%	69.0%	58.8%	_	87.6%		
Other	1.5%		0.0%		1.5%		0.0%			
	100.0%				100.0%					
United Kingdom:										
Asset Class										
Equity Securities	20.7%	10.0%	_	30.0%	46.2%	50.0%	_	90.0%		
Debt Securities	79.2%	70.0%	_	90.0%	52.3%	45.0%	_	70.0%		
Other	0.1%		0.0%		1.5%		0.0%			
	100.0%				100.0%					
Japan:										
Asset Class										
Equity Securities	40.0%	36.0%	_	44.0%	39.9%	36.0%	_	44.0%		
Debt Securities	60.0%	55.0%	_	63.0%	60.1%	55.0%	_	63.0%		
Other	0.0%	0.0%	_	2.0%	0.0%	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 tables present Woodward's pension plan assets using the fair value hierarchy established by U.S. GAAP:

	At September 30, 2023						
	Le	vel 1	Le	vel 2	Lev	vel 3	
	United	Other	United	Other	United	Other	
	States	Countries	States	Countries	States	Countries	Total
Asset Category:							
Cash and cash equivalents	\$ 2,385	\$ 149	\$ —	\$ —	\$ —	\$ —	\$ 2,534
Mutual funds:							
U.S. corporate bond fund	103,401	_	_	_	_	_	103,401
U.S. equity large cap fund	31,136	_	_	_	_	_	31,136
International equity large cap growth fund	18,448	_	_	_	_	_	18,448
Pooled funds:							
Japanese equity securities	_	_	_	1,830	_	_	1,830
International equity securities	_	_	_	1,600	_	_	1,600
Japanese fixed income securities	_	_	_	3,785	_	_	3,785
International fixed income securities	_	_	_	1,287	_	_	1,287
Global target return equity/bond fund	_	_	_	8,719	_	_	8,719
Index linked U.K. corporate bonds fund	_	_	_	14,319	_	_	14,319
Index linked U.K. government securities fund	_	_	_	14,601	_	_	14,601
Index linked U.K. long-term government							
securities fund				4,485			4,485
Total assets	\$155,370	\$ 149	<u>\$</u>	\$ 50,626	<u>\$</u>	<u>\$</u>	\$ 206,145
			At Se	ptember 30,	2022		
	Lev	el 1	Le	vel 2	Lev	rel 3	
	United	Other	United	Other	United	Other	
	States	Countries	States	Countries	States	Countries	Total
Asset Category:							
Cash and cash equivalents	\$ 2,265	\$ 467	\$ —	\$ —	\$ —	\$ —	\$ 2,732
Mutual funds:							
U.S. corporate bond fund	106,653	_	_	_	_	_	106,653
U.S. equity large cap fund	28,088	_	_	_	_	_	28,088
International equity large cap growth fund	17,475	_	_	_	_	_	17,475
Pooled funds:							
Japanese equity securities	_	_	_	1,775	_	_	1,775

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.

467

154,481

1,610

3,875

1.325

11,533

2,253

4,271

12,124

3,701

4,645

47,112

1,610

3,875

1,325

2,253

4,271

12,124

3,701

4,645

\$ 202,060

11,533

International equity securities

Index linked U.K. equity fund

securities fund

Total assets

Japanese fixed income securities

International fixed income securities

Global target return equity/bond fund

Index linked international equity fund

Index linked U.K. corporate bonds fund

Index linked U.K. long-term government

Index linked U.K. government securities fund

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 2023 or 2022.

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. 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 3 retired employees and their covered dependents and beneficiaries and may provide future benefits to 381 active employees and their covered dependents and beneficiaries, upon retirement, if the employees elect to participate. 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:

	At	At September 30,				
	2023	2022	2021			
Weighted-average discount rate used to determine benefit obligation	6.25%	5.70%	2.80%			
Weighted-average discount rate used to determine net periodic benefit cost	5.70	2.80	2.45			

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.

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.

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, 2023 and September 30, 2022 were based on the SOA Pri-2012 Mortality Tables Report using the SOA's MP-2019 and projected forward using a custom projection scale based on MP-2019 with a 5-year convergence period and a long-term rate of 0.75%.

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

	2023	2022
Health care cost trend rate assumed for next year	6.00%	6.00%
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	2030	2027

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

	Year Ended September 30,					
		2023		2022		2021
Service cost	\$	1	\$	1	\$	1
Interest cost		904		577		599
Amortization of:						
Net (gain) loss		(495)		(94)		30
Net prior service cost (benefit)		_		_		1
Net periodic cost	\$	410	\$	484	\$	631

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

	Year Ended September 30,			
		2023		2022
Changes in accumulated postretirement benefit obligation:				
Accumulated postretirement benefit obligation at beginning of year	\$	16,797	\$	21,544
Service cost		1		1
Interest cost		904		577
Premiums paid by plan participants		873		923
Net actuarial gains		(682)		(3,504)
Benefits paid		(2,557)		(2,744)
Accumulated postretirement benefit obligation at end of year	\$	15,336	\$	16,797
Changes in fair value of plan assets:				
Fair value of plan assets at beginning of year	\$	_	\$	_
Contributions by the company		1,684		1,821
Premiums paid by plan participants		873		923
Benefits paid		(2,557)		(2,744)
Fair value of plan assets at end of year	\$	_	\$	_
Funded status at end of year	\$	(15,336)	\$	(16,797)

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

	Year Ended September 30,				
	 2023		2022		
Amounts recognized in statement of financial position consist of:					
Accrued liabilities	\$ (1,739)	\$	(1,803)		
Other non-current liabilities	(13,597)		(14,994)		
Funded status at end of year	\$ (15,336)	\$	(16,797)		
Amounts recognized in accumulated other comprehensive income consist of:	 				
Unrecognized net prior service cost (benefit)	\$ _	\$	_		
Unrecognized net gains	(6,412)		(6,225)		
Total amounts recognized	 (6,412)		(6,225)		
Deferred taxes	1,292		1,247		
Amounts recognized in accumulated other comprehensive (earnings)	\$ (5,120)	\$	(4,978)		

Woodward pays plan benefits from its general funds; therefore, there are no segregated plan assets as of September 30, 2023 or September 30, 2022.

The accumulated benefit obligations of the Company's postretirement plans were \$15,336 at September 30, 2023 and \$16,797 at September 30, 2022. The largest contributors to the actuarial gains affecting the Company's postretirement plans accumulated benefit obligations were a lower claims experience than expected and an increase in discount rate.

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

	 Year Ended September 30,					
	2023		2022			
Beginning of year	\$ (6,225)	\$	(2,815)			
Net gain	(682)		(3,504)			
Amortization of:						
Net gain	495		94			
End of year	\$ (6,412)	\$	(6,225)			

Using expected future service, it is anticipated that the future Company contributions to pay benefits for other postretirement benefit plans, excluding participate contributions, will be as follows:

Year Ending September 30,	
2024	\$ 2,676
2025	2,612
2026	2,537
2027	2,444
2028	2,353
2029-2033	9,989

Note 21. Stockholders' equity

Common Stock

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

Dividends declared and paid were as follows:

	Year Ended September 30,							
	2023		2022		2021			
Dividends declared and paid	\$ 51,027	\$	44,978	\$	36,041			
Dividend per share amount	0.8500		0.7325		0.5688			

Stock repurchase program

In November 2019, the Board had authorized a 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 was scheduled to expire in November 2022 (the "2019 Authorization"). During fiscal year 2022, we repurchased 233 shares of our common stock for \$26,742 under the 2019 Authorization. During fiscal year 2021, we repurchased 404 shares of our common stock for \$45,860 under the 2019 Authorization, of which 110 shares repurchased were in-transit for \$12,516 as of September 30, 2021 and received in fiscal year 2022.

In January 2022, the Board terminated the 2019 Authorization and concurrently authorized a program for the repurchase of up to \$800,000 of Woodward's outstanding shares of common stock on the open market or in privately negotiated transactions over a two-year period ending in January 2024 (the "2022 Authorization"). During fiscal year 2023, we repurchased 1,060 shares of our common stock for \$126,380 under the 2022 Authorization, as compared to 3,890 shares of our common stock for \$446,042 under the 2022 Authorization during fiscal year 2022.

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 2017 Omnibus Incentive Plan, as amended from time to time (the "2017 Plan") and the 2006 Omnibus Incentive Plan (the "2006 Plan"), as applicable.

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, the Board 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. On January 25, 2023, Woodward's stockholders approved an additional 500 shares of Woodward's common stock to be made available for future grants. Under the 2017 Plan, there were approximately 2,689 shares of Woodward's common stock available for future grants as of September 30, 2023.

Stock options

Woodward believes that stock options align the interests of its employees and directors with the interests of its stockholders. Stock option awards are granted with an exercise price equal to the market price of Woodward's stock at the date the grants are awarded, a ten-year term, and generally have a four-year vesting schedule at a rate of 25% per year.

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,										
		2023			2022		2021				
Weighted-average exercise price per share	\$	84.84		\$	115.3		82.46				
Expected term (years)		6.6 -	8.8		6.6 -	8.7	6.5 -	8.7			
Estimated volatility		34.7%-	37.6%		33.8%-	36.4%	33.3%-	36.2%			
Estimated dividend yield		0.7%-	0.9%		0.6%-	0.8%	0.3%-	0.6%			
Risk-free interest rate		3.4%-	4.4%		1.1% -	3.5%	0.4%-	1.0%			

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

	Year Ended September 30,						
		2023		2022	2021		
Weighted-average grant date fair value of options	\$	34.19	\$	41.78	\$	28.22	

The following is a summary of the activity for stock option awards during the fiscal year ended September 30, 2023:

		Weighted- Average Exercise
	Number	Price Per Share
Balance at September 30, 2022	5,339	\$ 74.40
Options granted	537	84.84
Options exercised	(1,007)	50.18
Options forfeited	(27)	94.01
Balance at September 30, 2023	4,842	80.48

Exercise prices of stock options outstanding as of September 30, 2023 range from \$40.26 to \$117.64.

Changes in non-vested stock options during the fiscal year ended September 30, 2023 were as follows:

	Noveless	Avera Date	eighted- age Grant Fair Value
	Number	Pe	r Share
Balance at September 30, 2022	1,812	\$	30.03
Options granted	537		34.19
Options vested	(930)		26.24
Options forfeited	(26)		33.66
Balance at September 30, 2023	1,393		33.96

.

Information about stock options that have vested, or are expected to vest, and are exercisable at September 30, 2023 was as follows:

		Weighted- Average Exercise	Weighted- Average Remaining	Aggregate Intrinsic
	Number	Price	Life in Years	Value
Options outstanding	4,842	\$ 80.48	5.6	\$ 211,963
Options vested and exercisable	3,445	74.91	4.6	170,008
Options vested and expected to vest	4,799	80.37	5.6	210,624

Other information follows:

	Year Ended September 30,						
	2023		2022		2021		
Total fair value of stock options vested	\$ 24,388	\$	18,945	\$	19,324		
Total intrinsic value of options exercised	67,203		32,709		63,667		
Cash received from exercises of stock options	50,749		21,897		34,748		
Excess tax benefit realized from exercise of stock options	12,595		6,472		12,364		

Restricted Stock

The Company has granted restricted stock units ("RSUs") to certain employees under its form attraction and retention RSU agreement (the "Form Attraction and Retention RSU Agreement"), which has from time to time been used for new hires and specific retention purposes, and under its form RSU agreement (the "Standard Form RSU Agreement"), which is generally used for annual grants and promotional awards. The RSUs granted under the Form Attraction and Retention RSU Agreement are generally scheduled to fully vest on the third or fourth anniversary of the respective grant dates, and in each case, subject to continued employment. The RSUs granted under the Standard Form RSU Agreement generally have a four-year vesting schedule at a rate of 25% per year, generally subject to continued employment.

		•	ed-Average Date Fair
	Number of units		/alue
Balance at September 30, 2022	59	\$	98.29
Units granted	122		90.89
Units vested	(2)		91.89
Units forfeited	(2)		83.24
Balance at September 30, 2023	177		93.46

Stock-based compensation expense

Woodward recognizes stock-based compensation expense on a straight-line basis over the requisite service period. Pursuant to the 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 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.

Stock-based compensation expense recognized was as follows:

	Year Ended September 30,						
	2023 2022		2021				
Employee stock-based compensation expense	\$ 23,958	\$	20,109	\$	21,475		

In connection with an executive separation and release agreement entered into by the Company, Woodward recognized an additional \$1,265 of stock-based compensation expense, before tax, during fiscal year 2023.

At September 30, 2023, there was approximately \$21,104 of total unrecognized compensation expense related to non-vested stock-based compensation arrangements, including both stock options and restricted stock awards. The prevesting forfeiture rates for purposes of determining stock-based compensation expense recognized were estimated to be 0.0% for members of Woodward's Board and 7.3% for all others. The remaining unrecognized compensation cost is expected to be recognized over a weighted-average period of approximately 1.69 years.

Note 22. Commitments and contingencies

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,	
2024	\$ 673,118
2025	124,161
2026	23,965
2027	225
2028	_
Thereafter	15
Total	\$ 821,484

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 using estimates of the most likely amount of loss where it believes that it is probable the matter will result in a loss when ultimately resolved and such loss is reasonably estimable. 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 related 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 any such officer if such officer's employment is terminated within two years following the change of control.

Note 23. 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, 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,					
	2023		2022			2021
Segment external net sales:						
Aerospace	\$	1,768,103	\$	1,519,322	\$	1,404,117
Industrial		1,146,463		863,468		841,715
Total consolidated net sales	\$	2,914,566	\$	2,382,790	\$	2,245,832
Segment earnings:						
Aerospace	\$	290,104	\$	230,933	\$	234,356
Industrial		161,622		82,788		108,672
Nonsegment expenses		(130,811)		(81,092)		(64,442)
Interest Expense, net		(45,147)		(32,731)		(32,787)
Consolidated earnings before income taxes	\$	275,768	\$	199,898	\$	245,799

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,					
		2023		2022		2021
Segment assets:						
Aerospace	\$	1,829,410	\$	1,773,854	\$	1,698,833
Industrial		1,490,341		1,380,446		1,453,423
Unallocated corporate property, plant and equipment, net		104,962		111,760		106,014
Other unallocated assets		585,490		540,386		832,734
Consolidated total assets	\$	4,010,203	\$	3,806,446	\$	4,091,004
Segment depreciation and amortization:						
Aerospace	\$	59,880	\$	60,176	\$	62,075
Industrial		51,167		50,584		56,885
Unallocated corporate amounts		8,696		9,868		10,564
Consolidated depreciation and amortization	\$	119,743	\$	120,628	\$	129,524
Segment capital expenditures:						
Aerospace	\$	56,913	\$	23,253	\$	17,303
Industrial		21,855		12,399		15,164
Unallocated corporate amounts		(2,268)		17,216		5,222
Consolidated capital expenditures	\$	76,500	\$	52,868	\$	37,689

Sales to RTX Corporation were made by Woodward's Aerospace segment and totaled approximately 10% of net sales in fiscal year 2023, 11% of net sales in fiscal year 2022, and 9% of net sales in fiscal year 2021. Sales to GE were made by both of Woodward's reportable segments and totaled approximately 12% of net sales in fiscal year 2023 and 11% of net sales in fiscal year 2022 and 2021.

Accounts receivable from RTX Corporation totaled approximately 4% of accounts receivable at September 30, 2023 and 6% of accounts receivable at September 30, 2022. Accounts receivable from GE totaled approximately 7% of accounts receivable at September 30, 2023 and 10% of accounts receivable at September 30, 2022.

U.S. Government related sales from Woodward's reportable segments were as follows:

	Direct U.S. Government Sales		Indirect U.S. Government Sales		nt Government Gov		Total U.S. Government Related Sales	
Fiscal year ended September 30, 2023								
Aerospace	\$	99,848	\$	363,835	\$	463,683		
Industrial		7,524		14,840		22,364		
Total net external sales	\$	107,372	\$	378,675	\$	486,047		
Percentage of total net sales		4%		13%		17%		
Fiscal year ended September 30, 2022								
Aerospace	\$	93,266	\$	433,646	\$	526,912		
Industrial		4,759		6,052		10,811		
Total net external sales	\$	98,025	\$	439,698	\$	537,723		
Percentage of total net sales		4%		19%		23%		
Fiscal year ended September 30, 2021								
Aerospace	\$	116,832	\$	526,118	\$	642,950		
Industrial		7,732		2,442		10,174		
Total net external sales	\$	124,564	\$	528,560	\$	653,124		
Percentage of total net sales		6%		23%		29%		

Item 9. Changes in and Disagreements with Accountants

There have been no disagreements or any reportable events requiring disclosure under Item 304(b) of Regulation S-K.

Item 9A. 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, as amended (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 (Charles P. Blankenship, Jr., Chairman of the Board, Chief Executive Officer, and President) and Principal Financial and Accounting Officer (William F. Lacey, Chief Financial Officer), as appropriate, to allow timely decisions regarding required disclosures.

Charles P. Blankenship, Jr. and William F. Lacey 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, 2023.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Our management has 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, concluded that the Company's internal control over financial reporting was effective as of September 30, 2023, the end of the Company's most recent fiscal year.

Deloitte & Touche LLP (PCAOB ID No. 34), an independent registered public accounting firm, conducted an audit of Woodward's internal control over financial reporting as of September 30, 2023 as stated in their report included in "Item 8 – Financial Statements and Supplementary Data."

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, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

During the quarter ended September 30, 2023, no directors or officers, as defined in Rule 16a-1(f), adopted or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement," each as defined in Regulation S-K Item 408.

<u>Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections</u>

Not applicable.

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 "Proposal 1: Election of Directors," "Board Meetings and Committees – Audit Committee" (including information with respect to audit committee financial experts), "Executive Officers", "Stock Ownership of Management," and, "Delinquent Section 16(a) Reports" in our Proxy Statement related to the Annual Meeting of Stockholders to be held virtually on January 24, 2024 (the "Proxy Statement") 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.

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 "Governance," and then on "Governance Documents", 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 – 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 Common 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 "Related Person Transaction Policies and Procedures," "Proposal 1: Election 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 to Stockholders" 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.

PART IV

Item 15. Exhibits and Financial Statement Schedules

			Page Number in Form 10-K		
(a) (1) Consc	olidated Financial Statements:			
	Repor	t of Independent Registered Public Accounting Firm	39		
	Conso	lidated Statements of Earnings for the fiscal years ended September 30, 2023, 2022, and 2021	42		
		lidated Statements of Comprehensive Earnings for the fiscal years ended September 30, 2023, and 2021	43		
	Conso	lidated Balance Sheets at September 30, 2023 and 2022	44		
	Conso	lidated Statements of Cash Flows for the fiscal years ended September 30, 2023, 2022, and 2021	45		
	Conso and 20	lidated Statements of Stockholders' Equity for the fiscal years ended September 30, 2023, 2022, 2021	46		
	Notes	to Consolidated Financial Statements	47		
		al statements and schedules other than those listed above are omitted for the reason that they are not required, or the information is included in the financial statements or the footnotes.	e not		
(a) (2)	Exhibits Filed as Part of This Report:			
‡ 2.	1	Share Purchase Agreement relating to the sale and purchase of all shares in L'Orange GmbH and Fluid Mechanics LLC dated April 8, 2018, filed as Exhibit 2.1 to Quarterly Report on Form 10-Q, filed on August 8, 2018			
‡ 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 January 11, 2020, filed as Exhibit 3.1 to Annual Report on Form 10-K filed on November 18, 2022			
‡ 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			
‡ 3.	Certificate of Designation of Rights, Preferences and Privileges of Series B Preferred Stock				
† ‡ 10	1.1 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	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).4	Amendment No. 1 to the Woodward, Inc. 2006 Omnibus Incentive Plan, effective as of January 26 as Exhibit 10.10 to Annual Report on Form 10-K filed November 16, 2011	<u>6, 2011, filed</u>		

1+ 10.5	8-K filed January 31, 2023
†‡ 10.6	Form of Non-Qualified Stock Option Agreement, filed as Exhibit 10.2 to Quarterly Report on Form 10-Q filed January 25, 2017
‡ 10.7	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
‡ 10.8	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
‡ 10.9	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
‡ 10.10	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
†‡ 10.11	Form of Change in Control Agreement for the Company's principal executive officer and other executive officers, filed as Exhibit 10.25 to Annual Report on Form 10-K filed November 12, 2014
†‡ 10.12	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
†‡ 10.13	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
†‡ 10.14	Thomas G. Cromwell employment offer letter, dated January 30, 2019, filed as exhibit 10.1 to Quarterly Report on Form 10-Q filed May 8, 2019
‡ 10.15	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
‡ 10.16	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
‡ 10.17	Frame Development and Purchase Agreement between MTU Friedrichshafen GmbH and L'Orange GmbH, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q, filed August 8, 2018
‡ 10.18	Note Purchase Agreement, dated May 31, 2018, by and among Woodward, Inc. and the purchasers named therein, filed as Exhibit 10.1 to Current Report on Form 8-K, filed June 4, 2018
‡ 10.19	Amendment No. 1 to 2013 Note Purchase Agreement, dated as of May 31, 2018, by and among Woodward, Inc. and the noteholders names therein, filed as Exhibit 10.2 to Current Report on Form 8-K, filed June 4, 2018
‡ 10.20	Amendment No. 1 to 2016 Series M Note Purchase Agreement, dated as of May 31, 2018, by and among Woodward, Inc. and the noteholders names therein filed as Exhibit 10.3 to Current Report on Form 8-K, filed June 4, 2018
‡ 10.21	Amendment No. 1 to 2016 Series N and O Note Purchase Agreement, dated as of May 31, 2018, by and among Woodward International Holding B.V., Woodward, Inc. and the noteholders names therein, filed as Exhibit 10.4 to Current Report on Form 8-K, filed June 4, 2018
‡ 10.22	Amended and Restated Credit Agreement dated November 24, 2019, by and among the Company, certain foreign subsidiaries borrowers of the Company from time to time parties thereto, the institutions from time to time party thereto, as lenders, Wells Fargo Bank, National Association, as administrative agent, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q, filed February 4, 2022

†‡ 10.23	Form of Non-Qualified Stock Option Agreement filed as Exhibit 10.40 to Annual Report on Form 10-K, filed November 13, 2018
†‡ 10.24	Amended and Restated Executive Severance and Change in Control Agreement filed as Exhibit 10.29 to Annual Report on Form 10-K, filed November 19, 2021
‡ 10.25	Form of Restricted Stock Unit Agreement, filed as Exhibit 10.39 to Annual Report on Form 10-K, filed November 13, 2018
†‡ 10.26	Charles Blankenship Jr. employment offer letter, dated April 19th, 2022, filed as Exhibit 10.3 to Quarterly Report on Form 10-Q, filed on May 6, 2022
‡ 10.27	Second Amended and Restated Credit Agreement dated October 21, 2022, by and among the Company, certain foreign subsidiaries borrowers of the Company from time to time parties thereto, the institutions from time-to-time party thereto, as lenders, Wells Fargo Bank, National Association, as administrative agent filed as Exhibit 10.31 to Annual Report on Form 10-K, filed on November 18, 2022
†‡ 10.28	Second Amended and Restated Executive Severance and Change in Control Agreement filed as Exhibit 10.32 to Annual Report on Form 10-K, filed on November 18, 2022
‡ 10.29	Form Attraction and Retention RSU agreement, filed as Exhibit 10.2 to Quarterly Report on Form 10-Q filed May 6, 2022
†‡ 10.30	Separation Agreement dated April 5, 2023 by and between Woodward, Inc. and Mark D. Hartman, filed as Exhibit 10.1 to Quarterly Report on Form 10-Q, filed August 4th, 2023
†‡ 10.31	William F. Lacey Offer Letter, dated March 30, 2023, filed as Exhibit 10.2 to Quarterly Report on Form 10-Q, filed August 4th, 2023
†* 10.32	Outside Director Compensation Policy
* 10.33	Form of Non-Qualified Stock Option Agreement for employees and consultants
* 10.34	Form of Non-Qualified Stock Option Agreement for non-employee directors
* 10.35	Form RSU Agreement for employees and consultants
* 10.36	Form RSU Agreement for non-employee directors
* 10.37	Form Performance Restricted Stock Unit Agreement
* 21.1	<u>Subsidiaries</u>
* 23.1	Consent of Independent Registered Public Accounting Firm
* 31.1	Rule 13a-14(a)/15d-14(a) certification of Chip P. Blankenship, Jr.
* 31.2	Rule 13a-14(a)/15d-14(a) certification of William F. Lacey
* 32.1	Section 1350 certifications
* 101.INS	Inline XBRL Instance Document.
* 101.SCH	Inline XBRL Taxonomy Extension Schema Document
* 101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
* 101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
* 101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document

- * 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document
- * 104 Cover Page Interactive Data File (formatted as Inline XBRL and Contained in Exhibit 101)

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, 2023 formatted in Inline 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 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.

Date: November 17, 2023

/s/ Charles P. Blankenship, Jr.

Charles P. Blankenship, Jr.

Chairman of the Board, Chief Executive Officer, and President
(Principal Executive Officer)

Date: November 17, 2023

/s/ William F. Lacey

William F. Lacey

Chief Financial Officer
(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/ Charles P. Blankenship, Jr. Charles P. Blankenship, Jr.	Chairman of the Board and Director	November 17, 2023	
/s/ Rajeev Bhalla	Director	November 17, 2023	
Rajeev Bhalla /s/ John D. Cohn	Director	November 17, 2023	
John D. Cohn /s/ Eileen P. Drake	Director	November 17, 2023	
Eileen P. Drake /s/ David Hess	Director	November 17, 2023	
David Hess /s/ Daniel G. Korte	Director	November 17, 2023	
Daniel G. Korte /s/ Mary D. Petryszyn	Director	November 17, 2023	
Mary D. Petryszyn /s/ Ronald M. Sega	Director	November 17, 2023	
Ronald M. Sega /s/ Gregg C. Sengstack	Director	November 17, 2023	
Gregg C. Sengstack			
/s/ Tana Utley Tana Utley	Director	November 17, 2023	

CORPORATE INFORMATION

BOARD OF DIRECTORS

Rajeev Bhalla

Former Operating Partner, Cerberus Operating and Advisory Company

Charles Blankenship, Jr.

Chairman, Chief Executive Officer and President, Woodward, Inc.

John D. Cohn

President, CrossBorder Strategic Solutions, LLC

Eileen P. Drake

Former Chief Executive Officer and President, Aerojet Rocketdyne Holdings, Inc.

David P. Hess

Former Chief Executive Officer, Arconic Corporation

Daniel G. Korte

Global Vice President, Aerospace PPG Industries. Inc.

Mary D. Petryszyn

Former Corporate Vice President, President Defense Systems, Northrop Grumman Corporation

Ronald M. Sega

Emeritus Professor and Director, Systems Engineering, Colorado State University

Gregg C. Sengstack

Chairman, Chief Executive Officer and President, Franklin Electric Co., Inc.

Tana L. Utley

Former Vice President, Large Power Systems, Caterpillar, Inc.

OFFICERS

Charles Blankenship, Jr.

Chairman, Chief Executive Officer and President

William F. Lacey

Chief Financial Officer

Thomas G. Cromwell

Chief Operating Officer

Paul P. Benson

Corporate Vice President, Human Resources

A. Christopher Fawzy

Corporate Vice President, General Counsel, Corporate Secretary and Chief Compliance Officer

W. John Godsman

Corporate Vice President, Strategy and Business Development

Randall L. Hobbs

President, Industrial

Matteo R. Pisciotta

Corporate Vice President, Global Sourcing

Terence J. Voskuil

President, Aerospace

INVESTOR INFORMATION

Woodward, Inc.

Corporate Headquarters 1081 Woodward Way Fort Collins, CO 80524 1-970-482-5811 www.woodward.com

Investor Information

Investor.Relations@woodward.com 1-970-498-3849

Transfer Agent And Registrar

Equiniti Trust Company, LLC 6201 15th Avenue Brooklyn, NY 11219 1-800-937-5449 www.equiniti.com

Stock Exchange

Nasdaq Global Select Market Ticker Symbol: WWD

SEC filings are available on our website at www.woodward.com

Stockholder Account Assistance

Stockholders who wish to change the address or ownership of stock, report lost certificates, eliminate duplicate mailings, or for other account registration procedures and assistance, should contact the Transfer Agent at the address or phone number on this page.

Dividend Reinvestment Plan And Direct Deposit Of Dividends

Woodward offers stockholders of record a convenient Dividend Reinvestment and Direct Stock Purchase and Sale Plan. Through this Plan, shareholders have options to purchase or sell shares of Woodward stock, have their dividends automatically reinvested in Woodward, and to make periodic supplemental cash payments to purchase additional shares. For further information and an authorization form, contact the Transfer Agent at the address or phone number on this page.

Annual Meeting

The Annual Meeting of Stockholders will be held virtually on January 24, 2024, at 8:00 a.m. MT.

Equal Opportunity Employer Statement

It is Woodward's policy to provide equal employment opportunity for all qualified members and applicants without regard to race, color, religion, age, sex, gender identity, national origin, disability, veteran's or marital status, genetic information, or other protected class, and to base all employment decisions so as to further this principle of equal employment opportunity.



BUSINESS DESCRIPTION

WOODWARD IS THE GLOBAL LEADER IN THE DESIGN,
MANUFACTURE, AND SERVICE OF ENERGY CONVERSION
AND CONTROL SOLUTIONS FOR THE AEROSPACE AND
INDUSTRIAL EQUIPMENT MARKETS. TOGETHER WITH OUR
CUSTOMERS, WE ARE ENABLING THE PATH TO A CLEANER,
DECARBONIZED WORLD. OUR INNOVATIVE FLUID,
COMBUSTION, ELECTRICAL, PROPULSION AND MOTION
CONTROL SYSTEMS PERFORM IN SOME OF THE WORLD'S
HARSHEST ENVIRONMENTS. WOODWARD IS A GLOBAL
COMPANY HEADQUARTERED IN FORT COLLINS, COLORADO,
USA. VISIT OUR WEBSITE AT WWW.WOODWARD.COM.

AEROSPACE

Our Aerospace systems and components optimize the performance of commercial, business and military aircraft, missiles and weapons, ground vehicles and other equipment.

INDUSTRIAL

Our Industrial systems and components enhance the performance of gas and steam turbines, reciprocating engines, compressors, generator sets and other energy-related industrial equipment.

CUSTOMERS

Our customers include leading original equipment manufacturers and end users of their products.

WWW.WOODWARD.COM

1081 Woodward Way Fort Collins, Colorado 80524-1519 970-482-5811