

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

FORM 10-K

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

For the fiscal year ended December 31, 2023

OR

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

For the transition period from _____ to _____

Commission file number 1-4797
ILLINOIS TOOL WORKS INC.
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)
155 Harlem Avenue Glenview Illinois
(Address of Principal Executive Offices)

36-1258310
(I.R.S. Employer Identification No.)
60025
(Zip Code)

Registrant's telephone number, including area code: **(847) 724-7500**

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

<u>Title of Each Class</u>	<u>Trading Symbol(s)</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock	ITW	New York Stock Exchange
0.250% Euro Notes due 2024	ITW24A	New York Stock Exchange
0.625% Euro Notes due 2027	ITW27	New York Stock Exchange
2.125% Euro Notes due 2030	ITW30	New York Stock Exchange
1.00% Euro Notes due 2031	ITW31	New York Stock Exchange
3.00% Euro Notes due 2034	ITW34	New York Stock Exchange

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

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

Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

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

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2023 was approximately \$75.1 billion based on the New York Stock Exchange closing sales price as of June 30, 2023.

Shares of common stock outstanding at January 31, 2024: 298.8 million.

Documents Incorporated by Reference

Portions of the 2024 Proxy Statement for Annual Meeting of Stockholders to be held on May 3, 2024.

Part III

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PART I

ITEM 1. Business

General

Illinois Tool Works Inc. (the "Company" or "ITW") was founded in 1912 and incorporated in 1915. The Company's ticker symbol is ITW. The Company is a global manufacturer of a diversified range of industrial products and equipment with 84 divisions in 51 countries. As of December 31, 2023, the Company employed approximately 45,000 people.

The Company's operations are organized and managed based on similar product offerings and end markets, and are reported to senior management as the following seven segments: Automotive OEM; Food Equipment; Test & Measurement and Electronics; Welding; Polymers & Fluids; Construction Products; and Specialty Products. The following is a description of the Company's seven segments:

Automotive OEM— This segment is a global, niche supplier to top tier OEMs, providing unique innovation to address pain points for sophisticated customers with complex problems. Businesses in this segment produce components and fasteners for automotive-related applications. This segment primarily serves the automotive original equipment manufacturers and tiers market. Products in this segment include:

- plastic and metal components, fasteners and assemblies for automobiles, light trucks and other industrial uses.

Food Equipment— This segment is a highly focused and branded industry leader in commercial food equipment differentiated by innovation and integrated service offerings. This segment primarily serves the food service, food retail and food institutional/restaurant markets. Products in this segment include:

- warewashing equipment;
- cooking equipment, including ovens, ranges and broilers;
- refrigeration equipment, including refrigerators, freezers and prep tables;
- food processing equipment, including slicers, mixers and scales;
- kitchen exhaust, ventilation and pollution control systems; and
- food equipment service, maintenance and repair.

Test & Measurement and Electronics— This segment is a branded and innovative producer of test and measurement and electronic manufacturing and maintenance, repair, and operations, or "MRO" solutions that improve efficiency and quality for customers in diverse end markets. Businesses in this segment produce equipment, consumables, and related software for testing and measuring of materials and structures, as well as equipment and consumables used in the production of electronic subassemblies and microelectronics. This segment primarily serves the electronics, general industrial, energy, automotive original equipment manufacturers and tiers, industrial capital goods and consumer durables markets. Products in this segment include:

- equipment, consumables, and related software for testing and measuring of materials, structures, gases and fluids;
- electronic assembly equipment;
- electronic components and component packaging;
- static control equipment and consumables used for contamination control in clean room environments; and
- pressure sensitive adhesives and components for electronics, medical, transportation and telecommunications applications.

Welding— This segment is a branded value-added equipment and specialty consumable manufacturer with innovative and leading technology. Businesses in this segment produce arc welding equipment, consumables and accessories for a wide array of industrial and commercial applications. This segment primarily serves the general industrial market, which includes fabrication, shipbuilding and other general industrial markets, and construction, energy, MRO, industrial capital goods and automotive original equipment manufacturers and tiers markets. Products in this segment include:

- arc welding equipment; and
- metal arc welding consumables and related accessories.

Polymers & Fluids— This segment is a branded supplier to niche markets that require value-added, differentiated products. Businesses in this segment produce engineered adhesives, sealants, lubrication and cutting fluids, and fluids and polymers for auto aftermarket maintenance and appearance. This segment primarily serves the automotive aftermarket, general industrial and MRO markets. Products in this segment include:

- adhesives for industrial, construction and consumer purposes;
- chemical fluids which clean or add lubrication to machines;
- epoxy and resin-based coating products for industrial applications;
- hand wipes and cleaners for industrial applications;
- fluids, polymers and other supplies for auto aftermarket maintenance and appearance;
- fillers and putties for auto body repair; and
- polyester coatings and patch and repair products for the marine industry.

Construction Products— This segment is a branded supplier of innovative engineered fastening systems and solutions. This segment primarily serves the residential construction, renovation/remodel and commercial construction markets. Products in this segment include:

- fasteners and related fastening tools for wood and metal applications;
- anchors, fasteners and related tools for concrete applications;
- metal plate truss components and related equipment and software; and
- packaged hardware, fasteners, anchors and other products for retail.

Specialty Products— This segment is focused on diversified niche market opportunities with substantial patent protection producing beverage packaging equipment and consumables, product coding and marking equipment and consumables, and appliance components and fasteners. This segment primarily serves the food and beverage, consumer durables, general industrial, industrial capital goods, airlines and printing and publishing markets. Products in this segment include:

- conveyor systems and line automation for the food and beverage industries;
- plastic consumables that multi-pack cans and bottles and related equipment;
- foil, film and related equipment used to decorate consumer products;
- product coding and marking equipment and related consumables;
- plastic and metal closures and components for appliances;
- airport ground support equipment; and
- components for medical devices.

The information set forth below is applicable to all segments of the Company unless otherwise noted.

The ITW Business Model

The powerful and highly differentiated ITW Business Model is the Company's core source of value creation. It is the Company's competitive advantage and defines how ITW creates value for its shareholders. The ITW Business Model is comprised of three unique elements:

- ITW's **80/20 Front-to-Back** process is the operating system that is applied in every ITW business. Initially introduced as a manufacturing efficiency tool in the 1980s, ITW has continually refined, improved and expanded 80/20 into a proprietary, holistic business management process that generates significant value for the Company and its customers. Through the application of data driven insights generated by 80/20 practice, ITW focuses on its largest and best opportunities (the "80") and eliminates cost, complexity and distractions associated with the less profitable opportunities (the "20"). 80/20 enables ITW businesses to consistently achieve world-class operational excellence in product availability, quality, and innovation, while generating superior financial performance;
- **Customer-back Innovation** has fueled decades of profitable growth at ITW. The Company's unique innovation approach is built on insight gathered from the 80/20 Front-to-Back process. Working from the customer back, ITW businesses position themselves as the go-to problem solver for their "80" customers. ITW's innovation efforts are focused on understanding customer needs, particularly those in "80" markets with solid long-term growth fundamentals, and creating unique solutions to address those needs. These customer insights and learnings drive innovation at ITW and have contributed to a portfolio of approximately 19,600 granted and pending patents;

- ITW's **Decentralized, Entrepreneurial Culture** enables ITW businesses to be fast, focused, and responsive. ITW businesses have significant flexibility within the framework of the ITW Business Model to customize their approach in order to best serve their specific customers' needs. ITW colleagues recognize their unique responsibilities to execute the Company's strategy and values. As a result, the Company maintains a focused and simple organizational structure that, combined with outstanding execution, delivers best-in-class services and solutions adapted to each business' customers and end markets.

ENTERPRISE STRATEGY: 2012 - 2023

In late 2012, ITW began its strategic framework transitioning the Company to fully leverage the unique and powerful set of capabilities and operating practices of the ITW Business Model. The Company undertook a complete review of its performance, focusing on its businesses delivering consistent above-market growth with best-in-class margins and returns, and developing a strategy to replicate that performance across its operations. ITW determined that solid and consistent above-market organic growth is the core growth engine to deliver world-class financial performance and compelling long-term returns for its shareholders.

Key initiatives in the Company's enterprise strategy included portfolio management, business structure simplification, strategic sourcing and the diligent re-application of ITW's proprietary 80/20 Front-to-Back process.

- As part of the Portfolio Management initiative, ITW exited businesses that were operating in commoditized market spaces and prioritized sustainable differentiation as a must-have requirement for all ITW businesses. This process included both divesting entire businesses and exiting commoditized product lines and customers inside otherwise highly differentiated ITW divisions.
- Business Structure Simplification was implemented to simplify and scale up ITW's operating structure to support increased engineering, marketing, and sales resources, and improve global reach and competitiveness, all of which were critical to driving accelerated organic growth. ITW now has 84 scaled-up divisions with significantly enhanced focus on growth investments, core customers and products, and customer-back innovation.
- The Strategic Sourcing initiative established sourcing as a core strategic and operational capability at ITW, delivering an average of one percent reduction in spend each year since 2013 and continues to be a key contributor to the Company's ongoing enterprise strategy.
- With the initial portfolio realignment and scale-up work largely completed, the Company shifted its focus to preparing for and accelerating organic growth, reapplying the 80/20 Front-to-Back process to optimize its scaled-up divisions for growth, first, to build a foundation of operational excellence, and second, to identify the best opportunities to drive organic growth.

Since implementing the Company's enterprise strategy in 2012, the Company has demonstrated the compelling performance potential of the ITW Business Model and superior 80/20 management, resulting in meaningful incremental improvement in margins and returns as evidenced by the Company's operating margin and after-tax return on invested capital. At the same time, these 80/20 initiatives can also result in restructuring initiatives that reduce costs and improve profitability and returns.

OUR NEXT PHASE: 2024-2030

In the Next Phase of the Company's evolution, the ITW Business Model and the Enterprise Strategy framework will be as formidable of a competitive advantage and performance differentiator as it has been over the last decade, if not more so. Volatility, risk and the pace of change in the global operating environment will continue to increase, and a decentralized entrepreneurial culture allows the Company to be a fast adaptor – to read, react, respond and evolve. The Company's ability to consistently execute and invest through the ups and downs of the business cycle is now a defining competitive advantage.

Throughout the Next Phase, the Company's focus is to build organic growth into a core ITW strength on par with the Company's world-class financial performance and operational capabilities. Throughout this phase, the Company will sustain its foundational strengths built over the past decade, including the high-quality ITW Business Model practice. Customer-back Innovation (CBI) is the most impactful driver to achieve high-quality organic growth through the cycle by establishing trusted problem solver relationships with key customers to effectively invent solutions that address customers' most critical pain points or tackle the biggest growth opportunities. CBI successes, coupled with underlying market growth and share gains, are how the Company intends to achieve its high-quality organic growth.

Portfolio Discipline

The Company only operates in industries where it can generate significant, long-term competitive advantage from the ITW Business Model. ITW businesses have the right "raw material" in terms of market and business attributes that best fit the ITW Business Model and have significant potential to drive above-market organic growth over the long-term.

The Company focuses on high-quality businesses, ensuring it operates in markets with positive long-term macro fundamentals and with customers that have critical needs and value ITW's differentiated products, services and solutions. ITW's portfolio operates in highly diverse end markets and geographies which makes the Company more resilient in the face of uncertain or volatile market environments.

The Company routinely evaluates its portfolio to ensure it delivers sustainable differentiation and drives consistent long-term performance. This includes both implementing portfolio refinements and assessing selective high-quality acquisitions to supplement ITW's long-term growth potential.

The Company previously communicated its intent to explore options, including potential divestitures, for certain businesses with annual revenues totaling up to \$1.0 billion. In the fourth quarter of 2019, the Company completed the divestitures of three businesses. Due to the COVID-19 pandemic, the Company chose to defer any significant divestiture activity in 2020 and 2021. The Company reinitiated the divestiture process in 2022 for certain businesses with combined annual revenues of approximately \$0.5 billion, subject to approval by the Company's Board of Directors. In the second quarter of 2022, plans were approved to divest two businesses, including one business in the Polymers & Fluids segment and one business in the Food Equipment segment. In the fourth quarter of 2022, both of these businesses were divested. The business in the Polymers & Fluids segment was sold for \$220 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$156 million. The business in the Food Equipment segment was sold for \$59 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$41 million. Operating revenue related to these divested businesses that was included in the Company's results of operations for the twelve months ended December 31, 2022 and 2021 was \$106 million and \$115 million, respectively.

In the fourth quarter of 2022, plans were approved to divest one business in the Specialty Products segment. This business was presented as held for sale in the Statement of Financial Position as of December 31, 2022 and had assets and liabilities held for sale of \$8 million and \$1 million, respectively. This business was sold on April 3, 2023, with no significant gain or loss upon sale. Operating revenue related to this business that was included in the Company's results of operations was \$9 million, \$37 million and \$35 million for the twelve months ended December 31, 2023, 2022 and 2021, respectively. Refer to Note 4. Divestitures in Item 8. Financial Statements and Supplementary Data for further information regarding the Company's divestitures.

As the Company continues to make progress toward its full potential, the Company will explore opportunities to reinforce or further expand the long-term organic growth potential of ITW through the addition of selective high-quality acquisitions, such as the acquisition of the Test & Simulation business of MTS Systems Corporation ("MTS") from Amphenol Corporation on December 1, 2021. The operating results of the MTS Test & Simulation business were reported within the Company's Test & Measurement and Electronics segment. Refer to Note 3. Acquisitions in Item 8. Financial Statements and Supplementary Data for further information regarding this acquisition.

80/20 Front-to-Back Practice Excellence

ITW will continue to drive 80/20 Front-to-Back practice excellence in every division in the Company, every day. Driving strong operational excellence in the quality of 80/20 Front-to-Back practice across the Company, division by division, will produce further customer-facing performance improvement in a number of divisions and additional structural margin expansion at the enterprise level.

Current Year Developments

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

Distribution Methods

The Company's businesses primarily distribute their products directly to industrial manufacturers and through independent distributors.

Backlog

Backlog generally is not considered a significant factor in the Company's businesses as relatively short delivery periods and rapid inventory turnover are characteristic of most of their products.

Competition

With operations in 51 countries, the Company offers a wide range of products in a myriad of markets, many of which are fragmented, and the Company encounters a variety of competitors that vary by product line, end market and geographic area. The Company's competitors include many regional or specialized companies, as well as large U.S. and non-U.S. companies or divisions of large companies. Each of the Company's segments generally has several main competitors and numerous smaller ones in most of their end markets and geographic areas. In addition to numerous smaller regional competitors, the Welding segment competes globally with Lincoln Electric Holdings, Inc. and ESAB Corporation.

In virtually all segments, the Company differentiates its businesses from its competitors based on product innovation, product quality, brand preference and service delivery. Technical capability is also a competitive factor in most segments. The Company believes that each segment's primary competitive advantages derive from the ITW Business Model and decentralized operating structure, which creates a strong focus on end markets and customers at the local level, enabling its businesses to respond rapidly to market dynamics. This structure enables the Company's businesses to drive operational excellence utilizing the Company's 80/20 Front-to-Back process and leveraging its product innovation capabilities. The Company also believes that its global footprint is a competitive advantage in many of its markets, especially in its Automotive OEM segment.

Raw Materials

The Company uses raw materials of various types, primarily steel, resins and chemicals, that are available from numerous commercial sources. The availability of materials and energy has not resulted in any significant business interruptions or other major problems, and no such problems are currently anticipated.

Intellectual Property

The Company owns approximately 4,000 unexpired U.S. patents and 9,900 foreign patents covering articles, methods and machines. In addition, the Company has approximately 1,400 applications for patents pending in the U.S. Patent Office and 4,300 applications pending in foreign patent offices. There is no assurance that any of these patents will be issued. The Company maintains a patent group for the administration of patents and processing of patent applications.

The Company believes that many of its patents are valuable and important; however, the expiration of any one of the Company's patents would not have a material effect on the Company's results of operations or financial position. The Company also credits its success in the markets it serves to engineering capability; manufacturing techniques; skills and efficiency; marketing and sales promotion; and service and delivery of quality products to its customers.

In addition to patents, many of the Company's products and services are sold under various owned or licensed trademarks, which are important to the Company in the aggregate. Some of the Company's more significant trademarks include ITW, which is also used in conjunction with the trademarks of many of the Company's businesses; Deltar and Shakeproof in the Automotive OEM segment; Hobart in the Food Equipment segment; Instron and MTS in the Test & Measurement and Electronics segment; Miller in the Welding segment; Rain-X and Permatex in the Polymers & Fluids segment; Paslode in the Construction Products segment; and Hi-Cone in the Specialty Products segment.

Government Regulations

The Company believes that its businesses and operations, including its manufacturing plants and equipment, are in substantial compliance with all applicable government laws and regulations, including those related to environmental, consumer protection, international trade, labor and employment, human rights, tax, anti-bribery and competition matters. Any additional

measures to maintain compliance are not expected to materially affect the Company's capital expenditures (including expenditures for environmental control facilities), competitive position, financial position or results of operations.

Various legislative and administrative regulations applicable to the Company in the matters noted above have become effective or are under consideration in many parts of the world. To date, such developments have not had a substantial adverse impact on the Company's revenues, earnings or cash flows. However, if new or amended laws or regulations impose significant operational restrictions and compliance requirements upon the Company or its products, the Company's business, capital expenditures, results of operations, financial condition and competitive position could be negatively impacted. Refer to Item 1A. Risk Factors for further information.

Human Capital Management

As of December 31, 2023, the Company employed approximately 45,000 people, with approximately 17,000 people located in the United States and the remainder in multiple other countries where the Company's businesses operate. The Company strives to be a great employer through its demonstrated commitment to employee safety, its workplace culture, talent development, diversity and inclusion, compensation and benefits.

Employee Safety. The safety and well-being of ITW's colleagues around the world is its top priority, in addition to being an essential component of our commitment to be a great employer. Guided by the Company's Enterprise Safety Strategy and the philosophy that every accident is preventable, ITW strives every day to foster a proactive safety culture. ITW's Enterprise Safety Strategy and Safety Policy are based on the following core principles: (i) a goal of zero accidents; (ii) shared ownership for safety (business and individual); (iii) proactive approach focused on accident prevention; (iv) continuous improvement philosophy; and (v) compliance with applicable national, regional, and local health and safety laws and regulations.

Workplace Culture. The Company's culture is deeply rooted in its core values: Integrity, Respect, Trust, Shared Risk and Simplicity. ITW colleagues are empowered to think and act like business owners within the Company's decentralized, entrepreneurial culture. Our decentralized structure allows each division to operate with autonomy and enables our people to embrace the personal impact they can make.

Talent Development. The Company strives for all colleagues to "own" their careers and feel valued for the work they do. ITW colleagues are encouraged to learn new skills and capabilities primarily through on-the-job experience, hands-on coaching and feedback, in addition to formal training.

The Great ITW Leader Framework defines leadership capabilities and attributes to help colleagues to reach their full potential as leaders. Great ITW Leaders are expected to be experts in the practice of the ITW Business Model, make great strategic choices, deliver great results, be great talent managers and provide strong leadership. Great ITW Leaders who have expertise in the ITW Business Model are the critical factor in translating the potential of the ITW Business Model into full performance. Because this expertise develops over time and through specific experiences, the Company focuses on developing and promoting its own talent to support the Company's sustained business success over the long term.

Diversity and Inclusion. ITW believes it is at its best when it brings together unique perspectives, experiences, and ideas. Rooted in ITW's core values of Respect and Integrity, the Company is committed to equal employment opportunity, fair treatment and creating diverse and inclusive workplaces where all ITW colleagues can perform to their full potential. ITW is committed to attracting the best talent and enhancing the diversity of its global leadership teams. ITW drives progress through a comprehensive enterprise Diversity and Inclusion Framework, which focuses on: (i) leadership commitment and accountability; (ii) attracting and retaining global, diverse talent; (iii) creating inclusive workplaces; and (iv) striving to be a great employer.

Compensation and Benefits. As a global employer, the Company is committed to providing market-competitive compensation and benefits that support physical, mental, and financial well-being to attract and retain great talent across its global divisions. Specific compensation and benefits vary worldwide and are based on regional practices. In the U.S., the Company focuses on providing a comprehensive, competitive benefits package that supports the health and wellness, educational endeavors, community involvement and financial stability of its colleagues.

Labor Relations. Less than three percent of the Company's U.S. employees are represented by a labor union. Outside the U.S., employees in certain countries are represented by an employee representative organization, such as a union, works council or employee association. The Company considers its employee relations to be excellent.

Information About Our Executive Officers

The executive officers of the Company serve at the discretion of the Board of Directors. Set forth below is information regarding the principal occupations and employment and business experience over the past five years for each executive officer. Unless otherwise stated, employment is by the Company.

Executive Officers of the Company as of February 9, 2024 were as follows:

Name	Age	Present Position	First Year in Present Position	Other Positions Held During 2019-2023
Christopher A. O'Herlihy	60	President & Chief Executive Officer	2024	Vice Chairman 2015-2023.
E. Scott Santi ⁽¹⁾	62	Chairman	2024	Chairman & Chief Executive Officer 2015-2023.
Axel Beck	58	Executive Vice President	2020	Group President, food equipment businesses, 2016-2020.
Kenneth Escoe	48	Executive Vice President	2020	Vice President/General Manager, specialty products businesses, 2016-2019; Group President, specialty products businesses, 2019.
Javier Gracia Carbonell	51	Executive Vice President	2022	Vice President/General Manager, construction businesses, 2017-2020; Group President, construction businesses, 2020-2021.
Patricia A. Hartzell	47	Executive Vice President	2022	Vice President/General Manager, test & measurement and electronics businesses, 2017-2020; Group President, test & measurement and electronics businesses, 2020-2021.
Michael M. Larsen	55	Senior Vice President & Chief Financial Officer	2013	
Mary K. Lawler	58	Senior Vice President & Chief Human Resources Officer	2014	
Randall J. Scheuneman	56	Vice President & Chief Accounting Officer	2009	
Jennifer K. Schott	50	Senior Vice President, General Counsel & Secretary	2021	Vice President, Assistant General Counsel & Assistant Secretary, Discover Financial Services, 2016-2019; Deputy General Counsel & Assistant Secretary, Caterpillar, Inc., 2019-2021.
Guilherme Silva	48	Executive Vice President	2024	Vice President/General Manager, polymers & fluids businesses, 2016-2020; Group President, polymers & fluids businesses, 2020-2021; Group President, test & measurement and electronics businesses, 2021-2023.
Sharon Szafranski	57	Executive Vice President	2020	Vice President/General Manager, test & measurement and electronics businesses, 2016-2019; Group President, test & measurement and electronics businesses, 2019.
Michael R. Zimmerman	63	Executive Vice President	2015	

⁽¹⁾ Mr. Santi will remain Chairman through March 1, 2024, after which he will become Non-Executive Chairman and will no longer be an employee of the Company.

Available Information

Copies of the Company's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934

are available free of charge through the Company's website (www.itw.com), as soon as reasonably practicable after electronically filing with or otherwise furnishing such information to the Securities and Exchange Commission ("the SEC"). The Company's Code of Ethics for the CEO and key financial and accounting personnel is also posted on the Company's website.

ITEM 1A. Risk Factors

The Company's business, financial condition, results of operations and cash flows are subject to various risks, including, but not limited to, those set forth below, which could cause actual results to vary materially from recent results or from anticipated future results. These risk factors should be considered together with information included elsewhere in this Annual Report on Form 10-K. Any of such risks and matters, individually or in combination, could have a material adverse effect on our business, financial condition, results of operations and cash flows, as well as on the attractiveness and value of an investment in the Company's securities.

Economic Risks

The Company's results are impacted by global economic conditions. Downturns in the markets served by the Company could adversely affect its businesses, results of operations or financial condition.

The Company's businesses are impacted by economic conditions around the globe. Slower economic growth, financial market instability, supply chain disruptions, natural disasters, public health crises (such as the COVID-19 pandemic), labor market challenges, rapid inflation, armed conflicts (such as Russia's ongoing invasion of Ukraine), government deficit reduction, sequestration and other austerity measures impacting the markets the Company serves can adversely affect the Company's businesses by reducing demand for the Company's products and services, limiting financing available to the Company's customers, causing production delays, increasing order cancellations and the difficulty in collecting accounts receivable, increasing price competition, or increasing the risk that counterparties to the Company's contractual arrangements will become insolvent or otherwise unable to fulfill their obligations.

Rising interest rates could have a dampening effect on overall economic activity and/or the financial condition of the Company's customers, either or both of which could negatively affect customer demand for the Company's products and customers' ability to repay obligations to the Company. Rising interest rates could have an impact on the Company and its customers' cost of capital.

The global nature of the Company's operations subjects it to political, economic and social risks that could adversely affect its business, results of operations or financial condition.

Over 50% of the Company's net sales are derived from customers outside the United States, and the Company currently operates in 51 countries. The risks inherent in the Company's global operations include:

- fluctuation in currency exchange rates;
- limitations on ownership or participation in local enterprises;
- price controls, exchange controls and limitations on repatriation of earnings;
- supply chain disruptions, including transportation delays and disruptions;
- political, social and economic instability and disruptions, including political unrest and armed conflicts;
- acts of terrorism;
- the impact of widespread public health crises and pandemics;
- government embargoes, sanctions or foreign trade restrictions;
- the imposition of duties and tariffs and other trade barriers and retaliatory countermeasures;
- government actions impacting international trade agreements, including the EU-UK Trade and Cooperation Agreement;
- import and export controls;
- social and labor unrest and current and changing regulatory environments;
- the potential for expropriation or nationalization of enterprises;
- difficulties in staffing and managing multi-national operations;
- multiple and potentially conflicting laws, regulations and policies that are subject to change;
- limitations on its ability to enforce legal rights and remedies; and
- potentially adverse tax consequences.

The global geopolitical and trade environment has resulted in raw material inflation and potential for increased escalation of domestic and international tariffs and retaliatory trade policies. Further changes in U.S. trade policy (including new or additional increases in duties or tariffs) and retaliatory actions by U.S. trade partners, including sanctions against Russia and developments in U.S.-China trade relations, could result in a worsening of economic conditions. If the Company is unable to successfully manage the risks associated with managing and expanding its international businesses, the Company's business, results of operations or financial condition may be adversely impacted.

A significant fluctuation between the U.S. Dollar and other currencies could adversely impact the Company's operating income.

Although the Company's financial results are reported in U.S. Dollars, a significant portion of its sales and operating costs are realized in other currencies, with the largest concentration of foreign sales occurring in Europe. The Company's profitability is affected by movements of the U.S. Dollar against the Euro and other foreign currencies in which it generates revenues and incurs expenses. Significant long-term fluctuations in relative currency values, and in particular, an increase in the value of the U.S. Dollar against foreign currencies, has had and could have an adverse effect on profitability and financial condition.

Business and Operational Risks

The benefits from the Company's enterprise strategy may not be as expected and the Company's financial results could be adversely impacted, or the Company may not meet its long-term financial performance targets.

As the Company continues to execute on its enterprise strategy initiatives, it remains focused on the core principles of portfolio discipline, 80/20 Front-to-Back practice excellence, and organic growth. Product line and customer base simplification activities, which are core elements of the Company's 80/20 Front-to-Back process, continue to be applied by the Company's operating divisions and are active elements of the enterprise strategy. Although these activities are expected to improve future operating margins and organic revenue growth, they are also expected to have a negative impact on the Company's overall organic revenue growth in the short term. Additionally, other core activities of the enterprise strategy related to portfolio discipline and organic growth, including customer-back innovation, may not have the desired impact on future operating results. If the Company is unable to realize the expected benefits from its enterprise strategy initiatives, the Company's financial results could be adversely impacted, or the Company may not meet its long-term financial performance targets.

The timing and amount of the Company's share repurchases are subject to a number of uncertainties.

Share repurchases constitute a significant component of the Company's capital allocation strategy. The Company has historically funded its share repurchases with free cash flow and short-term borrowings. The amount and timing of share repurchases will be based on a variety of factors. Important factors that could cause the Company to limit, suspend or delay its share repurchases include unfavorable trading market conditions, the price of the Company's common stock, the nature of other investment opportunities presented to the Company from time to time, regulatory developments relating to share repurchase programs, the ability to obtain financing at attractive rates and the availability of U.S. cash.

If the Company is unable to successfully introduce new products, its future growth may be adversely affected.

The Company's ability to develop new products based on innovation can affect its competitive position and sometimes requires the investment of significant time and resources. Difficulties or delays in research, development, production or commercialization of new products and services may reduce future revenues and adversely affect the Company's competitive position. If the Company is unable to create sustainable product differentiation, its organic growth may be adversely affected.

If the Company is unable to adequately protect its intellectual property, its competitive position and results of operations may be adversely impacted.

Protecting the Company's intellectual property is critical to its innovation efforts. The Company owns patents, trade secrets, copyrights, trademarks and/or other intellectual property rights related to many of its products, and also has exclusive and non-exclusive license rights under intellectual property owned by others. The Company's intellectual property rights may be challenged or the Company may be unable to maintain, renew or enter into new license agreements with third-party owners of intellectual property on reasonable terms. Unauthorized use of the Company's intellectual property rights by third parties, particularly in countries where property rights are not highly developed or protected, or inability to preserve existing intellectual property rights could adversely impact the Company's competitive position and results of operations.

The Company has significant goodwill and other intangible assets, and future impairment of these assets could have a material adverse impact on the Company's financial results.

The Company has recorded significant goodwill and other identifiable intangible assets on its balance sheet as a result of acquisitions, including the acquisition of the MTS Test & Simulation business in December 2021. A number of factors may result in impairments to goodwill and other intangible assets, including significant negative industry or economic trends, disruptions to our business, increased competition and significant changes in the use of the assets. Impairment charges could adversely affect the Company's financial condition or results of operations in the periods recognized.

Raw material price increases and supply shortages could adversely affect results.

The supply of raw materials to the Company and to its component parts suppliers could be interrupted for a variety of reasons, including availability and pricing. Prices for raw materials necessary for production have fluctuated significantly in the past and the Company has experienced upward pricing pressure on raw materials such as steel, resins and chemicals. Significant price increases could adversely affect the Company's results of operations and operating margins. In particular, inflation, changes in trade policies, the imposition of duties and tariffs, potential retaliatory countermeasures, public health crises and pandemics (such as the COVID-19 pandemic, which adversely impacted the price and availability of raw materials), threatened or actual military conflicts (such as Russia's ongoing invasion of Ukraine) and severe weather events could adversely impact the price or availability of raw materials. The Company may not be able to pass along increased raw material and components parts prices to its customers in the form of price increases or its ability to do so could be delayed. Consequently, its results of operations and financial condition may be adversely affected.

The Company's defined benefit pension plans are subject to financial market risks that could adversely affect its results of operations and cash flows.

The performance of financial markets and interest rates impact the Company's funding obligations under its defined benefit pension plans. Significant changes in market interest rates, decreases in the fair value of plan assets and investment losses on plan assets may increase the Company's funding obligations and adversely impact its results of operations and cash flows.

If the Company is unable to protect its information technology infrastructure against service interruptions, data corruption, cyber-based attacks or network security breaches, or if there is a violation of data privacy laws, there could be a negative impact on operating results or the Company may suffer financial or reputational damage.

The Company relies on information technology networks and systems, including the Internet, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities, including procurement, manufacturing, distribution, invoicing and collection. These technology networks and systems may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components; power outages; hardware failures; computer viruses; employee error or malfeasance; and attacks by computer hackers, which have continued to increase on a global scale in both magnitude and frequency, taken on novel and unprecedented forms and become more difficult to detect. Minor security breaches have occurred from time to time and are expected to occur in the future. Although the cyber-attacks experienced to date have not had a material impact, future security breaches of our technology networks and systems or those of our vendors and third-party service providers could result in unauthorized disclosure of confidential information or personal data belonging to our employees, partners, customers or suppliers, which could cause reputational and legal harm as we are subject to data privacy laws, including the EU General Data Protection Regulation, in the various countries in which we operate. If our information technology systems suffer severe damage, disruption, or shutdown, and business continuity plans do not effectively resolve the issues in a timely manner, or if we violate data privacy laws, there could be a negative impact on operating results and/or the financial reporting process and the Company may suffer financial or reputational damage.

In addition, cybersecurity laws and regulations continue to evolve, and are increasingly demanding, both in the U.S. and globally, which adds compliance complexity and may increase costs of compliance and expose the Company to reputational damage or litigation, monetary damages, regulatory enforcement actions or fines in one or more jurisdictions.

Strategic Transaction Risks

The Company's acquisition of businesses could negatively impact its profitability and returns.

The Company has engaged in various acquisitions in the past, such as the acquisition of the MTS Test & Simulation business in December 2021, and could choose to acquire additional businesses in the future. Acquisitions involve a number of risks and financial, accounting, managerial and operational challenges, including the following, any of which could adversely affect the Company's profitability and returns:

- The acquired business' inability to adapt to the ITW Business Model or otherwise perform in accordance with the Company's anticipated results or timetable, could cause it to under-perform relative to the Company's expectations and the price paid for it.
- The acquired business could cause the Company's financial results to differ from expectations in any given fiscal period, or over the long term.
- Acquisition-related earnings charges could adversely impact operating results.
- The acquired business could place unanticipated demands on the Company's management, operational resources and financial and internal control systems.
- The Company may assume unknown liabilities, known contingent liabilities that become realized or known liabilities that prove greater than anticipated, internal control deficiencies or exposure to regulatory sanctions resulting from the activities of the acquired business. The realization of any of these liabilities or deficiencies may increase the Company's expenses, adversely affect its financial position or cause noncompliance with its financial reporting obligations.
- As a result of acquisitions, the Company has in the past recorded significant goodwill and other identifiable intangible assets on its balance sheet. If the Company is not able to realize the value of these assets, it may recognize charges relating to the impairment of these assets.

Divestitures pose the risk of retained liabilities that could adversely affect the Company's financial results.

The Company has had significant divestiture activity in the past in accordance with its portfolio management initiative, and it divested one business in the first quarter of 2023 as it continues portfolio refinements to maintain portfolio discipline. The Company has retained certain liabilities directly or through indemnifications made to the buyers against known and unknown contingent liabilities such as lawsuits, tax liabilities, product liability claims and environmental matters, which could adversely affect the Company's financial results.

Tax, Legal and Regulatory Risks

Unfavorable tax law changes and tax authority rulings may adversely affect results.

The Company is subject to income taxes in the U.S. and in various foreign jurisdictions. Domestic and international tax liabilities are based on the income and expenses in various tax jurisdictions. The Company's effective tax rate could be adversely affected by changes in the mix of earnings among countries with differing statutory tax rates, changes in the valuation allowance of deferred tax assets or changes in tax laws. The amount of income taxes is subject to ongoing audits by U.S. federal, state and local tax authorities and by non-U.S. authorities. If these audits result in assessments different from amounts recorded, future financial results may include unfavorable tax adjustments.

Adverse outcomes in legal proceedings or enforcement actions may adversely affect results.

The Company's businesses expose it to potential costs and adverse rulings associated with commercial, intellectual property, employment, toxic tort and other product liability claims and lawsuits. The Company's global operations also subject it to government investigations in numerous countries. We cannot predict the outcome of claims, investigations and lawsuits and we may incur costs, judgments or fines or enter into settlements that could adversely impact our businesses, reputation or future financial results. The Company currently maintains insurance programs consisting of self-insurance up to certain limits and excess insurance coverage for claims over established limits. There can be no assurance that the Company will be able to obtain insurance on acceptable terms or that its insurance programs will provide adequate protection against actual losses. In addition, the Company is subject to the risk that one or more of its insurers may become insolvent and become unable to pay claims that may be made in the future. Even if it maintains adequate insurance programs, claims, judgments or settlements could have a material adverse effect on the Company's financial condition, liquidity and results of operations and on its ability to obtain suitable, adequate or cost-effective insurance in the future.

Uncertainty related to environmental regulation and industry standards, as well as physical risks of climate change, could impact the Company's results of operations and financial position.

Increased public awareness and concern regarding environmental risks, including global climate change, may result in more international, regional and/or federal requirements or industry standards to reduce or mitigate global warming and other environmental risks. These regulations or standards could mandate even more restrictive requirements, such as stricter limits on greenhouse gas emissions and production of single use plastics, than the voluntary commitments that the Company has made or require such changes on a more accelerated time frame. There continues to be a lack of consistent climate legislation, which creates economic and regulatory uncertainty. In addition, the physical risks of climate change may impact the availability and cost of materials and natural resources, sources and supply of energy, product demand and manufacturing and could increase insurance and other operating costs, including, potentially, to repair damage incurred as a result of extreme weather events or to renovate or retrofit facilities to better withstand extreme weather events. If environmental laws or regulations or industry standards are either changed or adopted and impose significant operational restrictions and compliance requirements upon the Company or its products, or the Company's operations are disrupted due to physical impacts of climate change, the Company's business, capital expenditures, results of operations, financial condition and competitive position could be negatively impacted.

The Company may incur fines or penalties, damage to its reputation or other adverse consequences if its employees, agents or business partners violate anti-bribery, competition, export and import, trade sanctions, data privacy, environmental, human rights or other laws.

The Company has a decentralized operating structure under which its individual businesses are allowed significant decision-making autonomy within the Company's strategic framework and internal financial and compliance controls. The Company is subject to complex U.S., foreign and other local laws and regulations that are applicable to its operations, such as anti-bribery and anti-corruption, competition, export and import, trade sanctions, data privacy, environmental and human rights laws. Although the Company has implemented compliance programs which include internal controls, policies and procedures and employee training to deter prohibited practices, these measures may not be effective in preventing employees, agents or business partners from violating or circumventing such internal policies and violating applicable laws and regulations. Any such improper actions could subject the Company to civil or criminal investigations, could lead to substantial civil or criminal monetary and non-monetary penalties against the Company or its subsidiaries, or could damage its reputation.

Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words such as "believe," "expect," "plans," "intend," "may," "strategy," "prospects," "estimate," "will," "should," "could," "project," "target," "anticipate," "guidance," "forecast," and other similar words, and may include, without limitation, statements regarding the duration and potential effects of global supply chain challenges, related government actions and the Company's strategy in response thereto on the Company's business, future financial and operating performance, free cash flow, economic and regulatory conditions in various geographic regions, the impact of foreign currency fluctuations, the timing and amount of benefits from the Company's enterprise strategy initiatives, the timing and amount of dividends and share repurchases, the protection of the Company's intellectual property, the likelihood of future goodwill or intangible asset impairment charges, the impact of adopting new accounting pronouncements, the adequacy of internally generated funds and credit facilities to service debt and finance the Company's capital allocation priorities, the sufficiency of U.S. generated cash to fund cash requirements in the U.S., the cost and availability of additional financing, the availability of raw materials and energy and the impact of raw material cost inflation, enterprise initiatives, the Company's portion of future benefit payments related to pension and postretirement benefits, the Company's information technology infrastructure, potential acquisitions and divestitures and the expected performance of acquired businesses and impact of divested businesses, the impact of U.S. and global tax legislation and the estimated timing and amount related to the resolution of tax matters, the cost of compliance with environmental regulations, the impact of failure of the Company's employees to comply with applicable laws and regulations, and the outcome of outstanding legal proceedings. These statements are subject to certain risks, uncertainties, and other factors, which could cause actual results to differ materially from those anticipated. Important risks that may influence future results include those risks described above. These risks are not all inclusive and given these and other possible risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results.

Any forward-looking statements made by ITW speak only as of the date on which they are made. ITW is under no obligation to, and expressly disclaims any obligation to, update or alter its forward-looking statements, whether as a result of new information, subsequent events or otherwise, except as required by law.

ITW practices fair disclosure for all interested parties. Investors should be aware that while ITW regularly communicates with securities analysts and other investment professionals, it is against ITW's policy to disclose to them any material non-public information or other confidential commercial information. Investors should not assume that ITW agrees with any statement or report issued by any analyst irrespective of the content of the statement or report.

ITEM 1B. *Unresolved Staff Comments*

None.

ITEM 1C. *Cybersecurity*

Risk Management and Strategy

The Company utilizes information systems to support a variety of business processes and activities in its decentralized operations. These systems may be subject to cyber-based attacks or breaches. For additional information related to the risks associated with cybersecurity threats, refer to the Business and Operational Risks section of Item 1A. Risk Factors.

Cybersecurity risk management is part of the Company's global enterprise risk management program. In order to manage the risks associated with cybersecurity threats, the Company has implemented a robust risk-based cybersecurity program consisting of processes, technologies, and controls to assess, identify and manage material risks from cybersecurity threats.

A key part of the Company's cybersecurity program is the ITW Cybersecurity Framework, which is based on the National Institute of Standards and Technology's Cybersecurity Framework ("CSF") and is designed to protect the Company's data through rapid identification of and effective response to cybersecurity incidents. The Company's framework includes detailed processes and controls related to backup and recovery, response planning, awareness, vulnerability management and endpoint protection as well as cybersecurity requirements for third-party service providers. The framework is regularly reviewed, assessed, and updated based on input from third party specialists, threat intelligence firms and CSF standard updates.

The ITW Cybersecurity Framework includes a number of activities designed to enhance the Company's resiliency related to cyber-related risks and ensure that the Company's information systems are secure from material cybersecurity threats. These activities include the following, among others:

- Annual cybersecurity training;
- Quarterly phish simulation testing;
- Ongoing response planning and tabletop exercises;
- Network and endpoint monitoring;
- Vulnerability management and testing; and
- Backup and recovery testing.

While the Company's information systems are exposed to cybersecurity threats and risks, the Company has not experienced any material cybersecurity incidents during 2023, 2022 or 2021, and any costs or operational impacts related to cybersecurity incidents were immaterial during this period.

Governance

ITW's Board of Directors is responsible for providing oversight and strategic guidance to management to support the long-term interests of the Company's stakeholders. As part of this responsibility, the Board of Directors annually reviews and evaluates the Company's cybersecurity policies and practices with respect to risk management as well as steps taken by management to monitor and control such exposures.

In addition to oversight by the Board of Directors, several cross-functional management teams focus on cybersecurity risk and report any identified cybersecurity incidents. Each of the Company's divisions has a Division Cyber Incident Response Team and protocols in place to communicate cybersecurity incidents to a central Cyber Incident Response Team. The Cyber Incident Response Team is led by the Chief Information Security Officer and is responsible for the initial assessment of cybersecurity incidents and oversight of any incident response.

On a quarterly basis, or sooner if appropriate, cybersecurity incidents are summarized and reported to the Cybersecurity Governance Committee comprised of senior executives. Additionally, the Audit Committee of the Board of Directors

receives quarterly cybersecurity reports from senior management which cover any identified cybersecurity incidents, results of third party vulnerability testing, and key developments in policies and practices during the quarter.

ITEM 2. *Properties*

Due to the Company's decentralized operating structure and global operations, the Company operates out of a large number of facilities worldwide, none of which are individually significant to the Company or its segments. As of December 31, 2023, the Company operated approximately 410 plants and office facilities, excluding regional sales offices and warehouse facilities. Approximately 270 of the facilities were located outside of the United States. Principal foreign countries include China, Germany, France, and the United Kingdom.

The Company's properties are well suited for the purposes for which they were designed and are maintained in good operating condition. Production capacity, in general, currently exceeds operating levels. Capacity levels are somewhat flexible based on the number of shifts operated and on the number of overtime hours worked. The Company adds production capacity from time to time as required by increased demand. Additions to capacity can be made within a reasonable period of time due to the nature of the Company's businesses.

ITEM 3. *Legal Proceedings*

None. The Company's threshold for disclosing environmental legal proceedings involving a governmental authority where potential monetary sanctions are involved is \$1 million.

ITEM 4. *Mine Safety Disclosures*

None.

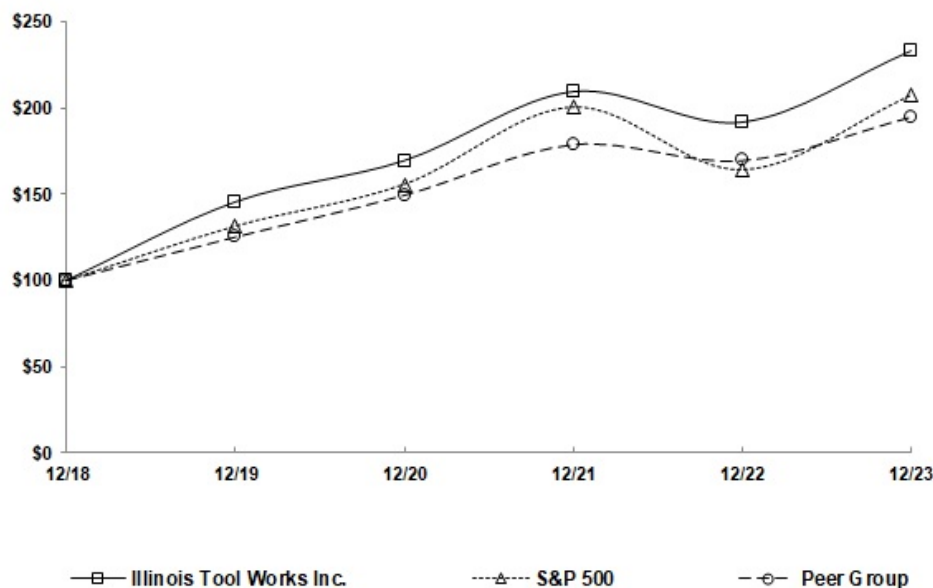
PART II

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

Common Stock Data— The Company's common stock is listed on the New York Stock Exchange under the trading symbol "ITW." There were approximately 4,484 holders of record of common stock as of January 31, 2024. This number does not include beneficial owners of the Company's securities held in the name of nominees.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Illinois Tool Works Inc., the S&P 500 Index,
and a Peer Group



*Assumes \$100 invested on December 31, 2018, including reinvestment of dividends. Fiscal years ended December 31.
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The 2023 peer group consists of the following 17 public companies, consistent with the peer group included in the Company's Proxy Statement:

3M Company	Ecolab Inc.	Parker-Hannifin Corporation
Caterpillar Inc.	Emerson Electric Co.	PPG Industries, Inc.
Cummins Inc.	Fortive Corporation	Rockwell Automation, Inc.
Deere & Company	General Dynamics Corporation	Stanley Black & Decker, Inc.
Dover Corporation	Honeywell International Inc.	Trane Technologies plc
Eaton Corporation plc	Johnson Controls International plc	

The Compensation Committee of the Board of Directors of the Company reviews the peer group annually and from time to time changes the composition of the peer group where changes are appropriate. There were no changes in the Company's peer group in 2023.

Repurchases of Common Stock

On August 3, 2018, the Company announced a stock repurchase program which provided for the repurchase of up to \$3.0 billion of the Company's common stock over an open-ended period of time (the "2018 Program"). The 2018 program was completed in the first quarter of 2022.

On May 7, 2021, the Company announced a stock repurchase program which provided for the repurchase of up to an additional \$3.0 billion of the Company's common stock over an open-ended period of time (the "2021 Program"). The 2021 program was completed in the fourth quarter of 2023.

On August 4, 2023, the Company announced a new stock repurchase program which provides for the repurchase of up to an additional \$5.0 billion of the Company's common stock over an open-ended period of time (the "2023 Program"). As of December 31, 2023, there were approximately \$5.0 billion of authorized repurchases remaining under the 2023 Program.

Share repurchase activity under the Company's share repurchase programs for the fourth quarter of 2023 was as follows:

In millions except per share amounts

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs	Maximum Value of Shares That May Yet Be Purchased Under Programs
October 2023	0.6	\$ 229.18	0.6	\$ 5,227
November 2023	0.6	\$ 235.76	0.6	\$ 5,096
December 2023	0.4	\$ 253.48	0.4	\$ 4,990
Total	1.6		1.6	

ITEM 6. [Reserved]

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

INTRODUCTION

Illinois Tool Works Inc. (the "Company" or "ITW") is a global manufacturer of a diversified range of industrial products and equipment with 84 divisions in 51 countries. As of December 31, 2023, the Company employed approximately 45,000 people.

The Company's operations are organized and managed based on similar product offerings and end markets, and are reported to senior management as the following seven segments: Automotive OEM; Food Equipment; Test & Measurement and Electronics; Welding; Polymers & Fluids; Construction Products; and Specialty Products.

Due to the large number of diverse businesses and the Company's decentralized operating structure, the Company does not require its businesses to provide detailed information on operating results. Instead, the Company's corporate management collects data on several key measurements: operating revenue, operating income, operating margin, overhead costs, number of months on hand in inventory, days sales outstanding in accounts receivable, past due receivables and return on invested capital. These key measures are monitored by management and significant changes in operating results versus current trends in end markets and variances from forecasts are discussed with operating unit management.

THE ITW BUSINESS MODEL

The powerful and highly differentiated ITW Business Model is the Company's core source of value creation. It is the Company's competitive advantage and defines how ITW creates value for its shareholders. The ITW Business Model is comprised of three unique elements:

- ITW's **80/20 Front-to-Back** process is the operating system that is applied in every ITW business. Initially introduced as a manufacturing efficiency tool in the 1980s, ITW has continually refined, improved and expanded 80/20 into a proprietary, holistic business management process that generates significant value for the Company and its customers. Through the application of data driven insights generated by 80/20 practice, ITW focuses on its largest and best opportunities (the "80") and eliminates cost, complexity and distractions associated with the less

profitable opportunities (the "20"). 80/20 enables ITW businesses to consistently achieve world-class operational excellence in product availability, quality, and innovation, while generating superior financial performance;

- **Customer-back Innovation** has fueled decades of profitable growth at ITW. The Company's unique innovation approach is built on insight gathered from the 80/20 Front-to-Back process. Working from the customer back, ITW businesses position themselves as the go-to problem solver for their "80" customers. ITW's innovation efforts are focused on understanding customer needs, particularly those in "80" markets with solid long-term growth fundamentals, and creating unique solutions to address those needs. These customer insights and learnings drive innovation at ITW and have contributed to a portfolio of approximately 19,600 granted and pending patents;
- ITW's **Decentralized, Entrepreneurial Culture** enables ITW businesses to be fast, focused, and responsive. ITW businesses have significant flexibility within the framework of the ITW Business Model to customize their approach in order to best serve their specific customers' needs. ITW colleagues recognize their unique responsibilities to execute the Company's strategy and values. As a result, the Company maintains a focused and simple organizational structure that, combined with outstanding execution, delivers best-in-class services and solutions adapted to each business' customers and end markets.

ENTERPRISE STRATEGY: 2012 - 2023

In late 2012, ITW began its strategic framework transitioning the Company to fully leverage the unique and powerful set of capabilities and operating practices of the ITW Business Model. The Company undertook a complete review of its performance, focusing on its businesses delivering consistent above-market growth with best-in-class margins and returns, and developing a strategy to replicate that performance across its operations. ITW determined that solid and consistent above-market organic growth is the core growth engine to deliver world-class financial performance and compelling long-term returns for its shareholders.

Key initiatives in the Company's enterprise strategy included portfolio management, business structure simplification, strategic sourcing and the diligent re-application of ITW's proprietary 80/20 Front-to-Back process.

- As part of the Portfolio Management initiative, ITW exited businesses that were operating in commoditized market spaces and prioritized sustainable differentiation as a must-have requirement for all ITW businesses. This process included both divesting entire businesses and exiting commoditized product lines and customers inside otherwise highly differentiated ITW divisions.
- Business Structure Simplification was implemented to simplify and scale up ITW's operating structure to support increased engineering, marketing, and sales resources, and improve global reach and competitiveness, all of which were critical to driving accelerated organic growth. ITW now has 84 scaled-up divisions with significantly enhanced focus on growth investments, core customers and products, and customer-back innovation.
- The Strategic Sourcing initiative established sourcing as a core strategic and operational capability at ITW, delivering an average of one percent reduction in spend each year since 2013 and continues to be a key contributor to the Company's ongoing enterprise strategy.
- With the initial portfolio realignment and scale-up work largely completed, the Company shifted its focus to preparing for and accelerating organic growth, reapplying the 80/20 Front-to-Back process to optimize its scaled-up divisions for growth, first, to build a foundation of operational excellence, and second, to identify the best opportunities to drive organic growth.

Since implementing the Company's enterprise strategy in 2012, the Company has demonstrated the compelling performance potential of the ITW Business Model and superior 80/20 management, resulting in meaningful incremental improvement in margins and returns as evidenced by the Company's operating margin and after-tax return on invested capital. At the same time, these 80/20 initiatives can also result in restructuring initiatives that reduce costs and improve profitability and returns.

OUR NEXT PHASE: 2024-2030

In the Next Phase of the Company's evolution, the ITW Business Model and the Enterprise Strategy framework will be as formidable of a competitive advantage and performance differentiator as it has been over the last decade, if not more so. Volatility, risk and the pace of change in the global operating environment will continue to increase, and a decentralized

entrepreneurial culture allows the Company to be a fast adaptor – to read, react, respond and evolve. The Company's ability to consistently execute and invest through the ups and downs of the business cycle is now a defining competitive advantage.

Throughout the Next Phase, the Company's focus is to build organic growth into a core ITW strength on par with the Company's world-class financial performance and operational capabilities. Throughout this phase, the Company will sustain its foundational strengths built over the past decade, including the high-quality ITW Business Model practice. Customer-back Innovation (CBI) is the most impactful driver to achieve high-quality organic growth through the cycle by establishing trusted problem solver relationships with key customers to effectively invent solutions that address customers' most critical pain points or tackle the biggest growth opportunities. CBI successes, coupled with underlying market growth and share gains, are how the Company intends to achieve its high-quality organic growth.

Portfolio Discipline

The Company only operates in industries where it can generate significant, long-term competitive advantage from the ITW Business Model. ITW businesses have the right "raw material" in terms of market and business attributes that best fit the ITW Business Model and have significant potential to drive above-market organic growth over the long-term.

The Company focuses on high-quality businesses, ensuring it operates in markets with positive long-term macro fundamentals and with customers that have critical needs and value ITW's differentiated products, services and solutions. ITW's portfolio operates in highly diverse end markets and geographies which makes the Company more resilient in the face of uncertain or volatile market environments.

The Company routinely evaluates its portfolio to ensure it delivers sustainable differentiation and drives consistent long-term performance. This includes both implementing portfolio refinements and assessing selective high-quality acquisitions to supplement ITW's long-term growth potential.

The Company previously communicated its intent to explore options, including potential divestitures, for certain businesses with annual revenues totaling up to \$1.0 billion. In the fourth quarter of 2019, the Company completed the divestitures of three businesses. Due to the COVID-19 pandemic, the Company chose to defer any significant divestiture activity in 2020 and 2021. The Company reinitiated the divestiture process in 2022 for certain businesses with combined annual revenues of approximately \$0.5 billion, subject to approval by the Company's Board of Directors. In the second quarter of 2022, plans were approved to divest two businesses, including one business in the Polymers & Fluids segment and one business in the Food Equipment segment. In the fourth quarter of 2022, both of these businesses were divested. The business in the Polymers & Fluids segment was sold for \$220 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$156 million. The business in the Food Equipment segment was sold for \$59 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$41 million. Operating revenue related to these divested businesses that was included in the Company's results of operations for the twelve months ended December 31, 2022 and 2021 was \$106 million and \$115 million, respectively.

In the fourth quarter of 2022, plans were approved to divest one business in the Specialty Products segment. This business was presented as held for sale in the Statement of Financial Position as of December 31, 2022 and had assets and liabilities held for sale of \$8 million and \$1 million, respectively. This business was sold on April 3, 2023, with no significant gain or loss upon sale. Operating revenue related to this business that was included in the Company's results of operations was \$9 million, \$37 million and \$35 million for the twelve months ended December 31, 2023, 2022 and 2021, respectively. Refer to Note 4. Divestitures in Item 8. Financial Statements and Supplementary Data for further information regarding the Company's divestitures.

As the Company continues to make progress toward its full potential, the Company will explore opportunities to reinforce or further expand the long-term organic growth potential of ITW through the addition of selective high-quality acquisitions, such as the acquisition of the Test & Simulation business of MTS Systems Corporation ("MTS") from Amphenol Corporation on December 1, 2021. The operating results of the MTS Test & Simulation business were reported within the Company's Test & Measurement and Electronics segment. Refer to Note 3. Acquisitions in Item 8. Financial Statements and Supplementary Data for further information regarding this acquisition.

80/20 Front-to-Back Practice Excellence

ITW will continue to drive 80/20 Front-to-Back practice excellence in every division in the Company, every day. Driving strong operational excellence in the quality of 80/20 Front-to-Back practice across the Company, division by division, will produce further customer-facing performance improvement in a number of divisions and additional structural margin expansion at the enterprise level.

TERMS USED BY ITW

Management uses the following terms to describe the financial results of operations of the Company:

- **Organic business** - acquired businesses that have been included in the Company's results of operations for more than 12 months on a constant currency basis.
- **Operating leverage** - the estimated effect of the organic revenue volume changes on organic operating income, assuming variable margins remain the same as the prior period.
- **Price/cost** - represents the estimated net impact of increases or decreases in the cost of materials used in the Company's products versus changes in the selling price to the Company's customers.
- **Product line simplification (PLS)** - focuses businesses on eliminating the complexity and overhead costs associated with smaller product lines and customers, and focuses businesses on supporting and growing their largest customers and product lines. In the short-term, PLS may result in a decrease in revenue and overhead costs while improving operating margin. In the long-term, PLS is expected to result in growth in revenue, profitability, and returns.

Unless otherwise stated, the changes in financial results in the consolidated results of operations and the results of operations by segment represent the current year period versus the comparable period in the prior year.

CONSOLIDATED RESULTS OF OPERATIONS

Starting in early 2020, the COVID-19 pandemic and the measures taken to reduce its spread negatively impacted the global economy and caused significant disruptions in the Company's global operations as COVID-19 spread and impacted the countries in which the Company operates and the markets the Company serves.

Despite the disruptions caused by the COVID-19 pandemic, the Company experienced solid recovery progress in many of its end markets during the past three years. However, new epidemics and pandemics (including any resurgence of COVID-19) could similarly adversely impact the operations of the Company and its customers and suppliers. A description of the risks relating to the impact of the COVID-19 outbreak on the Company's business, operations and financial condition is contained in Part I, Item 1A. Risk Factors.

On December 1, 2021, the Company completed the acquisition of the MTS Test & Simulation business for a purchase price of \$750 million, subject to certain closing adjustments. The MTS Test & Simulation business had operating revenue of \$46 million for the one month ended December 31, 2021 and \$422 million for the twelve months ended December 31, 2022. The Company expects the MTS Test & Simulation business to improve operating margin performance in later years through the application of the Company's 80/20 Front-to-Back process. The operating results of the MTS Test & Simulation business were reported within the Test & Measurement and Electronics segment. Refer to Note 3. Acquisitions in Item 8. Financial Statements and Supplementary Data for further information.

During the first quarter of 2022, Russian military forces invaded Ukraine. In response, the United States and several other countries imposed economic and other sanctions on Russia. The Company has four immaterial Russian subsidiaries with total assets of approximately \$22 million as of December 31, 2023. The revenue for these four subsidiaries for the twelve months ended December 31, 2023 was approximately \$26 million. These subsidiaries were not material to the Company's results of operations or financial position.

In the second quarter of 2022, plans were approved to divest two businesses, including one business in the Polymers & Fluids segment and one business in the Food Equipment segment. These two businesses were classified as held for sale beginning in the second quarter of 2022. In the fourth quarter of 2022, both of these businesses were divested. On October 3, 2022, the business in the Polymers & Fluids segment was sold for \$220 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$156 million. On December 1, 2022, the business in the Food Equipment segment was sold for \$59 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$41 million. The pre-tax gains were included in Other income (expense) in the Statement of Income. Income taxes on the gains were mostly offset by the utilization of capital loss carryforwards of \$32 million. Operating revenue related to these divested businesses that was included in the Company's results of operations for the twelve months ended December 31, 2022 and 2021 was \$106 million and \$115 million, respectively.

In the fourth quarter of 2022, plans were approved to divest one business in the Specialty Products segment. This business was presented as held for sale in the Statement of Financial Position as of December 31, 2022 and had assets and liabilities held for sale of \$8 million and \$1 million, respectively. This business was sold on April 3, 2023, with no significant gain or loss upon sale. Operating revenue related to this business that was included in the Company's results of operations was \$9 million, \$37 million and \$35 million for the twelve months ended December 31, 2023, 2022 and 2021, respectively.

In a challenging and dynamic environment, the Company delivered strong financial results in 2023 primarily due to the continued successful execution of enterprise initiatives and continued focus on the highly differentiated ITW Business Model.

Operating Revenue

Refer to the "Results of Operations for Total Company" and the "Results of Operations by Segment" sections for discussion of changes in operating revenue for 2023 compared to 2022 and 2022 compared to 2021.

Operating Expenses

Dollars in millions	2023	2022	2021
Operating Revenue	\$ 16,107	\$ 15,932	\$ 14,455
Cost of revenue	\$ 9,316	\$ 9,429	\$ 8,489
Percent of operating revenue	57.8 %	59.2 %	58.7 %
Selling, administrative, and research and development expenses	\$ 2,638	\$ 2,579	\$ 2,356
Percent of operating revenue	16.4 %	16.2 %	16.3 %
Amortization and impairment of intangible assets	\$ 113	\$ 134	\$ 133
Percent of operating revenue	0.7 %	0.8 %	0.9 %

Cost of revenue was \$9.3 billion in 2023, \$9.4 billion in 2022 and \$8.5 billion in 2021. Cost of revenue was 1.2% lower in 2023 compared to 2022 primarily due to the impact of divestiture activity in the second quarter of 2023 and the fourth quarter of 2022, which reduced cost of revenue by 1.0%. Cost of revenue as a percent of operating revenue improved in 2023 compared to 2022 primarily due to benefits from the Company's enterprise initiatives and positive operating leverage, partially offset by higher employee-related expenses. Cost of revenue was 11.1% higher in 2022 compared to 2021 primarily due to a 12.8% increase resulting from higher organic revenue and a 3.0% increase due to the impact of the MTS Test & Simulation acquisition, which was completed on December 1, 2021, partially offset by the effect of foreign currency translation which reduced cost of revenue by 4.5%. Cost of revenue as a percent of operating revenue increased in 2022 compared to 2021 primarily due to higher raw material costs and increased employee-related expenses, partially offset by positive operating leverage and benefits from the Company's enterprise initiatives.

Selling, administrative, and research and development expenses were \$2.6 billion in 2023, \$2.6 billion in 2022 and \$2.4 billion in 2021. Expenses in 2023 increased 2.3% compared to 2022 driven by a 3.0% increase resulting from higher organic revenue, partially offset by the impact of divestiture activity which reduced expenses by 0.7%. Selling, administrative, and research and development expenses as a percent of operating revenue were slightly higher in 2023 compared to 2022 primarily due to higher employee-related expenses and research and development expenses, partially offset by positive operating leverage and benefits from the Company's enterprise initiatives. Expenses in 2022 increased 9.5% compared to 2021 primarily due to a 9.2% increase resulting from higher organic revenue and a 4.3% increase due to the impact of the MTS Test & Simulation acquisition, partially offset by the effect of foreign currency translation which reduced expenses by 3.9%. Selling, administrative, and research and development expenses as a percent of operating revenue improved in 2022 compared to 2021 primarily due to positive operating leverage and benefits from the Company's enterprise initiatives, partially offset by higher employee-related expenses and research and development expenses.

Amortization and impairment of intangible assets was lower in 2023 compared to 2022 primarily due to fully amortized intangible assets, but was essentially flat in 2022 compared to 2021 as additional amortization expense from the acquisition of the MTS Test & Simulation business was offset by fully amortized intangible assets.

Refer to the "Results of Operations for Total Company" and the "Results of Operation by Segment" sections for additional discussion of operating results for 2023 compared to 2022 and 2022 compared to 2021.

RESULTS OF OPERATIONS FOR TOTAL COMPANY

The Company's consolidated results of operations for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/ Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 16,107	\$ 15,932	1.1 %	2.0 %	(0.8)%	— %	(0.1)%	1.1 %
Operating income	\$ 4,040	\$ 3,790	6.6 %	7.6 %	(0.5)%	(0.2)%	(0.3)%	6.6 %
Operating margin %	25.1 %	23.8 %	130 bps	130 bps	10 bps	(10) bps	—	130 bps

- Operating revenue increased due to higher organic revenue, partially offset by the impact of divestiture activity in the second quarter of 2023 and the fourth quarter of 2022, and the unfavorable effect of foreign currency translation.
- Organic revenue increased 2.0% as growth in five segments was partially offset by a decline in the Specialty Products and Construction Products segments. Product line simplification activities reduced organic revenue by 50 basis points.
 - North American organic revenue decreased 0.3% as a decline in the Test & Measurement and Electronics, Specialty Products, Automotive OEM, Welding and Construction Products segments was partially offset by growth in the Food Equipment and Polymers & Fluids segments.
 - Europe, Middle East and Africa organic revenue increased 3.9% as growth in three segments was partially offset by a decline in the Construction Products, Polymers & Fluids, Specialty Products and Welding segments.
 - Asia Pacific organic revenue increased 6.9% as growth in five segments was partially offset by a decline in the Specialty Products and Construction Products segments. Organic revenue in China increased 9.7% as growth in the Automotive OEM, Test & Measurement and Electronics, Welding, Construction Products and Polymers & Fluids segments was partially offset by a decline in the Specialty Products and Food Equipment segments.
- Operating income of \$4.0 billion increased 6.6% compared to the prior year primarily due to higher organic revenue, partially offset by the impact of divestiture activity, the unfavorable effect of foreign currency translation and higher restructuring expenses.
- Operating margin of 25.1% increased 130 basis points primarily driven by favorable price/cost of 210 basis points, benefits from the Company's enterprise initiatives of 130 basis points and positive operating leverage of 40 basis points, partially offset by continued investments in the business and higher employee-related expenses.
- The Company's effective tax rate for 2023 and 2022 was 22.6% and 21.0%, respectively. The 2023 effective tax rate benefited from a discrete income tax benefit of \$20 million in the second quarter of 2023 related to amended 2021 U.S. taxes. The 2022 effective tax rate benefited from discrete income tax benefits of \$32 million in the fourth

quarter of 2022 related to the utilization of capital loss carryforwards and \$51 million in the second quarter of 2022 related to a decrease in unrecognized tax benefits resulting from the resolution of a U.S. tax audit. Additionally, the effective tax rates for 2023 and 2022 included discrete income tax benefits of \$20 million and \$12 million, respectively, related to excess tax benefits from stock-based compensation.

- Diluted earnings per share (EPS) of \$9.74 in 2023 decreased 0.3%. Excluding the favorable impact of \$0.60 per diluted share in 2022 related to the pre-tax divestiture gains of \$197 million in the fourth quarter of 2022, or \$188 million after-tax including the impact of the \$32 million discrete tax benefit noted above, EPS increased 6.2%.
- The Company repurchased approximately 6.4 million shares of its common stock in 2023 for approximately \$1.5 billion.
- The Company increased the quarterly dividend on common stock from \$1.31 to \$1.40 per share in 2023, or from \$5.24 to \$5.60 per share on an annualized basis. Total cash dividends of approximately \$1.6 billion were paid in 2023.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/ Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 15,932	\$ 14,455	10.2 %	12.1 %	2.4 %	— %	(4.3)%	10.2 %
Operating income	\$ 3,790	\$ 3,477	9.0 %	14.3 %	(0.1)%	(0.7)%	(4.5)%	9.0 %
Operating margin %	23.8 %	24.1 %	(30) bps	40 bps	(60) bps	(10) bps	—	(30) bps

- Operating revenue increased due to higher organic revenue and the MTS Test & Simulation acquisition, which was completed on December 1, 2021, partially offset by the unfavorable effect of foreign currency translation and the impact of divestiture activity in the fourth quarter of 2022.
- Organic revenue grew 12.1% with growth in all seven segments. Product line simplification activities reduced organic revenue by 40 basis points.
 - North American organic revenue increased 14.3% with growth in all seven segments primarily driven by the Food Equipment, Welding and Construction Products segments.
 - Europe, Middle East and Africa organic revenue increased 9.7% with growth in all seven segments primarily driven by the Food Equipment and Automotive OEM segments.
 - Asia Pacific organic revenue increased 8.3% due to growth in six segments, partially offset by a decline in the Specialty Products segment. China organic revenue increased 5.6% as growth in the Automotive OEM, Test & Measurement and Electronics, Welding and Polymers & Fluids segments was partially offset by a decline in the Specialty Products, Food Equipment and Construction Products segments. The results in 2022 were negatively impacted by the COVID-19 outbreak and government stay-at-home orders in China.
- Operating income of \$3.8 billion increased 9.0% primarily due to higher organic revenue, partially offset by unfavorable foreign currency translation.
- Operating margin of 23.8% decreased 30 basis points primarily driven by higher operating expenses, including employee-related expenses and freight costs, unfavorable price/cost of 90 basis points and the dilutive impact of 60 basis points from the MTS Test & Simulation acquisition, partially offset by positive operating leverage of 220 basis points and benefits from the Company's enterprise initiatives of 90 basis points.
- The Company's effective tax rate for 2022 and 2021 was 21.0% and 19.0%, respectively. The 2022 effective tax rate benefited from discrete income tax benefits of \$32 million in the fourth quarter of 2022 related to the utilization of capital loss carryforwards and \$51 million in the second quarter of 2022 related to a decrease in unrecognized tax benefits resulting from the resolution of a U.S. tax audit. The 2021 effective tax rate benefited from discrete income tax benefits of \$21 million in the third quarter of 2021 related to the utilization of capital loss carryforwards and \$112 million in the second quarter of 2021 related to the remeasurement of net deferred tax assets due to the enactment of the U.K. Finance Bill 2021, which increased the U.K. income tax rate from 19% to 25% effective April 1, 2023. Additionally, the effective tax rates for 2022 and 2021 included discrete income tax benefits of \$12 million and \$17 million, respectively, related to excess tax benefits from stock-based compensation.
- Diluted earnings per share (EPS) of \$9.77 in 2022 increased 14.8%. Excluding the favorable impact of \$0.60 per diluted share related to the pre-tax divestiture gains of \$197 million in the fourth quarter of 2022, or \$188 million after-tax including the impact of the \$32 million discrete tax benefit noted above, EPS increased 7.8%.
- The Company repurchased approximately 8.3 million shares of its common stock in 2022 for approximately \$1.75 billion.
- The Company increased the quarterly dividend on common stock from \$1.22 to \$1.31 per share in 2022, or from \$4.88 to \$5.24 per share on an annualized basis. Total cash dividends of approximately \$1.5 billion were paid in 2022.

RESULTS OF OPERATIONS BY SEGMENT

The reconciliation of segment operating revenue and operating income to total operating revenue and operating income is as follows:

In millions	Operating Revenue		
	2023	2022	2021
Automotive OEM	\$ 3,235	\$ 2,969	\$ 2,800
Food Equipment	2,622	2,444	2,078
Test & Measurement and Electronics	2,832	2,828	2,346
Welding	1,902	1,894	1,650
Polymers & Fluids	1,804	1,905	1,804
Construction Products	2,033	2,113	1,945
Specialty Products	1,697	1,799	1,854
Intersegment revenue	(18)	(20)	(22)
Total	<u>\$ 16,107</u>	<u>\$ 15,932</u>	<u>\$ 14,455</u>

In millions	Operating Income		
	2023	2022	2021
Automotive OEM	\$ 561	\$ 499	\$ 545
Food Equipment	713	618	469
Test & Measurement and Electronics	686	684	643
Welding	605	583	490
Polymers & Fluids	482	479	457
Construction Products	578	548	530
Specialty Products	449	481	504
Total Segments	4,074	3,892	3,638
Unallocated	(34)	(102)	(161)
Total	<u>\$ 4,040</u>	<u>\$ 3,790</u>	<u>\$ 3,477</u>

Segments are allocated a fixed overhead charge based on the segment's revenue. Expenses not charged to the segments are reported separately as Unallocated. Because the Unallocated category includes a variety of items, it is subject to fluctuations on a quarterly and annual basis. Unallocated expenses in 2023 were lower as compared to 2022 primarily due to the impact of lower corporate expenses, including favorable health and welfare expenses, and an immaterial insurance recovery. Unallocated expenses in 2021 included transaction costs related to the previously discussed acquisition of the MTS Test & Simulation business.

AUTOMOTIVE OEM

This segment is a global, niche supplier to top tier OEMs, providing unique innovation to address pain points for sophisticated customers with complex problems. Businesses in this segment produce components and fasteners for automotive-related applications. This segment primarily serves the automotive original equipment manufacturers and tiers market. Products in this segment include:

- plastic and metal components, fasteners and assemblies for automobiles, light trucks and other industrial uses.

The results of operations for the Automotive OEM segment for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 3,235	\$ 2,969	9.0 %	8.8 %	— %	— %	0.2 %	9.0 %
Operating income	\$ 561	\$ 499	12.4 %	11.7 %	— %	1.1 %	(0.4)%	12.4 %
Operating margin %	17.3 %	16.8 %	50 bps	40 bps	—	20 bps	(10) bps	50 bps

- Operating revenue grew due to higher organic revenue and the favorable effect of foreign currency translation.
- Organic revenue increased 8.8% compared to worldwide auto builds which grew 9%. Product line simplification activities reduced organic revenue by 50 basis points primarily in North America. Additionally, automotive industry labor actions in North America negatively impacted operating results in the second half of 2023.
 - North American organic revenue decreased 1.9% compared to North American auto builds which increased 9% primarily due to customer mix and product line simplification. Auto builds for the Detroit 3, where the Company has higher content, grew 1%.
 - European organic revenue grew 12.5% compared to European auto builds which increased 13%.
 - Asia Pacific organic revenue increased 21.4%. China organic revenue grew 21.9%, including growth in the electric vehicles market and higher content in the Chinese original equipment manufacturers, versus China auto builds which increased 9%.
- Operating margin of 17.3% increased 50 basis points primarily driven by positive operating leverage of 160 basis points, favorable price/cost of 140 basis points and benefits from the Company's enterprise initiatives, partially offset by higher employee-related expenses and continued investments in the business, including the electric vehicles market, and product mix.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 2,969	\$ 2,800	6.0 %	11.7 %	— %	— %	(5.7)%	6.0 %
Operating income	\$ 499	\$ 545	(8.6)%	1.5 %	— %	(4.8)%	(5.3)%	(8.6)%
Operating margin %	16.8 %	19.5 %	(270) bps	(180) bps	—	(90) bps	—	(270) bps

- Operating revenue grew due to higher organic revenue, partially offset by the unfavorable effect of foreign currency translation.
- Organic revenue increased 11.7% compared to worldwide auto builds which grew 6%. The impact of Automotive OEM customers adjusting production schedules to account for the shortage of semiconductor chips and other components continued to negatively impact operating results in 2022. Auto builds for North America, Europe and China, where the Company has a higher concentration of revenue as compared to the other geographic regions, grew 5%.
 - North American organic revenue increased 14.1% compared to North American auto builds which grew 10%.
 - European organic revenue grew 7.1% compared to European auto builds which decreased 1%.
 - Asia Pacific organic revenue increased 14.7%. China organic revenue grew 12.2%, including growth in the electric vehicles market, versus China auto builds which increased 6%. Auto builds of foreign automotive manufacturers in China, where the Company has higher content, increased 1%.
- Operating margin of 16.8% decreased 270 basis points primarily driven by unfavorable price/cost of 200 basis points, higher restructuring expenses, higher operating expenses and continued investment in the business, including the electric vehicles market, partially offset by positive operating leverage of 190 basis points and benefits from the Company's enterprise initiatives.

FOOD EQUIPMENT

This segment is a highly focused and branded industry leader in commercial food equipment differentiated by innovation and integrated service offerings. This segment primarily serves the food service, food retail and food institutional/restaurant markets. Products in this segment include:

- warewashing equipment;
- cooking equipment, including ovens, ranges and broilers;
- refrigeration equipment, including refrigerators, freezers and prep tables;
- food processing equipment, including slicers, mixers and scales;
- kitchen exhaust, ventilation and pollution control systems; and
- food equipment service, maintenance and repair.

The results of operations for the Food Equipment segment for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 2,622	\$ 2,444	7.3 %	7.8 %	(1.2)%	— %	0.7 %	7.3 %
Operating income	\$ 713	\$ 618	15.2 %	15.4 %	(0.7)%	(0.3)%	0.8 %	15.2 %
Operating margin %	27.2 %	25.3 %	190 bps	180 bps	20 bps	(10) bps	—	190 bps

- Operating revenue grew due to higher organic revenue and the favorable effect of foreign currency translation, partially offset by the impact of a divestiture in the fourth quarter of 2022. On December 1, 2022, the Company completed the sale of a business. Operating revenue for this business that was included in the Company's results of operations for the year ended December 31, 2022 was \$30 million. Refer to Note 4. Divestitures in Item 8. Financial Statements and Supplementary Data for further information.
- Organic revenue increased 7.8% as equipment and service organic revenue grew 5.8% and 12.5%, respectively.
 - North American organic revenue increased 10.4% as equipment organic revenue grew 10.0% with growth in the institutional, food retail and restaurant end markets. Service organic revenue increased 12.0%.
 - International organic revenue increased 3.8%. Equipment organic revenue was flat as higher demand in the European warewash and refrigeration end markets was offset by lower demand in the European cooking end market and in China. Service organic revenue increased 13.4%.
- Operating margin of 27.2% increased 190 basis points primarily driven by favorable price/cost of 220 basis points, positive operating leverage of 150 basis points and benefits from the Company's enterprise initiatives, partially offset by higher operating expenses, including employee-related expenses.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 2,444	\$ 2,078	17.6 %	22.9 %	(0.1)%	— %	(5.2)%	17.6 %
Operating income	\$ 618	\$ 469	31.7 %	38.1 %	(0.1)%	(0.4)%	(5.9)%	31.7 %
Operating margin %	25.3 %	22.6 %	270 bps	280 bps	—	(10) bps	—	270 bps

- Operating revenue grew due to higher organic revenue, partially offset by the unfavorable effect of foreign currency translation and the impact of a divestiture in the fourth quarter of 2022. On December 1, 2022, the Company completed the sale of a business. Operating revenue for this business that was included in the Company's results of operations for the years ended December 31, 2022 and 2021 was \$30 million and \$28 million, respectively. Refer to Note 4. Divestitures in Item 8. Financial Statements and Supplementary Data for further information.
- Organic revenue increased 22.9% as equipment and service organic revenue grew 25.2% and 18.5%, respectively.

- North American organic revenue increased 26.1%. Equipment organic revenue grew 31.5% primarily due to growth in the restaurant, institutional and food retail end markets. Service organic revenue increased 17.2%.
- International organic revenue increased 18.8%. Equipment organic revenue grew 17.8% primarily due to higher demand in the European warewash, refrigeration and cooking end markets. Service organic revenue increased 20.8%.
- Operating margin of 25.3% increased 270 basis points primarily due to positive operating leverage of 430 basis points, benefits from the Company's enterprise initiatives and favorable price/cost of 90 basis points, partially offset by higher operating expenses, including employee-related expenses.

TEST & MEASUREMENT AND ELECTRONICS

This segment is a branded and innovative producer of test and measurement and electronic manufacturing and maintenance, repair, and operations, or "MRO" solutions that improve efficiency and quality for customers in diverse end markets. Businesses in this segment produce equipment, consumables, and related software for testing and measuring of materials and structures, as well as equipment and consumables used in the production of electronic subassemblies and microelectronics. This segment primarily serves the electronics, general industrial, energy, automotive original equipment manufacturers and tiers, industrial capital goods and consumer durables markets. Products in this segment include:

- equipment, consumables, and related software for testing and measuring of materials, structures, gases and fluids;
- electronic assembly equipment;
- electronic components and component packaging;
- static control equipment and consumables used for contamination control in clean room environments; and
- pressure sensitive adhesives and components for electronics, medical, transportation and telecommunications applications.

The results of operations for the Test & Measurement and Electronics segment for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 2,832	\$ 2,828	0.1 %	0.3 %	— %	— %	(0.2)%	0.1 %
Operating income	\$ 686	\$ 684	0.3 %	1.3 %	— %	(0.5)%	(0.5)%	0.3 %
Operating margin %	24.2 %	24.2 %	—	20 bps	—	(10) bps	(10) bps	—

- Operating revenue was essentially flat as higher organic revenue was offset by the unfavorable effect of foreign currency translation.
- Organic revenue increased 0.3% primarily due to growth in the general industrial end market, partially offset by a decline in the semiconductor end market.
 - Organic revenue for the test and measurement businesses increased 7.0% primarily driven by growth in the MTS Test & Simulation and Instron businesses and higher demand in the automotive, defense, and oil and gas end markets, partially offset by lower semiconductor demand in North America.
 - Electronics organic revenue decreased 10.8% primarily due to a decline in the consumer electronics and semiconductor end markets. The electronics assembly businesses decreased 19.3% primarily due to lower demand in North America and Asia Pacific. The other electronics businesses, which include the contamination control, static control and pressure sensitive adhesives businesses, decreased 6.4% primarily due to lower demand in the semiconductor end market, partially offset by higher demand in the automotive end market.
- Operating margin of 24.2% was flat compared to the prior year as favorable price/cost of 160 basis points, benefits from the Company's enterprise initiatives and lower intangible asset amortization expense were offset by higher employee-related expenses and product mix.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 2,828	\$ 2,346	20.6 %	9.0 %	15.9 %	— %	(4.3)%	20.6 %
Operating income	\$ 684	\$ 643	6.3 %	10.1 %	— %	0.1 %	(3.9)%	6.3 %
Operating margin %	24.2 %	27.4 %	(320) bps	30 bps	(350) bps	—	—	(320) bps

- Operating revenue grew due to the MTS Test & Simulation acquisition, which was completed on December 1, 2021, and higher organic revenue, partially offset by the unfavorable effect of foreign currency translation.
- Organic revenue increased 9.0%.
 - Organic revenue for the test and measurement businesses increased 12.7% primarily driven by higher semiconductor demand in North America and Asia Pacific and the impact of a stronger capital spending environment. Instron, where demand is more closely tied to the capital spending environment, had organic revenue growth of 12.8%.
 - Electronics organic revenue increased 4.6% primarily due to higher demand in the semiconductor end market, partially offset by a decline in the consumer electronics end market. The electronics assembly businesses increased 1.3% primarily due to growth in Asia Pacific, partially offset by lower demand in North America in the first half of 2022. The other electronics businesses, which include the contamination control, static control and pressure sensitive adhesives businesses, increased 6.3% with growth across all major regions.
- Operating margin of 24.2% decreased 320 basis points primarily driven by the dilutive impact of 350 basis points from the MTS Test & Simulation acquisition, unfavorable price/cost of 120 basis points, and higher operating expenses, including employee-related expenses, partially offset by positive operating leverage of 190 basis points and benefits from the Company's enterprise initiatives.

WELDING

This segment is a branded value-added equipment and specialty consumable manufacturer with innovative and leading technology. Businesses in this segment produce arc welding equipment, consumables and accessories for a wide array of industrial and commercial applications. This segment primarily serves the general industrial market, which includes fabrication, shipbuilding and other general industrial markets, and construction, energy, MRO, industrial capital goods and automotive original equipment manufacturers and tiers markets. Products in this segment include:

- arc welding equipment; and
- metal arc welding consumables and related accessories.

The results of operations for the Welding segment for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 1,902	\$ 1,894	0.4 %	0.3 %	— %	— %	0.1 %	0.4 %
Operating income	\$ 605	\$ 583	3.7 %	3.4 %	— %	(0.1)%	0.4 %	3.7 %
Operating margin %	31.8 %	30.8 %	100 bps	100 bps	—	—	—	100 bps

- Operating revenue grew due to higher organic revenue and the favorable effect of foreign currency translation.
- Organic revenue increased 0.3%, which had a challenging comparable in the prior year of 16.0% growth. Consumables grew 1.3% and equipment decreased 0.4%.
 - North American organic revenue decreased 0.2% primarily due to a decline in the commercial end markets, partially offset by growth in the industrial and aerospace end markets.

- International organic revenue grew 2.7% primarily due to higher equipment demand in the general industrial and oil and gas end markets in Asia Pacific.
- Operating margin of 31.8% increased 100 basis points primarily driven by favorable price/cost of 300 basis points and benefits from the Company's enterprise initiatives, partially offset by higher employee-related expenses and product mix.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 1,894	\$ 1,650	14.7 %	16.0 %	— %	— %	(1.3)%	14.7 %
Operating income	\$ 583	\$ 490	19.0 %	19.1 %	— %	0.6 %	(0.7)%	19.0 %
Operating margin %	30.8 %	29.7 %	110 bps	80 bps	—	10 bps	20 bps	110 bps

- Operating revenue grew due to higher organic revenue, partially offset by the unfavorable effect of foreign currency translation.
- Organic revenue grew 16.0% as equipment increased 16.2% and consumables increased 15.8% primarily due to higher demand in the industrial end markets related to heavy equipment for agriculture, infrastructure and mining, and in the commercial end markets related to construction, light fabrication and farm and ranch customers.
 - North American organic revenue grew 16.6% due to growth in the industrial and commercial end markets of 25.6% and 3.9%, respectively.
 - International organic revenue grew 13.3% primarily due to higher equipment demand in the oil and gas end markets in Europe and Asia.
- Operating margin of 30.8% increased 110 basis points primarily driven by positive operating leverage of 220 basis points and benefits from the Company's enterprise initiatives, partially offset by higher operating expenses, including employee-related expenses and freight costs, and unfavorable price/cost of 80 basis points.

POLYMERS & FLUIDS

This segment is a branded supplier to niche markets that require value-added, differentiated products. Businesses in this segment produce engineered adhesives, sealants, lubrication and cutting fluids, and fluids and polymers for auto aftermarket maintenance and appearance. This segment primarily serves the automotive aftermarket, general industrial and MRO markets. Products in this segment include:

- adhesives for industrial, construction and consumer purposes;
- chemical fluids which clean or add lubrication to machines;
- epoxy and resin-based coating products for industrial applications;
- hand wipes and cleaners for industrial applications;
- fluids, polymers and other supplies for auto aftermarket maintenance and appearance;
- fillers and putties for auto body repair; and
- polyester coatings and patch and repair products for the marine industry.

The results of operations for the Polymers & Fluids segment for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 1,804	\$ 1,905	(5.3)%	0.3 %	(4.0)%	— %	(1.6)%	(5.3)%
Operating income	\$ 482	\$ 479	0.6 %	7.6 %	(3.3)%	(0.8)%	(2.9)%	0.6 %
Operating margin %	26.7 %	25.2 %	150 bps	180 bps	30 bps	(20) bps	(40) bps	150 bps

- Operating revenue declined due to the impact of a divestiture in the fourth quarter of 2022 and the unfavorable effect of foreign currency translation, partially offset by higher organic revenue. On October 3, 2022, the Company completed the sale of a business. Operating revenue for this business that was included in the Company's results of operations for the year ended December 31, 2022 was \$76 million. Refer to Note 4. Divestitures in Item 8. Financial Statements and Supplementary Data for further information.
- Organic revenue increased 0.3% as growth in North America was partially offset by a decline in Europe. Product line simplification activities reduced organic revenue by 70 basis points.
 - Organic revenue for the automotive aftermarket businesses increased 1.4% primarily due to an increase in the car care, tire repair and engine repair businesses in North America and growth in Europe, partially offset by a decline in the body repair business in North America.
 - Organic revenue for the polymers businesses increased 0.3% due to higher demand in North America, partially offset by a decline in Europe. Demand in Europe was negatively impacted by declines in the wind and industrial end markets.
 - Organic revenue for the fluids businesses declined 2.7% driven by lower demand in the European life sciences end market, the North American industrial maintenance, repair and operations end market, and the transportation and health and hygiene end markets.
- Operating margin of 26.7% increased 150 basis points primarily driven by favorable price/cost of 210 basis points, benefits from the Company's enterprise initiatives and lower intangible asset amortization expense, partially offset by higher employee-related expenses and product mix.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 1,905	\$ 1,804	5.6 %	10.5 %	(1.2)%	— %	(3.7)%	5.6 %
Operating income	\$ 479	\$ 457	4.8 %	9.6 %	(0.7)%	— %	(4.1)%	4.8 %
Operating margin %	25.2 %	25.4 %	(20) bps	(30) bps	20 bps	—	(10) bps	(20) bps

- Operating revenue grew due to higher organic revenue, partially offset by the unfavorable effect of foreign currency translation and the impact of a divestiture in the fourth quarter of 2022. On October 3, 2022, the Company completed the sale of a business. Operating revenue for this business that was included in the Company's results of operations for the years ended December 31, 2022 and 2021 was \$76 million and \$87 million, respectively. Refer to Note 4. Divestitures in Item 8. Financial Statements and Supplementary Data for further information.
- Organic revenue increased 10.5% with growth across all major regions. Product line simplification activities reduced organic revenue by 50 basis points.
 - Organic revenue for the polymers businesses increased 17.2% with growth across all major regions, primarily in the heavy industrial and wind end markets.
 - Organic revenue for the automotive aftermarket businesses increased 8.5% with growth in the car care, body repair, engine repair and tire repair businesses in North America and growth in the European additives and tire repair businesses.
 - Organic revenue for the fluids businesses grew 4.6% primarily due to growth in the hygiene and industrial maintenance, repair and operations end markets in North America and Europe.
- Operating margin of 25.2% decreased 20 basis points primarily driven by higher operating expenses, including employee-related expenses and freight costs, and unfavorable price/cost of 50 basis points, partially offset by positive operating leverage of 170 basis points, benefits from the Company's enterprise initiatives, lower intangible asset amortization expense and the impact of a divestiture.

CONSTRUCTION PRODUCTS

This segment is a branded supplier of innovative engineered fastening systems and solutions. This segment primarily serves the residential construction, renovation/remodel and commercial construction markets. Products in this segment include:

- fasteners and related fastening tools for wood and metal applications;
- anchors, fasteners and related tools for concrete applications;
- metal plate truss components and related equipment and software; and
- packaged hardware, fasteners, anchors and other products for retail.

The results of operations for the Construction Products segment for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 2,033	\$ 2,113	(3.8)%	(3.2)%	— %	— %	(0.6)%	(3.8)%
Operating income	\$ 578	\$ 548	5.5 %	6.6 %	— %	(0.5)%	(0.6)%	5.5 %
Operating margin %	28.4 %	25.9 %	250 bps	270 bps	—	(20) bps	—	250 bps

- Operating revenue declined due to lower organic revenue and the unfavorable effect of foreign currency translation.
- Organic revenue declined 3.2%, which had a challenging comparable in the prior year period of 14.4% growth. Organic revenue declined primarily due to a decrease in Europe and Asia Pacific. Product line simplification activities reduced organic revenue by 50 basis points.
 - North American organic revenue decreased 0.2% primarily due to lower demand in the United States residential and commercial end markets of 0.2% and 0.1%, respectively. Organic revenue in Canada declined 2.7%.
 - International organic revenue decreased 6.4%. European organic revenue declined 9.9% primarily due to lower demand in the commercial and residential end markets. Asia Pacific organic revenue declined 2.3% primarily due to lower demand in the Australia and New Zealand residential end markets.
- Operating margin of 28.4% increased 250 basis points primarily driven by favorable price/cost of 350 basis points and benefits from the Company's enterprise initiatives, partially offset by higher employee-related expenses and unfavorable operating leverage of 60 basis points.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 2,113	\$ 1,945	8.6 %	14.4 %	— %	— %	(5.8)%	8.6 %
Operating income	\$ 548	\$ 530	3.5 %	8.8 %	— %	(0.2)%	(5.1)%	3.5 %
Operating margin %	25.9 %	27.2 %	(130) bps	(130) bps	—	—	—	(130) bps

- Operating revenue grew due to higher organic revenue, partially offset by the unfavorable effect of foreign currency translation.
- Organic revenue grew 14.4% with growth across all major regions. Product line simplification activities reduced organic revenue by 40 basis points.
 - North American organic revenue increased 26.0% driven by higher demand in the United States residential and commercial end markets of 30.4% and 11.5%, respectively.
 - International organic revenue increased 5.1%. European organic revenue increased 6.2% primarily driven by higher demand in the commercial and residential end markets in the first half of 2022. Asia Pacific organic revenue increased 3.8% primarily due to higher demand in the Australia and New Zealand residential end markets.
- Operating margin of 25.9% decreased 130 basis points primarily driven by unfavorable price/cost of 260 basis points and higher operating expenses, including employee-related expenses, partially offset by positive operating leverage of 220 basis points and benefits from the Company's enterprise initiatives.

SPECIALTY PRODUCTS

This segment is focused on diversified niche market opportunities with substantial patent protection producing beverage packaging equipment and consumables, product coding and marking equipment and consumables, and appliance components and fasteners. This segment primarily serves the food and beverage, consumer durables, general industrial, industrial capital goods, airlines and printing and publishing markets. Products in this segment include:

- conveyor systems and line automation for the food and beverage industries;
- plastic consumables that multi-pack cans and bottles and related equipment;
- foil, film and related equipment used to decorate consumer products;
- product coding and marking equipment and related consumables;
- plastic and metal closures and components for appliances;
- airport ground support equipment; and
- components for medical devices.

The results of operations for the Specialty Products segment for 2023, 2022 and 2021 were as follows:

2023 compared to 2022

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2023	2022	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 1,697	\$ 1,799	(5.7)%	(4.9)%	(1.6)%	— %	0.8 %	(5.7)%
Operating income	\$ 449	\$ 481	(6.5)%	(7.2)%	(0.1)%	(0.3)%	1.1 %	(6.5)%
Operating margin %	26.5 %	26.7 %	(20) bps	(60) bps	40 bps	(10) bps	10 bps	(20) bps

- Operating revenue declined due to lower organic revenue and the impact of a divestiture in the second quarter of 2023, partially offset by the favorable effect of foreign currency translation. On April 3, 2023, the Company completed the sale of a business. Operating revenue for this business that was included in the Company's results of operations for the years ended December 31, 2023 and 2022 was \$9 million and \$37 million, respectively. Refer to Note 4. Divestitures in Item 8. Financial Statements and Supplementary Data for further information.
- Organic revenue decreased 4.9%. Consumable sales decreased 7.8% due to lower demand in all major regions, including plastic consumables that multi-pack cans and bottles. Equipment sales increased 7.9% primarily driven by higher demand in Europe and North America. Product line simplification activities reduced organic revenue by 150 basis points.
 - North American organic revenue decreased 6.4% primarily driven by a decline in the consumer packaging, specialty films, strength films and decorating equipment businesses, partially offset by growth in the ground support equipment, appliance and filter medical businesses.
 - International organic revenue declined 1.6% primarily due to a decrease in Asia Pacific in the strength films, graphics and decorating equipment businesses, partially offset by growth in the ground support equipment and consumer packaging businesses in Europe.
- Operating margin of 26.5% decreased 20 basis points primarily driven by unfavorable operating leverage of 90 basis points, higher employee-related expenses and product mix, partially offset by favorable price/cost of 130 basis points, benefits from the Company's enterprise initiatives and the favorable impact of a divestiture in the second quarter of 2023.

2022 compared to 2021

Dollars in millions	For the Years Ended December 31,			Components of Increase (Decrease)				
	2022	2021	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
Operating revenue	\$ 1,799	\$ 1,854	(2.9)%	0.4 %	— %	— %	(3.3)%	(2.9)%
Operating income	\$ 481	\$ 504	(4.5)%	(1.8)%	— %	0.1 %	(2.8)%	(4.5)%
Operating margin %	26.7 %	27.2 %	(50) bps	(60) bps	—	—	10 bps	(50) bps

- Operating revenue declined due to the unfavorable effect of foreign currency translation, partially offset by higher organic revenue.
- Organic revenue increased 0.4% as consumable sales increased 3.0% and equipment sales declined 9.5%. Product line simplification activities reduced organic revenue by 170 basis points.
 - North American organic revenue increased 2.5% primarily due to growth in the foils and thermal films, consumer packaging, specialty films, filter medical and ground support businesses, partially offset by a decline in the appliance and strength films businesses.
 - International organic revenue declined 3.2% primarily due to a decline in Asia Pacific of 22.8% primarily driven by decreases in the strength films, appliance, foils and thermal films, and graphics businesses. The results in 2022 were negatively impacted by the COVID-19 outbreak and government stay-at-home orders in China. Europe organic revenue grew 2.8% primarily due to an increase in the consumer packaging, specialty films and filter medical businesses, partially offset by a decline in the appliance business.
- Operating margin of 26.7% decreased 50 basis points primarily driven by higher operating expenses, including employee-related expenses, partially offset by benefits from the Company's enterprise initiatives and favorable price/cost of 10 basis points.

OTHER FINANCIAL HIGHLIGHTS

- Interest expense was \$266 million in 2023, \$203 million in 2022 and \$202 million in 2021. Interest expense in 2023 was higher than 2022 primarily due to higher interest rates, partially offset by the repayment of notes due May 22, 2023. Interest expense in 2022 was \$1 million higher than 2021 primarily due to higher average outstanding commercial paper and higher interest rates, partially offset by the repayment of notes due September 15, 2021 and May 20, 2022. Refer to Note 11. Debt in Item 8. Financial Statements and Supplementary Data for further information regarding the repayment of notes.
- Other income (expense) was income of \$49 million in 2023, \$255 million in 2022 and \$51 million in 2021. Other income was higher in 2022 as compared to 2023 and 2021 primarily due to net pre-tax gains of \$191 million related to the sale of businesses in 2022.
- The Company's effective tax rate for 2023, 2022, and 2021 was 22.6%, 21.0% and 19.0%, respectively. The 2023 effective tax rate benefited from a discrete income tax benefit of \$20 million in the second quarter of 2023 related to amended 2021 U.S. taxes. The 2022 effective tax rate benefited from discrete income tax benefits of \$32 million in the fourth quarter of 2022 related to the utilization of capital loss carryforwards and \$51 million in the second quarter of 2022 related to a decrease in unrecognized tax benefits resulting from the resolution of a U.S. tax audit. The 2021 effective tax rate benefited from discrete income tax benefits of \$21 million in the third quarter of 2021 related to the utilization of capital loss carryforwards and \$112 million in the second quarter of 2021 related to the remeasurement of net deferred tax assets due to the enactment of the U.K. Finance Bill 2021, which increased the U.K. income tax rate from 19% to 25% effective April 1, 2023. Additionally, the effective tax rates for 2023, 2022 and 2021 included discrete income tax benefits of \$20 million, \$12 million and \$17 million, respectively, related to excess tax benefits from stock-based compensation. Refer to Note 7. Income Taxes in Item 8. Financial Statements and Supplementary Data for further information.
- The impact of the Euro and other foreign currencies against the U.S. Dollar in 2023 versus 2022 decreased operating revenue and income before taxes by approximately \$7 million and \$15 million, respectively. The impact of the Euro and other foreign currencies against the U.S. Dollar in 2022 versus 2021 decreased operating revenue and income before taxes by approximately \$628 million and \$157 million, respectively.

NEW ACCOUNTING PRONOUNCEMENTS

Information regarding new accounting pronouncements is included in Note 1. Description of Business and Summary of Significant Accounting Policies in Item 8. Financial Statements and Supplementary Data.

LIQUIDITY AND CAPITAL RESOURCES

The Company's primary sources of liquidity are free cash flow and short-term credit facilities. As of December 31, 2023, the Company had \$1.1 billion of cash and equivalents on hand and no outstanding borrowings under its \$3.0 billion revolving credit facility. The Company also has maintained strong access to public debt markets. Management believes that these sources are sufficient to service debt and to finance the Company's capital allocation priorities, which include:

- internal investments to support organic growth and sustain core businesses;
- payment of an attractive dividend to shareholders; and
- external investments in selective strategic acquisitions that support the Company's organic growth focus, such as the acquisition of the MTS Test & Simulation business on December 1, 2021, and an active share repurchase program. Refer to Note 3. Acquisitions in Item 8. Financial Statements and Supplementary Data for further information regarding this acquisition.

The Company believes that, based on its operating revenue, operating margin, free cash flow, and credit ratings, it could readily obtain additional financing, if necessary.

The Company has certain contractual obligations, primarily noncurrent income taxes payable, operating leases and long-term debt. Refer to Note 7. Income Taxes, Note 10. Leases and Note 11. Debt in Item 8. Financial Statements and Supplementary Data for details related to the Company's contractual obligations. The Company did not have any significant off-balance sheet commitments as of December 31, 2023.

Cash Flow

The Company uses free cash flow to measure cash flow generated by operations that is available for dividends, share repurchases, acquisitions and debt repayment. The Company believes this non-GAAP financial measure is useful to investors in evaluating the Company's financial performance and measures the Company's ability to generate cash internally to fund Company initiatives. Free cash flow represents net cash provided by operating activities less additions to plant and equipment. Free cash flow is a measurement that is not the same as net cash flow from operating activities per the statement of cash flows and may not be consistent with similarly titled measures used by other companies. Summarized cash flow information for the years ended December 31, 2023, 2022 and 2021 was as follows:

In millions	2023	2022	2021
Net cash provided by operating activities	\$ 3,539	\$ 2,348	\$ 2,557
Additions to plant and equipment	(455)	(412)	(296)
Free cash flow	\$ 3,084	\$ 1,936	\$ 2,261
Cash dividends paid	\$ (1,615)	\$ (1,542)	\$ (1,463)
Repurchases of common stock	(1,500)	(1,750)	(1,000)
Acquisition of businesses (excluding cash and equivalents)	—	(2)	(731)
Proceeds from sale of operations and affiliates	7	278	—
Net proceeds from (repayments of) debt	294	276	(141)
Other	84	42	83
Effect of exchange rate changes on cash and equivalents	3	(57)	(46)
Net increase (decrease) in cash and equivalents	\$ 357	\$ (819)	\$ (1,037)

Operating cash flow improved in 2023 compared to 2022 as supply chains began to normalize in 2023 and the Company reduced its investment in working capital. Operating cash flow decreased in 2022 and 2021 primarily due to higher working capital investments to support revenue growth, including increased inventory levels to help mitigate supply chain risk and sustain customer service levels.

Stock Repurchase Programs

On August 3, 2018, the Company announced a stock repurchase program which provided for the repurchase of up to \$3.0 billion of the Company's common stock over an open-ended period of time (the "2018 Program"). Under the 2018 Program, the Company repurchased approximately 6.7 million shares of its common stock at an average price of \$158.11 per share

during 2019, approximately 4.2 million shares of its common stock at an average price of \$167.69 per share during 2020, approximately 4.4 million shares of its common stock at an average price of \$227.29 per share during 2021 and approximately 1.2 million shares of its common stock at an average price of \$216.62 per share during 2022. The 2018 Program was completed in the first quarter of 2022.

On May 7, 2021, the Company announced a stock repurchase program which provided for the repurchase of up to an additional \$3.0 billion of the Company's common stock over an open-ended period of time (the "2021 Program"). Under the 2021 program, the Company repurchased approximately 7.1 million shares of its common stock at an average price of \$210.46 per share during 2022 and approximately 6.3 million shares of its common stock at an average price of \$235.35 per share during 2023. The 2021 Program was completed in the fourth quarter of 2023.

On August 4, 2023, the Company announced a new stock repurchase program which provides for the repurchase of up to an additional \$5.0 billion of the Company's common stock over an open-ended period of time (the "2023 Program"). Under the 2023 program, the Company repurchased approximately 38,000 shares of its common stock at an average price of \$263.44 per share during 2023. As of December 31, 2023, there were approximately \$5.0 billion of authorized repurchases remaining under the 2023 program.

After-tax Return on Average Invested Capital

The Company uses after-tax return on average invested capital ("After-tax ROIC") to measure the effectiveness of its operations' use of invested capital to generate profits. After-tax ROIC is not defined under U.S. generally accepted accounting principles ("GAAP"). After-tax ROIC is a non-GAAP financial measure that the Company believes is a meaningful metric to investors in evaluating the Company's ability to generate returns from cash invested in its operations and may be different than the method used by other companies to calculate After-tax ROIC. The Company defines After-tax ROIC as operating income after taxes divided by average invested capital, which is annualized when presented in interim periods. Operating income after taxes is a non-GAAP measure consisting of net income before interest expense and other income (expense), on an after-tax basis, which are excluded as they do not represent returns generated by the Company's operations. For comparability, the Company also excluded the discrete tax benefit of \$20 million in the second quarter of 2023 from net income and the effective tax rate for the year ended December 31, 2023. Additionally, for comparability, the Company also excluded the discrete tax benefits of \$32 million in the fourth quarter of 2022 and \$51 million in the second quarter of 2022 from net income and the effective tax rate for the year ended December 31, 2022. Also, for comparability, the Company excluded the discrete tax benefits of \$21 million in the third quarter of 2021 and \$112 million in the second quarter of 2021 from net income and the effective tax rate for the year ended December 31, 2021. Total invested capital represents the net assets of the Company, other than cash and equivalents and outstanding debt which do not represent capital investment in the Company's operations. The most comparable GAAP measure to operating income after taxes is net income. Net income to average invested capital and After-tax ROIC for the years ended December 31, 2023, 2022, and 2021 were as follows:

Dollars in millions	2023	2022	2021
Numerator:			
Net income	\$ 2,957	\$ 3,034	\$ 2,694
Discrete tax benefit related to the second quarter 2023	(20)	—	—
Discrete tax benefit related to the fourth quarter 2022	—	(32)	—
Discrete tax benefit related to the second quarter 2022	—	(51)	—
Discrete tax benefit related to the third quarter 2021	—	—	(21)
Discrete tax benefit related to the second quarter 2021	—	—	(112)
Interest expense, net of tax ⁽¹⁾	204	156	157
Other (income) expense, net of tax ⁽¹⁾	(38)	(196)	(40)
Operating income after taxes	<u>\$ 3,103</u>	<u>\$ 2,911</u>	<u>\$ 2,678</u>
Denominator:			
Invested capital:			
Cash and equivalents	\$ 1,065	\$ 708	\$ 1,527
Trade receivables	3,123	3,171	2,840
Inventories	1,707	2,054	1,694
Net assets held for sale	—	7	—
Net plant and equipment	1,976	1,848	1,809
Goodwill and intangible assets	5,566	5,632	5,937
Accounts payable and accrued expenses	(2,244)	(2,322)	(2,233)
Debt	(8,164)	(7,763)	(7,687)
Other, net	(16)	(246)	(261)
Total net assets (stockholders' equity)	<u>3,013</u>	<u>3,089</u>	<u>3,626</u>
Cash and equivalents	(1,065)	(708)	(1,527)
Debt	<u>8,164</u>	<u>7,763</u>	<u>7,687</u>
Total invested capital	<u>\$ 10,112</u>	<u>\$ 10,144</u>	<u>\$ 9,786</u>
Average invested capital ⁽²⁾	<u>\$ 10,214</u>	<u>\$ 10,017</u>	<u>\$ 9,087</u>
Net income to average invested capital	<u>29.0 %</u>	<u>30.3 %</u>	<u>29.6 %</u>
After-tax return on average invested capital	<u>30.4 %</u>	<u>29.1 %</u>	<u>29.5 %</u>

(1) Effective tax rate used for interest expense and other (income) expense for the years ended December 31, 2023, 2022, and 2021 was 23.2%, 23.2% and 23.0%, respectively.

(2) Average invested capital is calculated using the total invested capital balances at the start of the period and at the end of each quarter within each of the periods presented.

After-tax ROIC increased 130 basis points for the twelve month period ended December 31, 2023 compared to the prior year period as a result of a 6.6% increase in after-tax operating income versus a 2.0% increase in average invested capital.

After-tax ROIC decreased 40 basis points for the twelve month period ended December 31, 2022 compared to the prior year period as a result of a 10.2% increase in average invested capital versus an 8.7% increase in after-tax operating income.

A reconciliation of the 2023 effective tax rate excluding the second quarter 2023 discrete tax benefit of \$20 million related to amended 2021 U.S. taxes is as follows:

Dollars in millions	Twelve Months Ended December 31, 2023	
	Income Taxes	Tax Rate
As reported	\$ 866	22.6 %
Discrete tax benefit related to the second quarter 2023	20	0.6 %
As adjusted	<u>\$ 886</u>	<u>23.2 %</u>

A reconciliation of the 2022 effective tax rate excluding the fourth quarter 2022 discrete tax benefit of \$32 million related to the utilization of capital loss carryforwards and the second quarter 2022 discrete tax benefit of \$51 million related to the resolution of a U.S. tax audit is as follows:

Dollars in millions	Twelve Months Ended December 31, 2022	
	Income Taxes	Tax Rate
As reported	\$ 808	21.0 %
Discrete tax benefit related to the fourth quarter 2022	32	0.8 %
Discrete tax benefit related to the second quarter 2022	51	1.4 %
As adjusted	<u>\$ 891</u>	<u>23.2 %</u>

A reconciliation of the 2021 effective tax rate excluding the third quarter 2021 discrete tax benefit of \$21 million related to the utilization of capital loss carryforwards and the second quarter 2021 discrete tax benefit of \$112 million related to a change in the U.K. income tax rate is as follows:

Dollars in millions	Twelve Months Ended December 31, 2021	
	Income Taxes	Tax Rate
As reported	\$ 632	19.0 %
Discrete tax benefit related to the third quarter 2021	21	0.6 %
Discrete tax benefit related to the second quarter 2021	112	3.4 %
As adjusted	<u>\$ 765</u>	<u>23.0 %</u>

Refer to Note 7. Income Taxes in Item 8. Financial Statements and Supplementary Data for further information regarding the discrete tax items noted above.

Working Capital

Management uses working capital as a measurement of the short-term liquidity of the Company. Net working capital as of December 31, 2023 and 2022 is summarized as follows:

In millions	2023	2022	Increase (Decrease)
Current Assets:			
Cash and equivalents	\$ 1,065	\$ 708	\$ 357
Trade receivables	3,123	3,171	(48)
Inventories	1,707	2,054	(347)
Prepaid expenses and other current assets	340	329	11
Assets held for sale	—	8	(8)
	6,235	6,270	(35)
Current Liabilities:			
Short-term debt	1,825	1,590	235
Accounts payable and accrued expenses	2,244	2,322	(78)
Liabilities held for sale	—	1	(1)
Other	606	547	59
	4,675	4,460	215
Net Working Capital	\$ 1,560	\$ 1,810	\$ (250)

As of December 31, 2023, a significant portion of the Company's cash and equivalents was held by international subsidiaries. Cash and equivalents held internationally may be subject to foreign withholding taxes if repatriated to the U.S. Cash and equivalents held internationally are typically used for international operating needs or reinvested to fund expansion of existing international businesses. International funds may also be used to fund international acquisitions or, if not considered permanently invested, may be repatriated to the U.S. The Company has accrued for foreign withholding taxes related to foreign held cash and equivalents that are not permanently invested.

In the U.S., the Company utilizes cash flows from operations to fund domestic cash needs and the Company's capital allocation priorities. This includes operating needs of the U.S. businesses, dividend payments, share repurchases, acquisitions, servicing of domestic debt obligations, reinvesting to fund expansion of existing U.S. businesses and general corporate needs. The Company may also use its commercial paper program, which is supported by a long-term credit facility, for short-term liquidity needs. The Company believes cash generated by operations and liquidity provided by the Company's commercial paper program will continue to be sufficient to fund cash requirements in the U.S.

Debt

Total debt as of December 31, 2023 and 2022 was as follows:

In millions	2023	2022	Increase (Decrease)
Short-term debt	\$ 1,825	\$ 1,590	\$ 235
Long-term debt	6,339	6,173	166
Total debt	\$ 8,164	\$ 7,763	\$ 401

As of December 31, 2023, short-term debt included \$700 million related to the 3.50% notes due March 1, 2024, which were reclassified from Long-term debt to Short-term debt in the first quarter of 2023, \$661 million related to the 0.25% Euro notes due December 5, 2024, which were reclassified from Long-term debt to Short-term debt in the fourth quarter of 2023, and commercial paper of \$464 million. As of December 31, 2022, short-term debt included \$535 million related to the 1.25% Euro notes due May 22, 2023, which were repaid on the due date, and commercial paper of \$1.1 billion.

On May 5, 2023, the Company entered into a €1.3 billion Euro-denominated credit agreement (the "Euro Credit Agreement") with a termination date of May 3, 2024; provided, however, that the Company may extend the termination date by six months on up to two occasions. On May 12, 2023, the Company borrowed €1.3 billion of Euro term loans under the Euro Credit

Agreement. Proceeds from the borrowing were used for general corporate purposes, including the repayment of outstanding debt. Any loan under the Euro Credit Agreement may not be re-borrowed once repaid, in full or in part, and will bear interest at a per annum rate equal to the applicable EURIBOR (adjusted for any statutory reserves) plus 0.75% for the interest period selected by the Company of one, three or six months. As of December 31, 2023, the Company had €1.3 billion outstanding under the Euro Credit Agreement with an interest rate of 4.59%, which was included in Long-term debt as the Company intends to exercise its options to extend the termination date.

The Company may issue commercial paper to fund general corporate needs, share repurchases, and small and medium-sized acquisitions. During the fourth quarter of 2022, the Company entered into a \$3.0 billion, five-year revolving credit facility with a termination date of October 21, 2027, which is available to provide additional liquidity, including to support the potential issuances of commercial paper. No amounts were outstanding under the revolving credit facility as of December 31, 2023 or 2022. The maximum outstanding commercial paper balance during 2023 was \$1.9 billion, while the average daily balance was \$1.0 billion.

As of December 31, 2023, the Company had unused capacity of approximately \$158 million under international debt facilities. In the ordinary course of business, the Company also had approximately \$231 million outstanding in guarantees, letters of credit and other similar arrangements with financial institutions as of December 31, 2023. Refer to Note 11. Debt in Item 8. Financial Statements and Supplementary Data for additional details regarding the Company's outstanding debt obligations.

Total Debt to EBITDA

The Company uses the ratio of total debt to EBITDA as a measure of its ability to repay its outstanding debt obligations. EBITDA and the ratio of total debt to EBITDA are non-GAAP financial measures. The Company believes that total debt to EBITDA is a meaningful metric to investors in evaluating the Company's long term financial liquidity and may be different than the method used by other companies to calculate total debt to EBITDA. The ratio of total debt to EBITDA represents total debt divided by net income before interest expense, other income (expense), income taxes, depreciation, and amortization and impairment of intangible assets on a trailing twelve month basis. Total debt to EBITDA for the years ended December 31, 2023, 2022 and 2021 was as follows:

Dollars in millions	2023	2022	2021
Total debt	\$ 8,164	\$ 7,763	\$ 7,687
Net income	\$ 2,957	\$ 3,034	\$ 2,694
Add:			
Interest expense	266	203	202
Other (income) expense	(49)	(255)	(51)
Income taxes	866	808	632
Depreciation	282	276	277
Amortization and impairment of intangible assets	113	134	133
EBITDA	\$ 4,435	\$ 4,200	\$ 3,887
Total debt to EBITDA ratio	1.8	1.8	2.0

Stockholders' Equity

The changes to stockholders' equity during 2023 and 2022 were as follows:

In millions	2023	2022
Beginning balance	\$ 3,089	\$ 3,626
Net income	2,957	3,034
Cash dividends declared	(1,634)	(1,560)
Repurchases of common stock	(1,500)	(1,750)
Other comprehensive income (loss)	7	(339)
Other	94	78
Ending balance	\$ 3,013	\$ 3,089

CRITICAL ACCOUNTING ESTIMATES

The Company has three accounting estimates that it believes are most important to the Company's financial condition and results of operations, and which require the Company to make judgments about matters that are inherently uncertain. Management bases its estimates on historical experience, and in some cases on observable market information. Various assumptions are also used that are believed to be reasonable under the circumstances and form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The Company's critical accounting estimates are as follows:

Income Taxes— The Company provides deferred income tax assets and liabilities based on the estimated future tax effects of differences between the financial and tax bases of assets and liabilities based on currently enacted tax laws. The Company's deferred and other tax balances are based on management's interpretation of the tax regulations and rulings in numerous taxing jurisdictions. Income tax expense, assets and liabilities recognized by the Company also reflect its best estimates and assumptions regarding, among other things, the level of future taxable income, the effect of the Company's various tax planning strategies and uncertain tax positions. Future tax authority rulings and changes in tax laws, changes in projected levels of taxable income and future tax planning strategies could affect the actual effective tax rate and tax balances recorded by the Company.

Goodwill and Intangible Assets— The Company's business acquisitions typically result in recording goodwill and other intangible assets, which are a significant portion of the Company's total assets and affect the amount of amortization expense and impairment charges that the Company could incur in future periods. The Company follows the guidance prescribed in the accounting standards to test goodwill and intangible assets for impairment. On an annual basis, or more frequently if triggering events occur, the Company compares the estimated fair value of its reporting units to the carrying value of each reporting unit to determine if a potential goodwill impairment exists. If the fair value of a reporting unit is less than its carrying value, a goodwill impairment loss is recorded for the difference. In calculating the fair value of the reporting units or specific intangible assets, management relies on a number of factors, including business plans, economic projections, anticipated future cash flows, comparable transactions and other market data. There are inherent uncertainties related to these factors and management's judgment in applying them in the impairment tests of goodwill and other intangible assets.

As of December 31, 2023, the Company had total goodwill and intangible assets of approximately \$5.6 billion allocated to its reporting units. Although there can be no assurance that the Company will not incur additional impairment charges related to its goodwill and other intangible assets, the Company generally believes the risk of significant impairment charges is lessened by the number of diversified businesses and end markets represented by its reporting units that have goodwill and other intangible assets. In addition, the individual businesses in many of the reporting units have been acquired over a long period of time, and in many cases have been able to improve their performance, primarily as a result of the application of the Company's 80/20 Front-to-Back process. The amount of goodwill and other intangible assets allocated to individual reporting units ranges from approximately \$215 million to \$1.4 billion, with the average amount equal to \$556 million. In all cases, the fair value of the individual reporting unit significantly exceeds its carrying value. Fair value determinations require considerable judgment and are sensitive to changes in the factors described above. Due to the inherent uncertainties associated with these factors and economic conditions in the Company's global end markets, impairment charges related to one or more reporting units could occur in future periods.

Pension and Other Postretirement Benefits— The Company has various company-sponsored defined benefit retirement plans covering a number of U.S. employees and many employees outside the U.S. Pension and other postretirement benefit expense and obligations are determined based on actuarial valuations. Pension benefit obligations are generally based on each participant's years of service, future compensation, and age at retirement or termination. Important assumptions in determining pension and postretirement expense and obligations are the discount rate, the expected long-term return on plan assets, life expectancy, and health care cost trend rates. Future changes in any of these assumptions could materially affect the amounts recorded related to the Company's pension and other postretirement benefit plans. See Note 12. Pension and Other Postretirement Benefits in Item 8. Financial Statements and Supplementary Data for additional discussion of actuarial assumptions used in determining pension and postretirement health care liabilities and expenses.

The Company determines the discount rate used to measure plan liabilities as of the year-end measurement date for the U.S. primary pension plan. The discount rate reflects the current rate at which the associated liabilities could theoretically be effectively settled at the end of the year. In estimating this rate, the Company looks at rates of return on high-quality fixed income investments, with similar duration to the liabilities in the plan. A 25 basis point decrease in the discount rate would increase the present value of the U.S. primary pension plan obligation by approximately \$24 million. The Company estimates the service and interest cost components of net periodic benefit cost by applying specific spot rates along the yield curve to the projected cash flows rather than a single weighted-average rate. See Note 12. Pension and Other Postretirement Benefits in Item 8. Financial Statements and Supplementary Data for information on the Company's pension and other postretirement benefit plans and related assumptions.

The expected long-term return on plan assets is based on historical and expected long-term returns for similar investment allocations among asset classes. For the U.S. primary pension plan, a 25 basis point decrease in the expected return on plan assets would increase the annual pension expense by approximately \$4 million.

ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk

MARKET RISK

The Company is exposed to certain market risks that exist as part of its ongoing business operations, including fluctuations in currency exchange rates, price volatility for certain commodities and changes in interest rates. The Company does not engage in speculative or leveraged transactions and does not hold or issue financial instruments for trading purposes.

Interest Rate Risk

The Company's exposure to market risk for changes in interest rates relates primarily to the fair value of the Company's fixed rate debt. Refer to Note 11. Debt in Item 8. Financial Statements and Supplemental Data for details related to the fair value of the Company's debt instruments. Additionally, rising interest rates would negatively impact the amount of interest expense related to new issuances of commercial paper and the outstanding Euro term loans borrowed under the Euro Credit Agreement.

Foreign Currency Risk

The Company operates in the U.S. and 50 foreign countries. The funding for the foreign manufacturing operations is provided primarily through the permanent investment of equity capital. The Company's products are typically manufactured and sold within the same country or economic union. Therefore, the Company's manufacturing operations generally do not have significant assets or liabilities denominated in currencies other than their functional currencies.

The Company designated the €1.0 billion of Euro notes issued in May 2014, the €1.0 billion of Euro notes issued in May 2015, the €1.6 billion of Euro notes issued in June 2019 and the €1.3 billion of Euro term loans borrowed under the Euro Credit Agreement in May 2023 as hedges of a portion of its net investment in Euro-denominated foreign operations to reduce foreign currency risk associated with the investment in these operations. Changes in the value of this debt resulting from fluctuations in the Euro to U.S. Dollar exchange rate have been recorded as foreign currency translation adjustments within Accumulated other comprehensive income (loss). On February 22, 2022, €500 million of the Euro notes issued in May 2014 were redeemed in full and on May 22, 2023, €500 million of the Euro notes issued in May 2015 were repaid on the due date. Refer to Note 11. Debt in Item 8. Financial Statements and Supplemental Data for additional information regarding the redemption of these notes. The amount of pre-tax gain (loss) related to these notes that was recorded in Other comprehensive income (loss) for the twelve months ended December 31, 2023, 2022 and 2021 was \$(109) million, \$205 million and \$303 million, respectively.

ITEM 8. *Financial Statements and Supplementary Data*

MANAGEMENT REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Illinois Tool Works Inc. (the "Company" or "ITW") is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). ITW's internal control system was designed to provide reasonable assurance to the Company's management and Board of Directors regarding the preparation and fair presentation of published financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

ITW management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2023. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control—Integrated Framework (2013). Based on our assessment we believe that, as of December 31, 2023, the Company's internal control over financial reporting is effective based on those criteria.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2023 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their attestation report included herein.

/s/ Christopher A. O'Herlihy
Christopher A. O'Herlihy
President & Chief Executive Officer
February 9, 2024

/s/ Michael M. Larsen
Michael M. Larsen
Senior Vice President & Chief Financial Officer
February 9, 2024

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Illinois Tool Works Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Illinois Tool Works Inc. and subsidiaries (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 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 December 31, 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 December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 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 December 31, 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 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.

Income Taxes — Refer to Note 7 to the financial statements

Critical Audit Matter Description

The Company's income tax expense is recognized and measured based on management's interpretation of the tax regulations and rulings in numerous taxing jurisdictions, which requires significant judgment. When calculating income tax expense management makes estimates and assumptions, including determination of the completeness of book income in each jurisdiction, calculation of taxable income through identification and classification of book to tax differences (either temporary or permanent items), consideration of applicable tax deductions or credits and the identification of uncertain tax positions.

The evaluation of each uncertain tax position requires management to apply specialized skill and knowledge related to the identified position. Management evaluates uncertain tax positions identified and a liability is established for unrecognized tax benefits when there is a more than 50% likelihood that its tax position will not be sustained upon examination by taxing authorities. There is additional judgment to determine the amount of the liability for the underlying tax position.

Given the number of taxing jurisdictions and the complex and subjective nature of the associated tax regulations and rulings, certain audit matters required a high degree of auditor judgment and increased extent of effort, including the need to involve our income tax specialists. These matters included the auditing of certain elements of income tax expense, identification of uncertain tax positions and measurement of unrecognized tax benefits, and certain planning transactions with income tax expense implications.

How the Critical Audit Matter Was Addressed in the Audit

With the assistance of our income tax specialists, our principal audit procedures related to the auditing of certain elements of income tax expense, identification of uncertain tax positions and measurement of unrecognized tax benefits and certain planning transactions with income tax expense implications included the following, among others:

- We tested the effectiveness of management's controls over income tax expense, unrecognized tax benefits and certain planning transactions with income tax expense implications.
- We evaluated management's significant estimates and judgments incorporated into the calculation of certain elements of income tax expense by:
 - Selecting a sample of book to tax differences (temporary and permanent) and testing the accuracy, completeness, and classification of the selections, including evaluating that all impacts of significant transactions with income tax expense implications are considered.
 - Developing an expectation over the foreign income tax expense by jurisdiction and comparing it to the recorded balance.
 - Testing the accuracy of the relevant income tax expense calculations.
- We evaluated management's significant judgments regarding the identification of uncertain tax positions by:
 - Evaluating the reasonableness of a selection of certain planning transactions with income tax expense implications, including the completeness and accuracy of the underlying data supporting the transactions.
 - Assessing management's methods and assumptions used in identifying uncertain tax positions.
 - Comparing results of prior tax audits to ongoing and anticipated tax audits by tax authorities.
 - Evaluating external information including applicable tax law, new interpretations, and related changes to assess the completeness and reasonableness of management's considerations.
 - Determining if there was additional information not considered in management's assessment.
- We evaluated a sample of the liabilities recorded for unrecognized tax benefits to assess the establishment and amount of the liability for the specific underlying tax position.

/s/ Deloitte & Touche LLP
Chicago, Illinois
February 9, 2024

We have served as the Company's auditor since 2002.

Statement of Income
Illinois Tool Works Inc. and Subsidiaries

In millions except per share amounts	For the Years Ended December 31		
	2023	2022	2021
Operating Revenue	\$ 16,107	\$ 15,932	\$ 14,455
Cost of revenue	9,316	9,429	8,489
Selling, administrative, and research and development expenses	2,638	2,579	2,356
Amortization and impairment of intangible assets	113	134	133
Operating Income	4,040	3,790	3,477
Interest expense	(266)	(203)	(202)
Other income (expense)	49	255	51
Income Before Taxes	3,823	3,842	3,326
Income taxes	866	808	632
Net Income	\$ 2,957	\$ 3,034	\$ 2,694
Net Income Per Share:			
Basic	\$ 9.77	\$ 9.80	\$ 8.55
Diluted	\$ 9.74	\$ 9.77	\$ 8.51

The Notes to Financial Statements are an integral part of this statement.

Statement of Comprehensive Income
Illinois Tool Works Inc. and Subsidiaries

In millions	For the Years Ended December 31		
	2023	2022	2021
Net Income	\$ 2,957	\$ 3,034	\$ 2,694
Foreign currency translation adjustments, net of tax	41	(242)	5
Pension and other postretirement benefit adjustments, net of tax	(34)	(97)	135
Other comprehensive income (loss)	7	(339)	140
Comprehensive Income	<u>\$ 2,964</u>	<u>\$ 2,695</u>	<u>\$ 2,834</u>

The Notes to Financial Statements are an integral part of this statement.

Statement of Financial Position
Illinois Tool Works Inc. and Subsidiaries

In millions except per share amounts	December 31	
	2023	2022
Assets		
Current Assets:		
Cash and equivalents	\$ 1,065	\$ 708
Trade receivables	3,123	3,171
Inventories	1,707	2,054
Prepaid expenses and other current assets	340	329
Assets held for sale	—	8
Total current assets	6,235	6,270
Net plant and equipment	1,976	1,848
Goodwill	4,909	4,864
Intangible assets	657	768
Deferred income taxes	479	494
Other assets	1,262	1,178
	<u>\$ 15,518</u>	<u>\$ 15,422</u>
Liabilities and Stockholders' Equity		
Current Liabilities:		
Short-term debt	\$ 1,825	\$ 1,590
Accounts payable	581	594
Accrued expenses	1,663	1,728
Cash dividends payable	419	400
Income taxes payable	187	147
Liabilities held for sale	—	1
Total current liabilities	4,675	4,460
Noncurrent Liabilities:		
Long-term debt	6,339	6,173
Deferred income taxes	326	484
Noncurrent income taxes payable	151	273
Other liabilities	1,014	943
Total noncurrent liabilities	7,830	7,873
Stockholders' Equity:		
Common stock (Authorized- 700.0 shares; par value of \$0.01 per share):		
Issued- 550.0 shares in 2023 and 2022		
Outstanding- 299.3 shares in 2023 and 305.0 shares in 2022	6	6
Additional paid-in-capital	1,588	1,501
Retained earnings	27,122	25,799
Common stock held in treasury	(23,870)	(22,377)
Accumulated other comprehensive income (loss)	(1,834)	(1,841)
Noncontrolling interest	1	1
Total stockholders' equity	3,013	3,089
	<u>\$ 15,518</u>	<u>\$ 15,422</u>

The Notes to Financial Statements are an integral part of this statement.

Statement of Changes in Stockholders' Equity
Illinois Tool Works Inc. and Subsidiaries

In millions except per share amounts	Common Stock	Additional Paid-in Capital	Retained Earnings	Common Stock Held in Treasury	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interest	Total
Balance as of December 31, 2020	\$ 6	\$ 1,362	\$ 23,114	\$ (19,659)	\$ (1,642)	\$ 1	\$ 3,182
Net income	—	—	2,694	—	—	—	2,694
Common stock issued for stock-based compensation	—	17	—	23	—	—	40
Stock-based compensation expense	—	53	—	—	—	—	53
Repurchases of common stock	—	—	—	(1,000)	—	—	(1,000)
Dividends declared (\$4.72 per share)	—	—	(1,483)	—	—	—	(1,483)
Other comprehensive income (loss)	—	—	—	—	140	—	140
Balance as of December 31, 2021	6	1,432	24,325	(20,636)	(1,502)	1	3,626
Net income	—	—	3,034	—	—	—	3,034
Common stock issued for stock-based compensation	—	6	—	9	—	—	15
Stock-based compensation expense	—	63	—	—	—	—	63
Repurchases of common stock	—	—	—	(1,750)	—	—	(1,750)
Dividends declared (\$5.06 per share)	—	—	(1,560)	—	—	—	(1,560)
Other comprehensive income (loss)	—	—	—	—	(339)	—	(339)
Balance as of December 31, 2022	6	1,501	25,799	(22,377)	(1,841)	1	3,089
Net income	—	—	2,957	—	—	—	2,957
Common stock issued for stock-based compensation	—	18	—	20	—	—	38
Stock-based compensation expense	—	69	—	—	—	—	69
Repurchases of common stock	—	—	—	(1,500)	—	—	(1,500)
Excise tax on repurchases of common stock	—	—	—	(13)	—	—	(13)
Dividends declared (\$5.42 per share)	—	—	(1,634)	—	—	—	(1,634)
Other comprehensive income (loss)	—	—	—	—	7	—	7
Balance as of December 31, 2023	\$ 6	\$ 1,588	\$ 27,122	\$ (23,870)	\$ (1,834)	\$ 1	\$ 3,013

The Notes to Financial Statements are an integral part of this statement.

Statement of Cash Flows
Illinois Tool Works Inc. and Subsidiaries

In millions	For the Years Ended December 31		
	2023	2022	2021
Cash Provided by (Used for) Operating Activities:			
Net income	\$ 2,957	\$ 3,034	\$ 2,694
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation	282	276	277
Amortization and impairment of intangible assets	113	134	133
Change in deferred income taxes	(88)	(150)	(148)
Provision for uncollectible accounts	6	5	3
(Income) loss from investments	(2)	(9)	(29)
(Gain) loss on sale of plant and equipment	(1)	(1)	—
(Gain) loss on sale of operations and affiliates	(1)	(191)	—
Stock-based compensation expense	69	63	53
Other non-cash items, net	(4)	5	13
Change in assets and liabilities, net of acquisitions and divestitures:			
(Increase) decrease in—			
Trade receivables	64	(461)	(240)
Inventories	360	(455)	(450)
Prepaid expenses and other assets	(26)	(19)	(36)
Increase (decrease) in—			
Accounts payable	(14)	35	37
Accrued expenses and other liabilities	(102)	119	202
Income taxes	(72)	(35)	49
Other, net	(2)	(2)	(1)
Net cash provided by operating activities	3,539	2,348	2,557
Cash Provided by (Used for) Investing Activities:			
Acquisition of businesses (excluding cash and equivalents)	—	(2)	(731)
Additions to plant and equipment	(455)	(412)	(296)
Proceeds from investments	27	12	38
Proceeds from sale of plant and equipment	20	15	8
Proceeds from sale of operations and affiliates	7	278	—
Other, net	(2)	(1)	(3)
Net cash provided by (used for) investing activities	(403)	(110)	(984)
Cash Provided by (Used for) Financing Activities:			
Cash dividends paid	(1,615)	(1,542)	(1,463)
Issuance of common stock	53	29	50
Repurchases of common stock	(1,500)	(1,750)	(1,000)
Net proceeds from (repayments of) debt with original maturities of three months or less	(452)	796	120
Proceeds from debt with original maturities of more than three months	1,425	593	90
Repayments of debt with original maturities of more than three months	(679)	(1,113)	(351)
Other, net	(14)	(13)	(10)
Net cash provided by (used for) financing activities	(2,782)	(3,000)	(2,564)
Effect of Exchange Rate Changes on Cash and Equivalents	3	(57)	(46)
Cash and Equivalents:			
Increase (decrease) during the year	357	(819)	(1,037)
Beginning of year	708	1,527	2,564
End of year	\$ 1,065	\$ 708	\$ 1,527
Supplementary Cash Flow Information:			
Cash Paid During the Year for Interest	\$ 260	\$ 199	\$ 197
Cash Paid During the Year for Income Taxes, Net of Refunds	\$ 1,026	\$ 993	\$ 731

The Notes to Financial Statements are an integral part of this statement.

Notes to Financial Statements

(1) Description of Business and Summary of Significant Accounting Policies

Description of business— Illinois Tool Works Inc. (the "Company" or "ITW") is a global manufacturer of a diversified range of industrial products and equipment with approximately 84 divisions in 51 countries. The Company's operations are organized and managed based on similar product offerings and end markets, and are reported to senior management as the following seven segments: Automotive OEM; Food Equipment; Test & Measurement and Electronics; Welding; Polymers & Fluids; Construction Products; and Specialty Products.

Consolidation and translation— The financial statements include the Company and its majority-owned subsidiaries. The Company follows the equity method of accounting for investments where the Company has a significant influence but not a controlling interest. Intercompany transactions are eliminated from the financial statements. Foreign subsidiaries' assets and liabilities are translated to U.S. dollars at end-of-period exchange rates. Revenues and expenses are translated at average rates for the period. Translation adjustments are reported as a component of accumulated other comprehensive income (loss) in stockholders' equity.

Reclassifications— Certain reclassifications of prior year data have been made to conform to current year reporting.

Use of estimates— The preparation of the Company's financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and the notes to financial statements. Actual results could differ from those estimates.

Acquisitions— The Company accounts for acquisitions under the acquisition method, in which assets acquired and liabilities assumed are recorded at fair value as of the date of acquisition. The operating results of the acquired companies are included in the Company's consolidated financial statements from the date of acquisition. Refer to Note 3. Acquisitions for additional information regarding the Company's acquisitions.

Operating revenue— Operating revenue is recognized at the time a good or service is transferred to a customer and the customer obtains control of that good or receives the service performed. The Company's sales arrangements with customers are predominantly short-term in nature involving a single performance obligation related to the delivery of products and generally provide for transfer of control at the time of shipment. In limited circumstances, there may be significant obligations to the customer that are unfulfilled at the time of shipment, typically involving installation of equipment and customer acceptance. In these circumstances, operating revenue may be deferred until all significant obligations have been completed. In other limited arrangements, the Company may recognize revenue over time. This may include arrangements for service performed over time where operating revenue is recognized over time as the service is provided to the customer. It may also include the sale of highly specialized systems that include a high degree of customization and installation at the customer site which are recognized over time if the product does not have an alternative use and the Company has an enforceable right to payment for work performed to date. Revenue for transactions meeting these criteria is recognized over time as work is performed based on the costs incurred to date relative to the total estimated costs at completion. The amount of operating revenue recorded reflects the consideration to which the Company expects to be entitled in exchange for goods or services and may include adjustments for customer allowances and rebates. Customer allowances and rebates consist primarily of volume discounts and other short-term incentive programs, which are estimated at the time of sale based on historical experience and anticipated trends. Shipping and handling charges billed to customers are included in revenue and are recognized along with the related product revenue as they are considered a fulfillment cost. Sales commissions are expensed when incurred, which is generally at the time of revenue recognition. Contract liabilities associated with sales arrangements primarily relate to deferred revenue on equipment sales and prepaid service contracts. Total deferred revenue and customer deposits were \$395 million and \$427 million as of December 31, 2023 and 2022, respectively, and are short-term in nature. Refer to Note 5. Operating Revenue for additional information regarding the Company's operating revenue.

Research and development expenses— Research and development expenses are recorded as expense in the year incurred. These costs were \$284 million, \$269 million and \$239 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Advertising expenses— Advertising expenses are recorded as expense in the year incurred. These costs were \$60 million, \$57 million and \$50 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Income taxes— The Company utilizes the asset and liability method of accounting for income taxes. Deferred income taxes are determined based on the estimated future tax effects of differences between the financial and tax bases of assets and liabilities given the provisions of the enacted tax laws. Valuation allowances are established when it is estimated that it is more likely than not that the tax benefit of the deferred tax asset will not be realized.

Cash and equivalents— Cash and equivalents include cash on hand and instruments having original maturities of three months or less. Cash and equivalents are stated at cost, which approximates fair value.

Trade receivables— Trade receivables are net of allowances for doubtful accounts. The changes in the allowance for doubtful accounts for the years ended December 31, 2023, 2022 and 2021 were as follows:

In millions	2023	2022	2021
Beginning balance	\$ 26	\$ 28	\$ 29
Provision charged to expense	6	5	3
Acquisitions and divestitures	—	2	2
Write-offs, net of recoveries	(3)	(8)	(5)
Foreign currency translation	—	(1)	(1)
Ending balance	<u>\$ 29</u>	<u>\$ 26</u>	<u>\$ 28</u>

Inventories— Inventories are stated at the lower of cost or net realizable value and include material, labor and factory overhead. The last-in, first-out ("LIFO") method is used to determine the cost of inventories at certain U.S. businesses. The first-in, first-out ("FIFO") method, which approximates current cost, is used for all other inventories. Inventories priced at LIFO were approximately 23% of total inventories as of December 31, 2023 and 22% of total inventories as of December 31, 2022. If the FIFO method was used for all inventories, total inventories would have been approximately \$117 million and \$111 million higher than reported at December 31, 2023 and 2022, respectively. The major classes of inventory at December 31, 2023 and 2022 were as follows:

In millions	2023	2022
Raw material	\$ 742	\$ 887
Work-in-process	234	228
Finished goods	848	1,050
LIFO reserve	(117)	(111)
Total inventories	<u>\$ 1,707</u>	<u>\$ 2,054</u>

Net plant and equipment— Net plant and equipment are stated at cost, less accumulated depreciation. Renewals and improvements that increase the useful life of plant and equipment are capitalized. Maintenance and repairs are charged to expense as incurred. Net plant and equipment consisted of the following at December 31, 2023 and 2022:

In millions	2023	2022
Land	\$ 197	\$ 188
Buildings and improvements	1,490	1,414
Machinery and equipment	4,070	3,891
Construction in progress	294	259
Gross plant and equipment	6,051	5,752
Accumulated depreciation	(4,075)	(3,904)
Net plant and equipment	<u>\$ 1,976</u>	<u>\$ 1,848</u>

The Company's U.S. businesses primarily compute depreciation on an accelerated basis. The majority of the Company's international businesses compute depreciation on a straight-line basis. The ranges of useful lives used to depreciate plant and equipment are as follows:

Buildings and improvements	5—50 years
Machinery and equipment	3—12 years

Depreciation was \$282 million, \$276 million and \$277 million for the years ended December 31, 2023, 2022 and 2021, respectively.

Goodwill and intangible assets— Goodwill represents the excess cost over fair value of the net assets of acquired businesses. The Company does not amortize goodwill and intangible assets that have indefinite lives. Amortizable intangible assets are being amortized on a straight-line basis over their estimated useful lives of 3 to 20 years.

The Company performs an impairment assessment of goodwill and intangible assets with indefinite lives annually, or more frequently if triggering events occur, based on the estimated fair value of the related reporting unit or intangible asset. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants.

When performing its annual impairment assessment, the Company evaluates the goodwill assigned to each of its reporting units for potential impairment by comparing the estimated fair value of the relevant reporting unit to the carrying value. The Company uses various Level 2 and Level 3 valuation techniques to determine the fair value of its reporting units, including discounting estimated future cash flows based on a cash flow forecast prepared by the relevant reporting unit and market multiples of relevant public companies. If the fair value of a reporting unit is less than its carrying value, a goodwill impairment loss is recorded for the difference.

The Company's indefinite-lived intangible assets consist of trademarks and brands. The estimated fair values of these intangible assets are determined based on a Level 3 valuation method using a relief-from-royalty income approach derived from internally forecasted revenues of the related products. If the fair value of the trademark or brand is less than its carrying value, an impairment loss is recorded for the difference.

Refer to Note 9. Goodwill and Intangible Assets for additional information regarding the Company's recorded goodwill and intangible assets.

Leases— The Company recognizes a lease liability and corresponding right-of-use asset for all operating leases with a noncancellable lease term of greater than one year. Rental expense for operating leases is recognized on a straight-line basis over the noncancellable lease term based on the minimum lease payments at lease inception. Changes in rent subsequent to commencement that were not included in minimum lease payments at inception are recognized as variable rent in the period incurred. Refer to Note 10. Leases for additional information regarding the Company's operating leases.

Accrued warranties— The Company accrues for product warranties based on historical experience. The changes in accrued warranties for the years ended December 31, 2023, 2022 and 2021 were as follows:

In millions	2023	2022	2021
Beginning balance	\$ 42	\$ 46	\$ 45
Charges	(51)	(41)	(34)
Provision charged to expense	56	40	34
Acquisitions and divestitures	—	(2)	5
Foreign currency translation/other	1	(1)	(4)
Ending balance	<u>\$ 48</u>	<u>\$ 42</u>	<u>\$ 46</u>

New Accounting Pronouncements

In October 2021, the Financial Accounting Standards Board (the "FASB") issued authoritative guidance which improves the accounting for acquired revenue contracts with customers in a business combination. The new guidance provides an exception to measure contract assets and contract liabilities acquired in a business combination in accordance with existing

revenue recognition guidance rather than at fair value. The Company early adopted this new guidance in the fourth quarter of 2021. The new guidance is effective prospectively upon adoption and must also be applied retrospectively to all interim periods in the year of adoption. The adoption of this new accounting guidance did not have a material impact on the Company's results of operations or financial position. Refer to Note 3. Acquisitions for additional information regarding the Company's acquisitions.

In November 2023, the FASB issued authoritative guidance which expands annual and interim disclosure requirements for reportable segments. The more significant provisions include the requirement to disclose significant segment expenses and certain disclosures made annually under existing guidance will be required for interim periods. The guidance is effective for the Company beginning with its annual reporting for the year ended December 31, 2024 and is required to be applied retrospectively to all periods presented. The Company is currently assessing the impact the guidance will have on its disclosures.

In December 2023, the FASB issued authoritative guidance that expands the disclosure requirements for income taxes. The new guidance will require consistent categories and greater disaggregation of information presented in the effective tax rate reconciliation as well as disaggregation of income taxes paid by jurisdiction. The guidance is effective for the Company beginning with its annual reporting for the year ended December 31, 2025 and is required to be applied prospectively, with retrospective application to prior periods allowed. The Company is currently assessing the impact the guidance will have on its disclosures.

(2) Novel Coronavirus (COVID-19)

In early 2020, an outbreak of a novel strain of coronavirus ("COVID-19") occurred in China and other jurisdictions. The COVID-19 outbreak was subsequently declared a global pandemic by the World Health Organization on March 11, 2020. In response to the outbreak, governments around the globe took various actions to reduce its spread, including travel restrictions, shutdowns of businesses deemed nonessential, and stay-at-home or similar orders. The COVID-19 pandemic and the measures taken globally to reduce its spread negatively impacted the global economy, causing significant disruptions in the Company's global operations starting primarily in the latter part of the first quarter of 2020 as COVID-19 spread and impacted the countries in which the Company operates and the markets the Company serves. Despite the ongoing disruptions caused by the COVID-19 pandemic, the Company experienced solid recovery progress in many of its end markets during 2021 and, to a greater extent, in 2022 as vaccines became widely available and many governments reduced restrictions related to COVID-19.

(3) Acquisitions

On December 1, 2021, the Company completed the acquisition of the Test & Simulation business of MTS Systems Corporation ("MTS") from Amphenol Corporation ("Amphenol") for a purchase price of \$750 million, subject to certain closing adjustments. The MTS Test & Simulation business is a leading global supplier of high-performance testing and simulation systems and is highly complementary to the Company's existing Test & Measurement and Electronics segment. The operating results of the MTS Test & Simulation business were reported within the Test & Measurement and Electronics segment from the date of acquisition, with operating revenue of \$46 million for the one month ended December 31, 2021 and \$422 million for the twelve months ended December 31, 2022. During 2022, the Company completed the allocation of the purchase price to the acquired assets and liabilities as of the acquisition date, including intangible assets and goodwill. Based on its final allocation, the Company recorded goodwill of \$430 million and intangible assets of \$259 million. The intangible assets included \$93 million related to indefinite-lived trademarks and brands and \$166 million related to amortizable intangible assets that are expected to be amortized on a straight-line basis over estimated useful lives ranging from 1 to 14 years, with a weighted-average life of 11 years. None of the goodwill related to this transaction is tax deductible. The fair values of the intangible assets were estimated based on discounted cash flow and market-based valuation models using Level 2 and Level 3 inputs and assumptions. This acquisition did not materially affect the Company's results of operations or financial position for any period presented.

(4) Divestitures

The Company routinely reviews its portfolio of businesses relative to its business portfolio criteria and evaluates if further portfolio refinements may be needed. The Company previously communicated its intent to explore options, including potential divestitures, for certain businesses with annual revenues totaling up to \$1 billion. As such, the Company may commit to a plan to exit or dispose of certain businesses and present them as held for sale in periods prior to the sale of the business.

In the fourth quarter of 2019, the Company completed the divestitures of three businesses. Due to the COVID-19 pandemic, the Company chose to defer any significant divestiture activity in 2020 and 2021. The Company reinitiated the divestiture process in 2022 for certain businesses with combined annual revenues of approximately \$0.5 billion, subject to approval by the Company's Board of Directors.

In the second quarter of 2022, plans were approved to divest two businesses, including one business in the Polymers & Fluids segment and one business in the Food Equipment segment. These two businesses were classified as held for sale beginning in the second quarter of 2022. In the fourth quarter of 2022, both of these businesses were divested. On October 3, 2022, the business in the Polymers & Fluids segment was sold for \$220 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$156 million. On December 1, 2022, the business in the Food Equipment segment was sold for \$59 million, subject to certain closing adjustments, resulting in a pre-tax gain of \$41 million. The pre-tax gains were included in Other income (expense) in the Statement of Income. Income taxes on the gains were mostly offset by the utilization of capital loss carryforwards of \$32 million. Operating revenue related to these divested businesses that was included in the Company's results of operations for the twelve months ended December 31, 2022 and 2021 was \$106 million and \$115 million, respectively.

In the fourth quarter of 2022, plans were approved to divest one business in the Specialty Products segment. This business was presented as held for sale beginning in the fourth quarter of 2022. Assets and liabilities held for sale related to this business were \$8 million and \$1 million, respectively, as of December 31, 2022. This business was sold on April 3, 2023, with no significant gain or loss upon sale. Operating revenue related to this business that was included in the Company's results of operations for the twelve months ended December 31, 2023, 2022 and 2021 was \$9 million, \$37 million and \$35 million, respectively.

(5) Operating Revenue

The Company's 84 diversified operating divisions are organized and managed based on similar product offerings and end markets, and are reported to senior management as the following seven segments: Automotive OEM; Food Equipment; Test & Measurement and Electronics; Welding; Polymers & Fluids; Construction Products; and Specialty Products. Operating revenue by product category, which is consistent with the Company's segment presentation, for the twelve months ended December 31, 2023, 2022 and 2021 was as follows:

In millions	2023	2022	2021
Automotive OEM	\$ 3,235	\$ 2,969	\$ 2,800
Food Equipment	2,622	2,444	2,078
Test & Measurement and Electronics	2,832	2,828	2,346
Welding	1,902	1,894	1,650
Polymers & Fluids	1,804	1,905	1,804
Construction Products	2,033	2,113	1,945
Specialty Products	1,697	1,799	1,854
Intersegment revenue	(18)	(20)	(22)
Total	<u>\$ 16,107</u>	<u>\$ 15,932</u>	<u>\$ 14,455</u>

The following is a description of the product offerings, end markets and typical revenue transactions for each of the Company's seven segments:

Automotive OEM— This segment is a global, niche supplier to top tier OEMs, providing unique innovation to address pain points for sophisticated customers with complex problems. Businesses in this segment produce components and fasteners for automotive-related applications. This segment primarily serves the automotive original equipment manufacturers and tiers market. Products in this segment include:

- plastic and metal components, fasteners and assemblies for automobiles, light trucks and other industrial uses.

Products sold in this segment are primarily manufactured to the customer's specifications and are sold under long-term supply agreements with OEM auto manufacturers and other top tier auto parts suppliers. The Company typically recognizes revenue for products in this segment at the time of shipment. Certain products may be produced utilizing tooling that is owned by the customer that the Company developed and is reimbursed by the customer for the associated cost. In these arrangements, the

Company typically retains a contractual right to use the customer-owned tooling for the purpose of fulfilling its obligations under the supply agreement. The Company records reimbursements for the cost of customer-owned tooling as a cost offset rather than operating revenue as tooling is not considered a product offering central to the Company's operations.

Food Equipment— This segment is a highly focused and branded industry leader in commercial food equipment differentiated by innovation and integrated service offerings. This segment primarily serves the food service, food retail and food institutional/restaurant markets. Products in this segment include:

- warewashing equipment;
- cooking equipment, including ovens, ranges and broilers;
- refrigeration equipment, including refrigerators, freezers and prep tables;
- food processing equipment, including slicers, mixers and scales;
- kitchen exhaust, ventilation and pollution control systems; and
- food equipment service, maintenance and repair.

Revenue for equipment sold in this segment is typically recognized at the time of product shipment. In limited circumstances involving installation of equipment and customer acceptance, the Company may recognize revenue upon completion of installation and acceptance by the customer. Annual service contracts are typically sold separate from equipment and the related revenue is recognized on a straight-line basis over the annual service period. Operating revenue for on-demand service repairs and parts is recorded upon completion and customer acceptance of the work performed.

Test & Measurement and Electronics— This segment is a branded and innovative producer of test and measurement and electronic manufacturing and maintenance, repair, and operations, or "MRO" solutions that improve efficiency and quality for customers in diverse end markets. Businesses in this segment produce equipment, consumables, and related software for testing and measuring of materials and structures, as well as equipment and consumables used in the production of electronic subassemblies and microelectronics. This segment primarily serves the electronics, general industrial, energy, automotive original equipment manufacturers and tiers, industrial capital goods and consumer durables markets. Products in this segment include:

- equipment, consumables, and related software for testing and measuring of materials, structures, gases and fluids;
- electronic assembly equipment;
- electronic components and component packaging;
- static control equipment and consumables used for contamination control in clean room environments; and
- pressure sensitive adhesives and components for electronics, medical, transportation and telecommunications applications.

Revenue for products sold in this segment is typically recognized at the time of shipment. In limited circumstances where significant obligations to the customer are unfulfilled at the time of shipment, typically involving installation of equipment and customer acceptance, revenue recognition is deferred until such obligations have been completed. In other limited arrangements involving the sale of highly specialized systems that include a high degree of customization and installation at the customer site, revenue is recognized over time if the product does not have an alternative use and the Company has an enforceable right to payment for work performed to date. Revenue for transactions meeting these criteria is recognized over time as work is performed based on the costs incurred to date relative to the total estimated costs at completion.

Welding— This segment is a branded value-added equipment and specialty consumable manufacturer with innovative and leading technology. Businesses in this segment produce arc welding equipment, consumables and accessories for a wide array of industrial and commercial applications. This segment primarily serves the general industrial market, which includes fabrication, shipbuilding and other general industrial markets, and construction, energy, MRO, industrial capital goods and automotive original equipment manufacturers and tiers markets. Products in this segment include:

- arc welding equipment; and
- metal arc welding consumables and related accessories.

Products in this segment are primarily manufactured to meet anticipated customer demand. The Company typically recognizes revenue for these products at the time of product shipment.

Polymers & Fluids— This segment is a branded supplier to niche markets that require value-added, differentiated products. Businesses in this segment produce engineered adhesives, sealants, lubrication and cutting fluids, and fluids and polymers for

auto aftermarket maintenance and appearance. This segment primarily serves the automotive aftermarket, general industrial and MRO markets. Products in this segment include:

- adhesives for industrial, construction and consumer purposes;
- chemical fluids which clean or add lubrication to machines;
- epoxy and resin-based coating products for industrial applications;
- hand wipes and cleaners for industrial applications;
- fluids, polymers and other supplies for auto aftermarket maintenance and appearance;
- fillers and putties for auto body repair; and
- polyester coatings and patch and repair products for the marine industry.

Products in this segment are primarily manufactured to meet anticipated customer demand. The Company typically recognizes revenue for these products at the time of product shipment.

Construction Products— This segment is a branded supplier of innovative engineered fastening systems and solutions. This segment primarily serves the residential construction, renovation/remodel and commercial construction markets. Products in this segment include:

- fasteners and related fastening tools for wood and metal applications;
- anchors, fasteners and related tools for concrete applications;
- metal plate truss components and related equipment and software; and
- packaged hardware, fasteners, anchors and other products for retail.

Products in this segment are primarily manufactured to meet anticipated customer demand. The Company typically recognizes revenue for these products at the time of product shipment.

Specialty Products— This segment is focused on diversified niche market opportunities with substantial patent protection producing beverage packaging equipment and consumables, product coding and marking equipment and consumables, and appliance components and fasteners. This segment primarily serves the food and beverage, consumer durables, general industrial, industrial capital goods, airlines and printing and publishing markets. Products in this segment include:

- conveyor systems and line automation for the food and beverage industries;
- plastic consumables that multi-pack cans and bottles and related equipment;
- foil, film and related equipment used to decorate consumer products;
- product coding and marking equipment and related consumables;
- plastic and metal closures and components for appliances;
- airport ground support equipment; and
- components for medical devices.

Products in this segment are primarily manufactured to meet anticipated customer demand. The Company typically recognizes revenue for these products at the time of product shipment. In limited circumstances where significant obligations to the customer are unfulfilled at the time of shipment, typically involving installation of equipment and customer acceptance, revenue is recognized when such obligations have been completed.

(6) Other Income (Expense)

Other income (expense) for the twelve months ended December 31, 2023, 2022 and 2021 consisted of the following:

In millions	2023	2022	2021
Interest income	\$ 51	\$ 22	\$ 12
Other net periodic benefit income	33	41	23
Income (loss) from investments	2	9	29
Gain (loss) on sale of operations and affiliates	1	191	—
Equity income in Wilsonart	—	—	—
Gain (loss) on foreign currency transactions, net	(39)	(7)	(9)
Other, net	1	(1)	(4)
Total other income (expense)	<u>\$ 49</u>	<u>\$ 255</u>	<u>\$ 51</u>

Gain (loss) on sale of operations and affiliates for the twelve months ended December 31, 2022 primarily related to two businesses divested in the fourth quarter of 2022. Refer to Note 4. Divestitures for further information regarding the Company's divestitures.

In the fourth quarter of 2012, the Company divested a 51% majority interest in its former Decorative Surfaces segment to certain funds managed by Clayton, Dubilier & Rice, LLC ("CD&R"). As a result of the transaction, the Company owns common units (the "Common Units") of Wilsonart International Holdings LLC ("Wilsonart") initially representing approximately 49% (on an as-converted basis) of the total outstanding equity. CD&R owns cumulative convertible participating preferred units (the "Preferred Units") of Wilsonart representing approximately 51% (on an as-converted basis) of the total outstanding equity. The Preferred Units rank senior to the Common Units as to dividends and liquidation preference, and accrue dividends at a rate of 10% per annum. The ownership interest in Wilsonart is reported using the equity method of accounting. The Company's proportionate share in the income (loss) of Wilsonart is reported in Other income (expense) in the Statement of Income. As the Company's investment in Wilsonart is structured as a partnership for U.S. tax purposes, U.S. taxes are recorded separately from the equity investment. In 2016, the Company received a \$167 million dividend distribution from Wilsonart which exceeded the Company's equity investment balance and resulted in a \$54 million pre-tax gain in 2016. As a result of the dividend distribution, the equity investment balance in Wilsonart was reduced to zero and any subsequent equity investment income will not be recognized until the gain is recaptured.

(7) Income Taxes

Noncurrent income taxes payable— On December 22, 2017, the "Tax Cuts and Jobs Act" (the "Act") was enacted in the United States. The provisions of the Act significantly revised the U.S. corporate income tax rules. In connection with the enactment of the Act, the Company recorded a one-time additional income tax expense of \$676 million in the fourth quarter of 2017 related to a one-time repatriation tax on the deemed repatriation of post-1986 undistributed earnings of foreign subsidiaries. A portion of the resulting income taxes payable can be paid in installments over eight years. The noncurrent income taxes payable related to the one-time repatriation tax was \$151 million and \$273 million as of December 31, 2023 and 2022, respectively.

Provision for income taxes— The components of the provision for income taxes for the twelve months ended December 31, 2023, 2022 and 2021 were as follows:

In millions	2023	2022	2021
U.S. federal income taxes:			
Current	\$ 455	\$ 478	\$ 399
Deferred	(111)	(143)	(95)
Total U.S. federal income taxes	344	335	304
Foreign income taxes:			
Current	405	387	302
Deferred	31	13	(57)
Total foreign income taxes	436	400	245
State income taxes:			
Current	94	93	79
Deferred	(8)	(20)	4
Total state income taxes	86	73	83
Total provision for income taxes	\$ 866	\$ 808	\$ 632

Income before taxes for domestic and foreign operations for the twelve months ended December 31, 2023, 2022 and 2021 was as follows:

In millions	2023	2022	2021
Domestic	\$ 1,953	\$ 2,128	\$ 1,667
Foreign	1,870	1,714	1,659
Total income before taxes	\$ 3,823	\$ 3,842	\$ 3,326

The reconciliation between the U.S. federal statutory tax rate and the effective tax rate for the twelve months ended December 31, 2023, 2022 and 2021 was as follows:

	2023	2022	2021
U.S. federal statutory tax rate	21.0 %	21.0 %	21.0 %
State income taxes, net of U.S. federal tax benefit	1.9	1.6	2.1
Differences between U.S. federal statutory and foreign tax rates	1.1	0.6	0.3
U.S. tax effect of foreign earnings	0.8	1.0	1.2
Tax effect of foreign dividends	0.1	0.6	0.6
Changes in tax law	—	—	(3.4)
Audit resolution	(0.2)	(1.4)	(0.1)
Excess tax benefits from stock-based compensation	(0.5)	(0.3)	(0.5)
Foreign derived intangible income	(1.4)	(1.3)	(1.3)
Other, net	(0.2)	(0.8)	(0.9)
Effective tax rate	22.6 %	21.0 %	19.0 %

The Company's effective tax rate for the twelve months ended December 31, 2023, 2022 and 2021 was 22.6%, 21.0% and 19.0%, respectively. The 2023 effective tax rate benefited from a discrete income tax benefit of \$20 million in the second quarter of 2023 related to amended 2021 U.S. taxes. The 2022 effective tax rate benefited from discrete income tax benefits of \$32 million in the fourth quarter of 2022 related to the utilization of capital loss carryforwards and \$51 million in the second quarter of 2022 related to a decrease in unrecognized tax benefits resulting from the resolution of a U.S. tax audit. The 2021 effective tax rate benefited from discrete income tax benefits of \$21 million in the third quarter of 2021 related to the utilization of capital loss carryforwards and \$112 million in the second quarter of 2021 related to the remeasurement of net deferred tax assets due to the enactment of the U.K. Finance Bill 2021, which increased the U.K. income tax rate from 19% to 25% effective April 1, 2023. Additionally, the effective tax rates for 2023, 2022 and 2021 included discrete income tax

benefits of \$20 million, \$12 million and \$17 million, respectively, related to excess tax benefits from stock-based compensation.

Upon repatriation of foreign earnings to the U.S., the Company may be subject to foreign withholding taxes. The accrual for foreign withholding taxes related to the expected repatriation of foreign held cash and equivalents as of December 31, 2023 and 2022 was \$39 million and \$50 million, respectively.

Deferred foreign withholding taxes have not been provided on undistributed earnings considered permanently invested. As of December 31, 2023, undistributed earnings of certain international subsidiaries that are considered permanently invested were approximately \$6 billion. Determination of the related deferred tax liability is not practicable because of the complexities associated with the hypothetical calculation.

Deferred tax assets and liabilities— The components of deferred income tax assets and liabilities as of December 31, 2023 and 2022 were as follows:

In millions	2023		2022	
	Asset	Liability	Asset	Liability
Goodwill and intangible assets	\$ 505	\$ (492)	\$ 437	\$ (505)
Inventory reserves, capitalized tax cost and LIFO inventory	51	(3)	51	(3)
Investments	19	(124)	23	(141)
Plant and equipment	12	(113)	15	(106)
Accrued expenses and reserves	34	—	39	—
Employee benefit accruals	165	—	166	—
Foreign tax credit carryforwards	12	—	14	—
Net operating loss carryforwards	463	—	441	—
Capital loss carryforwards	194	—	194	—
Allowances for uncollectible accounts	12	—	11	—
Capitalized research and development	88	—	44	—
Pension liabilities	—	(21)	—	(25)
Unrealized loss (gain) on foreign debt instruments	—	(37)	—	(65)
Operating leases	53	(53)	47	(47)
Other	43	(31)	45	(30)
Gross deferred income tax assets (liabilities)	1,651	(874)	1,527	(922)
Valuation allowances	(624)	—	(595)	—
Total deferred income tax assets (liabilities)	\$ 1,027	\$ (874)	\$ 932	\$ (922)

The valuation allowances recorded as of December 31, 2023 and 2022 related primarily to certain net operating loss carryforwards and capital loss carryforwards. As of December 31, 2023, the Company had utilized all realizable foreign tax credit carryforwards.

As of December 31, 2023, the Company had net operating loss carryforwards available to offset future taxable income in the U.S. and certain foreign jurisdictions, which expire as follows:

In millions	Gross Carryforwards Related to Net Operating Losses
2024	\$ 10
2025	1
2026	4
2027	1
2028	2
2029-2049	664
Do not expire	1,027
Total gross carryforwards related to net operating losses	<u>\$ 1,709</u>

Unrecognized tax benefits— The changes in the amount of unrecognized tax benefits for the twelve months ended December 31, 2023, 2022 and 2021 were as follows:

In millions	2023	2022	2021
Beginning balance	\$ 314	\$ 360	\$ 346
Additions based on tax positions related to the current year	21	9	11
Additions for tax positions of prior years	48	9	23
Reductions for tax positions of prior years	(33)	(56)	(12)
Settlements	(23)	—	—
Foreign currency translation	2	(8)	(8)
Ending balance	<u>\$ 329</u>	<u>\$ 314</u>	<u>\$ 360</u>

Included in the balance as of December 31, 2023 were approximately \$295 million of unrecognized tax benefits that, if recognized, would impact the Company's effective tax rate.

The Company and its subsidiaries file tax returns in the U.S. and various state, local and foreign jurisdictions. These tax returns are routinely audited by the tax authorities in these jurisdictions including the Internal Revenue Service, His Majesty's Revenue and Customs, German Fiscal Authority, French Fiscal Authority, and Australian Tax Office, and a number of these audits are currently ongoing, which may increase the amount of the unrecognized tax benefits in future periods. The Company believes it is reasonably possible that within the next twelve months the amount of the Company's unrecognized tax benefits may be decreased by approximately \$8 million related predominantly to the potential resolution of federal, state and foreign examinations. The Company has recorded its best estimate of the potential exposure for these issues. The following table summarizes the open tax years for the Company's major jurisdictions:

Jurisdiction	Open Tax Years
United States – Federal	2019-2023
United Kingdom	2017-2023
Germany	2019-2023
France	2017-2023
Australia	2015-2023

The Company recognizes interest and penalties related to income tax matters in income tax expense. The accrual for interest and penalties as of December 31, 2023 and 2022 was \$34 million and \$26 million, respectively.

(8) Net Income Per Share

Net income per basic share is computed by dividing net income by the weighted-average number of shares outstanding for the period. Net income per diluted share is computed by dividing net income by the weighted-average number of shares

assuming dilution for stock options and restricted stock units. Dilutive shares reflect the potential additional shares that would be outstanding if the dilutive stock options outstanding were exercised and the unvested restricted stock units vested during the period. The computation of net income per share for the twelve months ended December 31, 2023, 2022 and 2021 was as follows:

In millions except per share amounts	2023	2022	2021
Net Income	\$ 2,957	\$ 3,034	\$ 2,694
Net income per share—Basic:			
Weighted-average common shares	302.6	309.6	315.1
Net income per share—Basic	\$ 9.77	\$ 9.80	\$ 8.55
Net income per share—Diluted:			
Weighted-average common shares	302.6	309.6	315.1
Effect of dilutive stock options and restricted stock units	1.0	1.1	1.3
Weighted-average common shares assuming dilution	303.6	310.7	316.4
Net income per share—Diluted	\$ 9.74	\$ 9.77	\$ 8.51

Options that were considered antidilutive were not included in the computation of diluted net income per share. There were 0.3 million, 0.9 million and 0.4 million antidilutive options outstanding for the twelve months ended December 31, 2023, 2022 and 2021, respectively.

(9) Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for the twelve months ended December 31, 2023 and 2022 were as follows:

In millions	Automotive OEM	Food Equipment	Test & Measurement and Electronics	Welding	Polymers & Fluids	Construction Products	Specialty Products	Total
Balance, December 31, 2021	\$ 475	\$ 265	\$ 1,707	\$ 258	\$ 873	\$ 518	\$ 869	\$ 4,965
Acquisitions / (divestitures)	—	—	58	—	—	—	—	58
Transfers to assets held for sale	—	(2)	—	—	(33)	—	(2)	(37)
Foreign currency translation	(16)	(14)	(36)	(10)	(17)	(15)	(14)	(122)
Balance, December 31, 2022	459	249	1,729	248	823	503	853	4,864
Foreign currency translation	7	2	6	3	11	3	13	45
Balance, December 31, 2023	\$ 466	\$ 251	\$ 1,735	\$ 251	\$ 834	\$ 506	\$ 866	\$ 4,909
Cumulative goodwill impairment charges, December 31, 2023	\$ 24	\$ 60	\$ 83	\$ 5	\$ 15	\$ 7	\$ 46	\$ 240

Intangible assets as of December 31, 2023 and 2022 were as follows:

In millions	2023			2022		
	Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Amortizable intangible assets:						
Customer lists and relationships	\$ 1,746	\$ (1,534)	\$ 212	\$ 1,746	\$ (1,479)	\$ 267
Trademarks and brands	713	(573)	140	713	(541)	172
Patents and proprietary technology	615	(581)	34	615	(565)	50
Other	511	(487)	24	509	(477)	32
Total amortizable intangible assets	3,585	(3,175)	410	3,583	(3,062)	521
Indefinite-lived intangible assets:						
Trademarks and brands	247	—	247	247	—	247
Total intangible assets	\$ 3,832	\$ (3,175)	\$ 657	\$ 3,830	\$ (3,062)	\$ 768

On December 1, 2021, the Company completed the acquisition of the MTS Test & Simulation business for a purchase price of \$750 million, subject to certain closing adjustments, which was reported within the Test & Measurement and Electronics segment. During 2022, the Company completed the allocation of the purchase price to the acquired assets and liabilities as of the acquisition date, including intangible assets and goodwill. Based on its final allocation, the Company recorded goodwill of \$430 million and intangible assets of \$259 million. Refer to Note 3. Acquisitions for additional information regarding this acquisition.

The Company performed its annual impairment assessment of goodwill and indefinite-lived intangible assets in the third quarter of 2023, 2022 and 2021. There were no impairment charges as a result of these assessments.

As of December 31, 2023, the estimated future amortization expense of intangible assets for the twelve months ending December 31 was as follows:

In millions	
2024	\$ 96
2025	75
2026	54
2027	43
2028	33

(10) Leases

The Company's lease transactions are primarily for the use of facilities, vehicles and office equipment under operating lease arrangements. Total rental expense for operating leases for the twelve months ended December 31, 2023, 2022 and 2021 was \$132 million, \$122 million and \$118 million, respectively. Total rental expense for the twelve months ended December 31, 2023, 2022 and 2021 included \$60 million, \$56 million and \$47 million, respectively, related to short-term operating leases and variable lease payments. Short-term operating leases have original terms of one year or less, or can be terminated at the Company's option with a short notice period and without significant penalty, and are not capitalized.

The following table summarizes information related to the Company's capitalized operating leases for 2023, 2022 and 2021:

Dollars in millions	2023	2022	2021
Rental expense related to capitalized operating leases	\$ 72	\$ 66	\$ 71
Cash paid related to maturities of operating lease liabilities	\$ 70	\$ 67	\$ 70
Right-of-use assets obtained in exchange for operating lease liabilities	\$ 82	\$ 74	\$ 71
Right-of-use assets	\$ 248	\$ 212	
Current portion of operating lease liabilities	\$ 58	\$ 55	
Long-term portion of operating lease liabilities	148	131	
Operating lease liabilities	\$ 206	\$ 186	
Weighted-average remaining lease term	5.0 years	4.9 years	
Weighted-average discount rate	2.95 %	2.25 %	

The right-of-use assets related to operating leases and the current and long-term portions of operating lease liabilities were included in Other assets, Accrued expenses and Other liabilities, respectively, in the Statement of Financial Position. The weighted-average discount rate was based on the incremental borrowing rate of the Company and its subsidiaries. As of December 31, 2023, future maturities of operating lease liabilities for the twelve months ending December 31 were as follows:

In millions		
2024	\$	63
2025		47
2026		35
2027		26
2028		17
2029 and future years		36
Total future minimum lease payments		224
Less: Imputed interest		(18)
Operating lease liabilities	\$	206

(11) Debt

Total debt as of December 31, 2023 and 2022 was as follows:

In millions	2023	2022
Short-term debt	\$ 1,825	\$ 1,590
Long-term debt	6,339	6,173
Total debt	\$ 8,164	\$ 7,763

Short-term debt— Short-term debt represents obligations with a maturity date of one year or less and is stated at cost, which approximates fair value. Short-term debt also includes current maturities of long-term debt that have been reclassified to short-term, and excludes short-term debt classified as long-term because the Company has the intent and ability to extend the maturity date beyond one year. Short-term debt as of December 31, 2023 and 2022 consisted of the following:

In millions	2023	2022
Current maturities of long-term debt	\$ 1,361	\$ 535
Commercial paper	464	1,053
Other	—	2
Total short-term debt	\$ 1,825	\$ 1,590

As of December 31, 2023, current maturities of long-term debt included \$700 million related to the 3.50% notes due March 1, 2024, which were reclassified from Long-term debt to Short-term debt in the first quarter of 2023 and \$661 million related to the 0.25% Euro notes due December 5, 2024, which were reclassified from Long-term debt to Short-term debt in the fourth quarter of 2023. As of December 31, 2022, current maturities of long-term debt included \$535 million related to the 1.25% Euro notes due May 22, 2023, which were repaid on the due date.

The Company may issue commercial paper to fund general corporate needs, share repurchases, and small and medium-sized acquisitions. During the fourth quarter of 2022, the Company entered into a \$3.0 billion, five-year revolving credit facility with a termination date of October 21, 2027, which is available to provide additional liquidity, including to support the potential issuances of commercial paper. No amounts were outstanding under the revolving credit facility as of December 31, 2023 or 2022. The Company was also in compliance with the financial covenants of the revolving credit facility as of December 31, 2023, which included a minimum interest coverage ratio. The weighted-average interest rate on commercial paper was 5.40% and 4.35% as of December 31, 2023 and 2022, respectively.

As of December 31, 2023, the Company had unused capacity of approximately \$158 million under international debt facilities. In the ordinary course of business, the Company also had approximately \$231 million outstanding in guarantees, letters of credit and other similar arrangements with financial institutions as of December 31, 2023.

Long-term debt— Long-term debt represents obligations with a maturity date greater than one year or where the Company has the intent and ability to extend the maturity date beyond one year, and excludes current maturities that have been reclassified to short-term debt. Long-term debt at carrying value and fair value as of December 31, 2023 and 2022 consisted of the following:

In millions	Effective Interest Rate	2023		2022	
		Carrying Value	Fair Value	Carrying Value	Fair Value
1.25% Euro notes due May 22, 2023	1.35%	\$ —	\$ —	\$ 535	\$ 533
3.50% notes due March 1, 2024	3.54%	700	698	699	691
Euro Credit Agreement due May 3, 2024	Variable	1,434	1,434	—	—
0.25% Euro notes due December 5, 2024	0.31%	661	642	641	606
2.65% notes due November 15, 2026	2.69%	997	956	996	932
0.625% Euro notes due December 5, 2027	0.71%	549	509	531	469
2.125% Euro notes due May 22, 2030	2.18%	548	530	531	484
1.00% Euro notes due June 5, 2031	1.09%	546	488	529	438
3.00% Euro notes due May 19, 2034	3.13%	543	551	525	492
4.875% notes due September 15, 2041	4.97%	638	660	638	638
3.90% notes due September 1, 2042	3.96%	1,084	989	1,083	945
Total		7,700	\$ 7,457	6,708	\$ 6,228
Less: Current maturities of long-term debt		(1,361)		(535)	
Total long-term debt		\$ 6,339		\$ 6,173	

The approximate fair values of the Company's long-term debt, including current maturities, were based on a valuation model using Level 2 observable inputs, which included market rates for comparable instruments for the respective periods.

In 2011, the Company issued \$350 million of 3.375% notes due September 15, 2021 at 99.552% of face value, which were redeemed in full on June 15, 2021, and \$650 million of 4.875% notes due September 15, 2041 at 98.539% of face value.

In 2012, the Company issued \$1.1 billion of 3.9% notes due September 1, 2042 at 99.038% of face value.

In February 2014, the Company issued \$700 million of 3.5% notes due March 1, 2024 at 99.648% of face value.

In May 2014, the Company issued €500 million of 1.75% Euro notes due May 20, 2022 at 99.16% of face value, which were redeemed in full at face value on February 22, 2022, and €500 million of 3.0% Euro notes due May 19, 2034 at 98.089% of face value.

In May 2015, the Company issued €500 million of 1.25% Euro notes due May 22, 2023 at 99.239% of face value, which were repaid on the due date, and €500 million of 2.125% Euro notes due May 22, 2030 at 99.303% of face value.

In November 2016, the Company issued \$1.0 billion of 2.65% notes due November 15, 2026 at 99.685% of face value.

In June 2019, the Company issued €600 million of 0.25% Euro notes due December 5, 2024 at 99.662% of face value, €500 million of 0.625% Euro notes due December 5, 2027 at 99.343% of face value and €500 million of 1.00% Euro notes due June 5, 2031 at 98.982% of face value.

On May 5, 2023, the Company entered into a €1.3 billion Euro-denominated credit agreement (the "Euro Credit Agreement") with a termination date of May 3, 2024; provided, however, that the Company may extend the termination date by six months on up to two occasions. On May 12, 2023, the Company borrowed €1.3 billion of Euro term loans under the Euro Credit Agreement. Proceeds from the borrowing were used for general corporate purposes, including the repayment of outstanding debt. Any loan under the Euro Credit Agreement may not be re-borrowed once repaid, in full or in part, and will bear interest

at a per annum rate equal to the applicable EURIBOR (adjusted for any statutory reserves) plus 0.75% for the interest period selected by the Company of one, three or six months. As of December 31, 2023, the Company had €1.3 billion outstanding under the Euro Credit Agreement with an interest rate of 4.59%, which was included in Long-term debt as the Company intends to exercise its options to extend the termination date.

The Company designated the €1.0 billion of Euro notes issued in May 2014, the €1.0 billion of Euro notes issued in May 2015, the €1.6 billion of Euro notes issued in June 2019 and the €1.3 billion of Euro term loans borrowed under the Euro Credit Agreement in May 2023 as hedges of a portion of its net investment in Euro-denominated foreign operations to reduce foreign currency risk associated with the investment in these operations. On February 22, 2022, €500 million of the Euro notes issued in May 2014 were redeemed in full and on May 22, 2023, €500 million of the Euro notes issued in May 2015 were repaid on the due date. Refer to Note 14. Stockholders' Equity for additional information regarding the net investment hedge.

All of the Company's long-term debt listed above represent senior unsecured obligations ranking equal in right of payment. As of December 31, 2023, scheduled future maturities of long-term debt, including current maturities of long-term debt, for the twelve months ending December 31 were as follows:

In millions		
2024	\$	1,361
2025		1,434
2026		997
2027		549
2028		—
2029 and future years		3,359
Total	\$	<u>7,700</u>

The €1.3 billion of Euro term loans due May 3, 2024 that were borrowed under the Euro Credit Agreement were included in the 2025 maturities in the scheduled future maturities of long-term debt as the Company intends to exercise its options to extend the termination date up to twelve months.

(12) Pension and Other Postretirement Benefits

The Company has both funded and unfunded defined benefit pension and other postretirement benefit plans, predominately in the U.S. The U.S. primary pension plan provides benefits based on years of service and final average salary. The U.S. primary postretirement health care plan is contributory with the participants' contributions adjusted annually. The U.S. primary postretirement life insurance plan is noncontributory. Beginning January 1, 2007, the U.S. primary pension and other postretirement benefit plans were closed to new participants. Newly hired employees and employees from acquired businesses that are not participating in these plans are eligible for additional Company contributions under the existing U.S. primary defined contribution retirement plans. The Company's expense related to defined contribution plans was \$117 million in 2023, \$111 million in 2022, and \$88 million in 2021. In addition to the U.S. plans, the Company also has defined benefit pension plans in certain other countries, mainly the United Kingdom, Canada, Germany and Switzerland.

Summarized information regarding net periodic benefit cost included in the Statement of Income related to the Company's significant defined benefit pension and other postretirement benefit plans for the twelve months ended December 31, 2023, 2022 and 2021 is as follows:

In millions	Pension			Other Postretirement Benefits		
	2023	2022	2021	2023	2022	2021
Components of net periodic benefit cost:						
Service cost	\$ 35	\$ 47	\$ 53	\$ 5	\$ 7	\$ 7
Interest cost	94	50	39	23	13	11
Expected return on plan assets	(129)	(100)	(101)	(22)	(26)	(25)
Amortization of actuarial (gain) loss	3	24	53	(4)	(3)	—
Amortization of prior service cost	1	1	1	—	—	—
Settlement loss	—	1	—	—	—	—
Total net periodic benefit cost (income)	<u>\$ 4</u>	<u>\$ 23</u>	<u>\$ 45</u>	<u>\$ 2</u>	<u>\$ (9)</u>	<u>\$ (7)</u>

The service cost component of net periodic benefit cost is presented within Cost of revenue and Selling, administrative, and research and development expenses in the Statement of Income while the other components of net periodic benefit cost are presented within Other income (expense).

The Company used the most recently published mortality improvement scale from the Society of Actuaries, MP-2021, to measure its U.S. pension and other postretirement benefit obligations as of December 31, 2023 and 2022, which did not have a significant impact.

The following table provides a rollforward of the plan benefit obligations for the twelve months ended December 31, 2023 and 2022:

In millions	Pension		Other Postretirement Benefits	
	2023	2022	2023	2022
Change in benefit obligation:				
Beginning balance	\$ 1,993	\$ 2,765	\$ 468	\$ 580
Service cost	35	47	5	7
Interest cost	94	50	23	13
Plan participants' contributions	1	1	9	10
Actuarial (gain) loss	64	(607)	38	(101)
Benefits paid	(153)	(160)	(45)	(43)
Medicare subsidy received	—	—	1	2
Foreign currency translation	35	(103)	—	—
Ending balance	<u>\$ 2,069</u>	<u>\$ 1,993</u>	<u>\$ 499</u>	<u>\$ 468</u>
Accumulated benefit obligation as of December 31	<u>\$ 1,972</u>	<u>\$ 1,911</u>		

For the years ended December 31, 2023 and 2022, the actuarial (gain) loss related to the Company's pension and other postretirement benefit obligations was primarily related to changes in discount rates. Refer to the Assumptions section below for further details related to the discount rates used in the valuations of pension and other postretirement benefit obligations.

The following table provides a rollforward of the plan assets and a reconciliation of funded status for the twelve months ended December 31, 2023 and 2022:

In millions	Pension		Other Postretirement Benefits	
	2023	2022	2023	2022
Change in plan assets:				
Beginning balance	\$ 2,114	\$ 3,041	\$ 336	\$ 434
Actual return on plan assets	157	(662)	51	(69)
Company contributions	10	14	7	4
Plan participants' contributions	1	1	9	10
Benefits paid	(153)	(160)	(45)	(43)
Foreign currency translation	42	(120)	—	—
Ending balance	\$ 2,171	\$ 2,114	\$ 358	\$ 336
Reconciliation of funded status:				
Funded status	\$ 102	\$ 121	\$ (141)	\$ (132)
Other immaterial plans	(58)	(55)	(4)	(4)
Net asset (liability) as of December 31	\$ 44	\$ 66	\$ (145)	\$ (136)
The amounts recognized in the Statement of Financial Position as of December 31 consist of:				
Other assets	\$ 243	\$ 251	\$ —	\$ —
Accrued expenses	(29)	(12)	(3)	(3)
Other noncurrent liabilities	(170)	(173)	(142)	(133)
Net asset (liability) as of December 31	\$ 44	\$ 66	\$ (145)	\$ (136)
The pre-tax amounts recognized in accumulated other comprehensive (income) loss consist of:				
Net actuarial (gain) loss	\$ 512	\$ 479	\$ (61)	\$ (74)
Prior service cost	3	4	—	—
Pre-tax accumulated other comprehensive (income) loss as of December 31	\$ 515	\$ 483	\$ (61)	\$ (74)

As of December 31, 2023 and 2022, pension plans with projected benefit obligations in excess of plan assets had projected benefit obligations of \$179 million and \$137 million, respectively, and plan assets of \$55 million and \$22 million, respectively. As of December 31, 2023 and 2022, pension plans with accumulated benefit obligations in excess of plan assets had accumulated benefit obligations of \$175 million and \$131 million, respectively, and plan assets of \$55 million and \$22 million, respectively.

Assumptions— The weighted-average assumptions used in the valuations of pension and other postretirement benefits were as follows:

	Pension			Other Postretirement Benefits		
	2023	2022	2021	2023	2022	2021
Assumptions used to determine benefit obligations as of December 31:						
Discount rate	4.69 %	4.94 %	2.33 %	5.01 %	5.19 %	2.92 %
Rate of compensation increases	3.39 %	3.46 %	3.40 %			
Interest crediting rate - U.S. cash balance plan	3.75 %	3.75 %	3.75 %			
Assumptions used to determine net periodic benefit cost for the twelve months ended December 31:						
Discount rate	4.94 %	2.33 %	1.89 %	5.19 %	2.92 %	2.59 %
Expected return on plan assets	5.27 %	3.72 %	3.67 %	6.75 %	6.25 %	6.65 %
Rate of compensation increases	3.46 %	3.40 %	3.24 %			
Interest crediting rate - U.S. cash balance plan	3.75 %	3.75 %	3.75 %			

The expected long-term rates of return for pension and other postretirement benefit plans were developed using historical asset class returns while factoring in current market conditions such as inflation, interest rates and asset class performance.

The discount rate reflects the current rate at which the associated liabilities could theoretically be effectively settled at the end of the year. In estimating this rate, the Company looks at rates of return on high-quality fixed income investments, with similar duration to the liabilities in the plan. The Company estimates the service and interest cost components of net periodic benefit cost by applying specific spot rates along the yield curve to the projected cash flows rather than a single weighted-average rate.

Assumed health care cost trend rates have an effect on the amounts reported for the postretirement health care benefit plans. The assumed health care cost trend rates used to determine the postretirement benefit obligation as of December 31 were as follows:

	2023	2022	2021
Health care cost trend rate assumed for the next year	7.50 %	7.00 %	7.00 %
Ultimate trend rate	4.50 %	4.50 %	4.50 %
Year the rate reaches the ultimate trend rate	2033	2031	2029

Plan assets— The Company's overall investment strategy for the assets in the pension funds is to achieve a balance between the goals of growing plan assets and keeping risk at a reasonable level over a long-term investment horizon. In order to reduce unnecessary risk, the pension funds are diversified across several asset classes, securities and investment managers. The target allocations for plan assets are 15% to 25% equity investments, 75% to 85% fixed income investments and 0% to 10% in other types of investments. The Company does not use derivatives for the purpose of speculation, leverage, circumventing investment guidelines or taking risks that are inconsistent with specified guidelines.

The assets in the Company's postretirement health care plan are primarily invested in life insurance policies. The Company's overall investment strategy for the assets in the postretirement health care fund is to invest in assets that provide a reasonable tax exempt rate of return while preserving capital.

The following tables present the fair value of the Company's pension and other postretirement benefit plan assets as of December 31, 2023 and 2022 by asset category and valuation methodology. Level 1 assets are valued using unadjusted quoted prices for identical assets in active markets. Level 2 assets are valued using quoted prices or other observable inputs for similar assets. Level 3 assets are valued using unobservable inputs, but reflect the assumptions market participants would be expected to use in pricing the assets. Each financial instrument's categorization is based on the lowest level of input that is significant to the fair value measurement.

In millions	2023			
	Total	Level 1	Level 2	Level 3
Pension Plan Assets:				
Cash and equivalents	\$ 47	\$ 47	\$ —	\$ —
Fixed income securities:				
Government securities	334	—	334	—
Corporate debt securities	800	—	800	—
Investment contracts with insurance companies	1	—	—	1
Commingled funds:				
Mutual funds	25			
Collective trust funds	946			
Partnerships/private equity interests	8			
Other	10	—	10	—
Total fair value of pension plan assets	<u>\$ 2,171</u>	<u>\$ 47</u>	<u>\$ 1,144</u>	<u>\$ 1</u>
Other Postretirement Benefit Plan Assets:				
Life insurance policies	\$ 358			
Total fair value of other postretirement benefit plan assets	<u>\$ 358</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
In millions	2022			
	Total	Level 1	Level 2	Level 3
Pension Plan Assets:				
Cash and equivalents	\$ 44	\$ 44	\$ —	\$ —
Fixed income securities:				
Government securities	299	—	299	—
Corporate debt securities	737	—	737	—
Investment contracts with insurance companies	1	—	—	1
Commingled funds:				
Mutual funds	22			
Collective trust funds	994			
Partnerships/private equity interests	13			
Other	4	—	4	—
Total fair value of pension plan assets	<u>\$ 2,114</u>	<u>\$ 44</u>	<u>\$ 1,040</u>	<u>\$ 1</u>
Other Postretirement Benefit Plan Assets:				
Life insurance policies	\$ 336			
Total fair value of other postretirement benefit plan assets	<u>\$ 336</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

Cash and equivalents include cash on hand and instruments with original maturities of three months or less and are valued at cost, which approximates fair value. Fixed income securities primarily consist of U.S. and foreign government bills, notes and bonds, corporate debt securities and investment contracts. The majority of the assets in this category are valued by evaluating bid prices provided by independent financial data services. For securities where market data is not readily available, unobservable market data is used to value the security.

Pension assets measured at net asset value include mutual funds, collective trust funds, partnerships/private equity interests and life insurance policies. Mutual funds and collective trust funds are funds that are valued based on the value of the underlying investments which can be redeemed on a daily basis. The underlying investments include both passively and actively managed U.S. and foreign large- and mid-cap equity funds and short-term investment funds. Partnerships/private equity interests are investments in partnerships where the benefit plan is a limited partner. The investments are valued by the investment managers on a periodic basis using pricing models that use market, income and cost valuation methods. Distributions are received from these funds on a periodic basis through the liquidation of the underlying assets of the fund.

Life insurance policies are used to fund other postretirement benefits in order to obtain favorable tax treatment and are valued based on the cash surrender value of the underlying policies. The Company has selected the funds in which these assets are invested and may elect to withdraw funds with proper notice to the insurance company or maintain the policies and receive death benefits as determined by the contracts.

Cash flows— The Company generally funds its pension and other postretirement benefit plans as required by law or to the extent such contributions are tax deductible. The Company expects to contribute approximately \$60 million to its pension plans and \$4 million to its other postretirement benefit plans in 2024. As of December 31, 2023, the Company's portion of the future benefit payments that are expected to be paid during the twelve months ending December 31 is as follows:

In millions	Pension	Other Postretirement Benefits
2024	\$ 179	\$ 37
2025	162	38
2026	161	38
2027	163	38
2028	165	38
Years 2029-2033	803	184

(13) Commitments and Contingencies

The Company is subject to various legal proceedings and claims that arise in the ordinary course of business, including those involving environmental, product liability (including toxic tort) and general liability claims. The Company accrues for such liabilities when it is probable that future costs will be incurred and such costs can be reasonably estimated. Such accruals are based on developments to date, the Company's estimates of the outcomes of these matters and its experience in contesting, litigating and settling other similar matters. The Company believes resolution of these matters, individually and in the aggregate, will not have a material adverse effect on the Company's financial position, liquidity or future operations.

(14) Stockholders' Equity

Preferred stock— Preferred stock, without par value, of which 0.3 million shares are authorized and unissued, is issuable in series. The Board of Directors is authorized to fix by resolution the designation and characteristics of each series of preferred stock. The Company has no present commitment to issue its preferred stock.

Share repurchases— On August 3, 2018, the Company announced a stock repurchase program which provided for the repurchase of up to \$3.0 billion of the Company's common stock over an open-ended period of time (the "2018 Program"). Under the 2018 Program, the Company repurchased approximately 6.7 million shares of its common stock at an average price of \$158.11 per share during 2019, approximately 4.2 million shares of its common stock at an average price of \$167.69 per share during 2020, approximately 4.4 million shares of its common stock at an average price of \$227.29 per share during 2021 and approximately 1.2 million shares of its common stock at an average price of \$216.62 per share during 2022. The 2018 Program was completed in the first quarter of 2022.

On May 7, 2021, the Company announced a stock repurchase program which provided for the repurchase of up to an additional \$3.0 billion of the Company's common stock over an open-ended period of time (the "2021 Program"). Under the 2021 program, the Company repurchased approximately 7.1 million shares of its common stock at an average price of \$210.46 per share during 2022 and approximately 6.3 million shares of its common stock at an average price of \$235.35 per share during 2023. The 2021 Program was completed in the fourth quarter of 2023.

On August 4, 2023, the Company announced a new stock repurchase program which provides for the repurchase of up to an additional \$5.0 billion of the Company's common stock over an open-ended period of time (the "2023 Program"). Under the 2023 program, the Company repurchased approximately 38,000 shares of its common stock at an average price of \$263.44 per share during 2023. As of December 31, 2023, there were approximately \$5.0 billion of authorized repurchases remaining under the 2023 program.

Cash Dividends— Cash dividends declared were \$5.42 per share in 2023, \$5.06 per share in 2022 and \$4.72 per share in 2021. Cash dividends paid were \$5.33 per share in 2023, \$4.97 per share in 2022 and \$4.64 per share in 2021.

Accumulated other comprehensive income (loss)— The changes in accumulated other comprehensive income (loss) during 2023, 2022 and 2021 were as follows:

In millions	2023	2022	2021
Beginning balance	\$ (1,841)	\$ (1,502)	\$ (1,642)
Foreign currency translation adjustments during the period	16	(192)	73
Foreign currency translation adjustments reclassified to income	(1)	—	5
Income taxes	26	(50)	(73)
Total foreign currency translation adjustments, net of tax	41	(242)	5
Pension and other postretirement benefit adjustments during the period	(45)	(149)	125
Pension and other postretirement benefit adjustments reclassified to income	—	23	54
Income taxes	11	29	(44)
Total pension and other postretirement benefit adjustments, net of tax	(34)	(97)	135
Ending balance	\$ (1,834)	\$ (1,841)	\$ (1,502)

Foreign currency translation adjustments reclassified to income primarily relate to the exit of immaterial foreign operations. Pension and other postretirement benefit adjustments reclassified to income represented settlements and the amortization of actuarial gains and losses and prior service cost. Refer to Note 12. Pension and Other Postretirement Benefits for the amounts included in net periodic benefit cost.

The Company designated the €1.0 billion of Euro notes issued in May 2014, the €1.0 billion of Euro notes issued in May 2015, the €1.6 billion of Euro notes issued in June 2019 and the €1.3 billion of Euro term loans borrowed under the Euro Credit Agreement in May 2023 as hedges of a portion of its net investment in Euro-denominated foreign operations to reduce foreign currency risk associated with the investment in these operations. Changes in the value of this debt resulting from fluctuations in the Euro to U.S. Dollar exchange rate have been recorded as foreign currency translation adjustments within Accumulated other comprehensive income (loss). On February 22, 2022, €500 million of the Euro notes issued in May 2014 were redeemed in full and on May 22, 2023, €500 million of the Euro notes issued in May 2015 were repaid on the due date. Refer to Note 11. Debt for additional information regarding the redemption of these notes. The amount of pre-tax gain (loss) related to these notes that was recorded in Other comprehensive income (loss) for the twelve months ended December 31, 2023, 2022 and 2021 was \$(109) million, \$205 million and \$303 million, respectively.

As of December 31, 2023 and 2022, the ending balance of Accumulated other comprehensive income (loss) consisted of after-tax cumulative translation adjustment losses of \$1.5 billion in both periods, and after-tax unrecognized pension and other postretirement benefits costs of \$327 million and \$293 million, respectively.

(15) Stock-Based Compensation

On May 8, 2015 (the "Effective Date"), the 2015 Long-Term Incentive Plan (the "2015 Plan") was approved by shareholders. The 2015 Plan allows for the issuance of up to 10 million shares of ITW common stock for awards granted under the plan. As of the Effective Date, no additional awards will be granted to employees under the 2011 Long-Term Incentive Plan (the "2011 Plan"). The significant terms of stock options and restricted stock units ("RSUs") were not changed under the 2015 Plan. Stock options and RSUs are issued to officers and/or other management employees under these plans. Stock options generally vest over a four-year period and have an expiration of ten years from the issuance date. RSUs generally "cliff" vest after a three-year period and include units with and without performance criteria. RSUs with performance criteria provide for full "cliff" vesting after three years if the Compensation Committee of the Board of Directors certifies that the performance goals have been met. Upon vesting, the holder will receive one share of common stock of the Company for each vested restricted stock unit.

Commencing in February 2013, the Company began issuing shares from treasury stock to cover the exercised options and vested RSUs. Prior to February 2013, the Company generally issued new shares from its authorized but unissued share pool.

The Company records compensation expense for the grant date fair value of stock awards over the remaining service periods of those awards. The following table summarizes the Company's stock-based compensation expense for the twelve months ended December 31, 2023, 2022 and 2021:

In millions	2023	2022	2021
Pre-tax stock-based compensation expense	\$ 69	\$ 63	\$ 53
Tax benefit	(7)	(7)	(6)
Total stock-based compensation expense, net of tax	\$ 62	\$ 56	\$ 47

The following table summarizes activity related to non-vested RSUs for the twelve months ended December 31, 2023:

Shares in millions	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested, January 1, 2023	0.6	\$203.48
Granted	0.2	232.21
Vested	(0.2)	189.20
Unvested, December 31, 2023	0.6	218.85

The following table summarizes stock option activity for the twelve months ended December 31, 2023:

In millions except exercise price and contractual terms	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Under option, January 1, 2023	3.2	\$158.71		
Granted	0.3	235.52		
Exercised	(0.5)	99.12		
Under option, December 31, 2023	3.0	177.01	5.8	\$249
Exercisable, December 31, 2023	2.0	159.24	4.9	\$207

The fair value of RSUs is equal to the common stock fair market value on the date of the grant. RSUs provide for dividend equivalents payable in additional RSUs for dividends that would have been paid during the vesting period. Stock option exercise prices are equal to the common stock fair market value on the date of grant. The Company estimates forfeitures based on historical rates for awards with similar characteristics. The Company uses a binomial option pricing model to estimate the fair value of the stock options granted. The following summarizes the assumptions used in the option valuations for the twelve months ended December 31, 2023, 2022 and 2021:

	2023	2022	2021
Risk-free interest rate	3.92-4.86%	1.04-2.07%	0.04%-1.38%
Weighted-average volatility	22.0%	21.0%	24.0%
Dividend yield	2.13%	2.20%	2.50%
Expected years until exercise	8.6-9.2	9.1-9.6	8.9-9.4

Lattice-based option valuation models, such as the binomial option pricing model, incorporate ranges of assumptions for inputs. The risk-free rate of interest for periods within the contractual life of the option is based on a zero-coupon U.S. government instrument over the contractual term of the equity instrument. Expected volatility is based on implied volatility from traded options on the Company's stock and historical volatility of the Company's stock. The Company uses historical data to estimate option exercise timing and employee termination rates within the valuation model. The weighted-average dividend yield is based on historical information. The expected term of options granted is derived from the output of the option valuation model and represents the period of time that options granted are expected to be outstanding. The ranges presented result from separate groups of employees assumed to exhibit different exercise behavior.

The weighted-average grant-date fair value of stock options granted for the twelve months ended December 31, 2023, 2022 and 2021 was \$67.16, \$45.15 and \$40.90 per share, respectively. The aggregate intrinsic value of stock options exercised

during the twelve months ended December 31, 2023, 2022 and 2021 was \$79 million, \$38 million and \$68 million, respectively. As of December 31, 2023, there was \$11 million of total unrecognized compensation cost related to unvested stock options. That cost is expected to be recognized over a weighted-average period of 2.0 years. Exercise of stock options during the twelve months ended December 31, 2023, 2022 and 2021 resulted in cash receipts of \$53 million, \$29 million and \$50 million, respectively. The total fair value of vested stock option awards during the twelve months ended December 31, 2023, 2022 and 2021 was \$18 million, \$18 million and \$19 million, respectively.

As of December 31, 2023, there was \$50 million of total unrecognized compensation cost related to unvested RSUs. That cost is expected to be recognized over a weighted-average remaining contractual life of 1.7 years. The total fair value of vested RSU awards during the twelve months ended December 31, 2023, 2022 and 2021 was \$35 million, \$28 million and \$23 million, respectively.

(16) Other Balance Sheet Information

Other balance sheet information as of December 31, 2023 and 2022 was as follows:

In millions	2023	2022
Prepaid expenses and other current assets:		
Value-added-tax receivables	\$ 99	\$ 92
Vendor advances	55	52
Income tax refunds receivable	29	10
Other	157	175
Total prepaid expenses and other current assets	<u>\$ 340</u>	<u>\$ 329</u>
Other assets:		
Cash surrender value of life insurance policies	\$ 436	\$ 433
Operating lease right-of-use assets	248	212
Prepaid pension assets	243	251
Customer tooling	181	159
Other	154	123
Total other assets	<u>\$ 1,262</u>	<u>\$ 1,178</u>
Accrued expenses:		
Compensation and employee benefits	\$ 423	\$ 451
Deferred revenue and customer deposits	395	427
Rebates	218	225
Current portion of operating lease liabilities	58	55
Warranties	48	42
Current portion of pension and other postretirement benefit obligations	32	15
Other	489	513
Total accrued expenses	<u>\$ 1,663</u>	<u>\$ 1,728</u>
Other liabilities:		
Pension benefit obligation	\$ 170	\$ 173
Long-term portion of operating lease liabilities	148	131
Postretirement benefit obligation	142	133
Other	554	506
Total other liabilities	<u>\$ 1,014</u>	<u>\$ 943</u>

(17) Segment Information

The Company's operations are organized and managed based on similar product offerings and end markets, and are reported to senior management as the following seven segments: Automotive OEM; Food Equipment; Test & Measurement and Electronics; Welding; Polymers & Fluids; Construction Products; and Specialty Products. The following is a description of the Company's seven segments:

Automotive OEM— This segment is a global, niche supplier to top tier OEMs, providing unique innovation to address pain points for sophisticated customers with complex problems. Businesses in this segment produce components and fasteners for automotive-related applications.

Food Equipment— This segment is a highly focused and branded industry leader in commercial food equipment differentiated by innovation and integrated service offerings.

Test & Measurement and Electronics— This segment is a branded and innovative producer of test and measurement and electronic manufacturing and MRO solutions that improve efficiency and quality for customers in diverse end markets. Businesses in this segment produce equipment, consumables, and related software for testing and measuring of materials and structures, as well as equipment and consumables used in the production of electronic subassemblies and microelectronics.

Welding— This segment is a branded value-added equipment and specialty consumable manufacturer with innovative and leading technology. Businesses in this segment produce arc welding equipment, consumables and accessories for a wide array of industrial and commercial applications.

Polymers & Fluids— This segment is a branded supplier to niche markets that require value-added, differentiated products. Businesses in this segment produce engineered adhesives, sealants, lubrication and cutting fluids, and fluids and polymers for auto aftermarket maintenance and appearance.

Construction Products— This segment is a branded supplier of innovative engineered fastening systems and solutions.

Specialty Products— This segment is focused on diversified niche market opportunities with substantial patent protection producing beverage packaging equipment and consumables, product coding and marking equipment and consumables, and appliance components and fasteners.

Segments are allocated a fixed overhead charge based on the segment's revenue. Expenses not charged to the segments are reported separately as Unallocated. Because the Unallocated category includes a variety of items, it is subject to fluctuations on a quarterly and annual basis.

Segment information for 2023, 2022 and 2021 was as follows:

In millions	2023	2022	2021
Operating revenue:			
Automotive OEM	\$ 3,235	\$ 2,969	\$ 2,800
Food Equipment	2,622	2,444	2,078
Test & Measurement and Electronics	2,832	2,828	2,346
Welding	1,902	1,894	1,650
Polymers & Fluids	1,804	1,905	1,804
Construction Products	2,033	2,113	1,945
Specialty Products	1,697	1,799	1,854
Intersegment revenue	(18)	(20)	(22)
Total	\$ 16,107	\$ 15,932	\$ 14,455
Operating income:			
Automotive OEM	\$ 561	\$ 499	\$ 545
Food Equipment	713	618	469
Test & Measurement and Electronics	686	684	643
Welding	605	583	490
Polymers & Fluids	482	479	457
Construction Products	578	548	530
Specialty Products	449	481	504
Total segments	4,074	3,892	3,638
Unallocated	(34)	(102)	(161)
Total	\$ 4,040	\$ 3,790	\$ 3,477
Depreciation and amortization and impairment of intangible assets:			
Automotive OEM	\$ 123	\$ 121	\$ 128
Food Equipment	41	40	42
Test & Measurement and Electronics	80	87	66
Welding	29	26	26
Polymers & Fluids	46	57	62
Construction Products	33	31	32
Specialty Products	43	48	54
Total	\$ 395	\$ 410	\$ 410
Plant and equipment additions:			
Automotive OEM	\$ 224	\$ 181	\$ 116
Food Equipment	54	41	30
Test & Measurement and Electronics	43	49	37
Welding	41	43	27
Polymers & Fluids	27	23	15
Construction Products	31	33	30
Specialty Products	35	42	41
Total	\$ 455	\$ 412	\$ 296
Identifiable assets:			
Automotive OEM	\$ 2,615	\$ 2,447	\$ 2,260
Food Equipment	1,193	1,188	1,052
Test & Measurement and Electronics	3,230	3,289	3,242
Welding	838	933	784
Polymers & Fluids	1,762	1,819	1,881
Construction Products	1,230	1,370	1,367
Specialty Products	1,627	1,696	1,682
Total segments	12,495	12,742	12,268
Corporate	3,023	2,680	3,809
Total	\$ 15,518	\$ 15,422	\$ 16,077

Identifiable assets by segment are those assets that are specifically used in that segment. Corporate assets are principally cash and equivalents, investments and other general corporate assets.

Enterprise-wide information for the twelve months ended December 31, 2023, 2022 and 2021 was as follows:

In millions	2023	2022	2021
Operating Revenue by Geographic Region:			
United States	\$ 7,576	\$ 7,609	\$ 6,578
Canada/Mexico	1,146	1,095	940
Total North America	8,722	8,704	7,518
Europe, Middle East and Africa	4,147	3,913	3,870
Asia Pacific	2,935	2,991	2,802
South America	303	324	265
Total operating revenue	\$ 16,107	\$ 15,932	\$ 14,455

Operating revenue by geographic region is based on the customers' locations. The Company had approximately 44% and 45% of its total net plant and equipment in the United States as of December 31, 2023 and 2022, respectively. Additionally, the Company had 13% and 12% of its total net plant and equipment in China as of December 31, 2023 and 2022, respectively. No other countries represented more than 10% of the Company's net plant and equipment as of December 31, 2023 and 2022. No single customer accounted for more than 5% of consolidated revenues for the twelve months ended December 31, 2023, 2022 or 2021.

ITEM 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

ITEM 9A. Controls and Procedures

Controls and Procedures

The Company's management, with the participation of the Company's President & Chief Executive Officer and Senior Vice President & Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of December 31, 2023. Based on such evaluation, the Company's President & Chief Executive Officer and Senior Vice President & Chief Financial Officer have concluded that, as of December 31, 2023, the Company's disclosure controls and procedures were effective.

Management Report on Internal Control over Financial Reporting

The Management Report on Internal Control over Financial Reporting and the Report of Independent Registered Public Accounting Firm are found in Item 8. Financial Statements and Supplementary Data.

In connection with the evaluation by management, including the Company's President & Chief Executive Officer and Senior Vice President & Chief Financial Officer, no changes in the Company's internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f)) during the quarter ended December 31, 2023 were identified that have materially affected or are reasonably likely to materially affect the Company's internal control over financial reporting.

ITEM 9B. Other Information

On December 6, 2023, Michael R. Zimmerman, Executive Vice President, adopted a plan intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) (a "Rule 10b5-1 trading arrangement"). The Rule 10b5-1 trading arrangement covers the exercise of 19,567 stock options and the related sale of such shares. The 10b5-1 trading arrangement expires on March 7, 2025.

ITEM 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

ITEM 10. *Directors, Executive Officers and Corporate Governance*

Information regarding the Directors of the Company who are standing for reelection and any persons nominated to become Directors of the Company is incorporated by reference from the information under the captions "Proposal 1 - Election of Directors" and "Delinquent Section 16(a) Reports" in the Company's Proxy Statement for the 2024 Annual Meeting of Stockholders.

Information regarding the Audit Committee and its Financial Experts is incorporated by reference from the information under the captions "Corporate Governance - Board of Directors and its Committees" and "Proposal 4 – Ratification of the Appointment of Independent Public Accounting Firm - Audit Committee Report" in the Company's Proxy Statement for the 2024 Annual Meeting of Stockholders.

Information regarding the Executive Officers of the Company can be found in Part I of this Annual Report on Form 10-K under the caption "Information About Our Executive Officers."

Information regarding the Company's code of ethics that applies to the Company's President & Chief Executive Officer, Senior Vice President & Chief Financial Officer, and key financial and accounting personnel is incorporated by reference from the information under the caption "Corporate Governance Policies and Code of Conduct" in the Company's Proxy Statement for the 2024 Annual Meeting of Stockholders.

ITEM 11. *Executive Compensation*

Information regarding executive compensation is incorporated by reference from the information under the captions "Director Compensation," and "Executive Compensation" in the Company's Proxy Statement for the 2024 Annual Meeting of Stockholders.

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 incorporated by reference from the information under the captions "Beneficial Ownership of Common Stock" and "NEO Compensation - Equity Compensation Plan Information" in the Company's Proxy Statement for the 2024 Annual Meeting of Stockholders.

ITEM 13. *Certain Relationships and Related Transactions, and Director Independence*

Information regarding certain relationships and related transactions as well as director independence is incorporated by reference from the information under the captions "Proposal 1 - Election of Directors - Board Independence," "Other Governance Matters - Certain Relationships and Related Party Transactions" and "Corporate Governance Policies and Code of Conduct" in the Company's Proxy Statement for the 2024 Annual Meeting of Stockholders.

ITEM 14. *Principal Accountant Fees and Services*

This information is incorporated by reference from the information under the caption "Proposal 4 - Ratification of the Appointment of Independent Registered Public Accounting Firm" in the Company's Proxy Statement for the 2024 Annual Meeting of Stockholders.

PART IV

ITEM 15. Exhibit and Financial Statement Schedules

(a) (1) Financial Statements

The following information is included as part of Item 8. Financial Statements and Supplementary Data:

Management Report on Internal Control over Financial Reporting

Statement of Income

Statement of Comprehensive Income

Statement of Financial Position

Statement of Changes in Stockholders' Equity

Statement of Cash Flows

Notes to Financial Statements

The following report of the Company's independent registered public accounting firm (PCAOB ID:34) is included as part of Item 8. Financial Statements and Supplementary Data:

Report of Independent Registered Public Accounting Firm

(2) Financial Statement Schedules

None.

(3) Exhibits

Exhibit Number	Description
<u>2.1(a)</u>	<u>Investment Agreement, dated as of August 15, 2012, by and among CD&R Wimbledon Holdings III, L.P., a Cayman Islands limited partnership; Illinois Tool Works Inc.; ITW DS Investments Inc., a Delaware corporation; and Wilsonart International Holdings LLC, a Delaware limited liability company, filed as Exhibit 2.1 to the Company's Current Report on Form 8-K filed on August 17, 2012 (Commission File No. 1-4797) and incorporated herein by reference. (Certain of the schedules and similar attachments have been omitted pursuant to Item 601(b)(2) of Regulation S-K, but the Company undertakes to furnish a copy of the schedules or similar attachments to the Securities and Exchange Committee upon request.)</u>
<u>3(a)(i)</u>	<u>Amended and Restated Certificate of Incorporation of Illinois Tool Works Inc., filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2014 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>3(a)(ii)</u>	<u>Certificate of Amendment of Certificate of Incorporation of Illinois Tool Works Inc., filed as Exhibit 3(a)(ii) to the Company's Current Report on Form 8-K filed on May 12, 2016 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>3(b)</u>	<u>By-laws of Illinois Tool Works Inc., amended and restated as of May 6, 2016, filed as Exhibit 3(b)(i) to the Company's Current Report on Form 8-K filed on May 12, 2016 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>4(a)</u>	<u>Indenture between Illinois Tool Works Inc. and The First National Bank of Chicago, as Trustee, dated as of November 1, 1986, filed as Exhibit 4.4 to the Company's Registration Statement on Form S-3 filed on August 4, 2023 (Commission File No. 333-242331) and incorporated herein by reference.</u>
<u>4(b)</u>	<u>First Supplemental Indenture between Illinois Tool Works Inc. and Harris Trust and Savings Bank, as Trustee, dated as of May 1, 1990, filed as Exhibit 4.5 to the Company's Registration Statement on Form S-3 filed on August 7, 2020 (Commission File No. 333-242331) and incorporated herein by reference.</u>
<u>4(c)</u>	<u>Officers' Certificate dated August 31, 2011, establishing the terms, and setting forth the forms, of the 3.375% Notes due 2021 and the 4.875% Notes due 2041, filed as Exhibit 4.3 to the Company's Current Report on Form 8-K filed on September 1, 2011 (Commission File No. 001-04797) and incorporated herein by reference.</u>
<u>4(d)</u>	<u>Officers' Certificate dated August 28, 2012, establishing the terms, and setting forth the forms, of the 3.900% Notes due 2042, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on August 28, 2012 (Commission File No. 001-4797) and incorporated herein by reference.</u>

Exhibit Number	Description
<u>4(e)</u>	<u>Officers' Certificate dated February 25, 2014, establishing the terms, and setting forth the forms, of the 0.900% Notes due 2017, the 1.950% Notes due 2019, and the 3.500% Notes due 2024, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on February 26, 2014 (Commission File No. 001-04797) and incorporated herein by reference.</u>
<u>4(f)</u>	<u>Officers' Certificate dated May 20, 2014, establishing the terms, and setting forth the forms, of the 1.750% Euro Notes due 2022 and the 3.000% Euro Notes due 2034, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on May 22, 2014 (Commission File No. 001-04797) and incorporated herein by reference.</u>
<u>4(g)</u>	<u>Officers' Certificate dated May 19, 2015, establishing the terms, and setting forth the forms, of the 1.250% Euro Notes due 2023 and the 2.125% Euro Notes due 2030, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on May 22, 2015 (Commission File No. 001-04797) and incorporated herein by reference.</u>
<u>4(h)</u>	<u>Officers' Certificate dated November 7, 2016, establishing the terms, and setting forth the forms, of the 2.650% Notes due 2026, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on November 10, 2016 (Commission File No. 001-04797) and incorporated herein by reference.</u>
<u>4(i)</u>	<u>Officers' Certificate dated June 5, 2019, establishing the terms, and setting forth the forms, of the 0.25% Notes due 2024, the 0.625% Notes due 2027 and the 1.00% Notes due 2031, filed as Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 5, 2019 (Commission File No. 001-04797) and incorporated herein by reference.</u>
<u>4(j)</u>	<u>Description of the Company's Common Stock, filed as Exhibit 4(j) to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>4(k)</u>	<u>Description of the 1.75% Euro Notes due 2022 and 3.00% Euro Notes due 2034, filed as Exhibit 4(k) to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>4(l)</u>	<u>Description of the 1.25% Euro Notes due 2023 and 2.125% Euro Notes due 2030, filed as Exhibit 4(l) to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>4(m)</u>	<u>Description of the 0.250% Euro Notes due 2024, 0.625% Euro Notes due 2027 and 1.000% Euro Notes due 2031, filed as Exhibit 4(m) to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(a)(i)</u>	<u>Credit Agreement dated as of October 21, 2022 among Illinois Tool Works Inc., JPMorgan Chase Bank, N.A., as Agent, Citibank, N.A., as Syndication Agent, and a syndicate of lenders, filed as Exhibit 10(a) to the Company's Current Report on Form 8-K filed on October 26, 2022 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(a)(ii)</u>	<u>Euro Credit Agreement dated as of May 5, 2023 among Illinois Tool Works Inc., as Borrower, the lender(s) party thereto and ING Bank, N.V., London Branch, as Agent, filed as Exhibit 10(a) to the Company's Current Report on Form 8-K filed on May 10, 2023 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(b)*</u>	<u>Illinois Tool Works Inc. 2011 Long-Term Incentive Plan, filed as Exhibit 99.2 to the Company's Current Report on Form 8-K filed on December 16, 2010 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(c)*</u>	<u>Illinois Tool Works Inc. 2015 Long-Term Incentive Plan effective May 8, 2015, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2015 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(d)*</u>	<u>Form of Terms of Option Grant Pursuant to the Illinois Tool Works Inc. 2011 Long-Term Incentive Plan, filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 13, 2014 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(e)*</u>	<u>Form of Terms of Option Grant Pursuant to the Illinois Tool Works Inc. 2015 Long-Term Incentive Plan, filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 9, 2016 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(f)*</u>	<u>Form of Terms of Option Grant Pursuant to the Illinois Tool Works Inc. 2015 Long-Term Incentive Plan, filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 9, 2017 (Commission File No. 1-4797) and incorporated herein by reference.</u>

Exhibit Number	Description
<u>10(g)*</u>	<u>Form of Terms of Option Grant Pursuant to the Illinois Tool Works Inc. 2015 Long-Term Incentive Plan, filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 14, 2019 (Commission File No. 1-4797) and incorporated herein by reference</u>
<u>10(h)*</u>	<u>Form of Terms of Option Grant Pursuant to the Illinois Tool Works Inc. 2015 Long-Term Incentive Plan, filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 5, 2020 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(i)*</u>	<u>Form of Terms of Performance Share Unit Grant Pursuant to the Illinois Tool Works Inc. 2015 Long-Term Incentive Plan, filed as Exhibit 99.2 to the Company's Current Report on Form 8-K filed on February 5, 2020 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(j)*</u>	<u>Form of Terms of Performance Cash Award Pursuant to the Illinois Tool Works Inc. 2015 Long-Term Incentive Plan, filed as Exhibit 99.3 to the Company's Current Report on Form 8-K filed on February 5, 2020 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(k)*</u>	<u>Form of Terms of Restricted Stock Unit Grant Pursuant to the Illinois Tool Works Inc. 2015 Long-Term Incentive Plan, filed as Exhibit 99.4 to the Company's Current Report on Form 8-K filed on February 5, 2020 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(l)*</u>	<u>Illinois Tool Works Inc. Executive Contributory Retirement Income Plan as amended and restated, effective as of January 1, 2010, filed as Exhibit 10 to the Company's Current Report on Form 8-K filed on November 5, 2009 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(m)*</u>	<u>Illinois Tool Works Inc. Nonqualified Pension Plan, effective January 1, 2008, as amended and restated, filed as Exhibit 10(p) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(n)*</u>	<u>Illinois Tool Works Inc. 2011 Change-in-Control Severance Compensation Policy, filed as Exhibit 99.3 to the Company's Current Report on Form 8-K filed on December 16, 2010 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>10(o)*</u>	<u>Illinois Tool Works Inc. Amended and Restated Directors' Deferred Fee Plan effective May 2, 2014, as amended on May 8, 2015 and May 4, 2018, filed herewith.</u>
<u>10(p)*</u>	<u>First Amendment to the Illinois Tool Works Inc. Executive Contributory Retirement Income Plan dated February 15, 2013, filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2013 (Commission File No. 1-4797) and incorporated herein by reference.</u>
<u>21</u>	<u>Subsidiaries and Affiliates of the Company, filed herewith</u>
<u>23</u>	<u>Consent of Independent Registered Public Accounting Firm, filed herewith</u>
<u>24</u>	<u>Powers of Attorney, filed herewith</u>
<u>31</u>	<u>Rule 13a-14(a) Certifications, filed herewith</u>
<u>32</u>	<u>Section 1350 Certification, filed herewith</u>
<u>97</u>	<u>Policy Relating to Recovery of Erroneously Awarded Compensation, filed herewith</u>
101.INS	iXBRL Instance Document**
101.SCH	iXBRL Taxonomy Extension Schema**
101.CAL	iXBRL Taxonomy Extension Calculation Linkbase**
101.DEF	iXBRL Taxonomy Extension Definition Linkbase**
101.LAB	iXBRL Taxonomy Extension Label Linkbase**
101.PRE	iXBRL Taxonomy Extension Presentation Linkbase**
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Management contract or compensatory plan or arrangement.

** The following financial information from Illinois Tool Works Inc.'s Annual Report on Form 10-K for the year ended December 31, 2023, formatted in iXBRL (Inline Extensible Business Reporting Language): (i) Statement of Income, (ii) Statement of Comprehensive Income, (iii) Statement of Changes in Stockholders' Equity (iv) Statement of Financial Position, (v) Statement of Cash Flows and (vi) related Notes to Financial Statements.

ITEM 16. *Form 10-K Summary*

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on this 9th day of February 2024.

ILLINOIS TOOL WORKS INC.

By: _____ /s/ CHRISTOPHER A. O'HERLIHY
Christopher A. O'Herlihy
President & Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities indicated on this 9th day of February 2024.

Signatures	Title
<u>/s/ Christopher A. O'Herlihy</u> Christopher A. O'Herlihy	President & Chief Executive Officer, Director (Principal Executive Officer)
<u>/s/ Michael M. Larsen</u> Michael M. Larsen	Senior Vice President & Chief Financial Officer (Principal Financial Officer)
<u>/s/ Randall J. Scheuneman</u> Randall J. Scheuneman	Vice President & Chief Accounting Officer (Principal Accounting Officer)
Daniel J. Brutto	Director
Susan Crown	Director
Darrell L. Ford	Director
Kelly J. Grier	Director
James W. Griffith	Director
Jay L. Henderson	Director
Jaime Irick	Director
Richard H. Lenny	Director
E. Scott Santi	Chairman of the Board
David B. Smith, Jr.	Director
Pamela B. Strobel	Director
<u>By: /s/ CHRISTOPHER A. O'HERLIHY</u> (Christopher A. O'Herlihy, <i>as Attorney-in-Fact</i>)	

Original powers of attorney authorizing Christopher A. O'Herlihy to sign the Company's Annual Report on Form 10-K and amendments thereto on behalf of the above-named directors of the registrant have been filed with the Securities and Exchange Commission as part of this Annual Report on Form 10-K (Exhibit 24).

Illinois Tool Works Inc.
Subsidiaries

<u><i>Subsidiary Name</i></u>	<u><i>Primary Jurisdiction</i></u>
A V Co 1 Limited	United Kingdom/Delaware
Accessories Marketing Holding Corp.	Delaware
ACCULUBE Manufacturing GmbH - Schmiermittel und -geräte -	Germany
Advanced Molding Co., Inc.	Philippines
AIP/BI Holdings, Inc.	Delaware
Allen France SAS	France
Alpine Systems Corporation	Canada
Anaerobicos S.r.l.	Argentina
AppliChem GmbH	Germany
Avery Berkel France	France
Avery India Limited	India
Avery Malaysia Sdn Bhd	Malaysia
Avery Weigh-Tronix (Suzhou) Weighing Technology Co. Ltd.	China
Avery Weigh-Tronix Finance Limited	United Kingdom
Avery Weigh-Tronix International Limited	United Kingdom
Avery Weigh-Tronix, LLC	Delaware
B.C. Immo	France
Beijing Miller Electric Manufacturing Co. Ltd.	China
Berkel (Ireland) Limited	Ireland
Berrington UK	United Kingdom
Brapenta Eletronica Ltda.	Brazil
Brooks Instrument (Shanghai) Co. Ltd	China
Brooks Instrument B.V.	Netherlands
Brooks Instrument GmbH	Germany
Brooks Instrument KFT	Hungary
Brooks Instrument Korea, Ltd.	South Korea
Brooks Instrument LLC	Delaware
Brooks Instrument Malaysia SDN. BHD.	Malaysia
Buell Industries, Inc.	Delaware
Calvia Spolka z Ograniczona Odpowiedzialnoscia w likwidacji	Poland
Capital Ventures (Australasia) S.à r.l	Luxembourg
Capmax Logistica, S.A. de C.V.	Mexico/Delaware
CCI Realty Company	Delaware
Celeste Industries Corporation	Connecticut
CFC Europe GmbH	Germany
Coeur (Shanghai) Medical Appliance Trading Co., Ltd	China
Coeur Asia Limited	Hong Kong
Coeur Holding Company	Delaware
Coeur, Inc.	Indiana
Compagnie de Materiel et d'Equipements Techniques-Comet	France
Compagnie Hobart	France
Constructions Isothermiques Bontami - C.I.B.	France

**Illinois Tool Works Inc.
Subsidiaries**

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
CS (Australia) Pty Limited	Australia
CS Mexico Holding Company S DE RL DE CV	Mexico
Denison Mayes Group Limited	United Kingdom
Diagraph Corporation Sdn. Bhd	Malaysia
Diagraph ITW Mexico, S. de R.L. De C.V.	Mexico
Diagraph México, S.A. DE C.V.	Mexico
Dongguan Ark-Les Electric Components Co., Ltd.	China
Dongguan CK Branding Co., Ltd.	China
Duo-Fast Korea Co. Ltd.	South Korea
Duo-Fast LLC	Illinois
E.C.S. d.o.o.	Croatia
E2M Production B.V.	Netherlands
E2M Technologies B.V.	Netherlands
ECS Cable Protection Sp. Zoo	Poland
ELRO (Holding) AG	Switzerland
ELRO Grosskuchen GmbH	Austria/Germany
ELRO-WERKE AG	Switzerland
Eltex-Elektrostatik-Gesellschaft mit beschränkter Haftung	Germany
Envases Multipac, S.A. de C.V.	Mexico
Eurotec Srl	Italy
FEG Investments L.L.C.	Delaware
Filbertek	France
Filbertek De Mexico Holding Inc.	Delaware
Filbertek De Mexico, S.A. de C.V.	Mexico
Gamko B.V.	Netherlands
Hobart (Japan) K.K.	Japan
Hobart Andina S.A.S.	Colombia
Hobart Belgium	Belgium
Hobart Brothers International Chile Limitada	Chile
Hobart Brothers LLC	Ohio
Hobart Dayton Mexicana, S. de R.L. de C.V.	Mexico
Hobart Food Equipment Co., Ltd.	China
HOBART Gesellschaft mit beschränkter Haftung	Germany
Hobart International (Singapore) Pte. Ltd.	Singapore
Hobart Korea LLC	South Korea
Hobart LLC	Delaware
Hobart Nederland B.V.	Netherlands
Hobart Sales & Service, Inc.	Ohio
Hobart Scandinavia ApS	Denmark
Hobart Techniek B.V.	Netherlands
Horis	France
ILC Investments Holdings Inc.	Delaware

Illinois Tool Works Inc.
Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
Illinois Tool Works (Chile) Limitada	Chile
Illinois Tool Works (ITW) Nederland B.V.	Netherlands
Industrie Plastic Elsässer GmbH	Germany
Inmobiliaria Cit., S.A. de C.V.	Mexico
Innova Temperlite Servicios, S.A. de C.V.	Mexico
Innovación y Transformación Automotriz, S.A. de C.V.	Mexico
Instron (Shanghai) Ltd.	China
Instron (Thailand) Limited	Thailand
Instron Brasil Equipamentos Científicos Ltda.	Brazil
Instron Foreign Sales Corporation Limited	Jamaica
Instron France S.A.S.	France
Instron GmbH	Germany
Instron Japan Company, Ltd.	Massachusetts
Instron Korea LLC	South Korea
International Leasing Company LLC	Delaware
ITW (China) Investment Company Limited	China
ITW (Deutschland) GmbH	Germany
ITW (EU) Holdings	Luxembourg
ITW (European) Finance Co. Ltd.	Malta
ITW (European) Finance II Co. Ltd.	Malta
ITW (European) Finance III Co. Ltd.	Malta
ITW (Ningbo) Components & Fastenings Systems Co., Ltd.	China
ITW (Qufu) Automotive Cooling Systems Co. Ltd.	China
ITW (Vietnam) Company Limited	Vietnam
ITW Additives International	Belgium
ITW AEP LLC	Delaware
ITW Aircraft Investments Inc.	Delaware
ITW AOC, LLC	South Korea
ITW Appliance Components d.o.o.	Slovenia
ITW Appliance Components EOOD	Bulgaria
ITW Appliance Components S.r.l.	Italy
ITW Appliance Components, S.A. de C.V.	Mexico
ITW Australia Holdings Pty Ltd	Australia
ITW Australia Property Holdings Pty Ltd	Australia
ITW Australia Pty Ltd	Australia
ITW Automotive Parts (Suzhou) Co. Ltd.	China
ITW Automotive Components (Chongqing) Co. Ltd.	China
ITW Automotive Components (Guangzhou) Co., Ltd.	China
ITW Automotive Components (Langfang) Co., Ltd.	China
ITW Automotive Japan K.K.	Japan
ITW Automotive Korea, LLC	South Korea
ITW Automotive Parts (Shanghai) Co. Ltd	China

Illinois Tool Works Inc.
Subsidiaries

<u><i>Subsidiary Name</i></u>	<u><i>Primary Jurisdiction</i></u>
ITW Automotive Products GmbH	Germany
ITW Automotive Products México, S. de R.L. de C.V.	Mexico
ITW Bailly Comte	France
ITW Befestigungssysteme GmbH	Germany
ITW Belgium	Belgium
ITW Building Components Group Inc.	Delaware
ITW Canada Inc.	Canada
ITW Celeste Inc.	Delaware
ITW CER	France
ITW Chemical Products Ltda	Brazil
ITW Chemical Products Scandinavia ApS	Denmark
ITW Colombia S.A.S.	Colombia
ITW Construction Products (Shanghai) Co. Ltd.	China
ITW Construction Products (Singapore) Pte. Ltd.	Singapore
ITW Construction Products AB	Sweden
ITW Construction Products ApS	Denmark
ITW Construction Products AS	Norway
ITW Construction Products CZ s.r.o.	Czech Republic
ITW Construction Products Italy Srl	Italy
ITW Construction Products OU	Estonia
ITW Construction Products OY	Finland
ITW Construction Services Manila, Inc.	Philippines
ITW Contamination Control (Wujiang) Co., Ltd.	China
ITW Contamination Control B.V.	Netherlands
ITW Covid Security Group Inc.	Delaware
ITW CP Distribution Center Holland BV	Netherlands
ITW CS (UK) Ltd.	United Kingdom
ITW de France	France
ITW DelFast do Brasil Ltda.	Brazil
ITW Denmark ApS	Denmark
ITW Diagraph GmbH	Germany
ITW do Brasil Industrial e Comercial Ltda.	Brazil
ITW DS Investments Inc.	Delaware
ITW Dynatec Adhesive Equipment (Suzhou) Co. Ltd.	China
ITW Dynatec GmbH	Germany
ITW Dynatec Kabushiki Kaisha	Japan
ITW EAE B.V.	Netherlands
ITW EAE Mexico, S. de R.L. de C.V.	Mexico
ITW EF&C France SAS	France
ITW Electronic Business Asia Co., Limited	Taiwan
ITW Electronic Components/Products (Shanghai) Co., Ltd.	China
ITW Electronics (Suzhou) Co., Ltd.	China

Illinois Tool Works Inc.
Subsidiaries

<u><i>Subsidiary Name</i></u>	<u><i>Primary Jurisdiction</i></u>
ITW Espana S.L.	Spain
ITW Fastener Products GmbH	Germany
ITW FEG do Brasil Industria e Comercio Ltda.	Brazil
ITW FEG Hong Kong Limited	Hong Kong
ITW Fluids and Hygiene Solutions Ltda.	Brazil
ITW Food Equipment Group LLC	Delaware
ITW Gamma Sàrl	Luxembourg
ITW German Management LLC	Delaware
ITW GH LLC	South Korea
ITW Global Investments Holdings LLC	Delaware
ITW Global Investments Holdings Y Compañia, Sociedad en Comandita por Acciones	Guatemala
ITW Global Investments Inc.	Delaware
ITW Global Tire Repair Europe GmbH	Germany
ITW Global Tire Repair Inc.	California
ITW Global Tire Repair Japan K.K.	Japan
ITW Graphics Asia Limited	Hong Kong
ITW Great Britain Investment & Licensing Holding Company	Delaware
ITW Group France (Luxembourg) S.à.r.l.	Luxembourg
ITW GSE ApS	Denmark
ITW GSE Inc.	Delaware
ITW HLP Thailand Co., Ltd.	Thailand
ITW Holding Quimica B.C., S.L., Sole Shareholder Company	Spain
ITW Holdings Australia L.P.	Australia
ITW Holdings I Limited	United Kingdom
ITW Holdings II Limited	United Kingdom
ITW Holdings III Limited	United Kingdom
ITW Holdings Inc.	Delaware
ITW Holdings IV Limited	United Kingdom
ITW Holdings V Limited	United Kingdom
ITW Holdings VI Limited	United Kingdom
ITW Holdings VII Limited	United Kingdom
ITW Holdings VIII Limited	United Kingdom
ITW Holdings X Limited	United Kingdom
ITW Holdings XI Limited	United Kingdom
ITW ILC Holdings I Inc.	Delaware
ITW Imaden Industria e Comercio Ltda.	Brazil
ITW India Private Limited	India
ITW International Holdings LLC	Delaware
ITW Invest Holding GmbH	Germany
ITW Ireland Holdings Unlimited Company	Ireland
ITW Ireland Unlimited Company	Ireland
ITW Italy Holding Srl	Italy
ITW Japan Ltd.	Japan
ITW Korea LLC	South Korea

Illinois Tool Works Inc.
Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
ITW Limited	United Kingdom
ITW LLC & Co. KG	Germany
ITW Lys Fusion S.r.l.	Italy
ITW Materials Technology (Shanghai) Co. Ltd.	China
ITW Meritex Sdn. Bhd.	Malaysia
ITW Mexico Holding Company S. De R.L. de C.V.	Mexico
ITW Mexico Holdings LLC	Delaware
ITW Morlock GmbH	Germany
ITW Mortgage Investments II, Inc.	Delaware
ITW Mortgage Investments III, Inc.	Delaware
ITW Mortgage Investments IV, Inc.	Delaware
ITW Netherlands Administration BV	Netherlands
ITW Netherlands Finance Alpha B.V.	Netherlands
ITW New Universal LLC	Delaware
ITW New Zealand	New Zealand
ITW Novadan Sp. Z.o.o.	Poland
ITW Packaging Technology (China) Co. Ltd.	China
ITW Participations S.à r.l.	Luxembourg
ITW Pension Funds Trustee Company	United Kingdom
ITW Performance Polymers & Fluids Japan Co. Ltd.	Japan
ITW Performance Polymers & Fluids Korea Limited	South Korea
ITW Performance Polymers & Fluids OOO	Russia
ITW Performance Polymers (Wujiang) Co., Ltd.	China
ITW Performance Polymers and Fluids Group FZE	United Arab Emirates
ITW Performance Polymers ApS	Denmark
ITW Performance Polymers Trading (Shanghai) Company Limited	China
ITW Peru S.A.C.	Peru
ITW Poly Mex, S. de R.L. de C.V.	Mexico
ITW PPF Brasil Adesivos Ltda.	Brazil
ITW Pronovia, s.r.o.	Czech Republic
ITW Properties LLC	Delaware
ITW Pte. Ltd.	Singapore
ITW Reagents S.R.L.	Italy
ITW Real Estate Germany GmbH	Germany
ITW Residuals III L.L.C.	Delaware
ITW Residuals IV L.L.C.	Delaware
ITW Rivex	France
ITW ShineMark GmbH	Germany
ITW Simco-Ion (Shenzhen) Co. Ltd.	China
ITW Slovakia s.r.o.	Slovakia
ITW SMPI	France
ITW Specialty Films France	France
ITW Specialty Films Italy S.r.l.	Italy
ITW Specialty Materials (Suzhou) Co., Ltd.	China

Illinois Tool Works Inc.
Subsidiaries

<u><i>Subsidiary Name</i></u>	<u><i>Primary Jurisdiction</i></u>
ITW SPG México, S. de R.L. de C.V.	Mexico
ITW Spraytec	France
ITW Sverige AB	Sweden
ITW Sweden Holding AB	Sweden
ITW Test & Measurement (Shanghai) Co., Ltd	China
ITW Test & Measurement GmbH	Germany
ITW Test and Measurement Italia Srl	Italy
ITW UK	United Kingdom
ITW UK Finance Beta Limited	United Kingdom
ITW UK Finance Delta Limited	United Kingdom
ITW UK Finance Gamma Limited	United Kingdom
ITW UK Finance Limited	United Kingdom
ITW UK Finance Zeta Limited	United Kingdom
ITW UK II Limited	United Kingdom
ITW Universal II LLC	Delaware
ITW Welding	France
ITW Welding AB	Sweden
ITW Welding GmbH	Germany
ITW Welding Italy S.r.l.	Italy
ITW Welding Products Group FZE	United Arab Emirates
ITW Welding Products Group, S. DE R.L. De C.V.	Mexico
ITW Welding Products Limited Liability Company	Russia
ITW Welding Produtos Para Soldagem Ltda.	Brazil
ITW Welding Singapore Pte. Ltd.	Singapore
KCPL Mauritius Holdings	Mauritius
Krafft, S.L.	Spain
Loma Systems	France
Loma Systems (Canada) Inc.	Canada
Loma Systems B.V.	Netherlands
Loma Systems s.r.o.	Czech Republic
Lombard Pressings Limited	United Kingdom
Lumex, Inc.	Illinois
Lys Fusion Poland Sp. z.o.o.	Poland
M&C Specialties Co.	Pennsylvania
MAGNAFLUX GmbH	Germany
MEHB Holdings Limited	United Kingdom
MEHB Holdings Malta Ltd.	Malta
Meritex Technology (Suzhou) Co. Ltd.	China
Meurer Verpackungssysteme GmbH	Germany
MGHG Property LLC	Delaware
Miller Electric Mfg. LLC	Wisconsin
Miller Insurance Ltd.	Vermont
MTS 2, LLC	Minnesota

**Illinois Tool Works Inc.
Subsidiaries**

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
MTS China Holdings LLC	Minnesota
MTS Europe Holdings LLC	Delaware
MTS Holdings France Sarl	France
MTS Japan Ltd.	Japan
MTS Korea, Inc.	Korea
MTS Systems	France
MTS Systems - S.r.l	Italy
MTS Systems (China) Co., Ltd.	China
MTS Systems (Germany) GmbH	Germany
MTS Systems (Hong Kong) Incorporated	Hong Kong
MTS Systems Corporation	Minnesota
MTS Systems Danmark ApS	Denmark
MTS Systems Do Brazil	Brazil
MTS Systems Europe B.V.	Netherlands
MTS Systems Finance C.V.	Netherlands
MTS Systems Holding B.V.	Netherlands
MTS Systems Limited	United Kingdom
MTS Systems Norden Aktiebolag	Sweden
MTS Testing Solutions India Private Limited	India
MTS Testing Systems (Canada) Ltd.	Canada
NDT Holding LLC	Delaware
North Star Imaging, Inc.	Minnesota
Novadan ApS	Denmark
Orbitalum Tools GmbH	Germany
Panreac Quimica, S.L.	Spain
Paslode Fasteners (Shanghai) Co., Ltd.	China
PENTA-91 OOO	Russia
Premark FEG L.L.C.	Delaware
Premark HII Holdings LLC	Ohio
Premark International, LLC	Delaware
Prolex, Sociedad Anónima	Costa Rica
PT ITW Construction Products Indonesia	Indonesia
QSA Global, Inc.	Delaware
Quimica Industrial Mediterranea, S.L.	Spain
R&D Engineering A/S	Denmark
R&D Prague s.r.o.	Czech Republic
R&D Steel ApS	Denmark
R&D Test Systems A/S	Denmark
R&D Tools and Structures A/S	Denmark
Ramset Fasteners (Hong Kong) Ltd.	Hong Kong
Rapid Cook LLC	Delaware
Refrigeration France	France
S.E.E. Sistemas Industria E Comercio Ltda.	Brazil
Sealant Systems International, Inc.	California

Illinois Tool Works Inc.
Subsidiaries

<u><i>Subsidiary Name</i></u>	<u><i>Primary Jurisdiction</i></u>
Sentinel Asia Yuhan Hoesa	South Korea
Shanghai ITW Plastic & Metal Co. Ltd	China
Shinemark Specialtiy Films (Shanghai) Co., Ltd.	China
Shinemark Specialty Films LLC	South Korea
Shinemark UK Limited	United Kingdom
Simco (Nederland) B.V.	Netherlands
Simco Japan, Inc.	Japan
Société de Prospection et d’Inventions Techniques SPIT	France
Speedline Holdings I, Inc.	Delaware
Speedline Holdings I, LLC	Delaware
Speedline Technologies Mexico Services, S. de R.L. de C.V.	Mexico
Speedline Technologies Mexico, S. de R.L. de C.V.	Mexico
ST Mexico Holdings LLC	Delaware
Stokvis Celix Portugal Unipessoal LDA	Portugal
Stokvis Danmark ApS	Denmark
Stokvis Holdings II S.à r.l.	Luxembourg
Stokvis Holdings S.A.R.L.	Luxembourg
Stokvis Promi s.r.o	Czech Republic
Stokvis Prostick Tapes Private Limited	India
Stokvis Tapes	Belgium
Stokvis Tapes (HK) Limited	Hong Kong
Stokvis Tapes (Shanghai) Co. Ltd.	China
Stokvis Tapes (Taiwan) Co. Ltd.	Taiwan
Stokvis Tapes (Tianjin) Co. Ltd.	China
Stokvis Tapes Benelux B.V.	Netherlands
Stokvis Tapes Deutschland GmbH	Germany
Stokvis Tapes France	France
Stokvis Tapes Italia s.r.l.	Italy
Stokvis Tapes Limited	United Kingdom
Stokvis Tapes Limited Liability Company	Russia
Stokvis Tapes Norge AS	Norway
Stokvis Tapes Oy	Finland
Stokvis Tapes Polska Sp Z.O.O.	Poland
Stokvis Tapes Sverige Aktiebolag	Sweden
Technopack Indústria, Comércio E Serviço De Rotulagem Ltda.	Brazil
Teknek (China) Limited	Scotland
Thirotte Grandes Cuisines Poligny	France
Tien Tai Electrode (Kunshan) Co., Ltd.	China
Tien Tai Electrode Co., Ltd.	Taiwan
Unichemicals Industria e Comercio Ltda.	Brazil
Valeron Strength Films	Belgium
Veneta Decalcogomme S.r.l.	Italy
Versachem Chile S.A.	Chile
Vesta (Guangzhou) Catering Equipment Co. Ltd	China

**Illinois Tool Works Inc.
Subsidiaries****Subsidiary Name****Primary Jurisdiction**

Vesta Global Limited
VR-Leasing Sarita GmbH & Co. Immobilien KG
VS European Holdco BV
Wachs Canada Ltd.
Wachs Subsea LLC
Weigh-Tronix Canada, ULC
Wilsonart International Holdings LLC
Wynn Oil (South Africa) (Pty) Ltd.
Wynn's Automotive France
Wynn's Mekuba India Pvt Ltd
Zip-Pak International B.V.

Hong Kong
Germany
Netherlands
Canada
Illinois
Canada
Delaware
South Africa
France
India
Netherlands

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-273706 on Form S-3; Registration Statement Nos. 333-105731, 333-69542, 333-145392, and 333-206206 on Form S-8; and Registration Statement No. 333-163547 on Form S-4 of our report dated February 9, 2024, relating to the consolidated financial statements of Illinois Tool Works Inc. and subsidiaries (the "Company") and the effectiveness of the Company's internal control over financial reporting, appearing in this Annual Report on Form 10-K of the Company for the year ended December 31, 2023.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois

February 9, 2024

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that the undersigned whose signature appears below constitutes and appoints Christopher A. O'Herlihy and Michael M. Larsen, and each of them singly, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for her or him and in his or her name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report and any amendments thereto, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

IN WITNESS WHEREOF, the undersigned has executed this power of attorney this 9th day of February, 2024.

/s/ Daniel J. Brutto

Daniel J. Brutto

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

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IN WITNESS WHEREOF, the undersigned has executed this power of attorney this 9th day of February, 2024.

/s/ Susan Crown
Susan Crown

ILLINOIS TOOL WORKS INC.

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/s/ Darrell L. Ford

Darrell L. Ford

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

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/s/ Kelly J. Grier

Kelly J. Grier

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

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/s/ James W. Griffith

James W. Griffith

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

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/s/ Jay L. Henderson

Jay L. Henderson

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

POWER OF ATTORNEY

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/s/ Jaime Irick

Jaime Irick

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

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/s/ Richard H. Lenny

Richard H. Lenny

ILLINOIS TOOL WORKS INC.

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/s/ E. Scott Santi

E. Scott Santi

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

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/s/ David B. Smith, Jr.

David B. Smith, Jr.

ILLINOIS TOOL WORKS INC.

Form 10-K Annual Report

POWER OF ATTORNEY

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IN WITNESS WHEREOF, the undersigned has executed this power of attorney this 9th day of February, 2024.

/s/ Pamela B. Strobel

Pamela B. Strobel

Rule 13a-14(a) Certification

I, Christopher A. O'Herlihy, certify that:

1. I have reviewed this report on Form 10-K of Illinois Tool Works Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 9, 2024

/s/ Christopher A. O'Herlihy

Christopher A. O'Herlihy
President & Chief Executive Officer

Rule 13a-14(a) Certification

I, Michael M. Larsen, certify that:

1. I have reviewed this report on Form 10-K of Illinois Tool Works Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of the annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 9, 2024

/s/ Michael M. Larsen

Michael M. Larsen

Senior Vice President & Chief Financial Officer

Section 1350 Certification

The following statement is being made to the Securities and Exchange Commission solely for purposes of Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. 1350), which carries with it certain criminal penalties in the event of a knowing or willful misrepresentation.

Each of the undersigned hereby certifies that the Annual Report on Form 10-K for the period ended December 31, 2023 fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of the registrant.

Dated: February 9, 2024

/s/ Christopher A. O'Herlihy

Christopher A. O'Herlihy
President & Chief Executive Officer

Dated: February 9, 2024

/s/ Michael M. Larsen

Michael M. Larsen
Senior Vice President & Chief Financial Officer

POLICY RELATING TO RECOVERY OF ERRONEOUSLY AWARDED COMPENSATION

ILLINOIS TOOL WORKS INC.

EXECUTIVE COMPENSATION RECOVERY POLICY

1. **Purpose.** Illinois Tool Works Inc. (together with each entity that is directly or indirectly controlled by it, the “*Company*”) adopted this Compensation Recovery Policy (this “*Policy*”) to provide for the recoupment of certain incentive compensation pursuant to Section 10D of the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), Rule 10D-1 promulgated thereunder, and Section 303A.14 of the New York Stock Exchange Listed Company Manual (collectively, the “*Dodd-Frank Rules*”). This Policy supersedes and replaces the Company’s previous Compensation Recovery Policy.
 2. **Administration.** This Policy shall be administered by the Compensation Committee of the Company’s Board of Directors (the “*Compensation Committee*”). Any determinations made by the Compensation Committee shall be final and binding on all affected individuals.
 3. **Definitions.** For purposes of this Policy, the following capitalized terms shall have the meanings set forth below.
 - a. “*Accounting Restatement*” shall mean an accounting restatement of the Company’s financial statements due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement (i) to correct an error in previously issued financial statements that is material to the previously issued financial statements (*i.e.*, a “Big R” restatement), or (ii) that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (*i.e.*, a “little r” restatement).
 - b. “*Clawback Eligible Incentive Compensation*” shall mean Incentive-Based Compensation Received by a Covered Executive (i) on or after the October 2, 2023 (the “*Effective Date*”), (ii) after beginning service as a Covered Executive, (iii) if such individual served as a Covered Executive at any time during the performance period for such Incentive-Based Compensation (irrespective of whether such individual continued to serve as a Covered Executive upon or following the Restatement Trigger Date), (iv) while the Company has a class of securities listed on a national securities exchange or a national securities association, and (v) during the applicable Clawback Period.
 - c. “*Clawback Period*” shall mean, with respect to any Accounting Restatement, the three completed fiscal years of the Company immediately preceding the Restatement Trigger Date.
 - d. “*Code*” shall mean the Internal Revenue Code of 1986, as amended.
 - e. “*Covered Executive*” shall mean any current or former “executive officer” of the Company as defined under the Dodd-Frank Rules, and, for the avoidance of doubt, includes each individual identified as an executive officer of the Company in accordance with Item 401(b) of Regulation S-K under the Exchange Act.
 - f. “*Erroneously Awarded Compensation*” shall mean the amount of Clawback Eligible Incentive Compensation that exceeds the amount of Incentive-Based Compensation that otherwise would have been Received had it been determined based on the restated amounts, computed without regard to any taxes paid. With respect to any compensation plan or program that takes into account Incentive-Based Compensation, the amount contributed to a notional account that exceeds the amount that otherwise would have been contributed had it been determined based on the restated amount, computed without regard to any taxes paid, shall be considered Erroneously Awarded Compensation, along with earnings accrued on that notional amount.
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- g. **“Financial Reporting Measures”** shall mean measures that are determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, and all other measures that are derived wholly or in part from such measures. Stock price and total shareholder return (and any measures that are derived wholly or in part from stock price or total shareholder return) shall for purposes of this Policy be considered Financial Reporting Measures. For the avoidance of doubt, a measure need not be presented in the Company’s financial statements or included in a filing with the Securities and Exchange Commission (**“SEC”**) in order to be considered a Financial Reporting Measure.
 - h. **“Incentive-Based Compensation”** shall mean any compensation that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure.
 - i. **“Received”** shall mean the deemed receipt of Incentive-Based Compensation, which shall occur in the Company’s fiscal period during which the Financial Reporting Measure specified in the applicable Incentive-Based Compensation award is attained, even if payment or grant of the Incentive-Based Compensation occurs after the end of that period.
 - j. **“Restatement Trigger Date”** shall mean the earlier to occur of (i) the date the Board, a committee of the Board, or the officer(s) of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement, or (ii) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement.
4. **Recoupment of Erroneously Awarded Compensation.** Upon the occurrence of a Restatement Trigger Date, the Company shall recoup Erroneously Awarded Compensation reasonably promptly, in the manner described below. For the avoidance of doubt, the Company’s obligation to recover Erroneously Awarded Compensation under this Policy is not dependent on the filing of restated financial statements following the Restatement Trigger Date.
- a. **Process.** The Compensation Committee shall use the following process for recoupment:
 - i. First, the Compensation Committee will determine the amount of any Erroneously Awarded Compensation for each Covered Executive in connection with such Accounting Restatement. For Incentive-Based Compensation based on (or derived from) stock price or total shareholder return where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in the applicable Accounting Restatement, the amount shall be determined by the Compensation Committee based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was Received (in which case, the Company shall provide documentation of such reasonable estimate to the New York Stock Exchange (**“NYSE”**)).
 - ii. Second, the Compensation Committee will provide each affected Covered Executive with a written notice stating the amount of the Erroneously Awarded Compensation, a demand for recoupment, and the means of recoupment that the Company will accept.
 - b. **Means of Recoupment.** The Compensation Committee shall have discretion to determine the appropriate means of recoupment of Erroneously Awarded Compensation, which may include without limitation: (i) recoupment of cash or shares of Company stock, (ii) forfeiture of any unvested cash or equity awards (including those subject to service-based and/or performance-based vesting conditions), (iii) cancellation of any outstanding vested cash or equity awards (including those for which service-based and/or performance-based vesting conditions have been satisfied), (iv) cancellation or offset against any planned future cash or equity awards, (v) to the extent consistent with Section 409A of the Code (**“Section 409A”**), offset of other amounts owed to the Covered Executive or forfeiture of deferred compensation, (vi) reduction of future compensation otherwise payable to the Covered Executive, and (vii) any other remedial or recovery action permitted by law or contract. Notwithstanding the foregoing, the Company makes
-

no guarantee as to the treatment of such amounts under Section 409A, and shall have no liability with respect thereto. Except as set forth in Section 4(d) below, in no event may the Company accept an amount that is less than the amount of Erroneously Awarded Compensation in satisfaction of a Covered Executive's obligations hereunder.

- c. **Failure to Repay.** To the extent that a Covered Executive fails to repay all Erroneously Awarded Compensation to the Company when due (as determined in accordance with Section 4(a) above), the Company shall take all actions reasonable and appropriate to recoup such Erroneously Awarded Compensation from the applicable Covered Executive. The Compensation Committee may, in its sole discretion, require the applicable Covered Executive to reimburse the Company for any and all expenses reasonably incurred (including legal fees) by the Company in recouping such Erroneously Awarded Compensation, and such determination shall be final and binding.
 - d. **Exceptions.** Notwithstanding anything herein to the contrary, the Company shall not be required to recoup Erroneously Awarded Compensation if one of the following conditions is met and the Compensation Committee determines that recoupment would be impracticable:
 - i. The direct expense paid to a third party to assist in enforcing this Policy against a Covered Executive would exceed the amount to be recouped, after the Company has made a reasonable attempt to recoup the applicable Erroneously Awarded Compensation, documented such attempts, and provided such documentation to NYSE;
 - ii. Recoupment would violate home country law where that law was adopted prior to November 28, 2022, provided that, before determining that it would be impracticable to recoup any amount of Erroneously Awarded Compensation based on violation of home country law, the Company has provided to NYSE an opinion of home country counsel, acceptable to NYSE, that recoupment would result in such a violation; or
 - iii. Recoupment would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees, to fail to meet the requirements of Section 401(a)(13) or Section 411(a) of the Code and regulations thereunder.
 5. **Reporting and Disclosure.** The Company shall file all disclosures with respect to this Policy in accordance with the requirements of the Dodd-Frank Rules.
 6. **Prohibition on Indemnification of Covered Executive.** The Company shall not indemnify any current or former Covered Executive against (i) the loss of any Erroneously Awarded Compensation that is recouped pursuant to the terms of this Policy, or (ii) any claims relating to the Company's enforcement of its rights under this Policy. The Company may not pay or reimburse any Covered Executive for the cost of third-party insurance purchased by a Covered Executive to fund potential recoupment obligations under this Policy.
 7. **Acknowledgment.** Each Covered Executive shall be required to sign and return to the Company the acknowledgment form attached hereto as Exhibit A, pursuant to which such Covered Executive will agree to be bound by the terms of, and comply with, this Policy. For the avoidance of doubt, each Covered Executive will be fully bound by, and must comply with, the Policy, whether or not such Covered Executive has executed and returned such acknowledgment form to the Company.
 8. **Interpretation.** The Compensation Committee is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the administration of this Policy. The Compensation Committee intends that this Policy be interpreted consistent with the Dodd-Frank Rules.
 9. **Effective Date and Retroactive Application.** The Policy shall be effective as of the Effective Date, provided that amounts approved, awarded, or granted (but not yet Received) prior to the Effective Date shall be subject to recoupment in accordance with this Policy.
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10. **Amendment; Termination.** The Compensation Committee may amend or terminate all or any portion of this Policy from time to time in its discretion, including as and when it determines that it is legally required to do so by any federal securities laws, SEC rule or the rules of any national securities exchange or national securities association on which the Company's securities are listed.
 11. **Other Recoupment Rights; Company Claims.** The Compensation Committee intends that this Policy be applied to the fullest extent of the law. The Compensation Committee may require that any employment agreement, equity award agreement, compensatory plan, or other compensatory agreement or arrangement entered into on or after the Effective Date be conditioned upon the Covered Executive's agreement to abide by the terms of this Policy. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company under applicable law, regulation or rule, or any other policy of the Company or any employment agreement, equity award agreement, compensatory plan, or other compensatory arrangement applicable to a Covered Executive, or otherwise. Notwithstanding the foregoing, there shall be no duplication of recovery of the same Erroneously Awarded Compensation unless required by applicable law. Nothing contained in this Policy, and no recoupment or recovery as contemplated by this Policy, shall limit any claims, damages or other legal remedies the Company may have against a Covered Executive arising out of or resulting from any actions or omissions by the Covered Executive.
 12. **Successors.** This Policy shall be binding and enforceable against all Covered Executives and their beneficiaries, heirs, executors, administrators or other legal representatives.
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Exhibit A

ILLINOIS TOOL WORKS INC.
EXECUTIVE COMPENSATION RECOVERY POLICY

ACKNOWLEDGEMENT FORM

The Compensation Committee (the “*Compensation Committee*”) of the Board of Directors of Illinois Tool Works Inc. (the “*Company*”) has adopted the Illinois Tool Works Inc. Compensation Recovery Policy (as may be amended, restated or otherwise modified from time to time, the “*Policy*”). Capitalized terms used but not otherwise defined in this Acknowledgement Form shall have the meanings ascribed to such terms in the Policy.

I acknowledge and confirm that I have received and reviewed a copy of the Policy. I further acknowledge and agree that I am subject to the Policy both during and after my employment with the Company. In the event of any inconsistency between the Policy and the terms of any employment agreement to which I am a party or the terms of any compensation plan, program or agreement, the terms of the Policy shall govern. Further, I agree to abide by the terms of the Policy, including, without limitation, by promptly returning any Erroneously Awarded Compensation to the Company to the extent required by the Compensation Committee in its sole discretion.