

## Section 1: 10-K (10-K)

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

### FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2015

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)

36-1258310

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

155 Harlem Avenue, Glenview, Illinois

(Address of Principal Executive Offices)

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>Name of Each Exchange on Which Registered</u>
Common Stock	New York Stock Exchange
1.75% Euro Notes due 2022	New York Stock Exchange
1.25% Euro Notes due 2023	New York Stock Exchange
2.125% Euro Notes due 2030	New York Stock Exchange
3.00% Euro Notes due 2034	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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes  No

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

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

Large accelerated filer  Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

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

Yes  No

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2015 was approximately \$26.7 billion based on the New York Stock Exchange closing sales price as of June 30, 2015.

Shares of Common Stock outstanding at January 31, 2016: 363,766,897.

**Documents Incorporated by Reference**

Portions of the 2016 Proxy Statement for Annual Meeting of Stockholders to be held on May 6, 2016.

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 57 countries. As of December 31, 2015, the Company employed approximately 48,000 persons.

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

***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, industrial capital goods, automotive original equipment manufacturers and tiers, 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 and related consumable solder materials;
- 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 telecommunications, electronics, medical and transportation applications.

***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 institutional/restaurant, food service and food retail 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.

***Polymers & Fluids:*** This segment is a highly branded supplier to niche markets that require value-added, differentiated products. Businesses in this segment produce 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, MRO, and construction 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.

**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 energy, MRO, construction, and industrial capital goods markets. Products in this segment include:

- arc welding equipment;
- metal arc welding consumables and related accessories; and
- metal jacketing and other insulation products.

**Construction Products:** This segment is a branded supplier of innovative engineered fastening systems and solutions. This segment primarily serves the residential construction, renovation/remodel construction 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 that deliver strong operating results 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, printing and publishing and industrial capital goods markets. Products in this segment include:

- line integration, 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 fasteners 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. This business model is the Company's competitive advantage and defines how ITW creates value for its shareholders and comprises three unique elements:

- **ITW's 80/20 management process** is the operating system that is applied in every ITW business. Initially introduced as a manufacturing efficiency tool in the 1980's, ITW has continually refined, improved and expanded 80/20 into a proprietary, holistic business management process that generates significant value for the Company. Through the application of data-driven insights generated by 80/20 practice, ITW focuses on its largest and best opportunities (the "80") and eliminates complexity associated with the less profitable opportunities (the "20"). 80/20 enables ITW businesses to consistently deliver world-class operational excellence in regards to 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 the insight gathered from the 80/20 management 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 then creating unique solutions to address those needs. These customer insights and learnings drive innovation at ITW and have contributed to a portfolio of more than 16,000 granted and pending patents;

- ITW's **decentralized, entrepreneurial culture** allows 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 customers. ITW colleagues are clear about what is expected of them with regard to ITW's business model, strategy, and values. This leads to a focused and simple organizational structure that, combined with outstanding execution, delivers operational excellence adapted to their specific customers and end markets.

## **Enterprise Strategy**

In 2013, ITW began the process of transitioning the Company onto its current strategic path to fully leverage the compelling performance potential of the ITW Business Model. Since then, ITW has made considerable progress, as evidenced by the Company's strong financial performance over the past three years.

The roots of ITW's Enterprise Strategy began in 2011-2012, when the Company undertook a complete review of its performance. ITW gathered deep insights from its businesses that were delivering consistent above-market growth with best-in-class margins and returns, and defined a strategy to replicate that performance throughout the Company.

Based on this rigorous and thorough evaluation, ITW determined two paths to deliver world-class financial performance and compelling long-term returns for its shareholders. One, ITW needed to shift the Company's primary growth engine to organic; and two, the Company needed to leverage the ITW Business Model to deliver best-in-class margins and returns.

### **Shift the Company's Core Growth Engine to Organic**

In order to pivot to fully focus on organic growth, the Company needed to first accomplish several preparatory steps. These key initiatives were a major focus of the Company in 2012-2015, which included portfolio management, business structure simplification and strategic sourcing.

The first step, portfolio management, was to construct and maintain a business portfolio capable of delivering consistent above-market organic growth. As part of this initiative to realign the portfolio, 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.

As a result of this work, ITW's business portfolio now has significantly higher organic growth potential. ITW segments and divisions now possess attractive and differentiated product lines and end markets as they continue to improve margins and generate price/cost increases. This was achieved through product line simplification which focuses 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. Most of this initiative is complete and ITW businesses are demonstrating notably improved financial performance; the Company expects the remaining product line simplification work to largely be accomplished in 2016.

The second step, business structure simplification, was to scale-up ITW's operating structure to support increased engineering, marketing, and sales resources, and to improve global reach and competitiveness, all of which were critical to ITW's ability to drive 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.

With the portfolio realignment and scale-up work largely complete, the Company is now able to shift its focus to preparing for, and accelerating, organic growth.

As a third preparatory step, ITW is currently in the process of reapplying 80/20 to optimize its newly scaled-up divisions for growth. This process involves first using 80/20 to build a foundation of operational excellence, and then applying 80/20-driven insights to identify the best opportunities to drive organic growth.

Once the business is operationally excellent and has identified the right growth opportunities, the final step is to accelerate organic growth. The process of preparing for accelerated organic growth generally takes 18 to 24 months.

Based on the financial performance of the divisions that are further along in this process, the Company believes that this framework is capable of delivering above market organic growth in all ITW segments. Many ITW divisions are ready to grow and growing above their respective markets, while the rest of the Company's divisions are at various phases of

preparing to grow. ITW management is fully aligned on this plan and very focused on executing it. By the end of 2016, the Company expects approximately 85 percent of its businesses to be ready to grow.

### **Leverage the ITW Business Model to Deliver Best-in-Class Margins and Returns**

The Company's work to deliver best-in-class margins and returns is focused on two key areas of ongoing activity. The first is strategic sourcing, where the Company seeks to benefit from its size and scale in procurement processes. Sourcing is now a core strategic and operational capability and this improved competitiveness supports ITW's organic growth framework. The Company's 80/20-enabled sourcing organization has delivered an average of 1 percent reduction in spend each year in 2013-2015 and is on track to do the same in 2016 and 2017.

The second element of the margins and returns area of focus is to better leverage the full power of the ITW Business Model through a much more consistent and focused approach to 80/20 best practice implementation across the Company. ITW has clearly defined what excellence in the practice of ITW's 80/20 management process looks like and the result is significant opportunity to create meaningful incremental improvement in margins and returns as evidenced by the Company's improvement in both operating margin and after-tax return on invested capital. These 80/20 initiatives can result in restructuring initiatives that reduce costs and improve profitability and returns.

### **Divestiture of Majority Interest in Former Decorative Surfaces Segment**

On October 31, 2012, the Company divested a 51% majority interest in the Decorative Surfaces segment. Accordingly, the Company ceased consolidating the results of the Decorative Surfaces segment as of October 31, 2012 and now reports its 49% ownership interest using the equity method of accounting. Due to the Company's continuing involvement through its 49% interest, the historical operating results of Decorative Surfaces are presented in continuing operations. Effective November 1, 2012, Decorative Surfaces was no longer a reportable segment of the Company.

### **Divestiture of the Industrial Packaging Segment**

In February 2013, the Company announced that it was initiating a review process to explore strategic alternatives for the Industrial Packaging segment. In September 2013, the Company's Board of Directors authorized a plan to commence a sale process for the Industrial Packaging segment. The Company classified the Industrial Packaging segment as held for sale beginning in the third quarter of 2013 and no longer presented this segment as part of its continuing operations.

On February 6, 2014, the Company announced that it had signed a definitive agreement to sell the Industrial Packaging business to The Carlyle Group for \$3.2 billion. The transaction was completed on May 1, 2014, resulting in a pre-tax gain of \$1.7 billion (\$1.1 billion after-tax) in the second quarter of 2014 which was included in Income from discontinued operations.

See the Discontinued Operations note in Item 8. Financial Statements and Supplementary Data for further discussion of this transaction.

### **Current Year Developments**

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

### **Financial Information about Segments**

Segment and operating results are included in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and the Segment Information note in Item 8. Financial Statements and Supplementary Data.

### **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. Backlog by segment as of December 31, 2015 and 2014 was as follows:

In millions	2015	2014
Automotive OEM	\$ 403	\$ 414
Test & Measurement and Electronics	289	301
Food Equipment	203	237
Polymers & Fluids	53	60
Welding	68	84
Construction Products	34	28
Specialty Products	237	263
Total	\$ 1,287	\$ 1,387

Backlog orders scheduled for shipment beyond calendar year 2016 were not material as of December 31, 2015.

## Competition

With operations in 57 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 and ESAB.

In virtually all segments, the Company differentiates its businesses from its competitors based on product innovation, product quality, brand preference, service delivery and price. Technical capability is also a competitive factor in most segments. The Company believes that each segment's primary competitive advantages derive from the Company's 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 management 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, chemicals and paper, 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.

## Research and Development

Developing new and improved products, broadening the application of established products, and continuing efforts to improve and develop new methods, processes and equipment all contribute to the Company's organic growth. Many new products are designed to reduce customers' costs by eliminating steps in their manufacturing processes, reducing the number of parts in an assembly or improving the quality of customers' assembled products. Typically, the development of such products is accomplished by working closely with customers on specific applications. Research and development expenses were \$218 million in 2015, \$227 million in 2014 and \$240 million in 2013.

## Intellectual Property

The Company owns approximately 3,400 unexpired U.S. patents and 7,200 foreign patents covering articles, methods and machines. In addition, the Company has approximately 1,500 applications for patents pending in the U.S. Patent Office and



4,500 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; Instron in the Test & Measurement and Electronics segment; Hobart in the Food Equipment segment; Permatex and Wynn's in the Polymers & Fluids segment; Miller in the Welding segment; Paslode in the Construction Products segment; and Hi-Cone in the Specialty Products segment.

### **Environmental**

The Company believes that its manufacturing plants and equipment are in substantial compliance with all applicable environmental regulations. Additional measures to maintain compliance are not expected to materially affect the Company's capital expenditures, competitive position, financial position or results of operations.

Various legislative and administrative regulations concerning environmental issues have become effective or are under consideration in many parts of the world relating to manufacturing processes and the sale or use of certain products. To date, such developments have not had a substantial adverse impact on the Company's revenues, earnings or cash flows.

### **Employees**

The Company employed approximately 48,000 persons as of December 31, 2015 and considers its employee relations to be excellent.

### **International**

The Company's international operations include subsidiaries and joint ventures in 56 foreign countries on six continents. These operations serve such end markets as automotive OEM/tiers, automotive aftermarket, general industrial, commercial food equipment, construction, and others on a worldwide basis. The Company's revenues from sales to customers outside the U.S. were approximately 54% of revenues in 2015 and 57% of revenues in 2014 and 2013.

Refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and the Segment Information note in Item 8. Financial Statements and Supplementary Data for additional information on international activities. International operations are subject to certain potential risks inherent in conducting business in foreign countries, including price controls, exchange controls, limitations on participation in local enterprises, nationalization, expropriation and other governmental action, and fluctuations in currency exchange rates. Additional risks of the Company's international operations are described under Item 1A. Risk Factors.

## Executive Officers

Executive Officers of the Company as of February 11, 2016 were as follows:

Name	Office	Age
E. Scott Santi	Chairman & Chief Executive Officer	54
John R. Hartnett	Executive Vice President	55
Michael M. Larsen	Senior Vice President & Chief Financial Officer	47
Mary K. Lawler	Senior Vice President & Chief Human Resources Officer	50
Roland M. Martel	Executive Vice President	61
Steven L. Martindale	Executive Vice President	59
Sundaram Nagarajan	Executive Vice President	53
Christopher O'Herlihy	Vice Chairman	52
David C. Parry	Vice Chairman	62
Randall J. Scheuneman	Vice President & Chief Accounting Officer	48
Lei Schlitz	Executive Vice President	49
Juan Valls	Executive Vice President	54
Michael R. Zimmerman	Executive Vice President	55

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.

Mr. Santi is the Chairman of the Board and Chief Executive Officer of the Company. He was elected Chairman of the Board in 2015 after having served as President and Chief Executive Officer, as well as a director, since November 2012. In October 2012, he was elected President and Chief Operating Officer. Mr. Santi served as Vice Chairman from 2008 to October 2012.

Mr. Hartnett was elected Executive Vice President in 2012. He joined Signode in 1980, which was acquired by ITW in 1986, and has held various management positions of increasing responsibility. Most recently, he served as Group President of the automotive aftermarket businesses.

Mr. Larsen joined the Company and was elected Senior Vice President and Chief Financial Officer in September 2013. From October 2010 to August 2013, he served as Vice President and Chief Financial Officer of Gardner Denver, Inc., a global manufacturer of highly engineered compressors, blowers, pumps and other fluid transfer equipment. In addition, he served as interim CEO of Gardner Denver from July 2012 to November 2012, and as President, Chief Executive Officer and a director of that company from November 2012 to July 2013. Prior to joining Gardner Denver, he was Chief Financial Officer at General Electric Water & Process Technologies, a global provider of water treatment and process solutions. His previous experience includes more than 15 years with General Electric, where he held a number of global finance leadership roles with increasing responsibility.

Ms. Lawler joined the Company and was elected Senior Vice President and Chief Human Resources Officer in October 2014. From June 2013 to October 2014, she served as Executive Vice President, Human Resources, at GATX Corporation, a rail car leasing company. Prior to that, she served as Senior Vice President, Human Resources, at GATX Corporation, from May 2008 to May 2013.

Mr. Martel has served in his present position since 2006.

Mr. Martindale has served in his present position since 2008.

Mr. Nagarajan has served in his present position since 2010.

Mr. O'Herlihy was elected Vice Chairman in 2015. Prior to that, he served as Executive Vice President from 2010 to 2015.

Mr. Parry has served in his present position since 2010.

Mr. Scheuneman has served in his present position since 2009.

Ms. Schlitz was elected Executive Vice President in 2015. She joined the Company in 2008 and has held various operational, management and leadership positions of increasing responsibility. Most recently, she served as Group President of the food equipment businesses since 2011.

Mr. Valls has served in his present position since 2007.

Mr. Zimmerman was elected Executive Vice President in 2015. He joined Permatex in 1999, which was acquired by ITW in 2005, and has held various management positions of increasing responsibility. Most recently, he served as Group President of the welding businesses.

#### **Available Information**

The Company electronically files reports with the Securities and Exchange Commission ("SEC"). The public may read and copy any materials the Company has filed with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a website ([www.sec.gov](http://www.sec.gov)) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. 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 also available free of charge through the Company's website ([www.itw.com](http://www.itw.com)), as soon as reasonably practicable after electronically filing with or otherwise furnishing such information to the SEC, and are available in print to any shareholder who requests them. The Company will furnish any exhibit not contained herein upon the payment of a fee representing the reasonable cost to the Company of furnishing the exhibit. Requests for exhibits may be sent to Illinois Tool Works Inc., 155 Harlem Avenue, Glenview, IL 60025, Attention: Secretary. Also posted on the Company's website are the following:

- Statement of Principles of Conduct;
- Code of Ethics for CEO and key financial and accounting personnel;
- Charters of the Audit, Corporate Governance and Nominating, and Compensation Committees of the Board of Directors;
- Corporate Governance Guidelines;
- Global Anti-Corruption Policy;
- Corporate Citizenship Statement;
- Conflict Minerals Policy Statement; and
- Government Affairs Information.

#### **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.

**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, high unemployment, government deficit reduction, sequestration and other austerity measures impacting the markets we serve 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, increasing order cancellations and the difficulty in collecting accounts receivable, increasing price competition, and increasing the risk that counterparties to the Company's contractual arrangements will become insolvent or otherwise unable to fulfill their obligations.

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

The Company currently operates in 57 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;
- transportation delays and interruptions;
- political, social and economic instability and disruptions;
- acts of terrorism;
- government embargoes or foreign trade restrictions;
- the imposition of duties and tariffs and other trade barriers;
- import and export controls;
- labor unrest and current and changing regulatory environments;
- the potential for expropriation or nationalization of enterprises;
- difficulties in staffing and managing multi-national operations;
- limitations on its ability to enforce legal rights and remedies; and
- potentially adverse tax consequences.

If the Company is unable to successfully manage these and other risks associated with managing and expanding its international businesses, the risks could have a material adverse effect on the Company's business, results of operations or financial condition.

**The timing and amount of benefits from the Company's enterprise initiatives may not be as expected and the Company's financial results could be adversely impacted.**

The Company's enterprise strategy and associated initiatives include portfolio management, business structure simplification and strategic sourcing. The portfolio management initiative, which included divesting businesses no longer aligned with the Company's long-term objectives, is essentially complete; however, product line and customer base simplification, which is a core element of the Company's 80/20 management process, is being reapplied to the Company's scaled up operating divisions and remains an active element of this initiative. 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. The Company's business structure simplification initiative is also essentially completed, although efforts to realize efficiencies in structure are continuous. In addition, the Company continues to seek to benefit from its size and scale in the procurement process through its strategic sourcing initiatives, and the leveraging of purchasing power across businesses involves some execution risk. Also, as its portfolio and 80/20 management activities have positioned its businesses for profitable growth, the Company has shifted its focus to organic growth and has expressed its belief that organic growth will be 200 basis points above global GDP by the end of 2017. If the Company is unable to achieve the expected benefits from these initiatives or is unable to complete these initiatives without material disruption to its businesses, the timing and amount of benefits from these initiatives may not be as expected and the Company's financial results could be adversely impacted.

**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 funds 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 us from time to time, the ability to obtain financing at attractive rates and the availability of U.S. cash.

**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, environmental 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 cannot ensure that its internal controls will always protect against reckless or criminal acts committed by its employees, agents or business partners that might violate U.S. and/or non-U.S. laws, including anti-bribery, competition, export and import, and environmental laws. 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.

**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.

**If the Company is unable to successfully introduce new products or adequately protect its intellectual property, 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.

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 infringed upon by third parties, particularly in countries where property rights are not highly developed or protected, 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 or inability to preserve existing intellectual property rights could adversely impact the Company's competitive position and results of operations.

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

The Company's divestiture activity increased in 2012, 2013 and 2014 in accordance with its portfolio management initiative. Though the divestiture element of its portfolio management initiative is essentially complete, the Company has retained certain liabilities directly or through indemnifications made to the buyer against known and unknown contingent liabilities such as lawsuits, tax liabilities, product liability claims and environmental matters.

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

In the past the Company has recorded significant goodwill and other identifiable intangible assets on its balance sheet as a result of acquisitions. 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 result that adversely affect the Company's financial condition or results of operations in the periods recognized.

**Disruptions or volatility in global financial markets or changes in our credit ratings could increase our funding costs or reduce the availability of credit.**

Global economic conditions may cause volatility and disruptions in the financial markets. The Company's continued ability to meet its cash requirements requires substantial liquidity and access to the financial markets. In addition, the Company's borrowing costs can be affected by short and long-term ratings assigned by independent rating agencies. If conditions in the financial markets decline or the Company's credit ratings are negatively impacted, its funding costs could be increased or the availability of credit could be diminished.

**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 significant increases could adversely affect the Company's results of operations and profit margins. Due to pricing pressure or other factors, 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.

**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 and other taxes are 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.

**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.

**Potential adverse outcomes in legal proceedings may adversely affect results.**

The Company's businesses expose it to potential toxic tort and other types of product liability claims that are inherent in the design, manufacture and sale of its products and the products of third-party vendors. 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 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.

**If the Company is unable to protect its information technology infrastructure against service interruptions, data corruption, cyber-based attacks or network security breaches, 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; or computer viruses. In addition, security breaches could result in unauthorized disclosure of confidential information. If these information technology systems suffer severe damage, disruption, or shutdown, and business continuity plans do not effectively resolve the issues in a timely manner, there could be a negative impact on operating results or the Company may suffer financial or reputational damage.

**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," "intends," "may," "strategy," "prospects," "estimate," "project," "target," "anticipate," "guidance," "forecast," and other similar words, including, without limitation, statements regarding the expected acquisition or disposition of businesses, economic conditions in various geographic regions, the timing and amount of share repurchases, the Company's Enterprise Strategy and its ability to manage its strategic business initiatives and the timing and amount of benefits therefrom, 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 Company's portion of future benefit payments related to pension and postretirement benefits, the availability of raw materials and energy, the expiration of any one of the Company's patents, the cost of compliance with environmental regulations, the likelihood of future goodwill or intangible asset impairment charges, the impact of failure of the Company's employees to comply with applicable laws and regulations, the impact of foreign currency fluctuations, the outcome of outstanding legal proceedings, the impact of adopting new accounting pronouncements, and the

estimated timing and amount related to the resolution of tax matters. 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.

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**

Not applicable.

**ITEM 2. Properties**

Due to the Company's decentralized operating structure, the Company operates out of a number of facilities worldwide, none of which are individually significant to the Company or its segments.

As of December 31, 2015, the Company operated the following plants and office facilities, excluding regional sales offices and warehouse facilities:

	Number Of Properties		
	Owned	Leased	Total
Automotive OEM	53	38	91
Test & Measurement and Electronics	24	73	97
Food Equipment	19	18	37
Polymers & Fluids	26	46	72
Welding	25	22	47
Construction Products	32	24	56
Specialty Products	44	47	91
Corporate	1	10	11
<b>Total</b>	<b>224</b>	<b>278</b>	<b>502</b>

The Company's properties are highly suitable 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.

The Company operated 314 plants and office facilities outside of the U.S. Principal countries include China, France, Germany and the United Kingdom.

**ITEM 3. Legal Proceedings**

Not applicable.

**ITEM 4. Mine Safety Disclosures**

Not applicable.

**PART II**

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

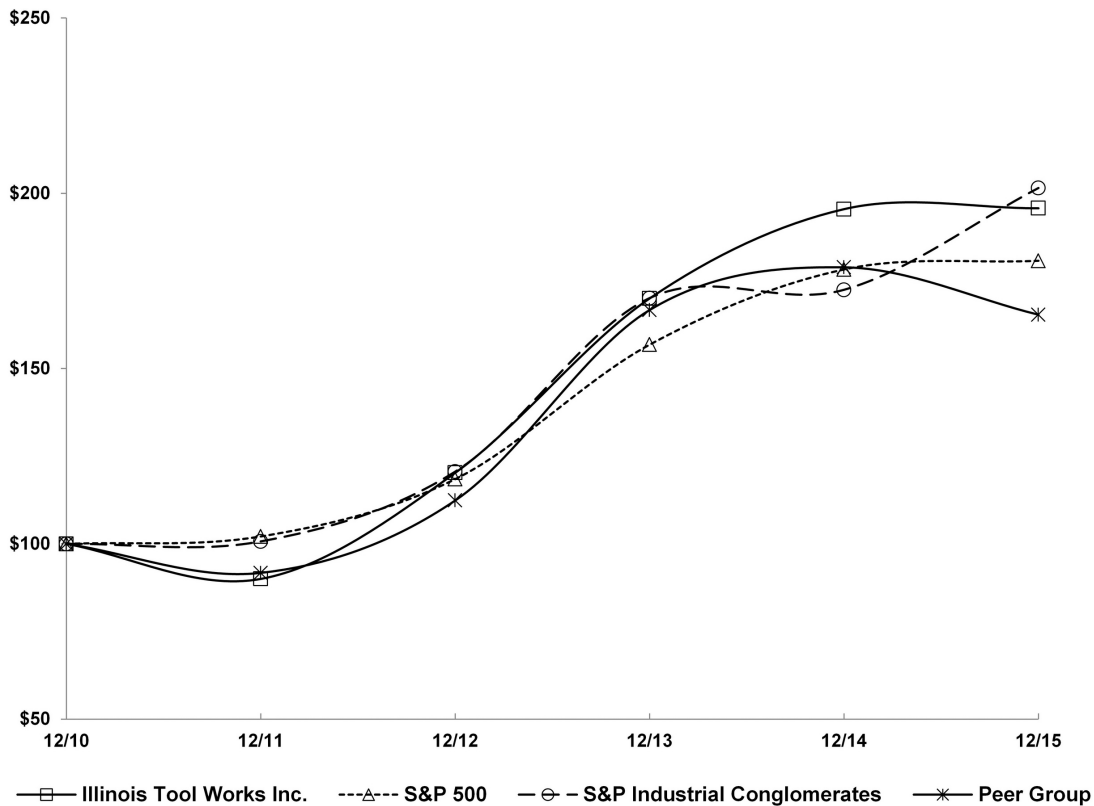
**Common Stock Price and Dividend Data**—The Company's common stock is listed on the New York Stock Exchange. Quarterly market price and dividend data for 2015 and 2014 were as shown below:

	Market Price Per Share		Dividends Declared Per Share
	High	Low	
<b>2015:</b>			
Fourth quarter	\$ 95.00	\$ 80.16	\$ 0.55
Third quarter	94.33	78.79	0.55
Second quarter	99.92	91.41	0.485
First quarter	100.14	90.43	0.485
<b>2014:</b>			
Fourth quarter	\$ 97.79	\$ 79.06	\$ 0.485
Third quarter	89.58	81.72	0.485
Second quarter	89.50	80.80	0.42
First quarter	84.12	76.25	0.42

There were approximately 6,822 holders of record of common stock as of January 31, 2016. 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, the S&P Industrial Conglomerates Index, and the Company's Peer Group



\*Assumes \$100 invested on 12/31/10 in stock or index, including reinvestment of dividends. Fiscal year ended December 31.

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In 2015, the Company replaced the S&P Industrial Conglomerates index with the following group of 19 public companies which represents the Company's peer group:

3M Company	E.I. du Pont de Nemours and Company	Masco Corporation
BorgWarner Inc.	Eaton Corporation plc	Parker-Hannifin Corporation
Caterpillar Inc.	Emerson Electric Co.	PPG Industries, Inc.
Cummins Inc.	Honeywell International Inc.	Pentair plc
Danaher Corporation	Ingersoll-Rand plc	Stanley Black & Decker, Inc.
Deere & Company	Johnson Controls, Inc.	Textron Inc.
Dover Corporation		

**Repurchases of Common Stock**—On February 13, 2015, the Company's Board of Directors authorized a stock repurchase program which provides for the repurchase of up to \$6.0 billion of the Company's common stock over an open-ended period of time (the "2015 Program"). As of December 31, 2015, there were approximately \$5.4 billion of authorized repurchases remaining under the 2015 Program. There was no share repurchase activity under the Company's share repurchase program for the fourth quarter of 2015.

#### ITEM 6. Selected Financial Data

In millions except per share amounts	2015	2014	2013	2012	2011
Operating revenue	\$ 13,405	\$ 14,484	\$ 14,135	\$ 14,791	\$ 14,515
Income from continuing operations	1,899	1,890	1,630	2,233	1,775
Income per share from continuing operations:					
Basic	5.16	4.70	3.65	4.75	3.61
Diluted	5.13	4.67	3.63	4.72	3.59
Total assets at year-end	15,729	17,465	19,599	19,138	17,946
Long-term debt at year-end	6,896	5,943	2,771	4,564	3,471
Cash dividends declared per common share	2.07	1.81	1.60	1.48	1.40

Certain reclassifications of prior year data have been made to conform to current year reporting, including discontinued operations and adoption of new accounting guidance as discussed below.

On October 31, 2012, the Company divested a 51% majority interest in its Decorative Surfaces segment. Accordingly, the Company ceased consolidating the results of the Decorative Surfaces segment as of October 31, 2012 and now reports its 49% ownership interest using the equity method of accounting. Due to the Company's continuing involvement through its 49% interest, the historical operating results of Decorative Surfaces are presented in continuing operations. Effective November 1, 2012, Decorative Surfaces was no longer a reportable segment of the Company.

In April 2014, the Financial Accounting Standards Board ("FASB") issued authoritative guidance to change the criteria for reporting discontinued operations. Under the new guidance, only disposals representing a strategic shift in a company's operations and financial results should be reported as discontinued operations. In addition, disclosure of the pre-tax income attributable to a disposal of a significant part of an organization that does not qualify as a discontinued operation is required. The Company adopted this new guidance effective January 1, 2015. The new guidance applies prospectively to new disposals and new classifications of disposal groups held for sale after such date. There were no discontinued operations during 2015 under this new accounting guidance. For businesses reported as discontinued operations in the statement of income prior to adoption, all related prior period income statement information has been restated. Income from discontinued operations was \$1.1 billion, \$49 million, \$637 million, and \$296 million in the years 2014, 2013, 2012, and 2011, respectively. Refer to the Discontinued Operations note in Item 8. Financial Statements and Supplementary Data for discussion of the Company's discontinued operations.

In April 2015, the FASB issued authoritative guidance to simplify the balance sheet presentation of long-term debt issuance costs. Under the new guidance, long-term debt issuance costs are presented as a reduction of the carrying amount of the related long-term debt. The Company early adopted this guidance in the fourth quarter of 2015 and restated \$38 million, \$22

million, \$26 million, and \$17 million of deferred long-term debt issuance costs from Other assets to Long-term debt in the years 2014, 2013, 2012, and 2011, respectively. Refer to the Debt note in Item 8. Financial Statements and Supplementary Data for further information.

In November 2015, the FASB issued authoritative guidance to simplify the presentation of deferred taxes. Under the new guidance, all deferred tax assets and liabilities are presented as noncurrent in the statement of financial position. Early adoption of this guidance in the fourth quarter of 2015 decreased total assets by \$175 million, \$345 million, \$145 million, and \$21 million in the years 2014, 2013, 2012, and 2011, respectively. Refer to the Income Taxes note in Item 8. Financial Statements and Supplementary Data for further information.

Additional information on the comparability of results is included in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

## 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 57 countries. As of December 31, 2015, the Company employed approximately 48,000 persons.

The Company's operations are organized and managed based on similar product offerings and similar end markets, and are reported to senior management as the following seven segments: Automotive OEM; Test & Measurement and Electronics; Food Equipment; Polymers & Fluids; Welding; 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. This business model is the Company's competitive advantage and defines how ITW creates value for its shareholders and comprises three unique elements:

- **ITW's 80/20 management process** is the operating system that is applied in every ITW business. Initially introduced as a manufacturing efficiency tool in the 1980's, ITW has continually refined, improved and expanded 80/20 into a proprietary, holistic business management process that generates significant value for the Company. Through the application of data-driven insights generated by 80/20 practice, ITW focuses on its largest and best opportunities (the "80") and eliminates complexity associated with the less profitable opportunities (the "20"). 80/20 enables ITW businesses to consistently deliver world-class operational excellence in regards to 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 the insight gathered from the 80/20 management 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 then creating unique solutions to address those needs. These customer insights and learnings drive innovation at ITW and have contributed to a portfolio of more than 16,000 granted and pending patents;
- **ITW's decentralized, entrepreneurial culture** allows 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 customers. ITW colleagues are clear about what is expected of them with regard to ITW's business model, strategy, and values. This leads to a focused and simple organizational structure that, combined with outstanding execution, delivers operational excellence adapted to their specific customers and end markets.

### ENTERPRISE STRATEGY

In 2013, ITW began the process of transitioning the Company onto its current strategic path to fully leverage the compelling performance potential of the ITW Business Model. Since then, ITW has made considerable progress, as evidenced by the Company's strong financial performance over the past three years.

The roots of ITW's Enterprise Strategy began in 2011-2012, when the Company undertook a complete review of its performance. ITW gathered deep insights from its businesses that were delivering consistent above-market growth with best-in-class margins and returns, and defined a strategy to replicate that performance throughout the Company.

Based on this rigorous and thorough evaluation, ITW determined two paths to deliver world-class financial performance and compelling long-term returns for its shareholders. One, ITW needed to shift the Company's primary growth engine to organic; and two, the Company needed to leverage the ITW Business Model to deliver best-in-class margins and returns.

### **Shift the Company's Core Growth Engine to Organic**

In order to pivot to fully focus on organic growth, the Company needed to first accomplish several preparatory steps. These key initiatives were a major focus of the Company in 2012-2015, which included portfolio management, business structure simplification and strategic sourcing.

The first step, portfolio management, was to construct and maintain a business portfolio capable of delivering consistent above-market organic growth. As part of this initiative to realign the portfolio, 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.

As a result of this work, ITW's business portfolio now has significantly higher organic growth potential. ITW segments and divisions now possess attractive and differentiated product lines and end markets as they continue to improve margins and generate price/cost increases. This was achieved through product line simplification which focuses 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. Most of this initiative is complete and ITW businesses are demonstrating notably improved financial performance; the Company expects the remaining product line simplification work to largely be accomplished in 2016.

The second step, business structure simplification, was to scale-up ITW's operating structure to support increased engineering, marketing, and sales resources, and to improve global reach and competitiveness, all of which were critical to ITW's ability to drive 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.

With the portfolio realignment and scale-up work largely complete, the Company is now able to shift its focus to preparing for, and accelerating, organic growth.

As a third preparatory step, ITW is currently in the process of reapplying 80/20 to optimize its newly scaled-up divisions for growth. This process involves first using 80/20 to build a foundation of operational excellence, and then applying 80/20-driven insights to identify the best opportunities to drive organic growth.

Once the business is operationally excellent and has identified the right growth opportunities, the final step is to accelerate organic growth. The process of preparing for accelerated organic growth generally takes 18 to 24 months.

Based on the financial performance of the divisions that are further along in this process, the Company believes that this framework is capable of delivering above market organic growth in all ITW segments. Many ITW divisions are ready to grow and growing above their respective markets, while the rest of the Company's divisions are at various phases of preparing to grow. ITW management is fully aligned on this plan and very focused on executing it. By the end of 2016, the Company expects approximately 85 percent of its businesses to be ready to grow.

### **Leverage the ITW Business Model to Deliver Best-in-Class Margins and Returns**

The Company's work to deliver best-in-class margins and returns is focused on two key areas of ongoing activity. The first is strategic sourcing, where the Company seeks to benefit from its size and scale in procurement processes. Sourcing is now a core strategic and operational capability and this improved competitiveness supports ITW's organic growth framework. The Company's 80/20-enabled sourcing organization has delivered an average of 1 percent reduction in spend each year in 2013-2015 and is on track to do the same in 2016 and 2017.

The second element of the margin and return area of focus is to better leverage the full power of the ITW Business Model through a much more consistent and focused approach to 80/20 best practice implementation across the Company. ITW has clearly defined what excellence in the practice of ITW's 80/20 management process looks like and the result is significant opportunity to create meaningful incremental improvement in margins and returns as evidenced by the

Company's improvement in both operating margin and after-tax return on invested capital. These 80/20 initiatives can result in restructuring initiatives that reduce costs and improve profitability and returns.

## 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

In 2015, the Company delivered solid financial results driven by the continued successful execution of enterprise initiatives despite foreign currency translation headwinds and challenging end market conditions.

The Company's consolidated results of operations for 2015, 2014 and 2013 are summarized as follows:

### 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
2015	2014	Inc (Dec)	Organic					
Operating revenue	\$ 13,405	\$ 14,484	(7.4)%	(0.4)%	(0.2)%	—%	(6.8)%	(7.4)%
Operating income	2,867	2,888	(0.7)%	5.8 %	(0.3)%	1.2%	(7.4)%	(0.7)%
Operating margin %	21.4%	19.9%	150 bps	130 bps	—	20 bps	—	150 bps

- Operating revenue decreased 7.4% primarily due to the unfavorable effect of foreign currency translation as the U.S. Dollar strengthened against most major currencies.
- Organic revenue decreased 0.4% in 2015 as compared to the prior year.
  - Automotive OEM, Food Equipment and Construction Products had solid worldwide organic revenue growth primarily due to penetration gains, higher market demand and product innovation. Organic revenue declined in the Welding and Test & Measurement and Electronics segments primarily due to lower demand in the oil and gas end markets and a challenging capital spending environment.
  - PLS activities reduced organic revenue growth by approximately one percentage point.
  - North American organic revenue decreased 0.5% as a decline in the Welding and Test & Measurement and Electronics segments was partially offset by growth in the Automotive OEM, Food Equipment and Construction Products segments.
  - European organic revenue increased 1.2%. Double-digit growth in the Automotive OEM segment was partially offset by a decline in the Polymers & Fluids, Test & Measurement and Electronics and Welding segments.
  - Asia Pacific organic revenue decreased 1.4% primarily due to a decline in the Welding and Test & Measurement and Electronics segments, partially offset by growth in the Construction Products segment.
- Operating income of \$2.9 billion decreased 0.7%. Excluding the negative impact from foreign currency translation of 7.4%, operating income would have increased 6.7%.

- Record operating margin of 21.4% increased 150 basis points primarily due to the benefit of the Company's enterprise initiatives related to business structure simplification and strategic sourcing that contributed 110 basis points. Lower restructuring expenses and favorable price/cost each contributed 20 basis points of operating margin expansion.
- Diluted earnings per share (EPS) from continuing operations of \$5.13 increased 9.9%. Excluding the negative impact from foreign currency of approximately \$0.41 per diluted share, EPS would have increased 18.6%.
- Free cash flow was \$2.0 billion in 2015. Refer to the Cash Flow section of Liquidity and Capital Resources for a reconciliation of this non-GAAP measure.
- The Company repurchased approximately 21.0 million shares of its common stock in 2015 for approximately \$2.0 billion.
- Total cash dividends of \$742 million were paid in 2015.
- Adjusted after-tax return on average invested capital was 20.4%, an increase of 140 basis points. Refer to the Adjusted After-Tax Return on Average Invested Capital section of Liquidity and Capital Resources for a reconciliation of this non-GAAP measure.

## 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Currency	Total
	2014	2013	Inc (Dec)					
Operating revenue	\$ 14,484	\$ 14,135	2.5%	2.6%	0.6%	—%	(0.7)%	2.5%
Operating income	\$ 2,888	\$ 2,514	14.9%	14.5%	0.2%	0.9%	(0.7)%	14.9%
Operating margin %	19.9%	17.8%	210 bps	200 bps	(10) bps	20 bps	—	210 bps

- Operating revenue increased \$349 million, or 2.5%, due to an increase in organic and acquisition revenue, partially offset by the unfavorable effect of currency translation which primarily occurred in the fourth quarter. Acquisitions primarily included the purchase of a European consumer packaging equipment business and a Chinese food equipment business in the third quarter of 2013.
- Organic revenue increased 2.6% in 2014 as compared to 2013.
  - Growth in the Automotive OEM and the Food Equipment segments was partially offset by modest declines in the Polymers & Fluids and Specialty Products segments.
  - PLS activities reduced organic revenue growth by approximately one percentage point.
  - European organic revenue increased 2.4% primarily driven by the Automotive OEM, Food Equipment and Test & Measurement and Electronics segments, partially offset by the Welding, Polymers & Fluids and Construction Products segments.
  - Asia Pacific organic revenue increased 4.9% primarily due to growth in the Automotive OEM segment in China and the Construction Products segment in Australia.
  - North American organic revenue increased 2.3% primarily due to growth in the Automotive OEM, Welding and Food Equipment segments.
- Operating margin of 19.9% increased 210 basis points primarily due to the benefit of the Company's enterprise initiatives related to business structure simplification and strategic sourcing that contributed 120 basis points and positive operating leverage of 60 basis points. Lower restructuring expenses of 20 basis points, favorable price/cost of 10 basis points and lower operating expenses also contributed to the increase in operating margin. Operating expenses in 2014 included the impact of lower employee benefit expenses, offset by costs related to continued investment in the business.
- Diluted EPS from continuing operations of \$4.67 increased 28.7%.
- Free cash flow was \$1.3 billion in 2014. The 2014 net cash provided by operating activities included \$724 million of tax payments related to the disposition of the Industrial Packaging business. Refer to the Cash Flow section of Liquidity and Capital Resources for a reconciliation of this non-GAAP measure.
- The Company repurchased approximately 50.4 million shares of its common stock in 2014 for approximately \$4.3 billion.
- Total cash dividends of \$711 million were paid in 2014.
- Adjusted after-tax return on average invested capital was 19.0%, an increase of 260 basis points. Refer to the Adjusted After-Tax Return on Average Invested Capital section of Liquidity and Capital Resources for a reconciliation of this non-GAAP measure.

## 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		
	2015	2014	2013
Automotive OEM	\$ 2,529	\$ 2,590	\$ 2,396
Test & Measurement and Electronics	1,969	2,204	2,176
Food Equipment	2,096	2,177	2,047
Polymers & Fluids	1,712	1,927	1,993
Welding	1,650	1,850	1,837
Construction Products	1,587	1,707	1,717
Specialty Products	1,885	2,055	2,007
Intersegment revenue	(23)	(26)	(38)
<b>Total</b>	<b>\$ 13,405</b>	<b>\$ 14,484</b>	<b>\$ 14,135</b>

In millions	Operating Income		
	2015	2014	2013
Automotive OEM	\$ 613	\$ 600	\$ 490
Test & Measurement and Electronics	322	340	321
Food Equipment	498	453	385
Polymers & Fluids	335	357	335
Welding	415	479	464
Construction Products	316	289	238
Specialty Products	439	440	408
Total Segments	2,938	2,958	2,641
Unallocated	(71)	(70)	(127)
<b>Total</b>	<b>\$ 2,867</b>	<b>\$ 2,888</b>	<b>\$ 2,514</b>

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.

### 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 2015, 2014 and 2013 were as follows:

### 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
2015	2014	Inc (Dec)						
Operating revenue	\$ 2,529	\$ 2,590	(2.4)%	5.8%	(0.2)%	— %	(8.0)%	(2.4)%
Operating income	\$ 613	\$ 600	2.1 %	10.4%	(0.1)%	(0.3)%	(7.9)%	2.1 %
Operating margin %	24.2%	23.2%	100 bps	100 bps	10 bps	(10) bps	—	100 bps

- Operating revenue decreased primarily due to the unfavorable effect of currency translation, partially offset by organic revenue growth.
- Worldwide automotive organic revenue grew 5.8% as a result of product innovation and penetration gains, exceeding worldwide auto build growth of 1%.
  - European organic revenue growth of 11.1% exceeded auto builds which grew 4%.
  - North American organic revenue growth of 4.2% exceeded auto build growth of 3%.
  - Asia Pacific organic revenue increased 0.5%. China organic revenue grew 7.9%, as Chinese auto builds increased 4%. Auto builds of foreign automotive manufacturers in China, where the Company has higher content, were flat for 2015.
- Operating income of \$613 million increased 2.1%. Excluding the negative impact of foreign currency translation of 7.9%, operating income would have increased 10.0%.
- Operating margin was 24.2%. The increase of 100 basis points was primarily driven by 80 basis points of operating leverage, the net benefits from the Company's enterprise initiatives and favorable price/cost of 10 basis points.

### 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
2014	2013	Inc (Dec)						
Operating revenue	\$ 2,590	\$ 2,396	8.1%	8.9%	(0.1)%	—%	(0.7)%	8.1%
Operating income	\$ 600	\$ 490	22.5%	20.2%	— %	2.9%	(0.6)%	22.5%
Operating margin %	23.2%	20.5%	270 bps	220 bps	—	50 bps	—	270 bps

- Operating revenue increased 8.1% primarily due to an increase in organic revenue, partially offset by the unfavorable effect of currency translation.
- As a result of product innovation and penetration gains, worldwide automotive organic revenue grew 8.9%, exceeding auto builds which grew 3%.
  - European organic revenue growth of 10.8% exceeded auto build growth of 3%.
  - North American automotive organic revenue grew 7.6% as auto builds increased 5%.
  - Organic revenue for Asia Pacific increased 12.1% primarily due to revenue growth in China of 17.2%, which exceeded Chinese auto build growth of 8%.
- Operating margin increased 270 basis points to 23.2% primarily driven by positive operating leverage of 140 basis points, the net benefits of the Company's enterprise initiatives and lower restructuring expenses, partially offset by unfavorable price/cost of 30 basis points.

### 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, industrial capital goods, automotive original equipment manufacturers and tiers, 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 and related consumable solder materials;
- 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 telecommunications, electronics, medical and transportation applications.

The results of operations for the Test & Measurement and Electronics segment for 2015, 2014 and 2013 were as follows:

#### 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)					
	December 31,			Organic	Acq/Div	Restructuring	Impairment	Foreign Exchange	Total
	2015	2014	Inc (Dec)						
Operating revenue	\$ 1,969	\$ 2,204	(10.7)%	(5.2)%	—%	—%	—%	(5.5)%	(10.7)%
Operating income	\$ 322	\$ 340	(5.1)%	(2.5)%	—%	3.1%	0.5%	(6.2)%	(5.1)%
Operating margin %	16.3%	15.4%	90 bps	40 bps	—	40 bps	10 bps	—	90 bps

- Operating revenue decreased 10.7% due to the unfavorable effect of currency translation and the decrease in organic revenue.
- Worldwide organic revenue decreased 5.2% in 2015.
  - Organic revenue for the worldwide test and measurement businesses decreased 5.9% primarily due to the impact of a weak capital spending environment in North America and Europe.
  - Worldwide electronics organic revenue declined 4.3% primarily due to the decrease in the electronic assembly businesses across all major regions. Organic revenue for the other electronics businesses increased 0.3% primarily driven by the contamination and static control businesses.
- Operating income of \$322 million decreased 5.1%. Excluding the negative impact of foreign currency translation of 6.2%, operating income would have increased 1.1%.
- Operating margin was 16.3%. The increase of 90 basis points was primarily driven by the net benefits resulting from the Company's enterprise initiatives and cost management of 190 basis points, lower restructuring expenses, and favorable price/cost of 20 basis points, partially offset by negative operating leverage of 170 basis points.

#### 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)					
	December 31,			Organic	Acq/Div	Restructuring	Impairment	Foreign Exchange	Total
	2014	2013	Inc (Dec)						
Operating revenue	\$ 2,204	\$ 2,176	1.3%	1.5%	(0.1)%	—%	—%	(0.1)%	1.3%
Operating income	\$ 340	\$ 321	5.8%	7.9%	0.1%	(2.4)%	0.2%	—%	5.8%
Operating margin %	15.4%	14.8%	60 bps	90 bps	—	(30) bps	—	—	60 bps

- Operating revenue increased 1.3% in 2014 primarily due to the increase in organic revenue.
- Worldwide organic revenue increased 1.5% in 2014.
  - Organic revenue for the worldwide test and measurement businesses increased 1.8% primarily due to strength in the Instron business.
  - Worldwide electronics organic revenue increased 1.2% primarily due to a 2.0% increase in the other electronics businesses, which was driven by growth in the contamination control businesses, resulting primarily from increased demand across all major regions, the pressure sensitive adhesives businesses, primarily due to higher market demand in Europe, and the static control businesses, primarily due to increased sales to the industrial end market in Asia and North America. Organic revenue for the electronic assembly businesses declined 0.7% but showed improvement in the second half of the year.

- Operating margin increased 60 basis points to 15.4% primarily due to the benefits resulting from the Company's enterprise initiatives and positive operating leverage of 40 basis points, partially offset by the impact of a discrete claim recovery in 2013 of 30 basis points and higher restructuring expenses.

## 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 institutional/restaurant, food service and food retail 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 2015, 2014 and 2013 were as follows:

### 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
2015	2014	Inc (Dec)						
Operating revenue	\$ 2,096	\$ 2,177	(3.7)%	3.4%	—%	—%	(7.1)%	(3.7)%
Operating income	\$ 498	\$ 453	9.8%	17.7%	—%	(0.3)%	(7.6)%	9.8%
Operating margin %	23.7%	20.8%	290 bps	290 bps	—	—	—	290 bps

- Operating revenue decreased 3.7% due to the unfavorable effect of currency translation, partially offset by organic revenue growth.
- Worldwide organic revenue increased 3.4% in 2015.
  - North American organic revenue increased 5.6%. North American equipment revenue increased 6.6% primarily due to product innovation and improved market penetration in the warewash and refrigeration businesses. Service revenue in North America increased 4.1%.
  - International organic revenue increased 1.0%. International equipment organic revenue increased 0.9% primarily due to growth in the refrigeration business, partially offset by difficult year-over-year comparisons in the cooking and retail businesses. International service organic revenue increased 1.3%.
- Operating margin was 23.7%. The 290 basis point improvement was primarily driven by the benefits of the Company's enterprise initiatives, partially offset by additional investment in the business that contributed 160 basis points, positive operating leverage of 80 basis points and favorable price/cost of 30 basis points.

### 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
2014	2013	Inc (Dec)						
Operating revenue	\$ 2,177	\$ 2,047	6.4%	4.7%	1.7%	—%	—%	6.4%
Operating income	\$ 453	\$ 385	18.0%	16.0%	1.0%	1.0%	—%	18.0%
Operating margin %	20.8%	18.8%	200 bps	200 bps	(20) bps	20 bps	—	200 bps

- Operating revenue increased 6.4% due to an increase in organic and acquisition revenue. The increase in revenue from acquisitions was due to the purchase of a Chinese food equipment business in the third quarter of 2013.
- Worldwide organic revenue increased 4.7% in 2014.

- North American organic revenue increased 5.1% as North American equipment revenue increased 5.3%, primarily due to product innovation and penetration gains in refrigeration and cooking. North American service revenue increased 4.0%.
- International organic revenue increased 4.6% as equipment revenue increased 6.4% primarily due to growth in warewash and refrigeration businesses and product innovation. International service revenue growth of 0.6% was impacted by slower demand in southern Europe.
- Operating margin increased 200 basis points to 20.8% primarily due to positive operating leverage of 120 basis points, the benefits of the Company's enterprise initiatives, favorable price/cost of 20 basis points and lower restructuring expenses.

## POLYMERS & FLUIDS

This segment is a highly branded supplier to niche markets that require value-added, differentiated products. Businesses in this segment produce 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, MRO, and construction 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 2015, 2014 and 2013 were as follows:

### 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)					
	December 31,			Organic	Acq/Div	Restructuring	Impairment	Foreign Exchange	Total
2015	2014	Inc (Dec)							
Operating revenue	\$ 1,712	\$ 1,927	(11.2)%	(2.0)%	(1.0)%	—%	—%	(8.2)%	(11.2)%
Operating income	\$ 335	\$ 357	(6.3)%	1.8%	(2.3)%	1.7%	(0.4)%	(7.1)%	(6.3)%
Operating margin %	19.6%	18.5%	110 bps	80 bps	(20) bps	30 bps	(10) bps	30 bps	110 bps

- Operating revenue decreased primarily due to the unfavorable effect of currency translation and the decrease in organic revenue.
- Worldwide organic revenue declined 2.0% primarily due to lower demand in Europe and North America.
  - Organic revenue for the worldwide fluids businesses decreased 3.8% primarily driven by a decline in the industrial maintenance, repair and operations end markets in Europe and North America. Worldwide polymers businesses decreased 2.6% primarily due to the organic revenue decline in the European wind energy business, partially offset by growth in China and South America. Organic revenue for the worldwide automotive aftermarket businesses was essentially flat as a decline in North America was offset by growth in South America.
- Operating income of \$335 million decreased 6.3%. Excluding the negative impact of foreign currency translation of 7.1%, operating income would have increased 0.8%.
- Operating margin was 19.6%. The 110 basis point improvement was primarily driven by the net benefits of the Company's enterprise initiatives and cost management of 150 basis points and lower restructuring expenses, partially offset by lower variable margins due to product mix and negative operating leverage of 40 basis points.

## 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)					
	December 31,								
	2014	2013	Inc (Dec)	Organic	Acq/Div	Restructuring	Impairment	Foreign Exchange	Total
Operating revenue	\$ 1,927	\$ 1,993	(3.3)%	(1.2)%	—%	—%	—%	(2.1)%	(3.3)%
Operating income	\$ 357	\$ 335	6.3 %	7.0 %	—%	1.7%	(0.3)%	(2.1)%	6.3 %
Operating margin %	18.5%	16.8%	170 bps	140 bps	—	30 bps	—	—	170 bps

- Operating revenue decreased 3.3% in 2014 due to the unfavorable effect of currency translation and lower organic revenue.
- Worldwide organic revenue declined 1.2% as ongoing PLS activities negatively impacted organic revenue by approximately two percentage points.
  - Organic revenue decreases in North America and Europe were partially offset by growth in China and South America. Worldwide polymers organic revenue decreased 3.8% primarily due to revenue declines in North America and Europe, partially offset by growth in China and Brazil. Worldwide fluids organic revenue decreased 0.4% primarily due to a decrease in revenue in Europe, partially offset by growth in Brazil. Automotive aftermarket organic revenue declined 0.2% driven by a decrease in revenue in North America, partially offset by growth in Asia Pacific and South America.
- Operating margin improved 170 basis points to 18.5% primarily due to lower operating expenses driven by the benefits of the Company's enterprise initiatives and lower restructuring expenses, partially offset by negative operating leverage of 30 basis points.

## 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 energy, MRO, construction, and industrial capital goods markets. Products in this segment include:

- arc welding equipment;
- metal arc welding consumables and related accessories; and
- metal jacketing and other insulation products.

The results of operations for the Welding segment for 2015, 2014 and 2013 were as follows:

## 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,							
	2015	2014	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
Operating revenue	\$ 1,650	\$ 1,850	(10.8)%	(7.6)%	(0.1)%	—%	(3.1)%	(10.8)%
Operating income	\$ 415	\$ 479	(13.4)%	(12.1)%	—%	0.3%	(1.6)%	(13.4)%
Operating margin %	25.2%	25.9%	(70) bps	(130) bps	—	10 bps	50 bps	(70) bps

- Operating revenue decreased primarily due to the decrease in organic revenue and the unfavorable effect of currency translation.
- Worldwide organic revenue decreased 7.6% due to lower demand in the oil and gas end markets, the impact of a soft capital spending environment and continued PLS activities.
  - North American organic revenue declined 5.1% primarily due to decreases across the oil and gas and industrial end markets.
  - International organic revenue decreased 14.5% primarily due to weak oil and gas end markets across all regions.

- Operating margin was 25.2%. The decline of 70 basis points was primarily due to negative operating leverage of 130 basis points and lower variable margins due to product mix from lower sales of higher margin equipment, partially offset by favorable price/cost of 50 basis points and the net benefits of the Company's enterprise initiatives.

## 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,							
	2014	2013	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
Operating revenue	\$ 1,850	\$ 1,837	0.7%	1.2%	0.3%	—%	(0.8)%	0.7%
Operating income	\$ 479	\$ 464	3.2%	4.3%	—%	(0.5)%	(0.6)%	3.2%
Operating margin %	25.9%	25.3%	60 bps	80 bps	(10) bps	(10) bps	—	60 bps

- Operating revenue increased 0.7% due to the increase in organic and acquisition revenue, partially offset by the unfavorable effect of currency translation. The increase from acquisition revenue was due to the purchase of a European supplier of welding consumables in the first quarter of 2013.
- Worldwide welding organic revenue increased 1.2%.
  - North American welding organic revenue increased 6.0% primarily due to strength in equipment sales to general industrial and commercial customers.
  - International organic revenue decreased 10.4% primarily due to a delay in China oil and gas pipeline projects and continued PLS activities in Europe.
- Operating margin increased 60 basis points to 25.9% primarily due to the benefits of the Company's enterprise initiatives, favorable price/cost of 40 basis points and favorable operating leverage of 20 basis points, partially offset by higher overhead expenses driven by continued investment in product innovation.

## CONSTRUCTION PRODUCTS

This segment is a branded supplier of innovative engineered fastening systems and solutions. This segment primarily serves the residential construction, renovation/remodel construction 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 2015, 2014 and 2013 were as follows:

## 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,							
	2015	2014	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
Operating revenue	\$ 1,587	\$ 1,707	(7.0)%	3.7%	(0.5)%	—%	(10.2)%	(7.0)%
Operating income	\$ 316	\$ 289	8.8%	17.0%	(0.2)%	3.8%	(11.8)%	8.8%
Operating margin %	19.9%	17.0%	290 bps	220 bps	10 bps	60 bps	—	290 bps

- Operating revenue decreased primarily due to the unfavorable effect of currency translation, partially offset by organic revenue growth.
- Worldwide organic revenue increased 3.7%.
  - North American organic revenue increased 7.1% primarily due to an increase in demand in the renovation/remodel end markets.

- International organic revenue increased 1.8%. Asia Pacific organic revenue increased 4.0% primarily due to growth in Australia and New Zealand. European organic revenue decreased 0.3% primarily due to ongoing PLS activities.
- Operating income of \$316 million increased 8.8%. Excluding the negative impact of foreign currency translation of 11.8%, operating income would have increased 20.6%.
- Operating margin improved 290 basis points to 19.9% primarily due to the net benefits of the Company's enterprise initiatives and cost management of 150 basis points, positive operating leverage of 100 basis points and lower restructuring expenses.

## 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,							
	2014	2013	Inc (Dec)	Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
Operating revenue	\$ 1,707	\$ 1,717	(0.6)%	2.2%	(0.9)%	—%	(1.9)%	(0.6)%
Operating income	\$ 289	\$ 238	21.3 %	22.5%	(0.7)%	2.4%	(2.9)%	21.3 %
Operating margin %	17.0%	13.9%	310 bps	280 bps	10 bps	30 bps	(10) bps	310 bps

- Operating revenue decreased 0.6% primarily due to the negative impact of currency translation and divestitures, partially offset by an increase in organic revenue.
- Worldwide organic revenue increased 2.2%. Ongoing PLS activities negatively impacted organic revenue by approximately one percentage point.
  - International organic revenue increased 2.2% as Asia Pacific increased 7.0% primarily due to strong end market growth in Australia and New Zealand. European organic revenue declined 2.1% primarily due to lower end market demand in the region and PLS activities.
  - North American organic revenue increased 2.1% primarily due to U.S. renovation organic revenue growth of 4.6%, driven by increased sales to big box retailers, partially offset by a decrease in organic revenue in Canada, primarily due to lower demand in the residential market.
- Operating margin of 17.0% increased 310 basis points primarily driven by the benefits of the Company's enterprise initiatives, positive operating leverage of 60 basis points, lower restructuring expenses and favorable price/cost of 20 basis points.

## SPECIALTY PRODUCTS

This segment is focused on diversified niche market opportunities that deliver strong operating results 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, printing and publishing and industrial capital goods markets. Products in this segment include:

- line integration, 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 fasteners and components for appliances;
- airport ground support equipment; and
- components for medical devices.

The results of operations for the Specialty Products segment for 2015, 2014 and 2013 were as follows:

### 2015 compared to 2014

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
2015	2014	Inc (Dec)						
Operating revenue	\$ 1,885	\$ 2,055	(8.3)%	(2.3)%	—%	—%	(6.0)%	(8.3)%
Operating income	\$ 439	\$ 440	(0.4)%	4.2 %	—%	1.8%	(6.4)%	(0.4)%
Operating margin %	23.3%	21.4%	190 bps	150 bps	—	40 bps	—	190 bps

- Operating revenue decreased due to the unfavorable effect of currency translation and the decrease in organic revenue.
- Worldwide organic revenue declined 2.3%.
  - Growth in the consumer packaging businesses, driven by strong food and beverage end market demand, and in the brand identification businesses, due to increased medical, credit card, and automotive end market demand, was more than offset by the impact of a challenging capital spending environment and ongoing PLS activities.
  - North American organic revenue decreased 3.2% as growth in the consumer packaging and brand identification businesses was more than offset by a decline in the ground support equipment and the appliance businesses. International organic revenue decreased 0.9% primarily due to a decline in the ground support equipment businesses, partially offset by growth in the consumer packaging businesses.
- Operating income of \$439 million decreased 0.4%. Excluding the negative impact of foreign currency translation of 6.4%, operating income would have increased 6.0%.
- Operating margin improved 190 basis points to 23.3% primarily due to the net benefits of the Company's enterprise initiatives and cost management of 150 basis points, favorable price/cost of 50 basis points and lower restructuring expenses, partially offset by negative operating leverage of 50 basis points.

### 2014 compared to 2013

Dollars in millions	For the Years Ended			Components of Increase (Decrease)				
	December 31,			Organic	Acquisition/Divestiture	Restructuring	Foreign Exchange	Total
2014	2013	Inc (Dec)						
Operating revenue	\$ 2,055	\$ 2,007	2.4%	(0.3)%	2.7%	—%	—%	2.4%
Operating income	\$ 440	\$ 408	8.0%	6.7 %	0.7%	0.5%	0.1%	8.0%
Operating margin %	21.4%	20.3%	110 bps	140 bps	(40) bps	10 bps	—	110 bps

- Operating revenue increased 2.4% in 2014 due to an increase in acquisition revenue, partially offset by the decrease in organic revenue. Acquisition revenue was primarily due to the purchase of a European consumer packaging equipment business in the third quarter of 2013.
- Worldwide organic revenue declined 0.3%.
  - Worldwide consumer packaging organic revenue decreased 1.0% driven by lower equipment revenue in North America. Worldwide ground support equipment organic revenue increased 5.3% primarily due to higher end market demand in North America. Worldwide appliance organic revenue increased 0.7% primarily due to penetration gains in the North American home appliance sector.
- Operating margin of 21.4%, an increase of 110 basis points, was primarily due to the benefits of the Company's enterprise initiatives, partially offset by unfavorable price/cost of 30 basis points. Acquisitions diluted total operating margin by 40 basis points primarily due to lower operating margins and the impact of intangible asset amortization expense.

### OTHER FINANCIAL HIGHLIGHTS

- Interest expense was \$226 million in 2015, a decrease from \$250 million in 2014, due to debt issuances in 2014 and 2015 at lower rates compared to prior debt obligations. Higher interest expense in 2014 versus \$239 million in 2013 was due to interest expense on notes issued in February 2014 and the Euro notes issued in May 2014.

- Other income (expense) was income of \$78 million in 2015, \$61 million in 2014 and \$72 million in 2013. The increase in income in 2015 versus 2014 was primarily due to a \$15 million gain on the sale of a business in the first quarter of 2015. The decrease in income in 2014 versus 2013 was primarily due to a pre-tax gain of \$30 million recorded in 2013 related to the acquisition of the controlling interest in an existing equity investment, partially offset by higher interest income (\$65 million in 2014 versus \$50 million in 2013).
- The effective tax rate was 30.1% in 2015, 30.0% in 2014, and 30.6% in 2013. The effective tax rate for 2013 was unfavorably impacted by a \$40 million discrete tax charge in the third quarter of 2013 related to the tax treatment of intercompany financing transactions that impact the taxability of foreign earnings.
- The impact of the Euro and other foreign currencies against the U.S. Dollar decreased operating revenue by approximately \$995 million in 2015 versus 2014 and \$110 million in 2014 versus 2013. Additionally, the impact of foreign currencies against the U.S. Dollar decreased income from continuing operations by approximately \$153 million in 2015 versus 2014 and \$14 million in 2014 versus 2013.

## **DISCONTINUED OPERATIONS**

In February 2013, the Company announced that it was initiating a review process to explore strategic alternatives for the Industrial Packaging segment. In September 2013, the Company's Board of Directors authorized a plan to commence a sale process for the Industrial Packaging segment. The Company classified the Industrial Packaging segment as held for sale beginning in the third quarter of 2013 and no longer presented this segment as part of its continuing operations.

On February 6, 2014, the Company announced that it had signed a definitive agreement to sell the Industrial Packaging business to The Carlyle Group for \$3.2 billion. The transaction was completed on May 1, 2014, resulting in a pre-tax gain of \$1.7 billion (\$1.1 billion after-tax) in the second quarter of 2014 which was included in Income from discontinued operations.

In the third quarter of 2013, the Company also committed to plans for the divestiture of a construction distribution business previously included in the Construction Products segment and a specialty coatings business previously included in the Polymers & Fluids segment. The construction distribution and specialty coatings businesses were classified as held for sale beginning in the third quarter of 2013.

In the first quarter of 2013, the Company committed to plans for the divestiture of two transportation related businesses and a machine components business previously included in the Specialty Products segment, two construction distribution businesses previously included in the Construction Products segment, and a chemical manufacturing business previously included in the Polymers & Fluids segment. These businesses were classified as held for sale beginning in the first quarter of 2013.

The operating results of the businesses discussed above are reported as discontinued operations in the statement of income for all periods presented. As of the second quarter of 2014, the Company had completed the divestiture of all of the businesses previously classified as discontinued operations.

Income from discontinued operations was \$1.1 billion in 2014 and \$49 million in 2013. Income from discontinued operations in 2014 included the after-tax gain of \$1.1 billion on the disposal of the Industrial Packaging business in the second quarter of 2014. Income from discontinued operations in 2013 included after-tax losses on disposals of \$72 million and goodwill impairment of \$42 million related to various divested businesses. Refer to the Discontinued Operations note in Item 8. Financial Statements and Supplementary Data for discussion of the Company's discontinued operations.

## **NEW ACCOUNTING PRONOUNCEMENTS**

In April 2014, the Financial Accounting Standards Board ("FASB") issued authoritative guidance to change the criteria for reporting discontinued operations. Under the new guidance, only disposals representing a strategic shift in a company's operations and financial results should be reported as discontinued operations, with expanded disclosures. In addition, disclosure of the pre-tax income attributable to a disposal of a significant part of an organization that does not qualify as a discontinued operation is required. The Company adopted this new guidance effective January 1, 2015. The new guidance applies prospectively to new disposals and new classifications of disposal groups held for sale after such date. As a result, this guidance did not have any impact on the Company's financial statements or related disclosures upon adoption.

In May 2014, the FASB issued authoritative guidance to change the criteria for revenue recognition. The core principle of the new standard is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In



addition, several new revenue recognition disclosures will be required. This guidance is effective for the Company beginning January 1, 2018. The Company is currently assessing the potential impact the guidance will have upon adoption.

In April 2015, the FASB issued authoritative guidance to simplify the balance sheet presentation of long-term debt issuance costs. Under the new guidance, long-term debt issuance costs are presented as a reduction of the carrying amount of the related long-term debt. The Company early adopted this guidance in the fourth quarter of 2015 and applied it retrospectively to all periods presented. As of December 31, 2014, the Company restated \$38 million of deferred long-term debt issuance costs from Other assets to Long-term debt. Refer to the Other Assets and Debt notes in Item 8. Financial Statements and Supplementary Data for further information.

In May 2015, the FASB issued authoritative guidance removing investments measured at net asset value from the fair value hierarchy disclosures as a practical expedient. The Company early adopted this guidance in the fourth quarter of 2015 and applied it retrospectively to all periods presented. Adoption of this guidance resulted in changes to the fair value disclosures related to the Company's plan assets for pension and other postretirement benefits. Refer to the Pension and Other Postretirement Benefits note in Item 8. Financial Statements and Supplementary Data for further information.

In November 2015, the FASB issued authoritative guidance to simplify the presentation of deferred taxes. Under the new guidance, all deferred tax assets and liabilities are presented as noncurrent in the statement of financial position. The Company early adopted this guidance in the fourth quarter of 2015 and applied it retrospectively to all periods presented. Due to the restatement of current deferred tax assets and liabilities to noncurrent, adoption of this guidance resulted in an increase of noncurrent deferred tax assets of \$37 million and a decrease of noncurrent deferred tax liabilities of \$167 million as of December 31, 2014. Refer to the Income Taxes note in Item 8. Financial Statements and Supplementary Data for further information.

## **LIQUIDITY AND CAPITAL RESOURCES**

The Company's primary sources of liquidity are free cash flow and short-term credit facilities. In addition, the Company had \$3.1 billion of cash on hand at December 31, 2015 and also maintains 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 organic growth focus and an active share repurchase program.

In September 2013, the Company's Board of Directors authorized a plan to commence a sale process for the Industrial Packaging business. The Company classified the Industrial Packaging segment as held for sale beginning in the third quarter of 2013 and no longer presented this segment as part of its continuing operations. As to the impact of this divestiture on the Company's income per share from continuing operations and capital structure going forward, the Company also indicated that it intended to repurchase approximately 50 million shares through a program utilizing its existing share repurchase authorization to offset the full amount of divestiture-related dilution of income per share from continuing operations through a combination of sale proceeds, free cash flow and additional leverage. The Company completed this program in the second quarter of 2014. Under this program, the Company repurchased approximately 14.0 million shares of its common stock in the fourth quarter of 2013 and approximately 35.7 million shares of its common stock in the first half of 2014.

On February 6, 2014, the Company announced that it had signed a definitive agreement to sell the Industrial Packaging business to The Carlyle Group for \$3.2 billion. The transaction was completed on May 1, 2014, resulting in a pre-tax gain of \$1.7 billion (\$1.1 billion after-tax) in the second quarter of 2014 which was included in Income from discontinued operations. A portion of the proceeds was used to fund share repurchases under the program noted above.

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

### ***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 payment. 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, 2015, 2014 and 2013 was as follows:

In millions	2015	2014	2013
Net cash provided by operating activities	\$ 2,299	\$ 1,616	\$ 2,528
Additions to plant and equipment	(284)	(361)	(368)
Free cash flow	<u>\$ 2,015</u>	<u>\$ 1,255</u>	<u>\$ 2,160</u>
Cash dividends paid	\$ (742)	\$ (711)	\$ (528)
Repurchases of common stock	(2,002)	(4,346)	(2,106)
Acquisition of businesses (excluding cash and equivalents) and additional interest in affiliates	(6)	(45)	(369)
Net proceeds from sale of discontinued operations	—	3,191	206
Net proceeds from (repayment of) debt	151	1,339	1,264
Other	147	224	305
Effect of exchange rate changes on cash and equivalents	(463)	(535)	(93)
Net increase (decrease) in cash and equivalents	<u>\$ (900)</u>	<u>\$ 372</u>	<u>\$ 839</u>

The 2014 net cash provided by operating activities included \$724 million of tax payments related to the disposition of the Industrial Packaging business. Cash dividends paid during 2013 do not include the dividend payment of \$174 million originally scheduled to be paid in January 2013, which was accelerated and paid in December 2012.

#### ***Stock Repurchase Programs***

On May 6, 2011, the Company's Board of Directors authorized a stock repurchase program, which provided for the buyback of up to \$4.0 billion of the Company's common stock over an open-ended period of time (the "2011 Program"). Under the 2011 Program, the Company repurchased approximately 1.8 million shares of its common stock at an average price of \$43.20 per share during 2011, approximately 35.5 million shares of its common stock at an average price of \$56.93 per share during 2012 and approximately 26.4 million shares of its common stock at an average price of \$71.89 per share during 2013. As of December 31, 2013, there were no authorized repurchases remaining under the 2011 Program.

On August 2, 2013, the Company's Board of Directors authorized a new stock repurchase program, which provided for the buyback of up to an additional \$6.0 billion of the Company's common stock over an open-ended period of time (the "2013 Program"). Under the 2013 Program, the Company repurchased approximately 3.3 million shares of its common stock at an average price of \$81.62 per share during 2013, approximately 50.4 million shares of its common stock at an average price of \$84.92 per share during 2014, and approximately 14.9 million shares of its common stock at an average price of \$96.84 during 2015. As of December 31, 2015, there were no authorized repurchases remaining under the 2013 Program.

On February 13, 2015, the Company's Board of Directors authorized a new stock repurchase program, which provides for the buyback of up to an additional \$6.0 billion of the Company's common stock over an open-ended period of time (the "2015 Program"). Under the 2015 Program, the Company repurchased approximately 6.1 million shares of its common stock at an average price of \$91.78 per share during 2015. As of December 31, 2015, there was approximately \$5.4 billion of authorized repurchases remaining under the 2015 Program.

#### ***Adjusted After-Tax Return on Average Invested Capital***

The Company uses adjusted after-tax return on average invested capital ("ROIC") to measure the effectiveness of its operations' use of invested capital to generate profits. ROIC is a non-GAAP financial measure that the Company believes is a meaningful metric to investors in evaluating the Company's financial performance and may be different than the method used by other companies to calculate ROIC. Adjusted average invested capital represents the net assets of the Company, excluding cash and equivalents and outstanding debt, which are excluded as they do not represent capital investment in the Company's operations, as well as the Company's net investment in the former Industrial Packaging segment and the equity investment in

the Wilsonart business (formerly the Decorative Surfaces segment). Average invested capital is calculated using balances at the start of the period and at the end of each quarter.

ROIC for the years ended December 31, 2015, 2014, and 2013 was as follows:

Dollars in millions	2015	2014	2013
Operating income	\$ 2,867	\$ 2,888	\$ 2,514
Tax rate (as adjusted in 2013)	30.1%	30.0%	28.8%
Income taxes	(864)	(866)	(724)
Operating income after taxes	\$ 2,003	\$ 2,022	\$ 1,790
Invested capital:			
Trade receivables	\$ 2,203	\$ 2,293	\$ 2,365
Inventories	1,086	1,180	1,247
Net assets held for sale	—	—	1,519
Net plant and equipment	1,577	1,686	1,709
Goodwill and intangible assets	5,999	6,466	6,885
Accounts payable and accrued expenses	(1,585)	(1,799)	(1,906)
Other, net	280	427	593
Total invested capital	\$ 9,560	\$ 10,253	\$ 12,412
Average invested capital	\$ 9,943	\$ 11,215	\$ 12,581
Adjustment for Wilsonart (formerly the Decorative Surfaces segment)	(123)	(154)	(169)
Adjustment for Industrial Packaging	—	(424)	(1,477)
Adjusted average invested capital	\$ 9,820	\$ 10,637	\$ 10,935
Adjusted return on average invested capital	20.4%	19.0%	16.4%

ROIC increased 140 basis points in 2015 versus 2014 as a result of a decrease in adjusted average invested capital of 7.7%. ROIC increased 260 basis points in 2014 versus 2013 as a result of improvement in after-tax operating income of 13.0% and a decrease in adjusted average invested capital of 2.7%.

The 2013 effective tax rate included a discrete tax charge of \$40 million related to the tax treatment of intercompany financing transactions that impact the taxability of foreign earnings.

A reconciliation of the 2013 effective tax rate to the adjusted tax rate excluding the discrete tax item is as follows:

Dollars in millions	For the Year Ended December 31, 2013	
	Income Taxes	Tax Rate
As reported	\$ 717	30.6 %
Discrete tax charge	(40)	(1.8)
As adjusted	\$ 677	28.8 %

## Working Capital

Management uses working capital as a measurement of the short-term liquidity of the Company. Net working capital at December 31, 2015 and 2014 is summarized as follows:

Dollars in millions	2015	2014	Increase (Decrease)
<b>Current Assets:</b>			
Cash and equivalents	\$ 3,090	\$ 3,990	\$ (900)
Trade receivables	2,203	2,293	(90)
Inventories	1,086	1,180	(94)
Other	341	401	(60)
	6,720	7,864	(1,144)
<b>Current Liabilities:</b>			
Short-term debt	526	1,476	(950)
Accounts payable and accrued expenses	1,585	1,799	(214)
Other	257	250	7
	2,368	3,525	(1,157)
Net Working Capital	\$ 4,352	\$ 4,339	\$ 13

Net working capital increased slightly at December 31, 2015 as lower short-term debt levels were partially offset by lower cash and equivalents resulting from repayments of commercial paper.

Cash and equivalents totaled approximately \$3.1 billion as of December 31, 2015 and \$4.0 billion as of December 31, 2014, primarily all of which was held by international subsidiaries. Cash and equivalents held internationally may be subject to U.S. income taxes and foreign withholding taxes if repatriated to the U.S. Cash and equivalents balances held internationally are typically used for international operating needs, reinvested to fund expansion of existing international businesses, used to fund new international acquisitions, or used to repay debt held internationally. In the U.S., the Company utilizes cash flows from domestic operations to fund domestic cash needs, which primarily consist of dividend payments, share repurchases, acquisitions, servicing of domestic debt obligations and general corporate needs. The Company also uses its commercial paper program, which is backed by long-term credit facilities, for short-term liquidity needs. The Company believes cash generated domestically 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 at December 31, 2015 and 2014 was as follows:

In millions	2015	2014	Increase (Decrease)
Short-term debt	\$ 526	\$ 1,476	\$ (950)
Long-term debt	6,896	5,943	953
Total debt	\$ 7,422	\$ 7,419	\$ 3

Short-term debt as of December 31, 2015 and December 31, 2014 included commercial paper of \$0.5 billion and \$1.4 billion, respectively.

In May 2015, the Company issued €500 million of 1.25% Euro notes due May 22, 2023 at 99.239% of face value and €500 million of 2.125% Euro notes due May 22, 2030 at 99.303% of face value. Net proceeds from the May 2015 debt issuances were used to repay commercial paper and for general corporate purposes.

The Company may issue commercial paper to fund general corporate needs, share repurchases, and small and medium-sized acquisitions. The Company has committed lines of credit of \$2.5 billion in the U.S. to support the potential issuances of commercial paper. Of this amount, \$1.5 billion is provided under a line of credit agreement with a termination date of June 8,

2017 and \$1.0 billion is provided under a line of credit agreement with a termination date of August 15, 2018. No amounts were outstanding under these two facilities at December 31, 2015. The maximum outstanding commercial paper balance during 2015 was \$2.4 billion, while the average daily balance was \$1.4 billion.

As of December 31, 2015, the Company's foreign operations had authorized credit facilities with unused capacity of \$296 million.

### ***Total Debt to EBITDA***

The Company uses the ratio of total debt to EBITDA to measure its ability to repay its outstanding debt obligations. 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. EBITDA and the ratio of total debt to EBITDA are non-GAAP financial measures. The ratio of total debt to EBITDA represents total debt divided by income from continuing operations before interest expense, other income (expense), income taxes, depreciation, and amortization and impairment of goodwill and other intangible assets on a trailing twelve month basis.

Total debt to EBITDA for the years ended December 31, 2015, 2014 and 2013 was as follows:

<b>Dollars in millions</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Total debt	\$ 7,422	\$ 7,419	\$ 6,322
Income from continuing operations	\$ 1,899	\$ 1,890	\$ 1,630
Add:			
Interest expense	226	250	239
Other income	(78)	(61)	(72)
Income taxes	820	809	717
Depreciation	244	262	270
Amortization and impairment of goodwill and other intangible assets	233	245	252
EBITDA	\$ 3,344	\$ 3,395	\$ 3,036
Total debt to EBITDA ratio	2.2	2.2	2.1

### ***Stockholders' Equity***

The changes to stockholders' equity during 2015 and 2014 were as follows:

<b>In millions</b>	<b>2015</b>	<b>2014</b>
Beginning balance	\$ 6,824	\$ 9,709
Net income	1,899	2,946
Cash dividends declared	(756)	(716)
Repurchases of common stock	(2,002)	(4,283)
Currency translation adjustments	(860)	(939)
Other	123	107
Ending balance	\$ 5,228	\$ 6,824

## CONTRACTUAL OBLIGATIONS AND OFF-BALANCE SHEET ARRANGEMENTS

The Company's significant contractual obligations as of December 31, 2015 were as follows:

In millions	2016	2017	2018	2019	2020	2021 and Future Years
Total long-term debt	\$ 1	\$ 650	\$ —	\$ 1,350	\$ 4	\$ 4,977
Interest payments on notes	217	214	212	183	167	2,078
Minimum lease payments	98	69	47	31	23	29
	<u>\$ 316</u>	<u>\$ 933</u>	<u>\$ 259</u>	<u>\$ 1,564</u>	<u>\$ 194</u>	<u>\$ 7,084</u>

As of December 31, 2015, the Company had recorded noncurrent liabilities for unrecognized tax benefits of \$171 million. The Company is not able to reasonably estimate the timing of payments related to the liabilities for unrecognized tax benefits.

The Company did not have any significant off-balance sheet commitments at December 31, 2015.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The Company has six accounting policies that it believes are most important to the Company's financial condition and results of operations, and which require the Company to make estimates 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 policies are as follows:

**Realizability of Inventories**—Inventories are stated at the lower of cost or net realizable value. Generally, the Company's businesses perform an analysis of the historical sales usage of the individual inventory items on hand and a reserve is recorded to adjust inventory cost to net realizable value based on the following usage criteria:

Usage Classification	Criteria	Reserve %
Active	Quantity on hand is less than prior 6 months of usage	0%
Slow-moving	Some usage in last 12 months, but quantity on hand exceeds prior 6 months of usage	50%
Obsolete	No usage in the last 12 months	90%

In addition, for approximately 22% of total inventories, the Company has elected to use the last-in, first-out ("LIFO") method of inventory costing. Generally, this method results in a lower inventory value than the first-in, first-out ("FIFO") method due to the effects of inflation.

**Collectibility of Accounts Receivable**—The Company estimates the allowance for uncollectible accounts based on the greater of a specific reserve or a reserve calculated based on the historical write-off percentage over the last two years. In addition, the allowance for uncollectible accounts includes reserves for customer credits and cash discounts, which are also estimated based on past experience.

**Depreciation of Plant and Equipment** — The Company's U.S. businesses primarily compute depreciation on an accelerated basis, as follows:

Buildings and improvements	150% declining balance
Machinery and equipment	200% declining balance

The majority of the Company's international businesses compute depreciation on a straight-line basis.

**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, an impairment loss, if any, is recorded for the difference between the implied fair value and the carrying value of the reporting unit's goodwill. 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, 2015, the Company had total goodwill and intangible assets of \$6.0 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 management process. The amount of goodwill and other intangible assets allocated to individual reporting units ranges from approximately \$58 million to \$1.5 billion, with the average amount equal to \$428 million. 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 substantial portion 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 the Pension and Other Postretirement Benefits note 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 \$37 million.

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. See the Pension and Other Postretirement Benefits note in Item 8. Financial Statements and Supplementary Data for information on the Company's pension and other postretirement benefit plans and related assumptions.

**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. The following table presents the Company's debt for which fair value is subject to changing market interest rates:

In millions	0.90% Notes Due Feb 25, 2017	1.95% Notes Due Mar 1, 2019	6.25% Notes Due Apr 1, 2019	4.88% Notes Due thru Dec 31, 2020	3.375% Notes Due Sep 15, 2021	1.75% Euro Notes Due May 20, 2022	1.25% Euro Notes Due May 22, 2023	3.50% Notes Due Mar 1, 2024	2.125% Euro Notes Due May 22, 2030	3.00% Euro Notes Due May 19, 2034	4.875% Notes Due Sep 15, 2041	3.9% Notes Due Sep 1, 2042
As of December 31, 2015:												
Estimated cash outflow by year of principal maturity												
2016	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
2017	650	—	—	—	—	—	—	—	—	—	—	—
2018	—	—	—	—	—	—	—	—	—	—	—	—
2019	—	650	700	—	—	—	—	—	—	—	—	—
2020	—	—	—	4	—	—	—	—	—	—	—	—
2021 and thereafter	—	—	—	—	350	543	543	700	543	543	650	1,100
Estimated fair value	649	655	790	4	362	564	538	727	530	569	708	1,051
Carrying value	649	647	698	4	347	536	536	695	536	528	635	1,080
As of December 31, 2014:												
Total estimated cash outflow	\$ 650	\$ 650	\$ 700	\$ 5	\$ 350	\$ 605	\$ —	\$ 700	\$ —	\$ 605	\$ 650	\$ 1,100
Estimated fair value	648	651	817	6	369	640	—	735	—	702	746	1,110
Carrying value	648	647	697	5	347	597	—	694	—	588	635	1,079

**Foreign Currency Risk**

The Company operates in the U.S. and 56 foreign countries. The initial funding for the foreign manufacturing operations was provided primarily through the permanent investment of equity capital from the U.S. parent company. The Company's products are primarily manufactured and sold within the same country. Therefore, the Company's manufacturing operations do not have significant assets or liabilities denominated in currencies other than their functional currencies.

The Company designated €1.0 billion of Euro notes issued in May 2014 and €1.0 billion of Euro notes issued in May 2015 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). The cumulative unrealized gain recorded in Accumulated other comprehensive income (loss) related to the net investment hedge was \$308 million and \$158 million as of December 31, 2015 and December 31, 2014, 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, 2015. 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, 2015, 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, 2015 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report herein.

/s/ E. Scott Santi  
E. Scott Santi  
Chairman & Chief Executive Officer  
February 11, 2016

/s/ Michael M. Larsen  
Michael M. Larsen  
Senior Vice President & Chief Financial Officer  
February 11, 2016

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Illinois Tool Works Inc.  
Glenview, Illinois

We have audited the accompanying consolidated statements of financial position of Illinois Tool Works Inc. and subsidiaries (the "Company") as of December 31, 2015 and 2014, and the related consolidated statements of income, comprehensive income, income reinvested in the business, and cash flows for each of the three years in the period ended December 31, 2015. We also have audited the Company's internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for 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 conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. 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.

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

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Illinois Tool Works Inc. and subsidiaries as of December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015, 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, 2015, based on the criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

/s/ DELOITTE & TOUCHE LLP  
Deloitte & Touche LLP  
Chicago, Illinois  
February 11, 2016

**Statement of Income**  
**Illinois Tool Works Inc. and Subsidiaries**

In millions except per share amounts	For the Years Ended December 31		
	2015	2014	2013
Operating Revenue	\$ 13,405	\$ 14,484	\$ 14,135
Cost of revenue	7,888	8,673	8,554
Selling, administrative, and research and development expenses	2,417	2,678	2,815
Amortization of intangible assets	231	242	250
Impairment of goodwill and other intangible assets	2	3	2
Operating Income	2,867	2,888	2,514
Interest expense	(226)	(250)	(239)
Other income (expense)	78	61	72
Income from Continuing Operations Before Income Taxes	2,719	2,699	2,347
Income taxes	820	809	717
Income from Continuing Operations	1,899	1,890	1,630
Income from Discontinued Operations	—	1,056	49
Net Income	\$ 1,899	\$ 2,946	\$ 1,679
<b>Income Per Share from Continuing Operations:</b>			
Basic	\$ 5.16	\$ 4.70	\$ 3.65
Diluted	\$ 5.13	\$ 4.67	\$ 3.63
<b>Income Per Share from Discontinued Operations:</b>			
Basic	\$ —	\$ 2.63	\$ 0.11
Diluted	\$ —	\$ 2.61	\$ 0.11
<b>Net Income Per Share:</b>			
Basic	\$ 5.16	\$ 7.33	\$ 3.76
Diluted	\$ 5.13	\$ 7.28	\$ 3.74

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

**Statement of Comprehensive Income**  
**Illinois Tool Works Inc. and Subsidiaries**

	<b>For the Years Ended December 31</b>		
<b>In millions</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Net Income	\$ 1,899	\$ 2,946	\$ 1,679
Other Comprehensive Income (Loss):			
Foreign currency translation adjustments, net of tax	(860)	(939)	(193)
Pension and other postretirement benefit adjustments, net of tax	14	(103)	284
Comprehensive Income	\$ 1,053	\$ 1,904	\$ 1,770

**Statement of Income Reinvested in the Business**  
**Illinois Tool Works Inc. and Subsidiaries**

	<b>For the Years Ended December 31</b>		
<b>In millions</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Beginning Balance	\$ 17,173	\$ 14,943	\$ 13,973
Net income	1,899	2,946	1,679
Cash dividends declared	(756)	(716)	(709)
Ending Balance	\$ 18,316	\$ 17,173	\$ 14,943

*The Notes to Financial Statements are an integral part of these statements.*

**Statement of Financial Position**  
**Illinois Tool Works Inc. and Subsidiaries**

In millions except shares	December 31	
	2015	2014
<b>Assets</b>		
Current Assets:		
Cash and equivalents	\$ 3,090	\$ 3,990
Trade receivables	2,203	2,293
Inventories	1,086	1,180
Prepaid expenses and other current assets	341	401
Total current assets	6,720	7,864
Net plant and equipment	1,577	1,686
Goodwill	4,439	4,667
Intangible assets	1,560	1,799
Deferred income taxes	346	338
Other assets	1,087	1,111
	\$ 15,729	\$ 17,465
<b>Liabilities and Stockholders' Equity</b>		
Current Liabilities:		
Short-term debt	\$ 526	\$ 1,476
Accounts payable	449	512
Accrued expenses	1,136	1,287
Cash dividends payable	200	186
Income taxes payable	57	64
Total current liabilities	2,368	3,525
Noncurrent Liabilities:		
Long-term debt	6,896	5,943
Deferred income taxes	256	171
Other liabilities	981	1,002
Total noncurrent liabilities	8,133	7,116
Stockholders' Equity:		
Common stock:		
Issued- 550,035,604 shares in 2015 and 2014		
Outstanding- 363,710,073 in 2015 and 383,196,213 in 2014	6	6
Additional paid-in-capital	1,135	1,096
Income reinvested in the business	18,316	17,173
Common stock held in treasury	(12,729)	(10,798)
Accumulated other comprehensive income (loss)	(1,504)	(658)
Noncontrolling interest	4	5
Total stockholders' equity	5,228	6,824
	\$ 15,729	\$ 17,465

*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		
	2015	2014	2013
<b>Cash Provided by (Used for) Operating Activities:</b>			
Net income	\$ 1,899	\$ 2,946	\$ 1,679
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation	244	262	299
Amortization and impairment of goodwill and other intangible assets	233	245	314
Change in deferred income taxes	(11)	55	6
Provision for uncollectible accounts	7	7	3
(Income) loss from investments	(4)	(8)	(12)
(Gain) loss on sale of plant and equipment	1	2	(1)
(Gain) loss on discontinued operations	—	(1,718)	91
(Gain) loss on sale of operations and affiliates	(16)	6	5
Stock-based compensation expense	41	39	37
Gain on acquisition of controlling interest in an equity investment	—	—	(30)
Other non-cash items, net	12	11	20
<b>Change in assets and liabilities, net of acquisitions and divestitures:</b>			
(Increase) decrease in—			
Trade receivables	(42)	(70)	(83)
Inventories	25	(10)	24
Prepaid expenses and other assets	24	(98)	226
Increase (decrease) in—			
Accounts payable	(30)	(20)	8
Accrued expenses and other liabilities	(56)	5	161
Income taxes	(27)	33	(176)
Other, net	(1)	(71)	(43)
Net cash provided by operating activities	2,299	1,616	2,528
<b>Cash Provided by (Used for) Investing Activities:</b>			
Acquisition of businesses (excluding cash and equivalents) and additional interest in affiliates	(6)	(45)	(369)
Additions to plant and equipment	(284)	(361)	(368)
Proceeds from investments	22	28	40
Proceeds from sale of plant and equipment	30	28	38
Net proceeds from sale of discontinued operations	—	3,191	206
Proceeds from sale of operations and affiliates	29	18	2
Other, net	(1)	(17)	(5)
Net cash provided by (used for) investing activities	(210)	2,842	(456)
<b>Cash Provided by (Used for) Financing Activities:</b>			
Cash dividends paid	(742)	(711)	(528)
Issuance of common stock	59	148	206
Repurchases of common stock	(2,002)	(4,346)	(2,106)
Net proceeds from (repayments of) debt with original maturities of three months or less	(946)	(239)	1,267
Proceeds from debt with original maturities of more than three months	1,099	3,329	3
Repayments of debt with original maturities of more than three months	(2)	(1,751)	(6)
Excess tax benefits from stock-based compensation	20	33	24
Other, net	(12)	(14)	—
Net cash provided by (used for) financing activities	(2,526)	(3,551)	(1,140)
Effect of Exchange Rate Changes on Cash and Equivalents	(463)	(535)	(93)
<b>Cash and Equivalents:</b>			
Increase (decrease) during the year	(900)	372	839
Beginning of year	3,990	3,618	2,779
End of year	\$ 3,090	\$ 3,990	\$ 3,618

Supplementary Cash Flow Information:			
Cash Paid During the Year for Interest	\$ 200	\$ 236	\$ 240
Cash Paid During the Year for Income Taxes, Net of Refunds	\$ 775	\$ 1,502	\$ 602
Liabilities Assumed from Acquisitions	\$ 1	\$ 4	\$ 145

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

## Notes to Financial Statements

The Notes to Financial Statements furnish additional information on items in the financial statements. The notes have been arranged in the same order as the related items appear in the statements.

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 57 countries. The Company primarily serves the automotive OEM/tiers, automotive aftermarket, general industrial, commercial food equipment, and construction end markets.

Significant accounting principles and policies of the Company are in italics. Certain reclassifications of prior year data have been made to conform to current year reporting.

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. The significant estimates included in the preparation of the financial statements are related to inventories, trade receivables, plant and equipment, income taxes, goodwill and intangible assets, product liability matters, litigation, product warranties, pensions, other postretirement benefits, environmental matters and stock-based compensation.

**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.*

### Discontinued Operations

In April 2014, the Financial Accounting Standards Board ("FASB") issued authoritative guidance to change the criteria for reporting discontinued operations. Under the new guidance, only disposals representing a strategic shift in a company's operations and financial results should be reported as discontinued operations. In addition, disclosure of the pre-tax income attributable to a disposal of a significant part of an organization that does not qualify as a discontinued operation is required. The Company adopted this new guidance effective January 1, 2015. The new guidance applies prospectively to new disposals and new classifications of disposal groups held for sale after such date. There were no discontinued operations during 2015 under this new accounting guidance. For businesses reported as discontinued operations in the statement of income prior to adoption, all related prior period income statement information has been restated.

**Third Quarter 2013 Discontinued Operations**-In February 2013, the Company announced that it was initiating a review process to explore strategic alternatives for its Industrial Packaging segment. In September 2013, the Company's Board of Directors authorized a plan to commence a sale process for the Industrial Packaging segment. The Company classified the Industrial Packaging segment as held for sale beginning in the third quarter of 2013 and no longer presented this segment as part of its continuing operations.

On February 6, 2014, the Company announced that it had signed a definitive agreement to sell its Industrial Packaging business to The Carlyle Group for \$3.2 billion. The transaction was completed on May 1, 2014, resulting in a pre-tax gain of \$1.7 billion (\$1.1 billion after-tax) in the second quarter of 2014 which was included in Income from discontinued operations.

In the third quarter of 2013, the Company also committed to plans for the divestiture of a construction distribution business previously included in the Construction Products segment and a specialty coatings business previously included in the Polymers & Fluids segment. These businesses were classified as held for sale beginning in the third quarter of 2013. The specialty coatings business was sold in the fourth quarter of 2013. The construction distribution business was sold in the second quarter of 2014.

**First Quarter 2013 Discontinued Operations**-In the first quarter of 2013, the Company committed to plans for the divestiture of two transportation related businesses and a machine components business previously included in the Specialty Products segment, two construction distribution businesses previously included in the Construction Products segment, and a chemical manufacturing business previously included in the Polymers & Fluids segment. These businesses were classified as held for sale beginning in the first quarter of 2013.



In the second quarter of 2013, the Company divested one of the held for sale transportation related businesses, the machine components business, and the chemical manufacturing business. In the third quarter of 2013, the Company divested the second held for sale transportation related business. In the fourth quarter of 2013, the Company divested one construction distribution business and the remaining construction distribution business was sold in the second quarter of 2014.

The operating results of the businesses discussed above are reported as discontinued operations in the statement of income for all periods presented. Results of the discontinued operations for the years ended December 31, 2014 and 2013 were as follows:

In millions	2014	2013
Operating revenue	\$ 798	\$ 2,769
Income before income taxes	\$ 1,805	\$ 186
Income tax expense	(749)	(137)
Income from discontinued operations	\$ 1,056	\$ 49

Included in income before income taxes from discontinued operations are net gain on disposal of \$1.7 billion in 2014 and net losses on disposal of \$91 million in 2013. The net gain in 2014 included a pre-tax gain of \$1.7 billion (\$1.1 billion after-tax) on the sale of the Industrial Packaging business. The net losses in 2013 included a \$39 million pre-tax loss related to the sale of one of the construction distribution businesses and a \$20 million pre-tax loss related to the sale of one of the transportation related businesses. Also included in income before income taxes from discontinued operations in 2013 was a \$42 million goodwill impairment charge recorded in connection with the anticipated sale of one of the transportation related businesses.

In 2014, income tax expense from discontinued operations included \$175 million of U.S. income tax expense related to the repatriation of approximately \$1.3 billion of international proceeds from the sale of the Industrial Packaging business. In 2013, income tax expense from discontinued operations included \$42 million of tax expense related to the legal restructuring of the Industrial Packaging business.

There were no businesses classified as held for sale as of December 31, 2015 and 2014.

**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. Acquisitions, individually and in the aggregate, did not materially affect the Company's results of operations or financial position for any period presented. Net cash paid for acquisitions during 2015, 2014, and 2013 was \$6 million, \$45 million, and \$369 million, respectively.

The premium over tangible net assets recorded for acquisitions based on purchase price allocations during 2015, 2014 and 2013 was as follows:

In millions except weighted-average lives (years)	2015		2014		2013	
	Weighted-Average Life	Premium Recorded	Weighted-Average Life	Premium Recorded	Weighted-Average Life	Premium Recorded
Goodwill		\$ 2		\$ 18		\$ 247
Amortizable intangible assets:						
Patents and proprietary technology	6.4	2	15.4	8	9.8	34
Trademarks and brands	—	—	12.9	3	15.5	35
Customer lists and relationships	—	—	11.4	12	11.2	100
Other	—	—	—	—	5.0	12
Total amortizable intangible assets	6.4	2	12.9	23	11.4	181
Indefinite-lived intangible assets:						
Trademarks and brands		—		—		—
Total premium recorded		\$ 4		\$ 41		\$ 428

No goodwill recorded for acquisitions during 2015 will be tax deductible. Of the total goodwill recorded for acquisitions in 2014 and 2013, the Company expects goodwill of \$14 million and \$25 million, respectively, will be tax deductible.

**Operating Revenue** is recognized when persuasive evidence of an arrangement exists, product has shipped and the risks and rewards of ownership have transferred or services have been rendered, the price to the customer is fixed or determinable, and collectibility is reasonably assured, which is generally at the time of product shipment. Typical sales arrangements are for standard products and provide for transfer of ownership and risk of loss at the time of shipment. In limited circumstances where significant obligations to the customer are unfulfilled at the time of shipment, typically involving installation and customer acceptance, revenue recognition is deferred until such obligations have been completed. Customer allowances and rebates, consisting primarily of volume discounts and other short-term incentive programs, are estimated at the time of sale based on historical experience and known trends and are recorded as a reduction in reported revenues.

In May 2014, the FASB issued authoritative guidance to change the criteria for revenue recognition. The core principle of the new standard is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In addition, several new revenue recognition disclosures will be required. This guidance is effective for the Company beginning January 1, 2018. The Company is currently assessing the potential impact the guidance will have upon adoption.

**Research and Development Expenses** are recorded as expense in the year incurred. These costs were \$218 million in 2015, \$227 million in 2014 and \$240 million in 2013.

**Rental Expense** was \$117 million in 2015, \$130 million in 2014 and \$138 million in 2013. Future minimum lease payments under non-cancelable leases for the years ending December 31 are as follows:

In millions	
2016	\$ 98
2017	69
2018	47
2019	31
2020	23
2021 and future years	29
	\$ 297

**Advertising Expenses** are recorded as expense in the year incurred. These costs were \$58 million in 2015, \$66 million in 2014 and \$67 million in 2013.

**Other Income (Expense)** consisted of the following:

In millions	2015	2014	2013
Interest income	\$ 52	\$ 65	\$ 50
Gain (loss) on disposal of operations and affiliates	16	(6)	(5)
Gain (loss) on foreign currency transactions, net	5	8	(5)
Income from investments	4	8	12
Gain on acquisition of controlling interest in an equity investment	—	—	30
Equity income (loss) in Wilsonart	(4)	(9)	(14)
Other, net	5	(5)	4
	\$ 78	\$ 61	\$ 72

On January 31, 2013, the Company acquired the controlling interest of an existing consumer packaging business in the Specialty Products segment previously accounted for under the equity method. The Company recorded a pre-tax gain of \$30 million in Other income (expense) in the first quarter of 2013 as a result of remeasuring the Company's existing equity interest to fair value by determining the implied equity value using a Level 3 valuation method.

Equity income (loss) in Wilsonart is related to the Company's 49% ownership interest in Wilsonart International Holdings LLC accounted for under the equity method of accounting. Refer to the Other Assets note for further information regarding this investment.

**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. The components of the provision for income taxes were as shown below:

In millions	2015	2014	2013
U.S. federal income taxes:			
Current	\$ 503	\$ 413	\$ 410
Deferred	8	121	84
	511	534	494
Foreign income taxes:			
Current	310	163	153
Deferred	(11)	66	35
Benefit of net operating loss carryforwards	(48)	(13)	(13)
	251	216	175
State income taxes:			
Current	66	50	64
Deferred	(8)	9	(16)
	58	59	48
	\$ 820	\$ 809	\$ 717

Income from continuing operations before income taxes for domestic and foreign operations was as follows:

In millions	2015	2014	2013
Domestic	\$ 1,660	\$ 1,669	\$ 1,444
Foreign	1,059	1,030	903
	\$ 2,719	\$ 2,699	\$ 2,347

The reconciliation between the U.S. federal statutory tax rate and the effective tax rate was as follows:

	2015	2014	2013
U.S. federal statutory tax rate	35.0 %	35.0 %	35.0 %
State income taxes, net of U.S. federal tax benefit	1.4	1.6	1.8
Differences between U.S. federal statutory and foreign tax rates	(3.1)	(3.5)	(3.4)
Nontaxable foreign interest income	(3.3)	(3.6)	(3.5)
Tax effect of foreign dividends	2.8	2.1	2.4
Tax relief for U.S. manufacturers	(1.6)	(1.5)	(1.3)
Other, net	(1.1)	(0.1)	(0.4)
Effective tax rate	30.1 %	30.0 %	30.6 %

Deferred U.S. federal income taxes and foreign withholding taxes have not been provided on the remaining undistributed earnings of certain international subsidiaries as these earnings are considered permanently invested. Undistributed earnings of these subsidiaries were approximately \$8.7 billion and \$7.1 billion as of December 31, 2015 and 2014, respectively. Upon repatriation of these earnings to the U.S. in the form of dividends or other distribution of earnings, the Company may be subject to U.S. income taxes and foreign withholding taxes. The actual U.S. tax cost would depend on income tax laws and circumstances at the time of distribution. Determination of the related tax liability is not practicable because of the complexities associated with the hypothetical calculation.

In November 2015, the FASB issued authoritative guidance to simplify the presentation of deferred taxes. Under the new guidance, all deferred tax assets and liabilities are presented as noncurrent in the statement of financial position. The Company early adopted this guidance in the fourth quarter of 2015 and applied it retrospectively to all periods presented. Due to the restatement of current deferred tax assets and liabilities to noncurrent, adoption of this guidance resulted in an increase of noncurrent deferred tax assets of \$37 million and a decrease of noncurrent deferred tax liabilities of \$167 million as of December 31, 2014.

The components of deferred income tax assets and liabilities at December 31, 2015 and 2014 were as follows:

In millions	2015		2014	
	Asset	Liability	Asset	Liability
Goodwill and intangible assets	\$ 282	\$ (734)	\$ 277	\$ (758)
Inventory reserves, capitalized tax cost and LIFO inventory	42	(5)	48	(1)
Investments	25	(298)	31	(273)
Plant and equipment	28	(84)	26	(85)
Accrued expenses and reserves	79	—	73	—
Employee benefit accruals	314	—	324	—
Foreign tax credit carryforwards	216	—	195	—
Net operating loss carryforwards	643	—	670	—
Capital loss carryforwards	39	—	80	—
Allowances for uncollectible accounts	13	—	11	—
Pension liabilities	13	—	11	—
Deferred intercompany deductions	—	—	14	—
Unrealized loss (gain) on foreign debt instruments	—	(115)	—	(59)
Other	109	(10)	123	(10)
Gross deferred income tax assets (liabilities)	1,803	(1,246)	1,883	(1,186)
Valuation allowances	(467)	—	(530)	—
Total deferred income tax assets (liabilities)	\$ 1,336	\$ (1,246)	\$ 1,353	\$ (1,186)

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. The valuation allowances recorded at December 31, 2015 and 2014 related primarily to certain net operating loss carryforwards and capital loss carryforwards.

At December 31, 2015, 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
2016	\$ 1
2017	11
2018	8
2019	10
2020	80
2021	75
2022	21
2023-2035	52
Do not expire	2,104
	\$ 2,362

The Company has foreign tax credit carryforwards of \$216 million as of December 31, 2015 that are available for use by the Company between 2016 and 2025.

The changes in the amount of unrecognized tax benefits during 2015, 2014 and 2013 were as follows:

In millions	2015	2014	2013
Beginning balance	\$ 218	\$ 268	\$ 249
Additions based on tax positions related to the current year	39	23	26
Additions for tax positions of prior years	54	12	40
Reductions for tax positions of prior years	(41)	(59)	(21)
Settlements	(6)	(18)	(27)
Foreign currency translation	(5)	(8)	1
Ending balance	<u>\$ 259</u>	<u>\$ 218</u>	<u>\$ 268</u>

Included in the balance at December 31, 2015 were approximately \$227 million of unrecognized tax benefits that, if recognized, would impact the Company's effective tax rate.

During the third quarter of 2013, the Company recorded a discrete tax charge of \$40 million related to the tax treatment of intercompany financing transactions that impact the taxability of foreign earnings.

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, Her 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. Due to the ongoing audits, 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 \$113 million related predominantly to various intercompany transactions. 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	2012-2015
United Kingdom	2012-2015
Germany	2009-2015
France	2013-2015
Australia	2011-2015

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, 2015 and 2014 was \$32 million and \$30 million, respectively.

On February 18, 2014, the Company received a Notice of Deficiency ("NOD") from the IRS asserting that a non-taxable return of capital received from a subsidiary was a taxable dividend distribution. The NOD assesses additional taxes of \$70 million for the 2006 tax year, plus interest and penalties. In May 2014, the Company petitioned the United States Tax Court to challenge the NOD. The Company's petition was subsequently denied and the case will proceed to court with trial set for the third quarter of 2016. Although the outcome of this process cannot be predicted with certainty, the Company believes it will be successful in defending its positions. Accordingly, no reserve has been recorded related to this matter.

**Income Per Share from Continuing Operations** is computed by dividing income from continuing operations by the weighted-average number of shares outstanding for the period. Income from continuing operations per diluted share is computed by dividing income from continuing operations 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 income per share from continuing operations was as follows:

In millions except per share amounts	2015	2014	2013
Income from continuing operations	\$ 1,899	\$ 1,890	\$ 1,630
Income per share from continuing operations—Basic:			
Weighted-average common shares	367.9	401.7	446.2
Income per share from continuing operations—Basic	\$ 5.16	\$ 4.70	\$ 3.65
Income per share from continuing operations—Diluted:			
Weighted-average common shares	367.9	401.7	446.2
Effect of dilutive stock options and restricted stock units	2.2	2.9	3.1
Weighted-average common shares assuming dilution	370.1	404.6	449.3
Income per share from continuing operations—Diluted	\$ 5.13	\$ 4.67	\$ 3.63

Options that were considered antidilutive were not included in the computation of diluted income per share from continuing operations. There were 0.6 million antidilutive options outstanding as of December 31, 2015. There were no antidilutive options outstanding as of December 31, 2014 and 0.1 million antidilutive options outstanding as of December 31, 2013.

**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** are net of allowances for uncollectible accounts, including reserves for customer credits and cash discounts. The changes in the allowances for uncollectible accounts during 2015, 2014 and 2013 were as follows:

In millions	2015	2014	2013
Beginning balance	\$ (43)	\$ (46)	\$ (65)
Provision charged to expense	(7)	(7)	(3)
Write-offs, net of recoveries	5	7	14
Acquisitions and divestitures	—	—	(1)
Foreign currency translation	3	3	1
Transfer to assets held for sale	—	—	8
Ending balance	\$ (42)	\$ (43)	\$ (46)

**Inventories** at December 31, 2015 and 2014 were as follows:

In millions	2015	2014
Raw material	\$ 415	\$ 458
Work-in-process	130	133
Finished goods	622	677
LIFO reserve	(81)	(88)
	\$ 1,086	\$ 1,180

*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 the 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 22% of total inventories as of both December 31, 2015 and 2014. If the FIFO method was used for all inventories, total inventories would have been approximately \$81 million and \$88 million higher than reported at December 31, 2015 and 2014, respectively.*

Prepaid Expenses and Other Current Assets as of December 31, 2015 and 2014 were as follows:

In millions	2015	2014
Income tax refunds receivable	\$ 147	\$ 129
Value-added-tax receivables	48	50
Vendor advances	22	30
Other	124	192
	<u>\$ 341</u>	<u>\$ 401</u>

**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. Depreciation of plant and equipment is primarily computed on an accelerated basis for U.S. businesses and on a straight-line basis for a majority of the international businesses.

Depreciation was \$244 million in 2015, \$262 million in 2014 and \$270 million in 2013. There was no depreciation included in Income from discontinued operations in 2015 and 2014. Depreciation included in Income from discontinued operations in 2013 was \$29 million.

Net plant and equipment consisted of the following at December 31, 2015 and 2014:

In millions	2015	2014
Land	\$ 179	\$ 177
Buildings and improvements	1,272	1,200
Machinery and equipment	2,972	3,034
Equipment leased to others	156	158
Construction in progress	76	230
Gross plant and equipment	4,655	4,799
Accumulated depreciation	(3,078)	(3,113)
Net plant and equipment	<u>\$ 1,577</u>	<u>\$ 1,686</u>

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
Equipment leased to others	Term of lease

**Goodwill and Intangible Assets**—Goodwill represents the excess cost over fair value of the net assets of purchased businesses. *The Company does not amortize goodwill and intangible assets that have indefinite lives. 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 detailed 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, an impairment loss, if any, is recorded for the difference between the implied fair value and the carrying value of the reporting unit's goodwill.

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-of-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 between the estimated fair value and carrying value of the intangible asset.

Amortization and impairment of goodwill and other intangible assets for the years ended December 31, 2015, 2014 and 2013 were as follows:

In millions	2015	2014	2013
<b>Goodwill:</b>			
Impairment	\$ —	\$ —	\$ —
<b>Intangible Assets:</b>			
Amortization	231	242	250
Impairment	2	3	2
	<u>\$ 233</u>	<u>\$ 245</u>	<u>\$ 252</u>

Income from discontinued operations included intangible asset amortization of \$20 million in 2013.

The Company performed its annual impairment assessment of goodwill and indefinite-lived intangible assets in the third quarter of 2015, 2014 and 2013. In the third quarter of 2015, these assessments resulted in no goodwill impairment charges and an indefinite-lived intangible asset charge of \$2 million related to a brand in the Polymers & Fluids segment. In the third quarter of 2014, these assessments resulted in no goodwill impairment charges and indefinite-lived intangible asset charges of \$3 million related to certain brands in the Polymers & Fluids and Test & Measurement and Electronics segments. In 2013, these assessments resulted in no goodwill impairment charges and an indefinite-lived intangible asset impairment charge of \$2 million related to a brand in the Test & Measurement and Electronics segment.

A summary of indefinite-lived intangible assets that were adjusted to fair value and the related impairment charges for the years ended December 31, 2015, 2014, and 2013 is as follows:

In millions	2015			2014			2013		
	Carrying Value	Fair Value	Total Impairment Charges	Carrying Value	Fair Value	Total Impairment Charges	Carrying Value	Fair Value	Total Impairment Charges
Indefinite-lived intangible assets	\$ 26	\$ 24	\$ 2	\$ 11	\$ 8	\$ 3	\$ 42	\$ 40	\$ 2



The changes in the carrying amount of goodwill for the years ended December 31, 2015 and 2014 were as follows:

In millions	Automotive OEM	Test & Measurement and Electronics	Food Equipment	Polymers & Fluids	Welding	Construction Products	Specialty Products	Total
Balance, December 31, 2013	\$ 320	\$ 1,426	\$ 294	\$ 1,021	\$ 294	\$ 561	\$ 970	\$ 4,886
2014 activity:								
Acquisitions & divestitures	(3)	—	—	3	—	8	—	8
Impairment charges	—	—	—	—	—	—	—	—
Foreign currency translation	(23)	(36)	(18)	(60)	(17)	(27)	(46)	(227)
Balance, December 31, 2014	294	1,390	276	964	277	542	924	4,667
2015 activity:								
Acquisitions & divestitures	—	—	—	(6)	1	—	—	(5)
Impairment charges	—	—	—	—	—	—	—	—
Foreign currency translation	(17)	(35)	(17)	(64)	(17)	(26)	(47)	(223)
Balance, December 31, 2015	\$ 277	\$ 1,355	\$ 259	\$ 894	\$ 261	\$ 516	\$ 877	\$ 4,439
Cumulative goodwill impairment charges, December 31, 2015	\$ 24	\$ 83	\$ 60	\$ 15	\$ 5	\$ 7	\$ 46	\$ 240

Income from discontinued operations included a goodwill impairment of \$42 million in 2013.

Intangible assets as of December 31, 2015 and 2014 were as follows:

In millions	2015			2014		
	Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Amortizable intangible assets:						
Customer lists and relationships	\$ 1,630	\$ (943)	\$ 687	\$ 1,638	\$ (820)	\$ 818
Trademarks and brands	724	(298)	426	707	(249)	458
Patents and proprietary technology	618	(397)	221	622	(354)	268
Other	475	(446)	29	471	(430)	41
Total amortizable intangible assets	3,447	(2,084)	1,363	3,438	(1,853)	1,585
Indefinite-lived intangible assets:						
Trademarks and brands	197	—	197	214	—	214
Total intangible assets	\$ 3,644	\$ (2,084)	\$ 1,560	\$ 3,652	\$ (1,853)	\$ 1,799

Amortizable intangible assets are being amortized on a straight-line basis over their estimated useful lives of 3 to 20 years.

The estimated amortization expense of intangible assets for the future years ending December 31 is as follows:

In millions	
2016	\$ 217
2017	196
2018	175
2019	153
2020	134

**Other Assets** - In April 2015, the FASB issued authoritative guidance to simplify the balance sheet presentation of long-term debt issuance costs. Under the new guidance, long-term debt issuance costs are presented as a reduction of the carrying amount of the related long-term debt. The Company early adopted this guidance in the fourth quarter of 2015 and applied it retrospectively to all periods presented. As of December 31, 2014, the Company restated \$38 million of deferred debt issuance costs from Other assets to Long-term debt.

Other assets as of December 31, 2015 and 2014 consisted of the following:

In millions	2015	2014
Cash surrender value of life insurance policies	\$ 428	\$ 418
Prepaid pension assets	191	165
Equity investment in Wilsonart	113	141
Investments	99	110
Customer tooling	88	96
Other	168	181
	<u>\$ 1,087</u>	<u>\$ 1,111</u>

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. Due to the Company's continuing involvement through its 49% ownership interest in Wilsonart, the former Decorative Surfaces segment was not presented as discontinued operations. The ownership interest in Wilsonart is reported using the equity method of accounting. The Company's proportionate share in income (loss) of Wilsonart is reported in Other income (expense) in the consolidated 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.

Accrued Expenses as of December 31, 2015 and 2014 consisted of the following accruals:

In millions	2015	2014
Compensation and employee benefits	\$ 363	\$ 441
Deferred revenue and customer deposits	169	194
Rebates	125	128
Warranties	46	49
Current portion of pension and other postretirement benefit obligations	15	14
Other	418	461
	<u>\$ 1,136</u>	<u>\$ 1,287</u>

The Company accrues for product warranties based on historical experience. The changes in accrued warranties during 2015, 2014 and 2013 were as follows:

In millions	2015	2014	2013
Beginning balance	\$ 49	\$ 50	\$ 51
Charges	(37)	(41)	(44)
Provision charged to expense	36	43	43
Acquisitions and divestitures	—	—	2
Foreign currency translation	(2)	(3)	1
Transfer to liabilities held for sale	—	—	(3)
Ending balance	<u>\$ 46</u>	<u>\$ 49</u>	<u>\$ 50</u>

## 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. Short-term debt as of December 31, 2015 and 2014 consisted of the following:

In millions	2015	2014
Commercial paper	\$ 498	\$ 1,413
Bank overdrafts	25	62
Current maturities of long-term debt	1	1
Other borrowings	2	—
	<u>\$ 526</u>	<u>\$ 1,476</u>

The Company may issue commercial paper to fund general corporate needs, share repurchases, and small and medium-sized acquisitions. The Company has committed lines of credit of \$2.5 billion in the U.S. to support the potential issuances of commercial paper. Of this amount, \$1.0 billion is provided under a line of credit agreement with a termination date of August 15, 2018 and \$1.5 billion is provided under a line of credit agreement with a termination date of June 8, 2017. No amounts were outstanding under these two facilities at December 31, 2015. As of December 31, 2015, the Company was in compliance with the financial covenants of these line of credit agreements, which include a minimum interest coverage ratio. The weighted-average interest rate on commercial paper was 0.1% at both December 31, 2015 and 2014.

As of December 31, 2015, the Company had unused capacity of approximately \$296 million under international debt facilities.

Long-term debt represents obligations with a maturity date greater than one year, and excludes current maturities that have been reclassified to short-term debt.

In April 2015, the FASB issued authoritative guidance to simplify the balance sheet presentation of long-term debt issuance costs. Under the new guidance, long-term debt issuance costs are presented as a reduction of the carrying amount of the related long-term debt. The Company early adopted this guidance in the fourth quarter of 2015 and applied it retrospectively to all periods presented. As of December 31, 2014, the Company restated \$38 million of deferred long-term debt issuance costs from Other assets to Long-term debt.

Long-term debt at carrying value and fair value as of December 31, 2015 and 2014 consisted of the following:

In millions	Effective Interest Rate	2015		2014	
		Carrying Value	Fair Value	Carrying Value	Fair Value
0.90% notes due February 25, 2017	0.95%	\$ 649	\$ 649	\$ 648	\$ 648
1.95% notes due March 1, 2019	1.98%	647	655	647	651
6.25% notes due April 1, 2019	6.25%	698	790	697	817
4.88% notes due thru December 31, 2020	4.96%	4	4	5	6
3.375% notes due September 15, 2021	3.43%	347	362	347	369
1.75% Euro notes due May 20, 2022	1.86%	536	564	597	640
1.25% Euro notes due May 22, 2023	1.35%	536	538	—	—
3.50% notes due March 1, 2024	3.54%	695	727	694	735
2.125% Euro notes due May 22, 2030	2.18%	536	530	—	—
3.0% Euro notes due May 19, 2034	3.13%	528	569	588	702
4.875% notes due September 15, 2041	4.97%	635	708	635	746
3.9% notes due September 1, 2042	3.96%	1,080	1,051	1,079	1,110
Other borrowings		6	6	7	7
		<u>\$ 6,897</u>	<u>\$ 7,153</u>	<u>\$ 5,944</u>	<u>\$ 6,431</u>
Current maturities		(1)		(1)	
		<u>\$ 6,896</u>		<u>\$ 5,943</u>	

The approximate fair values of the Company's long-term debt, including current maturities, were based on a Level 2 valuation model, using observable inputs, which included market rates for comparable instruments as of December 31, 2015 and 2014.

All of the Company's notes listed above represent senior unsecured obligations ranking equal in right of payment.

In 2005, the Company issued \$54 million of 4.88% notes due through December 31, 2020 at 100% of face value.

In 2007, the Company, through a wholly-owned European subsidiary, issued €750 million of 5.25% Euro notes due October 1, 2014 at 99.874% of face value. The €750 million of 5.25% Euro notes due October 1, 2014 were repaid on the due date.

In 2009, the Company issued \$800 million of 5.15% redeemable notes due April 1, 2014 at 99.92% of face value and \$700 million of 6.25% redeemable notes due April 1, 2019 at 99.98% of face value. The \$800 million of 5.15% redeemable notes due April 1, 2014 were repaid on the due date.

In 2011, the Company issued \$350 million of 3.375% notes due September 15, 2021 at 99.552% of face value 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 \$650 million of 0.9% notes due February 25, 2017 at 99.861% of face value, \$650 million of 1.95% notes due March 1, 2019 at 99.871% of face value, and \$700 million of 3.5% notes due March 1, 2024 at 99.648% of face value. Net proceeds from the February 2014 debt issuances were used to repay commercial paper.

In May 2014, the Company issued €500 million of 1.75% Euro notes due May 20, 2022 at 99.16% of face value and €500 million of 3.0% Euro notes due May 19, 2034 at 98.089% of face value. Net proceeds from the May 2014 debt issuances were used for general corporate purposes.

In May 2015, the Company issued €500 million of 1.25% Euro notes due May 22, 2023 at 99.239% of face value and €500 million of 2.125% Euro notes due May 22, 2030 at 99.303% of face value. Net proceeds from the May 2015 debt issuances were used to repay commercial paper and for general corporate purposes.

The Company designated the €1.0 billion of Euro notes issued in May 2015 and the €1.0 billion of Euro notes issued in May 2014 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. Refer to the Accumulated Other Comprehensive Income (Loss) note for additional information regarding the net investment hedge.

Scheduled maturities of long-term debt, including current maturities of long-term debt, for the future years ending December 31 are as follows:

In millions	
2016	\$ 1
2017	649
2018	—
2019	1,346
2020	4
2021 and future years	4,897
	\$ 6,897

**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 \$77 million in 2015, \$78 million in 2014, and \$72 million in 2013.

In addition to the U.S. plans, the Company also has defined benefit pension plans in certain other countries, mainly the United Kingdom, Germany, Canada and Switzerland.

Summarized information regarding the Company's significant defined benefit pension and other postretirement benefit plans related to both continuing and discontinued operations is as follows:

In millions	Pension			Other Postretirement Benefits		
	2015	2014	2013	2015	2014	2013
<b>Components of net periodic benefit cost:</b>						
Service cost	\$ 70	\$ 80	\$ 87	\$ 11	\$ 10	\$ 12
Interest cost	92	103	100	24	24	24
Expected return on plan assets	(151)	(159)	(157)	(25)	(25)	(22)
Amortization of actuarial (gain) loss	60	48	65	(1)	(4)	1
Amortization of prior service cost	1	1	—	1	1	1
Settlement/curtailment (gain) loss	—	1	49	—	(9)	—
	<u>\$ 72</u>	<u>\$ 74</u>	<u>\$ 144</u>	<u>\$ 10</u>	<u>\$ (3)</u>	<u>\$ 16</u>

Net periodic benefit cost was included in the statement of income as follows:

In millions	Pension			Other Postretirement Benefits		
	2015	2014	2013	2015	2014	2013
Income from continuing operations	\$ 72	\$ 69	\$ 131	\$ 10	\$ 6	\$ 14
Income from discontinued operations	—	5	13	—	(9)	2
	<u>\$ 72</u>	<u>\$ 74</u>	<u>\$ 144</u>	<u>\$ 10</u>	<u>\$ (3)</u>	<u>\$ 16</u>

The pension settlement charges in 2013 included \$45 million tied primarily to higher lump sum pension payments resulting from the exit of Decorative Surfaces employees from the Company's U.S. primary pension plan. These charges were included in Income from continuing operations. Refer to the Other Assets note for further details regarding the Decorative Surfaces transaction.

In addition, the Company recognized a \$9 million curtailment gain on the U.S. primary postretirement plan in the second quarter of 2014 and a \$2 million curtailment charge on the U.S. primary pension plan in the third quarter of 2013 related to the Company's sale of the Industrial Packaging business and the reclassification of the Industrial Packaging business to discontinued operations, respectively. These curtailments were included in Income from discontinued operations.

During 2014, the Society of Actuaries released a new mortality table, referred to as RP-2014, which is believed to better reflect mortality improvements. The Company used the RP-2014 mortality table to measure its U.S. pension and other postretirement obligations as of December 31, 2014 which resulted in additional actuarial losses of \$76 million for pension and \$46 million for other postretirement benefits. In 2015, the Company used the updated MP-2015 mortality improvement scale to measure its U.S. pension and other postretirement obligations as of December 31, 2015, which did not have a significant impact.

The following tables provide a rollforward of the plan benefit obligations, plan assets and a reconciliation of funded status for the years ended December 31, 2015 and 2014 for continuing and discontinued operations:

In millions	Pension		Other Postretirement Benefits	
	2015	2014	2015	2014
<b>Change in benefit obligation:</b>				
Benefit obligation at January 1	\$ 2,607	\$ 2,545	\$ 591	\$ 519
Service cost	70	80	11	10
Interest cost	92	103	24	24
Plan participants' contributions	3	3	13	13
Amendments	1	(5)	—	—
Actuarial (gain) loss	(82)	240	(43)	97
Acquisitions and divestitures	—	(97)	—	(18)
Benefits paid	(169)	(192)	(46)	(46)
Medicare subsidy received	—	—	2	2
Settlement/curtailment (gain) loss	—	(2)	—	(10)
Foreign currency translation	(60)	(68)	—	—
Benefit obligation at December 31	\$ 2,462	\$ 2,607	\$ 552	\$ 591

In millions	Pension		Other Postretirement Benefits	
	2015	2014	2015	2014
<b>Change in plan assets:</b>				
Fair value of plan assets at January 1	\$ 2,557	\$ 2,487	\$ 372	\$ 370
Actual return on plan assets	16	264	(3)	28
Company contributions	97	127	6	7
Plan participants' contributions	3	3	13	13
Acquisitions/divestitures	—	(65)	—	—
Benefits paid	(169)	(192)	(46)	(46)
Foreign currency translation	(63)	(67)	—	—
Fair value of plan assets at December 31	\$ 2,441	\$ 2,557	\$ 342	\$ 372
Funded status	\$ (21)	\$ (50)	\$ (210)	\$ (219)
Other immaterial plans	(50)	(52)	(5)	(5)
Net liability at December 31	\$ (71)	\$ (102)	\$ (215)	\$ (224)
<b>The amounts recognized in the statement of financial position as of December 31 consist of:</b>				
Other assets	\$ 191	\$ 165	\$ —	\$ —
Accrued expenses	(11)	(10)	(4)	(4)
Other noncurrent liabilities	(251)	(257)	(211)	(220)
Net liability at end of year	\$ (71)	\$ (102)	\$ (215)	\$ (224)
<b>The pre-tax amounts recognized in accumulated other comprehensive income consist of:</b>				
Net actuarial (gain) loss	\$ 631	\$ 638	\$ (20)	\$ (6)
Prior service cost	—	1	(1)	(1)
	\$ 631	\$ 639	\$ (21)	\$ (7)
Accumulated benefit obligation	\$ 2,297	\$ 2,361		
<b>Plans with accumulated benefit obligation in excess of plan assets as of December 31:</b>				
Projected benefit obligation	\$ 164	\$ 168		
Accumulated benefit obligation	\$ 152	\$ 154		
Fair value of plan assets	\$ 25	\$ 26		

## Assumptions

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

	Pension			Other Postretirement Benefits		
	2015	2014	2013	2015	2014	2013
Assumptions used to determine benefit obligations at December 31:						
Discount rate	3.95%	3.70%	4.32%	4.55%	4.15%	4.95%
Rate of compensation increases	3.72%	3.72%	3.72%	—%	—%	—%
Assumptions used to determine net periodic benefit cost for years ended December 31:						
Discount rate	3.70%	4.32%	3.85%	4.15%	4.95%	4.15%
Expected return on plan assets	6.54%	7.02%	7.28%	7.00%	7.00%	7.00%
Rate of compensation increases	3.72%	3.72%	3.86%	—%	—%	—%

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. 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 at December 31 were as follows:

	2015	2014	2013
Health care cost trend rate assumed for the next year	6.00%	8.00%	8.00%
Ultimate trend rate	4.50%	4.50%	5.00%
Year the rate reaches the ultimate trend rate	2021	2022	2020

A one percentage-point change in assumed health care cost trend rates would have the following impact:

In millions	1 Percentage-Point Increase		1 Percentage-Point Decrease	
Change in service cost and interest cost for 2015	\$	—	\$	(1)
Change in postretirement benefit obligation at December 31, 2015	\$	7	\$	(14)

## 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 30% to 50% equity securities, 45% to 60% fixed income securities 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 at December 31, 2015 and 2014, 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	2015			
	Total	Level 1	Level 2	Level 3
<b>Pension Plan Assets:</b>				
Cash and equivalents	\$ 53	\$ 53	\$ —	\$ —
<b>Equity securities:</b>				
Domestic	1	1	—	—
Foreign	62	62	—	—
<b>Fixed income securities:</b>				
Government securities	285	—	285	—
Corporate debt securities	483	—	483	—
Investment contracts with insurance companies	1	—	—	1
<b>Commingled funds:</b>				
Mutual funds	145	145	—	—
Collective trust funds	1,347			
Partnerships/private equity interests	66			
Other	(2)	—	(2)	—
	<u>\$ 2,441</u>	<u>\$ 261</u>	<u>\$ 766</u>	<u>\$ 1</u>
<b>Other Postretirement Benefit Plan Assets:</b>				
Cash and equivalents	\$ 8	\$ 8	\$ —	\$ —
Life insurance policies	334			
	<u>\$ 342</u>	<u>\$ 8</u>	<u>\$ —</u>	<u>\$ —</u>

In millions	2014			
	Total	Level 1	Level 2	Level 3
<b>Pension Plan Assets:</b>				
Cash and equivalents	\$ 164	\$ 164	\$ —	\$ —
<b>Equity securities:</b>				
Domestic	1	1	—	—
Foreign	72	72	—	—
<b>Fixed income securities:</b>				
Government securities	286	—	286	—
Corporate debt securities	378	—	378	—
Mortgage-backed securities	8	—	8	—
Investment contracts with insurance companies	1	—	—	1
<b>Commingled funds:</b>				
Mutual funds	317	317	—	—
Collective trust funds	1,252			
Partnerships/private equity interests	77			
Other	1	—	—	1
	<u>\$ 2,557</u>	<u>\$ 554</u>	<u>\$ 672</u>	<u>\$ 2</u>
<b>Other Postretirement Benefit Plan Assets:</b>				
Cash and equivalents	\$ 11	\$ 11	\$ —	\$ —
Life insurance policies	361			
	<u>\$ 372</u>	<u>\$ 11</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. Equity securities primarily include common and preferred equity securities covering a wide range of industries and geographies that are traded in active markets and are valued based on quoted prices. Fixed income securities primarily consist of U.S. and foreign government bills, notes and bonds, corporate debt securities, asset-



backed 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. Mutual funds are traded in active markets and are valued based on quoted prices. The underlying investments include small-cap equity, international equity and long- and short-term fixed income instruments. Other primarily includes derivative instruments such as interest rate swaps used by fixed income investment managers to offset interest rate sensitivity.

In May 2015, the FASB issued authoritative guidance removing investments measured at net asset value from the fair value hierarchy disclosures as a practical expedient. The Company early adopted this guidance in the fourth quarter of 2015 and applied it retrospectively to all periods presented. Adoption of this guidance resulted in the removal of \$1.7 billion of pension and other postretirement plan assets from the Company's fair value hierarchy disclosures as of December 31, 2014. These investments include collective trust funds, partnerships/private equity interests and life insurance policies. Collective trust funds are private funds that are valued at net asset value 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 which these assets are invested in 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 \$73 million to its pension plans and \$5 million to its other postretirement benefit plans in 2016.

The Company's portion of the benefit payments that are expected to be paid during the years ending December 31 is as follows:

In millions	Pension	Other Postretirement Benefits
2016	\$ 173	\$ 35
2017	176	37
2018	178	38
2019	180	39
2020	178	39
Years 2021-2025	872	199

Other Noncurrent Liabilities at December 31, 2015 and 2014 consisted of the following:

In millions	2015	2014
Pension benefit obligation	\$ 251	\$ 257
Postretirement benefit obligation	211	220
Other	519	525
	<u>\$ 981</u>	<u>\$ 1,002</u>

**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.

**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.

**Common Stock**, with a par value of \$0.01, **Additional Paid-In-Capital** and **Common Stock Held in Treasury** transactions during 2015, 2014, and 2013 are shown below.

In millions	Common Stock		Additional Paid-In-Capital	Common Stock Held in Treasury	
	Shares	Amount	Amount	Shares	Amount
Balance, December 31, 2012	549.6	\$ 5	\$ 1,012	(94.5)	\$ (4,722)
During 2013-					
Shares issued for stock options	0.4	1	9	4.0	198
Shares withheld for taxes	—	—	—	(0.2)	(11)
Shares issued for stock compensation and vesting of restricted stock	—	—	(28)	0.6	28
Stock compensation expense	—	—	36	—	1
Noncontrolling interest	—	—	(8)	—	—
Tax benefits related to stock options	—	—	23	—	—
Tax benefits related to defined contribution plans	—	—	2	—	—
Repurchases of common stock	—	—	—	(29.7)	(2,170)
Balance, December 31, 2013	550.0	6	1,046	(119.8)	(6,676)
During 2014-					
Shares issued for stock options	—	—	—	3.0	148
Shares withheld for taxes	—	—	—	(0.1)	(14)
Shares issued for stock compensation and vesting of restricted stock	—	—	(26)	0.5	26
Stock compensation expense	—	—	39	—	—
Tax benefits related to stock options	—	—	33	—	—
Tax benefits related to defined contribution plans	—	—	4	—	1
Repurchases of common stock	—	—	—	(50.4)	(4,283)
Balance, December 31, 2014	550.0	6	1,096	(166.8)	(10,798)
During 2015-					
Shares issued for stock options	—	—	(2)	1.2	61
Shares withheld for taxes	—	—	—	(0.1)	(11)
Shares issued for stock compensation and vesting of restricted stock	—	—	(19)	0.4	19
Stock compensation expense	—	—	39	—	2
Noncontrolling interest	—	—	(2)	—	—
Tax benefits related to stock options	—	—	20	—	—
Tax benefits related to defined contribution plans	—	—	3	—	—
Repurchases of common stock	—	—	—	(21.0)	(2,002)
Balance, December 31, 2015	550.0	\$ 6	\$ 1,135	(186.3)	\$ (12,729)
Authorized, December 31, 2015	700.0				

On May 6, 2011, the Company's Board of Directors authorized a stock repurchase program, which provided for the repurchase of up to \$4.0 billion of the Company's common stock over an open-ended period of time (the "2011 Program"). Under the 2011 Program, the Company repurchased approximately 1.8 million shares of its common stock at an average price of \$43.20 per share during 2011, approximately 35.5 million shares of its common stock at an average price of \$56.93 per share during

2012 and approximately 26.4 million shares of its common stock at an average price of \$71.89 per share during 2013. As of December 31, 2013, there were no authorized repurchases remaining under the 2011 Program.

On August 2, 2013, the Company's Board of Directors authorized a new stock repurchase program, which provided for the repurchase of up to an additional \$6.0 billion of the Company's common stock over an open-ended period of time (the "2013 Program"). Under the 2013 Program, the Company repurchased approximately 3.3 million shares of its common stock at an average price of \$81.62 per share during 2013, approximately 50.4 million shares of its common stock at an average price of \$84.92 per share during 2014, and approximately 14.9 million shares of its common stock at an average price of \$96.84 during 2015. As of December 31, 2015, there were no authorized repurchases remaining under the 2013 Program.

On February 13, 2015, the Company's Board of Directors authorized a new stock repurchase program, which provides for the repurchase of up to an additional \$6.0 billion of the Company's common stock over an open-ended period of time (the "2015 Program"). Under the 2015 Program, the Company repurchased approximately 6.1 million shares of its common stock at an average price of \$91.78 per share during 2015. As of December 31, 2015, there was approximately \$5.4 billion of authorized repurchases remaining under the 2015 Program.

**Cash Dividends** declared were \$2.07 per share in 2015, \$1.81 per share in 2014 and \$1.60 per share in 2013. Cash dividends paid were \$2.005 per share in 2015, \$1.745 per share in 2014 and \$1.18 per share in 2013. Cash dividends paid during 2013 do not include the dividend payment of \$0.38 per share originally scheduled to be paid in January 2013, which was accelerated and paid in December 2012.

**Accumulated Other Comprehensive Income (Loss)**—In March 2013, new accounting guidance was issued which clarifies that an entity should release cumulative translation adjustments into net income when the entity ceases to have a controlling financial interest in a subsidiary or group of assets that is a business within a foreign entity, which is consistent with the Company's prior accounting policy. The new guidance became effective for the Company on January 1, 2014 and did not have any impact on the Company's financial statements.

The changes in accumulated other comprehensive income (loss) during 2015, 2014 and 2013 were as follows:

In millions	2015	2014	2013
Beginning balance	\$ (658)	\$ 384	\$ 293
Foreign currency translation adjustments during the period	(800)	(806)	(200)
Foreign currency translation adjustments reclassified to income	—	(133)	7
Income taxes	(60)	—	—
Total foreign currency translation adjustments	(860)	(939)	(193)
Pension and other postretirement benefit adjustments during the period	(41)	(224)	327
Pension and other postretirement benefit adjustments reclassified to income	61	54	122
Income taxes	(6)	67	(165)
Total pension and other postretirement benefit adjustments	14	(103)	284
Ending balance	\$ (1,504)	\$ (658)	\$ 384

Foreign currency translation adjustments reclassified to income are primarily related to the disposal of certain discontinued operations and were included in the related gain or loss upon disposal. Refer to the Discontinued Operations note for additional information regarding the sale of the Company's discontinued operations.

Pension and other postretirement benefit adjustments reclassified to income represent the amortization of actuarial losses and prior service cost, and settlement and curtailment charges recognized in net periodic benefit cost. Refer to the Pension and Other Postretirement Benefits note for the amounts included in net periodic benefit cost. Pension and other postretirement benefit adjustments reclassified to income also include the reclass of deferred losses of \$6 million for each of the years ended December 31, 2014 and 2013 related to the disposal of certain discontinued operations. Refer to the Discontinued Operations note for additional information regarding the sale of the Company's discontinued operations.

The Company designated €1.0 billion of Euro notes issued in May 2014 and €1.0 billion of Euro notes issued in May 2015 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). The cumulative unrealized gain recorded in Accumulated other comprehensive income (loss) related to the net investment hedge was \$308 million and \$158 million as of December 31, 2015 and December 31, 2014, respectively.

As of December 31, 2015 and 2014, the ending balance of Accumulated other comprehensive income (loss) consisted of cumulative translation adjustment losses of \$1.1 billion and \$265 million, respectively, and unrecognized pension and other postretirement benefits costs of \$379 million and \$393 million, respectively. The estimated unrecognized benefit cost that will be amortized from Accumulated other comprehensive income (loss) into net periodic benefit cost in 2016 is \$43 million for pension and other postretirement benefits.

**Stock-Based Compensation**—On May 8, 2015 (the "Effective Date"), the 2015 Long-Term Incentive Plan (the "2015 Plan") was approved by shareholders. 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 have been issued to officers and other management employees under these plans. Stock options generally vest over a four-year period and have a maturity 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 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 RSU.

Prior to February 2013, the Company generally issued new shares from its authorized but unissued share pool to cover the exercised options and vested RSUs. Commencing in February 2013, the Company began issuing shares from treasury stock. As of December 31, 2015, approximately 17 million shares of ITW common stock were reserved for issuance under these plans.

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:

In millions	2015	2014	2013
Pre-tax compensation expense	\$ 35	\$ 34	\$ 30
Tax benefit	(12)	(12)	(10)
Total stock-based compensation expense, net of tax	\$ 23	\$ 22	\$ 20

There was no pre-tax stock-based compensation expense included in income from discontinued operations in 2015. Pre-tax stock-based compensation expense included in Income from discontinued operations was \$5 million in 2014 and \$6 million in 2013.

The following table summarizes activity related to non-vested RSUs during 2015:

Shares in millions	Number of Shares	Weighted-Average Grant-Date Fair Value
Unvested, January 1, 2015	1.0	\$60.68
Granted	0.3	92.44
Vested	(0.4)	52.11
Canceled	(0.1)	70.96
Unvested, December 31, 2015	0.8	73.58

The following table summarizes stock option activity for the year ended December 31, 2015:

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, 2015	7.1	\$56.25		
Granted	0.6	98.26		
Exercised	(1.2)	49.41		
Canceled or expired	(0.1)	71.41		
Under option, December 31, 2015	6.4	61.44	5.7	\$201
Exercisable, December 31, 2015	4.5	54.19	4.7	\$175

The fair value of RSUs is determined by reducing the closing market price on the date of the grant by the present value of projected dividends over the vesting period. Stock option exercise prices are equal to the common stock fair market value on the date of grant. 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 models:

	2015	2014	2013
Risk-free interest rate	0.23-2.25%	0.16-2.83%	0.2-2.9%
Weighted-average volatility	23.0%	22.9%	21.1%
Dividend yield	2.11%	2.46%	2.72%
Expected years until exercise	6.9-8.0	6.7-7.9	6.6-7.6

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 behavior.

The weighted-average grant-date fair value of stock options granted during 2015, 2014 and 2013 was \$20.58, \$15.14 and \$10.06 per share, respectively. The aggregate intrinsic value of stock options exercised during the years ended December 31, 2015, 2014 and 2013 was \$55 million, \$115 million and \$108 million, respectively. As of December 31, 2015, there was \$12 million of total unrecognized compensation cost related to unvested stock options. That cost is expected to be recognized over a weighted-average period of 1.7 years. Exercise of stock options during the years ended December 31, 2015, 2014 and 2013 resulted in cash receipts of \$59 million, \$148 million and \$206 million, respectively. The total fair value of vested stock option awards during the years ended December 31, 2015, 2014 and 2013 was \$13 million, \$16 million and \$16 million, respectively.

As of December 31, 2015, there was \$18 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 1.5 years. The total fair value of vested RSU awards during the years ended December 31, 2015, 2014 and 2013 was \$20 million, \$27 million and \$23 million, respectively.

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

***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.

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

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

***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.

***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 that deliver strong operating results 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 2015, 2014 and 2013 was as follows:

In millions	2015	2014	2013
<b>Operating revenue:</b>			
Automotive OEM	\$ 2,529	\$ 2,590	\$ 2,396
Test & Measurement and Electronics	1,969	2,204	2,176
Food Equipment	2,096	2,177	2,047
Polymers & Fluids	1,712	1,927	1,993
Welding	1,650	1,850	1,837
Construction Products	1,587	1,707	1,717
Specialty Products	1,885	2,055	2,007
Intersegment revenue	(23)	(26)	(38)
Total	<u>\$ 13,405</u>	<u>\$ 14,484</u>	<u>\$ 14,135</u>
<b>Operating income:</b>			
Automotive OEM	\$ 613	\$ 600	\$ 490
Test & Measurement and Electronics	322	340	321
Food Equipment	498	453	385
Polymers & Fluids	335	357	335
Welding	415	479	464
Construction Products	316	289	238
Specialty Products	439	440	408
Total Segments	<u>2,938</u>	<u>2,958</u>	<u>2,641</u>
Unallocated	(71)	(70)	(127)
Total	<u>\$ 2,867</u>	<u>\$ 2,888</u>	<u>\$ 2,514</u>
<b>Depreciation and amortization and impairment of goodwill and intangible assets:</b>			
Automotive OEM	\$ 76	\$ 79	\$ 80
Test & Measurement and Electronics	110	115	119
Food Equipment	48	52	50
Polymers & Fluids	95	99	103
Welding	37	38	37
Construction Products	36	43	49
Specialty Products	75	81	84
Total Segments	<u>477</u>	<u>507</u>	<u>522</u>
Discontinued Operations	—	—	91
Total	<u>\$ 477</u>	<u>\$ 507</u>	<u>\$ 613</u>
<b>Plant and equipment additions:</b>			
Automotive OEM	\$ 106	\$ 96	\$ 119
Test & Measurement and Electronics	32	56	39
Food Equipment	37	47	37
Polymers & Fluids	20	28	28
Welding	23	36	35
Construction Products	26	41	32
Specialty Products	40	54	47
Total Segments	<u>284</u>	<u>358</u>	<u>337</u>
Discontinued Operations	—	3	31
Total	<u>\$ 284</u>	<u>\$ 361</u>	<u>\$ 368</u>
<b>Identifiable assets:</b>			
Automotive OEM	\$ 1,419	\$ 1,454	\$ 1,571
Test & Measurement and Electronics	2,448	2,615	2,772
Food Equipment	1,054	1,123	1,184
Polymers & Fluids	2,034	2,257	2,420
Welding	747	879	936
Construction Products	1,129	1,249	1,309
Specialty Products	<u>1,659</u>	<u>1,798</u>	<u>1,939</u>

Total Segments	10,490	11,375	12,131
Corporate	5,239	6,090	5,632
Assets held for sale	—	—	1,836
Total	<u>\$ 15,729</u>	<u>\$ 17,465</u>	<u>\$ 19,599</u>

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 2015, 2014 and 2013 was as follows:

In millions	2015		2014		2013	
<b>Operating Revenue by Geographic Region:</b>						
United States	\$	6,167	\$	6,191	\$	6,030
Canada/Mexico		928		993		973
Total North America		7,095		7,184		7,003
Europe, Middle East and Africa		3,725		4,319		4,162
Asia Pacific		2,197		2,427		2,366
South America		388		554		604
	\$	13,405	\$	14,484	\$	14,135

Operating revenue by geographic region is based on the customers' locations. Long-lived assets in any single country outside of the U.S. did not exceed 10% of the Company's total long-lived assets. No single customer accounted for more than 5% of consolidated revenues in 2015, 2014 or 2013. Additionally, the Company has thousands of product lines within its businesses; therefore, providing operating revenue by product line is not practicable.

#### QUARTERLY AND COMMON STOCK DATA (UNAUDITED)

##### Quarterly Financial Data

The unaudited quarterly financial data included as supplementary data reflects all adjustments that are, in the opinion of management, necessary for a fair statement of the results for the interim periods presented.

In millions except per share amounts	Three Months Ended							
	March 31		June 30		September 30		December 31	
	2015	2014	2015	2014	2015	2014	2015	2014
Operating revenue	\$ 3,342	\$ 3,569	\$ 3,434	\$ 3,719	\$ 3,354	\$ 3,692	\$ 3,275	\$ 3,504
Cost of revenue	1,970	2,158	2,024	2,219	1,953	2,182	1,941	2,114
Operating income	697	667	730	763	761	772	679	686
Income from continuing operations	458	428	480	494	511	507	450	461
Income (loss) from discontinued operations	—	45	—	998	—	24	—	(11)
Net income	458	473	480	1,492	511	531	450	450
Income per share from continuing operations:								
Basic	1.22	1.01	1.31	1.22	1.40	1.29	1.24	1.19
Diluted	1.21	1.01	1.30	1.21	1.39	1.28	1.23	1.18
Net income per share:								
Basic	1.22	1.12	1.31	3.69	1.40	1.35	1.24	1.17
Diluted	1.21	1.11	1.30	3.66	1.39	1.34	1.23	1.16

In the second quarter of 2014, the Company recorded an after-tax gain of \$1.1 billion, or \$2.82 per diluted share, related to the sale of the Industrial Packaging business, which was included in Income (loss) from discontinued operations.

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

Not applicable.

**ITEM 9A. *Controls and Procedures***

**Controls and Procedures**

The Company's management, with the participation of the Company's Chairman & 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, 2015. Based on such evaluation, the Company's Chairman & Chief Executive Officer and Senior Vice President & Chief Financial Officer have concluded that, as of December 31, 2015, 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 Chairman & 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, 2015 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***

Not applicable.

### **PART III**

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

Information regarding the Directors of the Company is incorporated by reference from the information under the captions "Election of Directors" and "Corporate Governance Policies and Practices" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

Information regarding the Audit Committee and its Financial Experts is incorporated by reference from the information under the captions "Board of Directors and Its Committees" and "Audit Committee Report" in the Company's Proxy Statement for the 2016 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 "Executive Officers."

Information regarding compliance with Section 16(a) of the Exchange Act is incorporated by reference from the information under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

Information regarding the Company's code of ethics that applies to the Company's Chairman & 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 Practices" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

#### ***ITEM 11. Executive Compensation***

This information is incorporated by reference from the information under the captions "NEO Compensation," "Director Compensation," "Compensation Discussion and Analysis" and "Compensation Committee Report" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

#### ***ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters***

This information is incorporated by reference from the information under the captions "Ownership of ITW Stock" and "Equity Compensation Plan Information" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

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

Information regarding certain relationships and related transactions is incorporated by reference from the information under the captions "Ownership of ITW Stock," "Certain Relationships and Related Transactions" and "Corporate Governance Policies and Practices" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

Information regarding director independence is incorporated by reference from the information under the captions "Corporate Governance Policies and Practices" and "Categorical Standards for Director Independence" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

#### ***ITEM 14. Principal Accounting Fees and Services***

This information is incorporated by reference from the information under the captions "Ratification of the Appointment of Independent Registered Public Accounting Firm" and "Audit Fees" in the Company's Proxy Statement for the 2016 Annual Meeting of Stockholders.

## PART IV

### **ITEM 15. Exhibits 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  
Report of Independent Registered Public Accounting Firm  
Statement of Income  
Statement of Comprehensive Income  
Statement of Income Reinvested in the Business  
Statement of Financial Position  
Statement of Cash Flows  
Notes to Financial Statements

#### *(2) Financial Statement Schedules*

Not applicable.

#### *(3) Exhibits*

(i) See the Exhibit Index within this Annual Report on Form 10-K.

(ii) Pursuant to Regulation S-K, Item 601(b)(4)(iii), the Company has not filed with Exhibit 4 any debt instruments for which the total amount of securities authorized thereunder is less than 10% of the total assets of the Company and its subsidiaries on a consolidated basis as of December 31, 2015, with the exception of the Officers' Certificates related to the 0.90% Notes due 2017, the 1.95% Notes due 2019, the 6.25% Notes due 2019, the 3.375% Notes due 2021, the 1.75% Euro Notes due 2022, the 1.25% Euro Notes due 2023, the 3.50% Notes due 2024, the 2.125% Euro Notes due 2030, the 3.00% Euro Notes due 2034, the 4.875% Notes due 2041, and the 3.90% Notes due 2042, which are described as Exhibit numbers 4(a) through (h) in the Exhibit Index. The Company agrees to furnish a copy of the agreement related to the debt instruments which have not been filed with Exhibit 4 to the Securities and Exchange Commission upon request.

## 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 11th day of February 2016.

### ILLINOIS TOOL WORKS INC.

By: \_\_\_\_\_ /s/ E. SCOTT SANTI  
E. Scott Santi  
*Chairman & 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 11th day of February 2016.

<b>Signatures</b>	<b>Title</b>
<u>/s/ E. SCOTT SANTI</u> E. Scott Santi	Chairman & 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
JAMES W. GRIFFITH	Director
RICHARD H. LENNY	Director
ROBERT S. MORRISON	Director
JAMES A. SKINNER	Director
DAVID B. SMITH, JR.	Director
PAMELA B. STROBEL	Director
KEVIN M. WARREN	Director
ANRÉ D. WILLIAMS	Director
By: /s/ E. SCOTT SANTI _____ (E. Scott Santi, <i>as Attorney-in-Fact</i> )	

Original powers of attorney authorizing E. Scott Santi 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).

**Exhibit Index**  
**Annual Report on Form 10-K**  
**2015**

<b>Exhibit Number</b>	<b>Description</b>
2.1(a)	Investment Agreement, dated as of August 15, 2012, 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.)
2.1(b)	Stock Purchase Agreement, dated as of February 6, 2014, between Illinois Tool Works Inc. and certain of its subsidiaries and Vault Bermuda Holding Co. Ltd., filed as Exhibit 2.1 to the Company's Current Report on Form 8-K filed on February 12, 2014. (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 Commission upon request).
3(a)	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.
3(b)	By-laws of Illinois Tool Works Inc., as amended and restated as of December 11, 2015, filed as Exhibit 3(b)(ii) to the Company's Form 8-K filed on December 17, 2015 (Commission File No. 1-4797) and incorporated herein by reference.
4(a)	Indenture between Illinois Tool Works Inc. and The First National Bank of Chicago, as Trustee, dated as of November 1, 1986, filed as Exhibit 4.1 to the Company's Registration Statement on Form S-3 filed on January 15, 1999 (Commission File No. 333-70691) and incorporated herein by reference.
4(b)	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 4.2 to the Company's Registration Statement on Form S-3 filed on January 15, 1999 (Commission File No. 333-70691) and incorporated herein by reference.
4(c)	Officers' Certificate dated March 26, 2009 establishing the terms, and setting forth the forms, of the 5.15% Notes due 2014 and the 6.25% Notes due 2019, filed as Exhibit 4.3 to the Company's Current Report on Form 8-K filed on March 27, 2009 (Commission File No. 1-4797) and incorporated herein by reference.
4(d)	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 Form 8-K filed on September 1, 2011 (Commission File No. 001-04797) and incorporated herein by reference.
4(e)	Officers' Certificate dated August 28, 2012, establishing the terms, and setting forth the forms, of the 3.9% 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.
4(f)	Officers' Certificate dated February 25, 2014, establishing the terms, and setting forth the forms, of the 0.9% Notes due 2017, the 1.95% Notes due 2019, and the 3.5% Notes due 2024, filed as Exhibit 4.1 to the Company's Form 8-K filed on February 26, 2014 (Commission File No. 001-04797) and incorporated herein by reference.
4(g)	Officers' Certificate dated May 20, 2014, establishing the terms, and setting forth the forms, of the 1.75% Euro Notes due 2022 and the 3.0% Euro Notes due 2034, filed as Exhibit 4.1 to the Company's Form 8-K filed on May 22, 2014 (Commission File No. 001-04797) and incorporated herein by reference.
4(h)	Officers' Certificate dated May 19, 2015, establishing the terms, and setting forth the forms, of the 1.25% Euro Notes due 2023 and the 2.125% Euro Notes due 2030, filed as Exhibit 4.1 to the Company's Form 8-K filed on May 22, 2015 (Commission File No. 001-04797) and incorporated herein by reference.
10(a)*	Illinois Tool Works Inc. 2006 Stock Incentive Plan dated February 10, 2006, as amended on May 5, 2006, filed as Exhibit 10(a) to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006 (Commission File No. 1-4797) and incorporated herein by reference.
10(b)*	Amendment to Illinois Tool Works Inc. 2006 Stock Incentive Plan dated February 8, 2008, filed as Exhibit 10(q) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2007 (Commission File No. 1-4797) and incorporated herein by reference.

Exhibit Number	Description
10(c)*	Second Amendment to Illinois Tool Works Inc. 2006 Stock Incentive Plan dated February 13, 2009, filed as Exhibit 10(d) 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.
10(d)*	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.
10(e)*	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 March 31, 2015 (Commission File No. 1-4797) and incorporated herein by reference.
10(f)*	Form of stock option terms filed as Exhibit 10(o) to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2007 (Commission File No. 1-4797) and incorporated herein by reference.
10(g)*	Form of stock option terms filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 5, 2009 (Commission File No. 1-4797) and incorporated herein by reference.
10(h)*	Form of stock option terms filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 9, 2011 (Commission File No. 1-4797) and incorporated herein by reference.
10(i)*	Form of stock option terms filed as Exhibit 99.1 to the Company's Current Report on Form 8-K filed on February 7, 2012 (Commission File No. 1-4797) and incorporated herein by reference.
10(j)*	Form of stock option terms 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.
10(k)*	Form of restricted stock unit terms filed as Exhibit 99.2 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.
10(l)*	Form of performance restricted stock unit terms filed as Exhibit 99.3 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.
10(m)*	Form of Long-Term Incentive Cash Grant filed as Exhibit 99.4 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.
10(n)*	Form of stock option terms 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.
10(o)*	Form of restricted stock unit terms filed as Exhibit 99.2 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.
10(p)*	Form of performance restricted stock unit terms filed as Exhibit 99.3 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.
10(q)*	Form of Long-Term Incentive Cash Grant filed as Exhibit 99.4 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.
10(r)*	Illinois Tool Works Inc. 2011 Executive Incentive Plan, filed as Exhibit 99.1 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.
10(s)*	Illinois Tool Works Inc. Executive Contributory Retirement Income Plan as amended and restated, effective 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.
10(t)*	Illinois Tool Works Inc. Nonqualified Pension Plan, effective January 1, 2008, as amended and approved by the Board of Directors on December 22, 2008, 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.
10(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.
10(v)*	Illinois Tool Works Inc. Amended and Restated Directors' Deferred Fee Plan effective May 2, 2014, filed as Exhibit 10.1 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.
10(w)*	Illinois Tool Works Inc. 2011 Cash Incentive Plan, filed as Exhibit 99.1 to the Company's Form 8-K filed on May 12, 2011 (Commission File No. 1-4797) and incorporated herein by reference.





<b>Exhibit Number</b>	<b>Description</b>
10(x)*	First Amendment to the ITW Contributory Retirement Income Plan dated February 15, 2013, filed as Exhibit 10.2 to the Company's Current Form 10-Q filed on May 3, 2013 (Commission File No. 1-4797) and incorporated herein by reference.
21	Subsidiaries and Affiliates of the Company.
23	Consent of Independent Registered Public Accounting Firm.
24	Powers of Attorney.
31	Rule 13a-14(a) Certifications.
32	Section 1350 Certification.
99(a)	Description of the capital stock of Illinois Tool Works Inc., filed as Exhibit 99(a) to the Company's Annual Report on Form 10-K filed on February 26, 2010 (Commission File No. 1-4797) and incorporated herein by reference.
101.INS	XBRL Instance Document**
101.SCH	XBRL Taxonomy Extension Schema**
101.CAL	XBRL Taxonomy Extension Calculation Linkbase**
101.DEF	XBRL Taxonomy Extension Definition Linkbase**
101.LAB	XBRL Taxonomy Extension Label Linkbase**
101.PRE	XBRL Taxonomy Extension Presentation Linkbase**

\* 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, 2015, formatted in XBRL (Extensible Business Reporting Language): (i) Statement of Income, (ii) Statement of Comprehensive Income, (iii) Statement of Income Reinvested in the Business (iv) Statement of Financial Position, (v) Statement of Cash Flows and (vi) related Notes to Financial Statements.

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## Section 2: EX-21 (EXHIBIT 21)

Exhibit 21

### Illinois Tool Works Inc. Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
A V Co 1 Limited	United Kingdom
A V Co 2 Limited	United Kingdom
A V Co 3 Limited	United Kingdom
AB Sjötofta Tråddrageri	Sweden
Accessories Marketing Holding Corp.	Delaware
ACCULUBE Manufacturing GmbH - Schmiermittel und -geräte -	Germany
ACN 010 910 308 Pty Ltd	Australia
ACN 082 810 973 Pty Ltd.	Australia
ACN 147 341 393 Pty Ltd.	Australia
Advanced Molding Company, Inc.	Philippines
AIP/BI Holdings, Inc.	Delaware
Allen Coding GmbH	Germany
Allen France SAS	France

Alpine Automation Limited	United Kingdom
Alpine Holdings, Inc.	Delaware
Alpine Systems Corporation	Canada
Anaerobicos S.r.l.	Argentina
Anahol S.A.	Argentina
Appleton Investments II L.L.C.	Delaware
Appleton Investments L.L.C.	Delaware
AppliChem GmbH	Germany
AppliChem, Inc.	Connecticut
Ark-Les Components, S.A. de C.V.	Mexico
Arylux Hungary Elektromechanikus Alkatreszgyarto Kft	Hungary
Auralex du Mont de Magny	France
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 B.V.	Netherlands
Avery Weigh-Tronix Finance Limited	United Kingdom
Avery Weigh-Tronix Holdings Limited	Nevada
Avery Weigh-Tronix Holdings Limited	United Kingdom
Avery Weigh-Tronix International Limited	United Kingdom
Avery Weigh-Tronix Limited	United Kingdom
Avery Weigh-Tronix Private Limited	India
Avery Weigh-Tronix Properties Limited	United Kingdom
Avery Weigh-Tronix, LLC	Delaware
Axa Power ApS	Denmark
B.C. Immo	France
Bangalore Integrated System Solutions Private Ltd	India
Beijing Miller Electric Manufacturing Co. Ltd.	China
Berkel (Ireland) Limited	Ireland
Berrington UK	United Kingdom
Bonnet Benelux BVBA	Belgium
Brapenta Eletronica Ltda.	Brazil
Brooks Instrument (Hong Kong) Limited	Hong Kong
Brooks Instrument (Shanghai) Co. Ltd	China
Brooks Instrument Asia	Mauritius
Brooks Instrument B.V.	Netherlands
Brooks Instrument GmbH	Germany

## Illinois Tool Works Inc.

## Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
Brooks Instrument India Private Limited	India
Brooks Instrument KFT	Hungary
Brooks Instrument Korea, Ltd.	South Korea
Brooks Instrument LLC	Delaware
Brooks Instrument Singapore Pte. Ltd.	Singapore
Buell Industries, Inc.	Delaware
Calvia sp. z.o.o.	Poland
Capital Ventures (Australasia) S.à r.l	Luxembourg
CAPMAX Logística S.A. de C.V.	Mexico
CCI Realty Company	Delaware
Celeste Industries Corporation	Connecticut
Cetram Pty Limited	Australia
CFC Europe GmbH	Germany
CFC International Corporation	Delaware
Cheer Bright Ltd.	British Virgin Island
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
CS (Australasia) Limited	Bermuda
CS (Australia) Pty Limited	Australia
CS (Europe) Holdings Ltd.	Bermuda
CS (Far East) Holding Company Ltd.	Bermuda
CS (Finance) Europe S.a.r.l.	Luxembourg
CS (Global) Holdings Ltd.	Bermuda
CS (Investments) Ltd.	Bermuda
CS (Ventures) Ltd.	Bermuda
CS Domestic Financing Inc.	Delaware
CS Financing I LLC	Delaware
CS Financing II LLC	Delaware
CS Mexico Holding Company S DE RL DE CV	Mexico
CS Packaging Corporation Ltd.	British Virgin Island
CSMTS LLC	Delaware
Cumberland Leasing Co.	Illinois
D.F. International (Dominican Republic) Inc.	Delaware
Densit ApS	Denmark
Densit Asia Pacific Sdn Bhd	Malaysia
Despatch Industries (Shanghai) Trading Co., Ltd.	China
Despatch Industries Limited Partnership	Minnesota
Devcon Limited	Ireland
DGFC Inc.	Delaware
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

Dorbyl U.K. (Holdings) Limited  
Duo Fast de Espana S.A.U.

United Kingdom  
Spain

## Illinois Tool Works Inc.

## Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
Duo-Fast Corporation	Illinois
Duo-Fast Korea Co. Ltd.	South Korea
E.C.S. d.o.o.	Croatia
ECS Cable Protection Sp. Zoo	Poland
Electric Light Development Ltd.	British Virgin Island
Elga Aktiebolag	Sweden
Elga Skandinavian AS	Norway
Elisphere Sarl	France
ELRO (Holding) AG	Switzerland
ELRO Grosskuchen GmbH	Austria
ELRO Grosskuchen GmbH	Germany
ELRO-WERKE AG	Switzerland
Eltex-Elektrostatik-Gesellschaft mit beschränkter Haftung	Germany
Envases Multipac, S.A. de C.V.	Mexico
Epirez Australia Pty Ltd	Australia
Eurotec Srl	Italy
Exportadora Lerma SA	Mexico
Fasver	France
FEG Investments L.L.C.	Delaware
Filertek	France
Filertek De Mexico Holding Inc.	Delaware
Filertek De Mexico, S.A. de C.V.	Mexico
Filertek Do Brasil Industria E Comercio Ltda.	Brazil
Forté Noord-West-Europa B.V.	Netherlands
Foster Refrigerator France	France
Gamko B.V.	Netherlands
Gamko Réfrigération	France
GC Financement SA	France
Gold Pattern Holdings Limited	British Virgin Island
GSE Holdings Inc.	Delaware
GSE IP LLC	Delaware
Gun Hwa Platech (Taicang) Co. Ltd.	China
Hartness International Europe, GmbH	Germany
Heger Holland B.V.	Netherlands
Hobart (Japan) K.K.	Japan
Hobart Andina S.A.S.	Colombia
Hobart Brothers Company	Ohio
Hobart Brothers International Chile Limitada	Chile
Hobart Corporation	Delaware
Hobart Dayton Mexicana, S. de R.L. de C.V.	Mexico
Hobart Food Equipment Co., Ltd.	China
Hobart Foster Belgium B.V.B.A.	Belgium
HOBART Gesellschaft mit beschränkter Haftung	Germany
Hobart International (Singapore) Pte. Ltd.	Singapore
Hobart Korea Co. Ltd.	South Korea
Hobart Nederland B.V.	Netherlands
Hobart Sales & Service, Inc.	Ohio
Hobart Scandinavia ApS	Denmark
Hobart Techniek B.V.	Netherlands



**Illinois Tool Works Inc.**  
**Subsidiaries**

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
I.T.W. Inc.	Illinois
ILC Investments Holdings Inc.	Delaware
Illinois Tool Works (Chile) Limitada	Chile
Illinois Tool Works (ITW) Nederland B.V.	Netherlands
Illinois Tool Works Norway AS	Norway
Impar Comercio E Representacoes Ltda.	Brazil
Industria e Comercio de Maquinas Perfecta Curitiba Ltda.	Brazil
Industrias Concepto del Pacifico Guatemala S.A.	Guatemala
Industrie Plastic Elsässer GmbH	Germany
Inmobiliaria Cit., S.A. de C.F.	Mexico
INN SP Z.o.o.	Poland
Innova Temperlite 1200, S.A. de C.V.	Mexico
Innova Temperlite Servicios, S.A. de C.V.	Mexico
Instron (Shanghai) Experiment Equipment Trade Co., Ltd.	China
Instron (Thailand) Limited	Thailand
Instron Brasil Equipamentos Cientificos Ltda.	Brazil
Instron Foreign Sales Corp. Limited	Jamaica
Instron France	France
Instron GmbH	Germany
Instron Holdings Limited	United Kingdom
Instron International Limited	United Kingdom
Instron Japan Company, Ltd.	Massachusetts
Instron Korea LLC	South Korea
Instron Proprietary Limited	Australia
International Leasing Company	Delaware
International Truss Systems Proprietary Limited	South Africa
IPHC LLC	Delaware
Isolenge Termo Construcoes Ltda.	Brazil
ITW (China) Investment Company Limited	China
ITW (Deutschland) GmbH	Germany
ITW (EU) Holdings Ltd.	Bermuda
ITW AAM Comércio e Distribuição de Produtos Automotivos Ltda.	Brazil
ITW Acmor (Shanghai) Co., Ltd.	China
ITW AEP LLC	Delaware
ITW AFC Pty Ltd	Australia
ITW Aircraft Investments Inc.	Delaware
ITW Airport Ground Equipment (Beijing) Co. Ltd.	China
ITW Alpha Sàrl	Luxembourg
ITW Ampang Industries Philippines, Inc.	Philippines
ITW AOC, LLC	South Korea
ITW Ark-Les Corporation	Massachusetts
ITW Australia Holdings Pty Ltd	Australia
ITW Australia Property Holdings Pty Ltd.	Australia
ITW Australia Pty Ltd	Australia
ITW Austria Vertriebs GmbH	Austria
ITW Automotive Components (Chongqing) Co. Ltd.	China
ITW Automotive Fasteners Shanghai Co. Ltd	China
ITW Automotive Japan K.K.	Japan
ITW Automotive Korea, LLC	South Korea

ITW Automotive Products GmbH  
ITW Automotive Products México, S. de R.L. de C.V.

Germany  
Mexico



**Illinois Tool Works Inc.**  
**Subsidiaries**

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
ITW Bailly Comte	France
ITW Befestigungssysteme Alpen GmbH	Switzerland
ITW Befestigungssysteme GmbH	Germany
ITW Belgium	Belgium
ITW Brazilian Nominee L.L.C.	Delaware
ITW Building Components Group Inc.	Delaware
ITW Business Development S.à r.l.	Luxembourg
ITW Canada Holdings Company	Canada
ITW Canada Inc.	Canada
ITW Canada Investments Limited Partnership	Canada
ITW Canada Management Company/Compagnie Gestion ITW Canada	Canada
ITW CCIP Holdings LLC	Delaware
ITW Celeste Inc.	Delaware
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 (Suzhou) Company Limited	China
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 Malaysia Sdn. Bhd.	Malaysia
ITW Construction Products OU	Estonia
ITW Construction Products OY	Finland
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 CPM	France
ITW CS (UK) Ltd.	United Kingdom
ITW Cupids, L.P.	Delaware
ITW de France	France
ITW de Guatemala Y Compañia, Sociedad en Comandita por Acciones	Guatemala
ITW DelFast do Brasil Ltda.	Brazil
ITW Delta Sàrl	Luxembourg
ITW Denmark ApS	Denmark
ITW do Brasil Industrial e Comercial Ltda.	Brazil
ITW Domestic Finance II Inc.	Delaware
ITW Domestic Holdings Inc.	Delaware
ITW DS Investments Inc.	Delaware
ITW Dynatec Adhesive Equipment (Suzhou) Co. Ltd.	China
ITW Dynatec GmbH	Germany
ITW Dynatec Kabushiki Kaisha	Japan
ITW Dynatec Singapore Pte. Ltd.	Singapore
ITW Electronic Business Asia Co., Limited	Taiwan
ITW Electronic Components/Products (Shanghai) Co., Ltd.	China

ITW Electronic Packaging (Malta) Ltd.  
ITW Electronics (Suzhou) Co., Ltd.

Malta  
China

## Illinois Tool Works Inc.

## Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
ITW Engineered Polymers GmbH	Germany
ITW Epsilon Srl	Luxembourg
ITW Espana S.A.	Spain
ITW Fastener Products GmbH	Germany
ITW FEG do Brasil Industria e Comercio Ltda.	Brazil
ITW FEG Hong Kong Limited	Hong Kong
ITW Finance Europe S.A.	Luxembourg
ITW Finance II L.L.C.	Delaware
ITW Finance Limited	Ireland
ITW Fluids and Hygiene Solutions Ltda.	Brazil
ITW Foils B.V.	Netherlands
ITW Foils, S.L.U.	Spain
ITW Food Equipment Group LLC	Delaware
ITW Gamma Srl	Luxembourg
ITW German Management LLC	Delaware
ITW GH LLC	South Korea
ITW Global Capital LLC	Delaware
ITW Global Investments Holdings LLC	Delaware
ITW Global Investments Inc.	Delaware
ITW Global Investments LP	Delaware
ITW Global Tire Repair Europe GmbH	Germany
ITW Global Tire Repair Inc.	California
ITW Global Tire Repair Japan K.K.	Japan
ITW Graphics (Thailand) Ltd.	Thailand
ITW Graphics Asia Limited	Hong Kong
ITW Graphics Italy S.R.L. in liquidazione	Italy
ITW Graphics Korea Co. Ltd.	South Korea
ITW Great Britain Investment & Licensing Holding Company	Delaware
ITW Group France (Luxembourg) S.r.l.	Luxembourg
ITW Hi-Cone Japan Limited	Japan
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 IV Limited	United Kingdom
ITW Holdings LP	United Kingdom
ITW Holdings UK	United Kingdom
ITW Holdings V Limited	United Kingdom
ITW Hong Kong Limited	Hong Kong
ITW Hungary Finance Alfa Kft	Hungary
ITW Hungary Finance Beta Kft	Hungary
ITW ILC Holdings I Inc.	Delaware
ITW Imaden Industria e Comercio Ltda.	Brazil
ITW India Private Limited	India
ITW Industrial Components Srl	Italy
ITW Industry B.V.	Netherlands
ITW Insulation Systems FZE	United Arab Emirates

ITW International Holdings LLC

ITW International Intellectual Property LLC

Delaware

Delaware

## Illinois Tool Works Inc.

## Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
ITW Invest Holding GmbH	Germany
ITW IPG Investments LLC	Delaware
ITW Ireland	Ireland
ITW Ireland Holdings	Ireland
ITW Ispracontrols Bulgaria EOOD	Bulgaria
ITW Italy Finance Srl	Italy
ITW Italy Holding Srl	Italy
ITW Japan Ltd.	Japan
ITW Limited	United Kingdom
ITW LLC & Co. KG	Germany
ITW Lombard Holdings Inc.	Delaware
ITW Lys Fusion S.r.l.	Italy
ITW M FILMS I LLC	Delaware
ITW M FILMS II LLC	Delaware
ITW Marking & Coding (Shanghai) Co., Ltd.	China
ITW Medical Group de Mexico S. de R.L. de C.V.	Mexico
ITW Meritex Sdn. Bhd.	Malaysia
ITW Metal Fasteners, S.L.	Spain
ITW Metalflex D.o.o.	Slovenia
ITW Mexico Holding Company S. De R.L. de C.V.	Mexico
ITW Mexico Holdings LLC	Delaware
ITW MH LLC	Delaware
ITW Morlock GmbH	Germany
ITW Mortgage Investments I, Inc.	Delaware
ITW Mortgage Investments II, Inc.	Delaware
ITW Mortgage Investments III, Inc.	Delaware
ITW Mortgage Investments IV, Inc.	Delaware
ITW New Zealand	New Zealand
ITW Novadan Sp. Z.o.o.	Poland
ITW Participacoes Ltda.	Brazil
ITW Participations S.à r.l.	Luxembourg
ITW Pension Funds Trustee Company	United Kingdom
ITW Performance Plastic (Shanghai) Co. Ltd.	China
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 Peru S.A.C.	Peru
ITW Philippines Holdings LLC	Delaware
ITW PMI Investments, Inc.	Delaware
ITW Poly Mex, S. de R.L. de C.V.	Mexico
ITW Polymers Sealants North America Inc.	Texas
ITW PPF Brasil Adesivos Ltda.	Brazil
ITW Pronovia s.r.o.	Czech Republic
ITW Pte. Ltd.	Singapore
ITW Real Estate Germany GmbH	Germany
ITW Residuals III L.L.C.	Delaware
ITW Residuals IV L.L.C.	Delaware

ITW Rivex  
ITW SBI France

France  
France

## Illinois Tool Works Inc.

## Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
ITW Simco-Ion (Shenzhen) Co. Ltd.	China
ITW SMPI	France
ITW Spain Holdings, S.L.	Spain
ITW Specialty Film, LLC	South Korea
ITW Specialty Films France	France
ITW Specialty Films Italy S.r.l.	Italy
ITW Specialty Materials (Suzhou) Co., Ltd.	China
ITW Speedline Equipment (Suzhou) Co. Ltd.	China
ITW SPG México, S. de R.L. de C.V.	Mexico
ITW Spraytec	France
ITW Sverige AB	Sweden
ITW Sweden Holding AB	Sweden
ITW Temb (QUFU) Automotive Cooling Systems Co. Ltd.	China
ITW Test & Measurement (China) Co., Ltd.	China
ITW Test & Measurement Equipment (Shanghai) Co., Ltd	China
ITW Test & Measurement GmbH	Germany
ITW Test and Measurement Italia Srl	Italy
ITW Test and Measurement Services Industry and Trade Ltd.	Turkey
ITW Texwipe Philippines, Inc.	Philippines
ITW Thermal Films (Shanghai) Co., Ltd.	China
ITW UK	United Kingdom
ITW UK Finance Limited	United Kingdom
ITW Universal II LLC	Delaware
ITW Universal L.L.C.	Delaware
ITW Welding	France
ITW Welding GmbH	Germany
ITW Welding Products B.V.	Netherlands
ITW Welding Products Group FZE	United Arab Emirates
ITW Welding Products Group, S. DE R.L. De C.V.	Mexico
ITW Welding Products Italy Srl	Italy
ITW Welding Products Limited Liability Company	Russia
ITW Welding Produtos Para Solgdagem Ltda.	Brazil
ITW Welding Servicios Mexico, S. de R.L. de C.V.	Mexico
ITW Welding Singapore Pte. Ltd.	Singapore
KB Sektionen 1	Sweden
KCPL Mauritius Holdings	Mauritius
Kester Asia Holdings, Inc.	Delaware
Kester Components (M) Sdn. Bhd.	Malaysia
Kester Components Private Limited	Singapore
Kester GmbH	Germany
Kester, Inc.	Delaware
Kitazawa Sangyo Co., Ltd.	Japan
Kleinmann GmbH	Germany
Krafft Argentina, S.A.	Argentina
Krafft, S.L.	Spain
Lajota S.A.	Argentina
Lock Inspection Group Limited	United Kingdom
Lock Inspection Holdings Limited	United Kingdom
Lock Inspection Investments Limited	United Kingdom

Lock Inspection Systemes France Sarl  
Lock Inspection Systems Limited

France  
United Kingdom



**Illinois Tool Works Inc.**  
**Subsidiaries**

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
Loma Systems (Canada) Inc.	Canada
Loma Systems BV	Netherlands
Loma Systems sro	Czech Republic
Lombard Pressings Limited	United Kingdom
LSPS Inc.	Delaware
Lumex, Inc.	Illinois
Luvex - Industria De Equipamentos De Protecao Ltda.	Brazil
Lys Fusion Poland Sp. z.o.o.	Poland
M & C Specialties (Ireland) Limited	Ireland
M&C Specialties (Shenzhen) Co. Ltd.	China
M&C Specialties Bohai Converting M&C Co.	China
M&C Specialties Co.	Pennsylvania
Magna Industrial Co. Limited	Hong Kong
Magnaflux GmbH	Germany
Manufacturing Avancee S.A.	Morocco
Maquilas y Componentes Industriales, I S.A. de C.V.	Mexico
Meritex Technology (Suzhou) Co. Ltd.	China
Meurer Verpackungssysteme GmbH	Germany
MGHG Property LLC	Delaware
Miller Electric Mfg. Co.	Wisconsin
Miller Insurance Ltd.	Bermuda
NDT Holding LLC	Delaware
Norden Czech s.r.o.	Czech Republic
Norden Olje AB	Sweden
Norden Olje AS	Norway
North Star Imaging Europe	France
North Star Imaging, Inc.	Minnesota
Nova Chimica, S.r.l.	Italy
Novadan ApS	Denmark
Noza Holdings Pty Ltd	Australia
NSC Europe Limited	United Kingdom
NuTrus LLC	Delaware
Nyco-Krafft, S.A.	Spain
Odesign, Inc.	Illinois
One Longridge	United Kingdom
One Longridge Holdings	United Kingdom
Orbitalum Tools GmbH	Germany
Pacific Concept Industries (USA) LLC	Delaware
Pacific Concept Industries Limited (Enping)	China
Packaging Leasing Systems Inc.	Delaware
Panreac Chimie, Sarl	France
Panreac Quimica, S.L.	Spain
Paslode Fasteners (Shanghai) Co., Ltd.	China
Penta Dnepr LLC	Ukraine
Penta Don OOO	Russia
Penta Enisey OOO	Russia
Penta Sever OOO	Russia
Penta Sibir OOO	Russia
Penta Ural OOO	Russia

Penta Volga OOO  
PENTA-91 OOO

Russia  
Russia

## Illinois Tool Works Inc.

## Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
Polymark Export Limited	United Kingdom
PR. A. I. Srl	Italy
Premark FEG L.L.C.	Delaware
Premark HII Holdings, Inc.	Ohio
Premark International Holdings B.V.	Netherlands
Premark International, LLC	Delaware
Premark N.V.	Curacao
Prolex, Sociedad Anónima	Costa Rica
Prolim Comercio de Higiene e Limpeza Ltda.	Brazil
Prolim Quimica Avancada Ltda.	Brazil
Prolim Servicos e Manutencao Ltda.	Brazil
Pryda (Malaysia) Sdn Bhd	Malaysia
PT ITW Construction Products Indonesia	Indonesia
PT Pryda Indonesia	Indonesia
QSA Global, Inc.	Delaware
Quimica Industrial Mediterranea, S.L.	Spain
Quimica TF, S.A. de C.V. [DOMESTICATED]	Delaware
Ramset Fasteners (Hong Kong) Ltd.	Hong Kong
Rapid Cook LLC	Delaware
Rotular Servicoes e Assistencia Tecnica em Rotulagem Ltda.	Brazil
S.E.E. Sistemas Industria E Comercio Ltda.	Brazil
Salter India Private Limited	India
Sarsfield Corporation N.V.	Curacao
Schember Ges.mbH	Austria
Sealant Systems International, Inc.	California
Sentinel Asia Yuhan Hoesa	South Korea
Shanghai ITW Plastic & Metal Co. Ltd	China
Signode Singapore Investments Pte. Ltd.	Singapore
Simco (Nederland) B.V.	Netherlands
Simco Japan, Inc.	Japan
Sn Investors, Inc.	Delaware
SOCIETE DE PROSPECTION ET D'INVENTIONS TECHNIQUES SPIT	France
Solutions Group Transaction Subsidiary Inc.	Delaware
Speedline Holdings I, Inc.	Delaware
Speedline Holdings I, LLC	Delaware
Speedline Technologies GmbH	Germany
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
Steelfast Asia Sdn Bhd	Malaysia
Stokvis Celix Portugal Unipessoal LDA	Portugal
Stokvis Danmark ApS	Denmark
Stokvis Promi Czech s.r.o.	Czech Republic
Stokvis Tape Group B.V.	Netherlands
Stokvis Tapes (Beijing) Co. Ltd.	China
Stokvis Tapes (Hong Kong) Co. Limited	Hong Kong
Stokvis Tapes (Shanghai) Co. Ltd.	China
Stokvis Tapes (Shenzhen) Co. Ltd.	China
Stokvis Tapes (Taiwan) Co. Ltd.	Taiwan

Stokvis Tapes (Tianjin) Co. Ltd.  
Stokvis Tapes BVBA

China  
Belgium

## Illinois Tool Works Inc.

## Subsidiaries

<u>Subsidiary Name</u>	<u>Primary Jurisdiction</u>
Stokvis Tapes Deutschland GmbH	Germany
Stokvis Tapes France	France
Stokvis Tapes Italia s.r.l.	Italy
Stokvis Tapes Limited Liability Company	Russia
Stokvis Tapes Magyarorszag Kft	Hungary
Stokvis Tapes Nederland B.V.	Netherlands
Stokvis Tapes Norge AS	Norway
Stokvis Tapes Oy	Finland
Stokvis Tapes Polska Sp Z.O.O.	Poland
Stokvis Tapes Sverige AB	Sweden
Sweldx AB	Sweden
Tag Fasteners Sdn. Bhd.	Malaysia
Tarutin Kester Co., Ltd.	Japan
Technopack Industria, Comercio, Consultoria e Representacoes Ltda.	Brazil
Teknek (China) Limited	Scotland
Teknek (Japan) Limited	Scotland
Teknek Limited	Scotland
Teksaleco Ltd.	Scotland
Ten Plus	France
The Loveshaw Corporation	Delaware
The Three Russells, Sociedad Anónima	Costa Rica
Thirode Grandes Cuisines Poligny	France
Tien Tai Electrode (Kunshan) Co., Ltd.	China
Tien Tai Electrode (Qingdao) Co., Ltd.	China
Tien Tai Electrode Co., Ltd.	Taiwan
Tranosliw 2 Ltd.	United Kingdom
Tranosliw International Inc.	Delaware
Troy Investments I LLC	Delaware
Unichemicals Industria e Comercio Ltda.	Brazil
Valeron Strength Films B.V.B.A.	Belgium
Veneta Decalcogomme S.r.l.	Italy
Versachem Chile S.A.	Chile
Vesta (Guangzhou) Catering Equipment Co. Ltd	China
Vesta Global Limited	Hong Kong
Vitronics Soltec B.V.	Netherlands
VR-Leasing Sarita GmbH & Co. Immobilien KG	Germany
VS Acquisition Holding Co.	Delaware
VS European Holdco BV	Netherlands
VS Holding Co.	Delaware
Wachs Canada Ltd.	Canada
Wachs Subsea LLC	Illinois
Warehouse Automation Iberia, S.L.	Spain
Weigh-Tronix Canada, ULC	Canada
Weigh-Tronix UK Limited	United Kingdom
Wilsonart International Holdings LLC	Delaware
Wynn Oil (South Africa) (Pty) Ltd.	South Africa
Wynn's Automotive France	France
Wynn's Belgium BVBA	Belgium
Wynn's Italia Srl	Italy

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## Section 3: EX-23 (EXHIBIT 23)

**Exhibit 23**

### CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-206213 on Form S-3, Registration Statement Nos. 333-105731, 333-108088, 333-69542, 333-142627, 333-145392, and 333-206206 on Form S-8, and Registration Statement No. 333-163547 on Form S-4 of our report dated February 11, 2016, relating to the consolidated financial statements of Illinois Tool Works Inc. and Subsidiaries, and the effectiveness of Illinois Tool Works Inc.'s internal control over financial reporting, appearing in this Annual Report on Form 10-K of Illinois Tool Works Inc. for the year ended December 31, 2015.

/s/ DELOITTE & TOUCHE LLP  
Deloitte & Touche LLP  
Chicago, Illinois  
February 11, 2016

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## Section 4: EX-24 (EXHIBIT 24)

**Exhibit 24**

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ Daniel J. Brutto  
Daniel J. Brutto



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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ Susan Crown  
Susan Crown



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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ James W. Griffith

James W. Griffith

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ Richard H. Lenny

Richard H. Lenny

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ Robert S. Morrison  
Robert S. Morrison

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ James A. Skinner  
James A. Skinner

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ David B. Smith, Jr.

David B. Smith, Jr.

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ Pamela B. Strobel

Pamela B. Strobel

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ Kevin M. Warren

Kevin M. Warren

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 E. Scott Santi and Michael M. Larsen, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign the Company's Form 10-K Annual Report 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 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 11th day of February, 2016.

/s/ Anré D. Williams

Anré D. Williams

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## Section 5: EX-31 (EXHIBIT 31)

**Exhibit 31**

### Rule 13a-14(a) Certification

I, E. Scott Santi, 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 11, 2016

/s/ E. Scott Santi

---

E. Scott Santi

Chairman & 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 11, 2016

/s/ Michael M. Larsen

Michael M. Larsen

Senior Vice President & Chief Financial Officer

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## Section 6: EX-32 (EXHIBIT 32)

### 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, 2015 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 11, 2016

/s/ E. Scott Santi

E. Scott Santi

Chairman & Chief Executive Officer

Dated: February 11, 2016

/s/ Michael M. Larsen

Michael M. Larsen

Senior Vice President & Chief Financial Officer

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