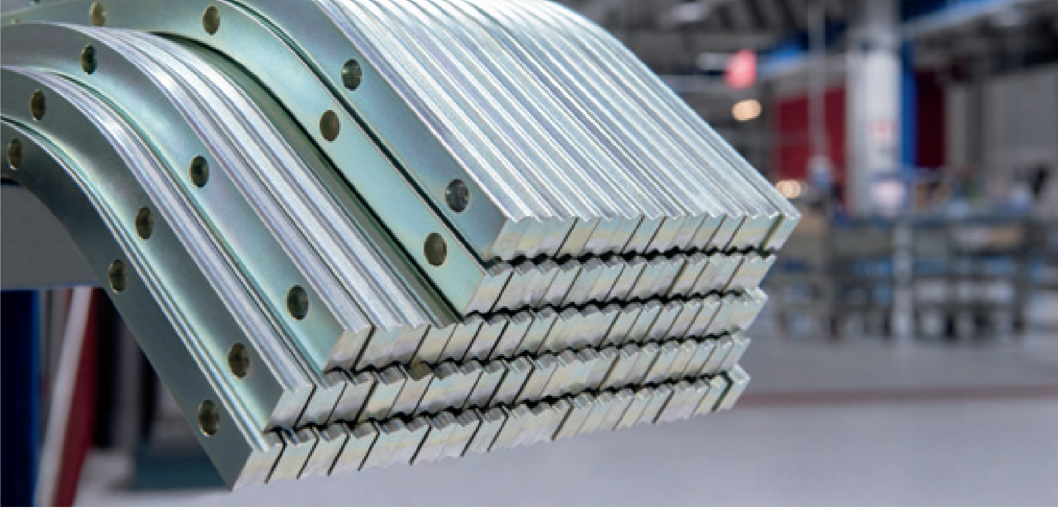
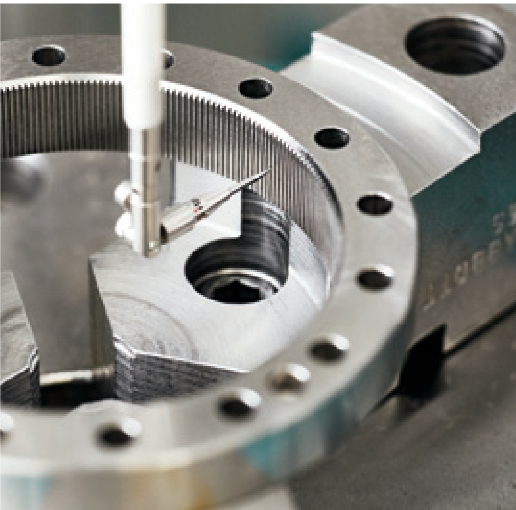




The Timken Company

2018 ANNUAL REPORT

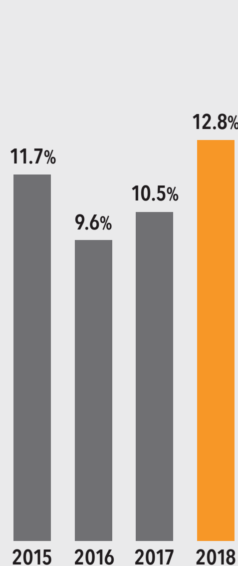
2018

OPERATING DATA	2018	2017
Net Sales	$ 3,580.8	$ 3,003.8
Adjusted EBIT*	500.5	329.0
Adjusted EBIT Margin*	14.0%	11.0%
Adjusted Net Income*	327.5	207.5
Free Cash Flow*	219.9	132.1
SHAREHOLDER RETURNS		
Adjusted EPS*	$ 4.18	$ 2.63
Dividends	1.11	1.07
KEY RATIOS		
Net Debt to Capital*	48.5%	36.2%
Return on Invested Capital*	12.8%	10.5%

REVENUE
Dollars in Billions

ADJUSTED EARNINGS PER SHARE*

RETURN ON INVESTED CAPITAL*



DIVIDENDS PER SHARE

10-YEAR TOTAL SHAREHOLDER RETURN 12.8%**

* See appendix on last page for reconciliations to the most directly comparable generally accepted accounting principal (GAAP) measures.

** Total shareholder return for the Company was calculated on an annualized basis, assumes quarterly reinvestment of dividends and takes into account the value of TimkenSteel Corporation common shares distributed in the spinoff on June 30, 2014. See Item 5 in the Form 10-K for more details on total shareholder return.

"Our company has never been stronger or better positioned to deliver profitable growth and shareholder value for years to come."

Richard G. Kyle
President and Chief Executive Officer

To Our Valued Shareholders:

Thank you for your continued confidence in The Timken Company. In 2018, the company achieved next-level financial performance, delivering record adjusted earnings per share (EPS) of $4.18 – an increase of 59 percent from last year. We also increased our dividend in May and paid our 386th consecutive quarterly dividend in December – one of the longest-running records on the New York Stock Exchange. Most importantly, our company has never been stronger or better positioned to deliver profitable growth and shareholder value for years to come.

Evolving into a Global Industrial Leader Focused on Keeping Industry in Motion

Over the last decade, Timken has evolved into a global industrial leader with a growing portfolio of engineered bearings and power transmission products. Anticipating market trends and customer needs, we took significant actions to proactively reposition and profitably grow the company.

Our balanced approach to driving growth, margins, returns and cash flow is focused on building shareholder value that endures industrial cycles.

From the 2008 industrial peak, our adjusted EPS has grown at a compound rate of 12 percent, reaching record levels of performance in 2010, 2011, 2012 and 2018. During that time, Timken has proven to be a company that consistently generates returns in excess of its cost of capital and solid free cash flow. Following the spinoff of our steel business five years ago, our return on invested capital has been consistently strong, ranging from 9 to 13 percent, including 12.8 percent in 2018.

The developments we have seen over this last decade, both inside our company and in our global markets and technology, have been phenomenal. The world is rapidly changing and so are we, but two key pillars remain – our commitment to our core values and our relentless focus on winning with customers and driving profitable growth. Our results speak for themselves.

> "The world is rapidly changing and so are we, but two key pillars remain – our commitment to our core values and our relentless focus on winning with customers and driving profitable growth."

Delivering Next-level Performance and Results

Our innovative problem solving and technical sales model, our advancements through research and development, our industry-leading customer service, and our capital investments helped us deliver market outgrowth across multiple sectors during the year.

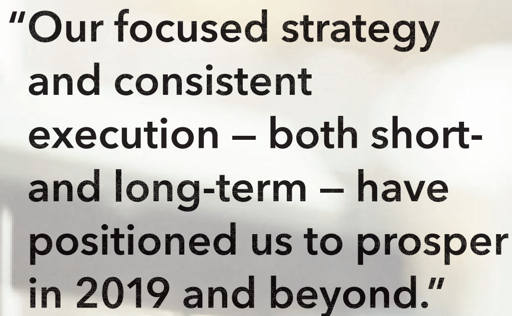
Central to our success are our engineering know-how and deep customer engagement. Timken remains a vital partner to the world's equipment and vehicle designers and operators by staying ahead of customer advances in technology, enabling us to anticipate and meet their needs with differentiated solutions, while providing the best service and value. We win new customers by extending this proven value proposition into new markets, channels, products and geographies.

In 2018, we strategically invested $831 million to acquire ABC Bearings, Cone Drive and Rollon Group. These acquisitions expanded our reach in attractive, growing market sectors such as solar energy, logistics and packaging, and automation. These investments also grew our global presence in Asia and Europe, and have made our business even stronger commercially, technically and financially for customers and shareholders alike.

Our performance delivered next-level results in 2018 that included year-over-year revenue growth of 19 percent to $3.6 billion, through a mix of strong organic growth (13 percent) and the benefit of recent acquisitions (6 percent). We also enhanced our profitability, expanding adjusted earnings before interest and taxes (EBIT) margins to 14 percent. These results are above the targets we set two years ago, and we have the ability to grow from here.

Moving the World Forward with a Sustainable Growth Strategy

Timken's vision is to be the world leader in engineered bearings and power transmission products, continually improving customer performance, reliability and efficiency. With more than a century of knowledge and innovation, we continuously move the world's industries forward.



Our strategy is to outgrow our markets organically, operate with excellence across the enterprise and optimize our capital deployment to create long-term shareholder value. That strategy is working.

Whether through acquisition or innovation from within, we develop and introduce new products while delivering consistent, best-in-class quality and customer experiences. Seizing these opportunities builds and strengthens our leadership position in engineered bearings while also growing our power transmission portfolio in diverse markets around the world.

Our commitment to lean and continuous improvement initiatives reduces costs and strengthens our global competitiveness. We are dedicated to building flexibility into our cost structure and being world leaders in operating efficiency. And we continue to build out a globally competitive manufacturing footprint that meets our customers where they are, delivering high-quality products whenever and wherever they need us.

We maintain a disciplined and strategic approach to capital deployment that creates stakeholder value by investing in our core business to fuel organic growth and by pursuing complementary inorganic opportunities. This framework helped us to end the year with a strong balance sheet, generate $220 million in free cash flow and improve our return on invested capital. All the while, we continued to return capital to shareholders through attractive quarterly dividends and share buybacks.

Advancing a Strong Investment with Enduring Value

I am proud of what we achieved, not only in 2018, but over the course of Timken's evolution and growth as a company over the past decade. Our focused strategy and consistent execution – both short- and long-term – have positioned us to prosper in 2019 and beyond.

We expect the pace of change in our markets to accelerate in the coming years. Still, we have great confidence in our ability not only to navigate those

market changes and industrial cycles, but to excel in them. That confidence stems from the fact that we remain an essential ingredient brand inside many of the world's leading industries. The core of our business is very strong and positioned for continued growth. Our innovation pipeline is expanding, and our know-how in engineered bearings and power transmission is second to none. Our global distribution network is a powerful differentiator that effectively serves even the most fragmented parts of our markets.

Meanwhile, our commitment to making the world a better place through our products, services and actions will never waiver. We will continue to conduct our business with ethics and integrity and embrace a strong spirit of social responsibility. We will keep attracting, developing and retaining the best talent by fostering an inclusive work environment and offering associates competitive wages and benefits, robust learning and development programs and the opportunity to contribute to challenging work that matters. And we will operate our business safely and responsibly.

Most importantly, we remain focused on creating enduring value for Timken customers, shareholders and associates. In 2019, we expect to deliver another year of revenue growth and record EPS while we continue to take a balanced approach to pursuing growth, margins, returns and cash flow.

I want to thank our 17,000 associates across the globe and all Timken stakeholders for your continued commitment to our company. Because of you, Timken has been a strong investment over the past decade, and we will build on our success by advancing our strategy and performing at the highest levels. I am excited about our future, and I look forward to reporting strong results again in 2019.

Sincerely,

Richard G. Kyle
President and Chief Executive Officer

From the Chairman

The Timken Company delivered record financial performance in 2018, building on the global business evolution we set in motion a decade ago. Behind this success is a focused strategy, executed by a worldwide team committed to achieving excellence.

The Board of Directors is exceptionally pleased with our results and is confident that we will build on this positive momentum in 2019. We have tremendous trust in the management team to execute our strategy, strengthen our ability to perform through industrial cycles and drive long-term growth. As that growth continues, we will stay true to Timken's values and our commitment to social responsibility.

On behalf of the Board, I would like to extend our appreciation to our customers for their longstanding trust in our company and its products, and to Timken's 17,000 associates for their dedication and valuable contributions. Additionally, we welcome our new colleagues from the recent acquisitions of ABC Bearings, Cone Drive and Rollon.

We also thank our shareholders for your continued confidence in The Timken Company and our ability to create value for you. The company is well positioned to deliver next-level performance for years to come.

Sincerely,

John M. Timken, Jr.
Chairman, Board of Directors

Board of Directors

John M. Timken, Jr.
Chairman, Board of Directors
The Timken Company

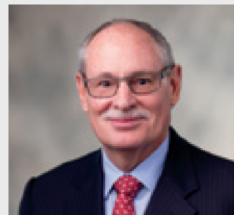
Richard G. Kyle
President and
Chief Executive Officer
The Timken Company

Maria A. Crowe
Retired President of
Manufacturing Operations
Eli Lilly and Company

Elizabeth A. Harrell
Retired Major General
USAF

John A. Luke, Jr.
Chairman
WestRock Company

Christopher L. Mapes
Chairman, President and
Chief Executive Officer
Lincoln Electric Holdings, Inc.



James F. Palmer
Retired Corporate Vice President
and Chief Financial Officer
Northrop Grumman Corporation

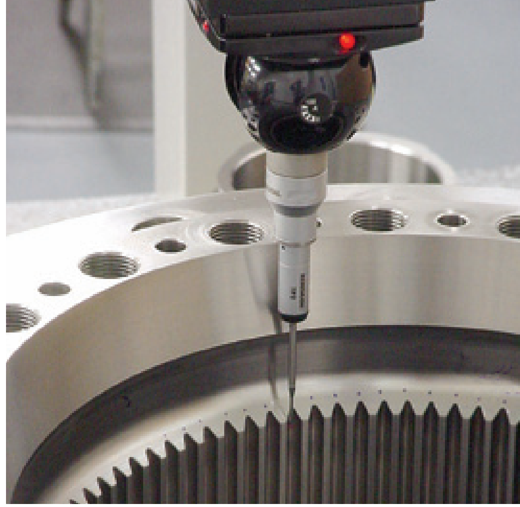
Ajita G. Rajendra
Executive Chairman
A. O. Smith Corporation

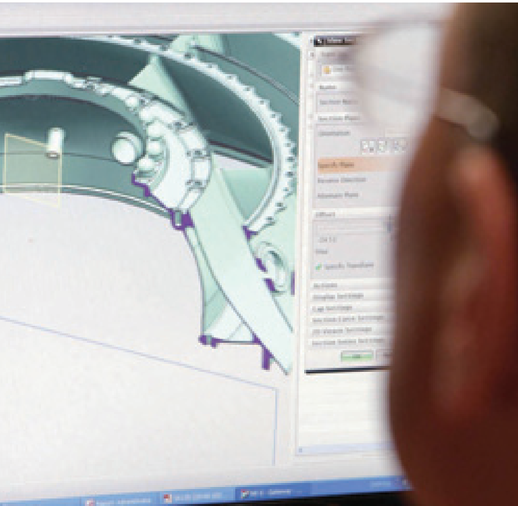
Joseph W. Ralston
Retired General, USAF
Vice Chairman, The Cohen Group

Frank C. Sullivan
Chairman and
Chief Executive Officer
RPM International Inc.

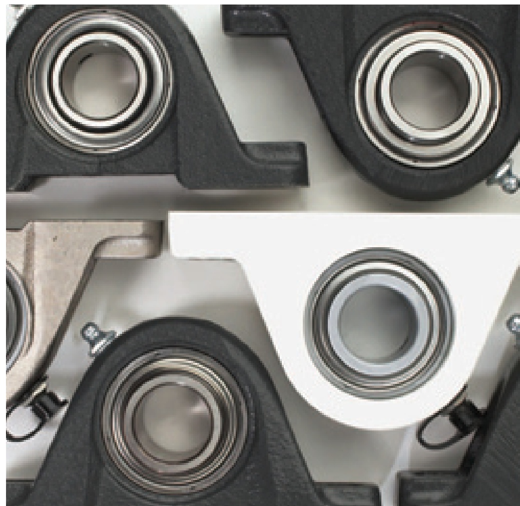
Ward J. Timken, Jr.
Chairman, Chief Executive Officer
and President
TimkenSteel Corporation

Jacqueline F. Woods
Retired President
AT&T Ohio





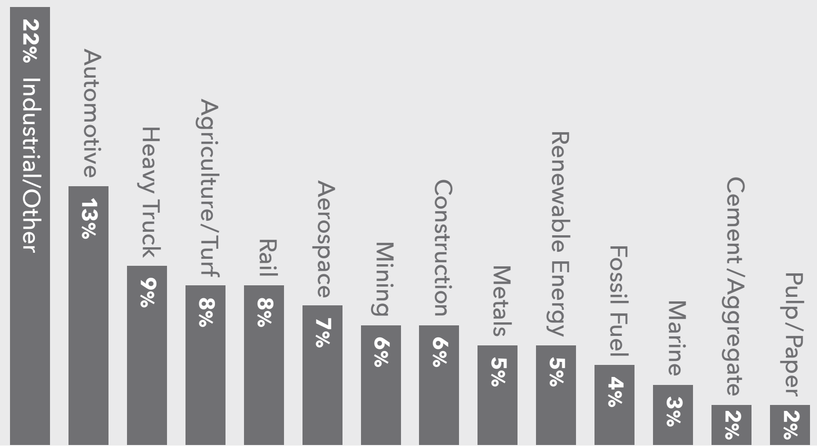
The Timken Company



End-Market Sectors

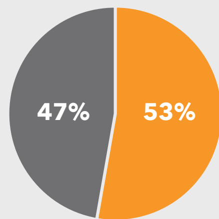
At Timken, we serve a diverse mix of end markets. We continue to be a mainstay in the industrial and transportation sectors, while expanding our presence in areas such as wind and solar energy.

2018



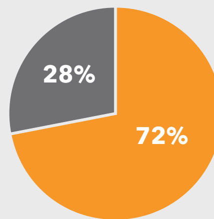
The Timken Company (NYSE: TKR; www.timken.com) designs a growing portfolio of engineered bearings and power transmission products. With more than a century of knowledge and innovation, we continuously improve the reliability and efficiency of global machinery and equipment to move the world forward. Timken posted $3.6 billion in sales in 2018 and employs more than 17,000 people globally, operating from 35 countries.

Business Segment Sales



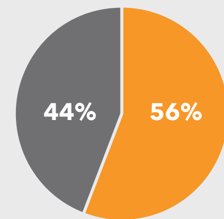
- Mobile Industries
- Process Industries

Product Offering Sales

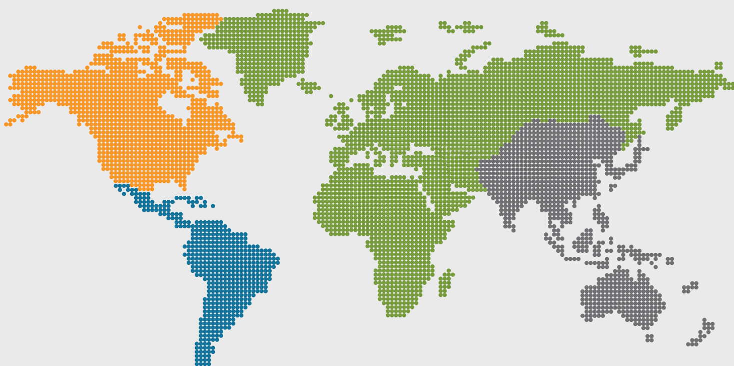


- Engineered Bearings
- Power Transmission Products

Channel Overview



- Original Equipment Manufacturers (OEM)
- Distribution / End Users



Sales by Geography

Demand for Timken products and solutions continues to grow around the globe. We operate where our customers need us, from North America to Europe and throughout Asia and Latin America.

54%	North America
21%	Europe, Middle East, Africa
18%	Asia Pacific
7%	Latin America

Our Strategy

Timken's strategy is to outgrow our markets, operate with excellence and optimize our capital deployment to create stakeholder value. Our commitment to our strategy delivered next-level results in 2018.

Outgrowing Our Markets

We continue to win with our customers and outperform our competitors.

Innovating for Growth in Wind Energy

We had another excellent year in wind energy. Just a decade ago we entered the market and now it accounts for more than 4 percent of our total company revenue, with shipments of more than $1 billion over the last 10 years and a growing aftermarket component. Recognized for our technical leadership and innovation, we have become the preferred bearing development provider for the world's largest turbines. In 2018, we designed and manufactured Timken's largest mainshaft bearing, measuring 3.4 meters in outside diameter.

Expanding Footprint, Portfolio for Engineered Bearings

In 2018, we continued investing both organically and inorganically to broaden our engineered bearing portfolio and deliver innovative solutions to customers. Our robust spherical roller bearing product line, backed by a strong technical value proposition and industry-leading customer service, has become a rapidly expanding part of our company. On the inorganic front, our acquisition of ABC Bearings expanded our global footprint for roller bearings and strengthened our presence in the growing India market. All of these efforts have contributed to consecutive years of strong revenue growth.

Growing Our Global Presence

During the year, we served millions of global end-user customers through our collaboration with nearly 1,000 authorized Timken distributors and expanded our distribution network across Africa, China, India and Latin America to capture new opportunities. We also added more than 100 new OEM customers to our portfolio, representing new growth platforms where Timken can expand its installed base to generate recurring aftermarket revenue. Our expansion in Asia continues, where we advanced sales by more than 25 percent in 2018, fueled by growth in wind in China, and heavy truck and rail in India.

Operating with Excellence

Our commitment to operational excellence helps deliver value to you, our shareholders, as well as our customers.

Strengthening Our Portfolio Through M&A

Since acquiring Groeneveld in mid-2017, one of the world's leading automated lubrication systems providers, we have realized customer synergies and accelerated product development to drive outgrowth. Timken and Groeneveld sales and technical teams quickly joined forces to deliver comprehensive new bearing and lubrication system solutions to our customers. And additional investments in R&D to expand Groeneveld's portfolio have already yielded a pipeline of new products ready to take to market in 2019.

Delivering World-Class Customer Service

Our robust SAP enterprise resource planning system provides real-time, actionable intelligence that allows us to anticipate and respond to customer demand across our global supply chain. This ensures the right product is available in the right place and at the right time, helping our customers manage their operations more efficiently. In 2018, our industry-leading delivery rates and customer service were competitive differentiators that allowed us to gain market share and have positioned us for continued growth.

Driving Improvements in Manufacturing

Operational excellence is at the core of our manufacturing strategy. Around the globe, we have implemented a Timken lean operating model to drive a culture of discipline and urgency to meet customer requirements every minute, every hour, every shift, every day. We have coupled this model with investments in the latest technology and automation to drive improvements in efficiency and quality at our global manufacturing locations. Furthermore, we continue to build out our manufacturing footprint to better align with the globalization of our customer base, which allows for closer collaboration and expedited delivery of our products.

Enhancing Digital Capabilities

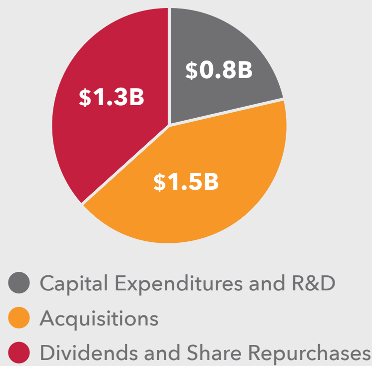
Across the company, Timken is leveraging future-focused technology to advance our strategy and deliver an industry-leading experience for our customers by increasing digital engagement. We are enhancing e-commerce capabilities with distributors and their end-user customers, and leveraging web tools and social platforms to help customers solve problems and select the right products online. Through data collection across systems, we will gain customer insights to enhance loyalty and drive growth.

Optimizing Capital Deployment

We take a thoughtful and balanced approach to research and development (R&D) and capital investments, executing strategic mergers and acquisitions (M&A) and returning capital to our shareholders.

Creating Shareholder Value

Over the past five years, we have maintained a strong balance sheet while investing $0.8 billion in capital expenditures and R&D, spending $1.5 billion on acquisitions and returning $1.3 billion to our shareholders through dividends and share repurchases.



- Capital Expenditures and R&D
- Acquisitions
- Dividends and Share Repurchases

Growing and Diversifying Through Acquisitions

Our recent acquisitions are performing well and continue to contribute to our strong results. We completed three acquisitions in 2018: ABC Bearings, Cone Drive and Rollon, which we expect will add more than 5 percent to our revenue in 2019. ABC Bearings builds on our leadership in bearings, while Rollon and Cone Drive add attractive new markets and products to our portfolio. Rollon specializes in the design and manufacture of linear guides, telescopic rails and linear actuators used in a wide range of industries, including passenger rail, aerospace, packaging and logistics, medical and automation. Cone Drive is a leader in precision drives used in such diverse markets as solar, automation, aerial platforms, and food and beverage. These acquisitions have strengthened and diversified Timken's position in growing end markets, have demonstrated impressive innovation and will increase shareholder value.

Making the World a Better Place

We are committed to enriching the quality of life, protecting the environment and promoting opportunities and growth for all.

Operating Safely and Sustainably

At our locations around the globe, we are committed to operating safely and responsibly. We have invested in environmental protection equipment and advanced plant operational practices worldwide. Many of our manufacturing facilities are certified to ISO 14001, the international standard for environmental management systems. Also, 90 percent of our waste is diverted from landfills through recycling, waste-to-energy and other methods. Demonstrating our commitment to safety, Timken's 2018 lost-time-accident rate was the second-lowest in company history.

Protecting the Planet

In addition to how we operate, we also contribute to sustainability through the products we design, develop and deliver. Specifically, our fuel-efficient bearings for light vehicles save energy and reduce fossil fuel usage and emissions. Our specialized bearings for wind energy applications help increase the reliability of a sustainable energy source. Timken miniature precision bearings support instruments on satellites that are used to enable detailed monitoring of the health of our oceans from space. And, through our Cone Drive acquisition, we offer solar tracker drives that enhance solar panel efficiency.

Building a Better Tomorrow

As we focus on executing our business strategy at Timken, we are committed to staying true to our values and doing right by our associates, customers and all other stakeholders. We are proud to have been named one of the "World's Most Ethical Companies" by the Ethisphere Institute for the ninth time, and we will continue to live up to that standard everywhere we do business.

Executive Leadership Team

Richard G. Kyle
President and Chief Executive Officer

Christopher A. Coughlin
Executive Vice President, Group President

Philip D. Fracassa
Executive Vice President, Chief Financial Officer

Ronald J. Myers
Executive Vice President, Human Resources

Richard M. Boyer
Vice President, Operations

Shelly M. Chadwick
Vice President, Finance, Chief Accounting Officer

Michael J. Connors
Vice President, Global Marketing

Ajay K. Das
Vice President, Strategy and Business Development

Michael A. Discenza
Vice President, Group Controller

Christopher W. Henson
Vice President, Industrial Bearings

Hans Landin
Group Vice President

Amanda J. Montgomery
Vice President, Human Resources

Douglas C. Nelson
Vice President, Compensation and Benefits

Carl D. Rapp
Group Vice President

Sandra L. Rapp
Vice President, Information Technology

Andreas Roellgen
Vice President, Sales, Europe, Asia and Africa

Brian J. Ruel
Vice President, Sales, Americas

Douglas H. Smith
Vice President, Tapered Roller Bearings

Peter M. Sproson
Vice President, Sales and
Managing Director of Europe

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

TIMKEN

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, 2018

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: 1-1169

THE TIMKEN COMPANY

(Exact name of registrant as specified in its charter)

Ohio	**34-0577130**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4500 Mt. Pleasant St. NW, North Canton, Ohio	**44720-5450**
(Address of principal executive offices)	(Zip Code)

234.262.3000
(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Common Shares, without par value	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 Exchange Act. Yes ☐ No ☒

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

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

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

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

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

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

As of June 30, 2018, the aggregate market value of the registrant's common shares held by non-affiliates of the registrant was $2,936,783,798 based on the closing sale price as reported on the New York Stock Exchange.

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding at January 31, 2019
Common Shares, without par value	75,767,695 shares

DOCUMENTS INCORPORATED BY REFERENCE

Document	Parts Into Which Incorporated
Proxy Statement for the Annual Meeting of Shareholders to be held on or about May 10, 2019 (Proxy Statement)	Part III

THE TIMKEN COMPANY
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PART I.

Item 1. Business

General:

As used herein, the term “Timken” or the “Company” refers to The Timken Company and its subsidiaries unless the context otherwise requires. Timken designs and manages a growing portfolio of engineered bearings and power transmission products and services. The Company’s growing portfolio features many strong brands, including Timken®, Fafnir®, Philadelphia Gear®, Drives®, Cone Drive®, Rollon®, Lovejoy® and Groeneveld®.

The Company was founded in 1899 by Henry Timken, who received two patents on the design of a tapered roller bearing. Timken later became, and continues to be, the world's largest manufacturer of tapered roller bearings, leveraging its expertise to develop a full portfolio of industry-leading products and services. Timken built its reputation as a global leader by applying its knowledge of metallurgy, friction management and power transmission to increase the reliability and efficiency of its customers' equipment across a diverse range of industries. Today, the Company's global footprint consists of 118 manufacturing facilities/service centers, 19 technology and engineering centers, and 53 distribution centers and warehouses, supported by a team comprised of more than 17,000 employees. Timken operates in 35 countries around the globe.

Major Customers:

The Company sells products and services to a diverse customer base globally, including customers in the following market sectors: industrial distribution, general industrial, mining, construction, agriculture, rail, aerospace and defense, automotive, heavy truck, metals and energy. No single customer accounts for 5% or more of total net sales.

Products:

Timken manufactures and manages global supply chains for multiple product lines including engineered bearings and power transmission products designed to operate in demanding environments. The Company leverages its technical knowledge, research expertise, and production and engineering capabilities across all of its products and end markets to deliver high-performance products and services to its customers. Differentiation within these product lines is generally based on application engineering, product performance, product quality or customer service.

Engineered Bearings:

The Timken® bearing portfolio features a broad range of engineered bearing products, including tapered, spherical and cylindrical roller bearings; thrust and ball bearings; and housed units. Timken is a leading authority on tapered roller bearings, and leverages its position by applying engineering know-how and technology across its entire bearing portfolio.

A bearing is a mechanical device that reduces friction between moving parts. The purpose of a bearing is to carry a load while allowing a machine shaft to rotate freely. The basic elements of the bearing generally include two rings, called races; a set of rolling elements that rotate around the bearing raceway; and a cage to separate and guide the rolling elements. Bearings come in a number of designs, featuring tapered, spherical, cylindrical or ball rolling elements. The various bearing designs accommodate radial and/or thrust loads differently, making certain bearing types better suited for specific applications.

Selection and development of bearings for customer applications and demand for high reliability require sophisticated engineering and analytical techniques. High precision tolerances, proprietary internal geometries and quality materials provide Timken bearings with high load-carrying capacity, excellent friction-reducing qualities and long service lives. The uses for bearings are diverse and can be found in transportation applications that include passenger cars and trucks, heavy trucks, helicopters, airplanes and trains. Ranging in size from precision bearings the size of a pencil eraser to those roughly three meters in diameter, Timken components also are used in a wide variety of industrial applications, including: paper and steel mills, mining, oil and gas extraction and production, agriculture, construction, machine tools, gear drives, health and positioning control, wind turbines and food processing.

Tapered Roller Bearings. Timken tapered roller bearings can increase power density and can include customized geometries, engineered surfaces and specialized sealing solutions. The Company's tapered roller bearing line comes in thousands of combinations in single-, double- and four-row configurations. Tapered roller designs permit ready absorption of both radial and axial load combinations, which makes them particularly well-adapted to reducing friction where shafts, gears or wheels are used.

Spherical and Cylindrical Roller Bearings. Timken also produces spherical and cylindrical roller bearings that are used in gear drives, rolling mills and other industrial and infrastructure development applications. These products are sold worldwide to original equipment manufacturers ("OEMs") and industrial distributors serving major end-market sectors, including construction and mining, natural resources, wind energy, defense, pulp and paper production, rolling mills and general industrial goods.

Ball Bearings. Timken radial, angular and precision ball bearings are used by customers in a variety of market sectors, including aerospace, agriculture, construction, health, machine tool, the automotive aftermarket and general industries. Radial ball bearings are designed to tolerate relatively high-speed operation under a range of load conditions. These bearing types consist of an inner and outer ring with a cage containing a complement of precision balls. Angular contact ball bearings are designed for a combination of radial and axial loading. Precision ball bearings are manufactured to tight tolerances and come in miniature and instrument, thin section and ball screw support designs.

Housed Units. Timken markets among the broadest range of bearing housed units in the industry. These products deliver durable, heavy-duty components designed to protect spherical, tapered and ball bearings in debris-filled, contaminated or high-moisture environments. Common housed unit applications include material handling and processing equipment.

Power Transmission Products:

Linear Motion Products. The Company designs and manufactures a global portfolio of Rollon® engineered linear motion products, including linear guides, telescopic rails and linear actuators. These engineered products are highly customized to control movements with different variability and complexity based on the application. Rollon products serve a wide range of industries, including passenger rail, aerospace, packaging and logistics, medical and automation.

Gear Drives. The Company's Philadelphia Gear® line of low- and high-speed gear drive designs are used in large-scale industrial applications such as crushing and pulverizing equipment, conveyors and pumps, power generation and military marine. These gear drive configurations are custom made to meet user specifications, offering a wide-array of size, footprint and gear arrangements. Timken also offers Cone Drive® high-torque worm gears, harmonic solutions and precision slew drives. Common applications for Cone Drive products are found in solar, automation, aerial platforms and food and beverage industries.

Lubrication Systems. The Company's Groeneveld® lubrication solutions include a wide variety of automatic lubrication delivery devices, oil management systems and safety support systems designed to enhance vehicle and machine uptime in on- and off-highway applications. These systems complement the Company's Interlube® line of lubrication systems, which are used by the commercial vehicle, mining, and heavy and general industries. Timken also offers 27 formulations of grease, leveraging its knowledge of tribology and anti-friction bearings to enable smooth equipment operation.

Belts. The Company makes and markets a full line of Timken® and Carlisle® belts used in industrial, commercial and consumer applications. The portfolio features more than 20,000 parts designed for demanding applications, which are sold to original equipment and aftermarket customers. These belts are engineered for maximum performance and durability, with products available in wrap molded, raw edge, v-ribbed and synchronous belt designs. Common applications include agriculture, construction, industrial machinery, outdoor power equipment and powersports.

Chain. Timken manufactures precision Drives® roller chain, pintle chain, agricultural conveyor chain, engineering class chain and oil field roller chain. These highly engineered products are used in a wide range of mobile and industrial machinery applications, including agriculture, oil and gas, aggregate and mining, primary metals, forest products and other heavy industries. These products also are utilized in the food and beverage and packaged goods sectors, which often require high-end, specialty products, including stainless-steel and corrosion-resistant roller chain.

Couplings. The Company offers a full range of industrial couplings within its power transmission products portfolio. The Lovejoy brand is widely known for its flexible coupling design and as the creator of the jaw-style coupling. Lovejoy® couplings are available in curved jaw, jaw in-shear, s-flex, gear-torsional and disc style configurations. These components are used in a wide range of industries such as steel, pulp and paper, power generation, food processing, mining and construction. The Company also offers an extensive line of torsional couplings offered under the Torsion Control Products brand.

Aerospace Drive Systems. The Company's portfolio of parts, systems and services for the aerospace market sector includes products used in helicopters for military and commercial use. Timken designs, manufactures and tests a wide variety of power transmission and drive train components, including transmissions, gears and rotor-head assemblies and housings. In addition to original equipment, Timken provides aftermarket overhaul and repair services for transmissions, gearboxes and other components.

Industrial Clutches and Brakes. Timken offers a selection of engineered clutches, brakes, hydraulic power take-off units and other torque management devices marketed under the PT Tech brand. These products are custom engineered for original equipment manufacturers and used in mining, aggregate, wood recycling and metals industries.

Other Products. The Company also offers a full line of seals, augers and other power transmission components. Timken industrial sealing solutions come in a variety of types and material options that are used in manufacturing, food processing, mining, power generation, chemical processing, primary metals, pulp and paper, and oil and gas industry applications. The Company also designs and manufactures Drives® helicoid and sectional augers for agricultural applications, like conveying, digging and combines.

Services:

Power Systems. Timken services components in the industrial customer's drive train, including switch gears, electric motors and generators, gearboxes, bearings, couplings and central panels. The Company’s Philadelphia Gear services for gear drive applications include onsite technical services; inspection, repair and upgrade capabilities; and manufacturing of parts to OEM specifications. In addition, the Company’s Wazee, Smith Services, Schulz, Standard Machine and H&N service centers provide customers with services that include motor and generator rewind and repair and uptower wind turbine maintenance and repair. Timken Power Systems commonly serves customers in the power, wind energy, hydro and fossil fuel, water management, paper, mining and general manufacturing sectors.

Bearing Repair. Timken bearing repair services return worn bearings to like-new specifications, which increases bearing service life and often can restore bearings in less time than required to manufacture new. Bearing remanufacturing is available for any bearing type or brand - including competitor products - and is well-suited to heavy industrial applications such as paper, metals, mining, power generation and cement; railroad locomotives, passenger cars and freight cars; and aerospace engines and gearboxes.

Services accounted for approximately 5% of the Company’s net sales for the year ended December 31, 2018.

Sales and Distribution:

Timken products are sold principally by its internal sales organizations. A portion of each segment's sales are made through authorized distributors.

Customer collaboration is central to the Company's sales strategy. Therefore, Timken goes where its customers need us, with sales engineers primarily working in close proximity to customers rather than at production sites. In some cases, Timken may co-locate with a customer at its facility to ensure optimized collaboration. The Company's sales force continuously updates the team's training and knowledge regarding all friction management products and market sector trends, and Timken employees assist customers during development and implementation phases and provide ongoing service and support.

The Company has a joint venture in North America focused on joint logistics and e-business services. This joint venture, CoLinx, LLC, includes five equity members: Timken, SKF Group, Schaeffler Group, ABB Group and Gates Industrial Corp. The e-business service focuses on information and business services for authorized distributors in the Process Industries segment.

Timken has entered into individually negotiated contracts with some of its customers. These contracts may extend for one or more years and, if a price is fixed for any period extending beyond current shipments, customarily include a commitment by the customer to purchase a designated percentage of its requirements from Timken. Timken does not believe that there is any significant loss of earnings risk associated with any given contract.

Competition:

The anti-friction bearing business is highly competitive in every country where Timken sells products. Timken primarily competes based on total value, including price, quality, timeliness of delivery, product design and the ability to provide engineering support and service on a global basis. The Company competes with domestic manufacturers and many foreign manufacturers of anti-friction bearings, including SKF Group, Schaeffler Group, NTN Corporation, JTEKT Corporation and NSK Ltd.

Joint Ventures:

Investments in affiliated companies accounted for under the equity method were approximately $2.3 million and $2.5 million, respectively, at December 31, 2018 and 2017. The investment balance at December 31, 2018 was reported in other non-current assets on the Consolidated Balance Sheets.

Backlog:

The following table provides the backlog of orders for the Company's domestic and overseas operations at December 31, 2018 and 2017:

	December 31,	
(Dollars in millions)	**2018**	2017
Segment:		
Mobile Industries	**$ 955.0**	$ 882.3
Process Industries	**699.3**	588.3
Total Company	**$ 1,654.3**	$ 1,470.6

Approximately 90% of the Company’s backlog at December 31, 2018 is scheduled for delivery in the succeeding 12 months. Actual shipments depend upon customers' ever-changing production schedules. Accordingly, Timken does not believe that its backlog data and comparisons thereof, as of different dates, reliably indicate future sales or shipments.

Raw Materials:

The principal raw materials used by the Company to make engineered bearings are special bar quality ("SBQ") steel and steel components. SBQ steel and steel components are produced around the world by various suppliers. SBQ steel is purchased in bar, tube and wire forms, while steel components are commonly purchased as forgings, semi-finished or finished components. The primary inputs to SBQ steel include scrap metal, iron ore, alloys, energy and labor. The availability and price of SBQ steel are subject to changes in supply and demand, commodity prices for ferrous scrap, ore, alloy, electricity, natural gas, transportation fuel, and labor costs. The Company manages price variability of commodities by using surcharge mechanisms on some of its contracts with its customers that provides for partial recovery of these cost increases in the price of bearing products.

The availability of bearing-quality tubing is relatively limited, and the Company has taken steps to limit its exposure to this particular form of SBQ steel. Overall, the Company believes that the number of suppliers of SBQ steel is adequate to support the needs of global bearing production, and, in general, the Company is not dependent on any single source of supply.

Research:

Timken operates a network of technology and engineering centers to support its global customers with sites in North America, Europe and Asia. This network develops and delivers innovative friction management and power transmission solutions and technical services. Timken's largest technical center is located at the Company's world headquarters in North Canton, Ohio. Other sites in the United States include Los Alamitos, California; Manchester, Connecticut; Downer's Grove and Fulton, Illinois; Rochester Hills and Traverse City, Michigan; Springfield, Missouri; Keene and Lebanon, New Hampshire; and King of Prussia, Pennsylvania. Within Europe, the Company has technology facilities in Plymouth, England; Colmar, France; Werdohl, Germany; Valmadrera, Italy; Gorinchem, Netherlands; and Ploiesti, Romania. In Asia, Timken operates technology and engineering facilities in Bangalore, India and Shanghai, China.

Expenditures for research and development amounted to approximately $37.3 million, $35.3 million and $31.8 million in 2018, 2017 and 2016, respectively. No amounts were funded by others in 2018, 2017 and 2016.

Environmental Matters:

The Company continues its efforts to protect the environment and comply with environmental protection laws. Additionally, it has invested in pollution control equipment and updated plant operational practices. The Company is committed to implementing a documented environmental management system worldwide and to becoming certified under the ISO 14001 standard where appropriate to meet or exceed customer requirements. As of the end of 2018, 18 of the Company’s plants had obtained ISO 14001 certification.

The Company establishes appropriate levels of reserves to cover its environmental expenses and has a well-established environmental compliance audit program for its domestic and international units. This program measures performance against applicable laws, as well as against internal standards that have been established for all units worldwide. It is difficult to assess the possible effect of compliance with future requirements that differ from existing requirements.

The Company and certain of its United States ("U.S.") subsidiaries previously have been and could in the future be identified as potentially responsible parties for investigation and remediation at off-site disposal or recycling facilities under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), known as the Superfund, or state laws similar to CERCLA. In general, such claims for investigation and remediation also have been asserted against numerous other entities.

Management believes any ultimate liability with respect to pending actions will not materially affect the Company’s operations, cash flows or consolidated financial position. The Company also is conducting environmental investigation and/or remediation activities at certain current or former operating sites. The costs of such investigation and remediation activities, in the aggregate, are not expected to be material to the operations or financial position of the Company.

New laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new clean-up requirements may require Timken to incur costs or become the basis for new or increased liabilities that could have a materially adverse effect on the Company's business, financial condition or results of operations.

Patents, Trademarks and Licenses:

Timken owns numerous U.S. and foreign patents, trademarks and licenses relating to certain products. While Timken regards these as important, it does not deem its business as a whole, or any industry segment, to be materially dependent upon any one item or group of items.

Employment:

At December 31, 2018, Timken had more than 17,000 employees worldwide. Approximately 7.6% of Timken's U.S. employees are covered under collective bargaining agreements.

Available Information:

The Company uses its Investor Relations website at http://investors.timken.com, as a channel for routine distribution of important information, including news releases, analyst presentations and financial information. The Company posts filings as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission (the "SEC"), including its annual, quarterly and current reports on Forms 10-K, 10-Q and 8-K; its proxy statements; and any amendments to those reports or statements. All such postings and filings are available on the Company's website free of charge. In addition, this website allows investors and other interested persons to sign up to automatically receive e-mail alerts when the Company posts news releases and financial information on the Company's website. The SEC also maintains a website, www.sec.gov, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The content on any website referred to in this Annual Report on Form 10-K is not incorporated by reference into this Annual Report unless expressly noted.

Item 1A. Risk Factors

The following are certain risk factors that could affect our business, financial condition and results of operations. The risks that are described below are not the only ones that we face. These risk factors should be considered in connection with evaluating forward-looking statements contained in this Annual Report on Form 10-K because these factors could cause our actual results and financial condition to differ materially from those projected in forward-looking statements. If any of the following risks actually occur, our business, financial condition or results of operations could be negatively affected.

Risk Relating to our Business

The bearing industry is highly competitive, and this competition results in significant pricing pressure for our products that could affect our revenues and profitability.

The global bearing industry is highly competitive. We compete with domestic manufacturers and many foreign manufacturers of anti-friction bearings, including SKF Group, Schaeffler Group, NTN Corporation, JTEKT Corporation and NSK Ltd., and an increasing number of emerging market competitors. Due to competitiveness within the bearing industry, we may not be able to increase prices for our products to cover increases in our costs or to achieve desired profitability. In many cases we face pressure from our customers to reduce prices, which could adversely affect our revenues and profitability. In addition, our customers may choose to purchase products from one of our competitors rather than pay the prices we seek for our products, which could adversely affect our revenues and profitability.

Our business is capital intensive, and if there are downturns in the industries that we serve, we may be forced to significantly curtail or suspend operations with respect to those industries, which could result in our recording asset impairment charges, restructuring charges or taking other measures that may adversely affect our results of operations and profitability.

Our business operations are capital intensive, and we devote a significant amount of capital to certain industries. Our profitability is dependent on factors such as labor compensation and productivity and inventory management, which are subject to risks that we may not be able to control. If there are downturns in the industries that we serve, we may be forced to significantly curtail or suspend our operations with respect to those industries, including laying-off employees, reducing production, recording asset impairment charges and other measures, which may adversely affect our results of operations and profitability. We have taken approximately $159 million in impairment and restructuring charges in the aggregate during the last five years. Changes in business or economic conditions, or our business strategy, may result in additional restructuring programs and may require us to take additional charges in the future, which could have a material adverse effect on our earnings.

Weakness in global economic conditions or in any of the industries or geographic regions in which we or our customers operate, as well as the cyclical nature of our customers' businesses generally or sustained uncertainty in financial markets, could adversely impact our revenues and profitability by reducing demand and margins.

There has been significant volatility in the capital markets and in the end markets and geographic regions in which we and our customers operate, which has negatively affected our revenues. Our revenues also may be negatively affected by changes in customer demand, changes in the product mix and negative pricing pressure in the industries in which we operate. Margins in those industries are highly sensitive to demand cycles, and our customers in those industries historically have tended to delay large capital projects, including expensive maintenance and upgrades, during economic downturns. As a result, our revenues and earnings are impacted by overall levels of industrial production.

Our results of operations may be materially affected by conditions in global financial markets or in any of the geographic regions in which we, our customers, or our suppliers operate. If an end user cannot obtain financing to purchase our products, either directly or indirectly contained in machinery or equipment, demand for our products will be reduced, which could have a material adverse effect on our financial condition and earnings.

Global financial markets have experienced volatility in recent years, including volatility in securities prices and diminished liquidity and credit availability. Our access to the financial markets cannot be assured and is dependent on, among other things, market conditions and company performance. Accordingly, we may be forced to delay raising capital, issue shorter tenors than we prefer or pay unattractive interest rates, which could increase our interest expense, decrease our profitability and significantly reduce our financial flexibility.

If a customer becomes insolvent or files for bankruptcy, our ability to recover accounts receivable from that customer would be affected adversely and any payment we received during the preference period prior to a bankruptcy filing potentially may be recoverable by the bankruptcy estate. Furthermore, if certain of our customers liquidate in bankruptcy, we may incur impairment charges relating to obsolete inventory and machinery and equipment.

In addition, financial instability of certain companies in the supply chain could disrupt production in any particular industry. A disruption of production in any of the industries where we participate could have a material adverse effect on our financial condition and earnings. If any of our suppliers are unable or unwilling to provide the products or services that we require or materially increase their costs, our ability to offer and deliver our products on a timely and profitable basis could be impaired. We cannot assure you that any or all of our relationships will not be terminated or that such relationships will continue as presently in effect. Furthermore, if any of our suppliers were to become subject to bankruptcy, receivership or similar proceedings, we may be unable to arrange for alternate or replacement relationships on favorable terms, which could harm our sales and operating results.

Our level of debt and financial covenants could limit our ability to invest in our business.

Due to our current level of debt, we may have less cash flow available for our business operations, capital expenditures, and strategic transactions and our ability to service our debt obligations or to obtain future financing could be negatively impacted by general adverse economic and industry conditions and interest rate trends.

Any change in raw material prices or the availability or cost of raw materials could adversely affect our results of operations and profit margins.

We require substantial amounts of raw materials, including steel, to operate our business. Our supply of raw materials 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 could do so in the future. We generally attempt to manage these fluctuations by passing along increased raw material prices to our customers in the form of price increases or surcharges; however, we may be unable to increase the price of our products due to pricing pressure, contract terms or other factors, which could adversely impact our revenue and profit margins.

Moreover, future disruptions in the supply of our raw materials could impair our ability to manufacture our products for our customers or require us to pay higher prices in order to obtain these raw materials from other sources. Any significant increase in the prices for such raw materials could adversely affect our results of operations and profit margins.

Warranty, recall, quality or product liability claims could materially adversely affect our earnings.

In our business, we are exposed to warranty and product liability claims. In addition, we may be required to participate in the recall of a product. If we fail to meet customer specifications for their products, we may be subject to product quality costs and claims. A successful warranty or product liability claim against us, or a requirement that we participate in a product recall, could have a material adverse effect on our earnings.

Environmental health and safety laws and regulations impose substantial costs and limitations on our operations and compliance may be more costly than we expect.

We are subject to the risk of substantial environmental liability and limitations on our operations due to environmental laws and regulations. We are subject to extensive federal, state, local and foreign environmental, health and safety laws and regulations concerning matters such as air emissions, wastewater discharges, solid and hazardous waste handling and disposal and the investigation and remediation of contamination. The risks of substantial costs and liabilities related to compliance with these laws and regulations are an inherent part of our business, and future conditions may develop, arise or be discovered that create substantial environmental compliance or remediation liabilities and costs.

Compliance with environmental, health and safety legislation and regulatory requirements may prove to be more limiting and costly than we anticipate. To date, we have committed significant expenditures in our efforts to achieve and maintain compliance with these requirements at our facilities, and we expect that we will continue to make significant expenditures related to such compliance in the future. From time to time, we may be subject to legal proceedings brought by private parties or governmental authorities with respect to environmental matters, including matters involving alleged noncompliance with or liability arising from environmental, health and safety laws, property damage or personal injury. New laws and regulations, including those that may relate to emissions of greenhouse gases, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new clean-up requirements could require us to incur costs or become the basis for new or increased liabilities that could have a material adverse effect on our business, financial condition or results of operations.

The Company may be subject to risks relating to its information technology systems, including the risk of security breaches.

The Company relies on information technology systems to manage and operate its business and to process, transmit and store sensitive and confidential data, including its intellectual property and other proprietary business information and that of its customers and suppliers. Despite security measures taken by the Company, the Company’s information technology systems may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach in security could expose the Company and its employees, customers and suppliers to risks of misuse of confidential information, manipulation and destruction of data, production downtimes, litigation and operational disruptions, which in turn could adversely affect the Company's reputation, competitive position, business or results of operations.

The global nature of our business exposes us to foreign currency fluctuations that may affect our asset values, results of operations and competitiveness.

We are exposed to the risks of currency exchange rate fluctuations because a significant portion of our net sales, costs, assets and liabilities, are denominated in currencies other than the U.S. dollar. These risks include a reduction in our asset values, net sales, operating income and competitiveness.

For those countries outside the United States where we have significant sales, a strengthening in the U.S. dollar or devaluation in the local currency would reduce the value of our local inventory as presented in our Consolidated Financial Statements. In addition, a stronger U.S. dollar or a weaker local currency would result in reduced revenue, operating profit and shareholders' equity due to the impact of foreign exchange translation on our Consolidated Financial Statements. Fluctuations in foreign currency exchange rates may make our products more expensive for others to purchase or increase our operating costs, affecting our competitiveness and our profitability.

Changes in exchange rates between the U.S. dollar and other currencies and volatile economic, political and market conditions in emerging market countries have in the past adversely affected our financial performance and may in the future adversely affect the value of our assets located outside the United States, our gross profit and our results of operations.

Global political instability and other risks of international operations may adversely affect our operating costs, revenues and the price of our products.

Our international operations expose us to risks not present in a purely domestic business, including primarily:

- changes in international treaties or trade unions (e.g., the UK's potential withdrawal from the European Union, commonly referred to as "Brexit"), which may make our products or our customers' products more costly to export or import;
- changes in tariff regulations, which may make our products more costly to export or import;
- difficulties establishing and maintaining relationships with local OEMs, distributors and dealers;
- import and export licensing requirements;
- compliance with a variety of foreign laws and regulations, including unexpected changes in taxation and environmental or other regulatory requirements, which could increase our operating and other expenses and limit our operations;
- disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the Foreign Corrupt Practices Act ("FCPA");
- difficulty in staffing and managing geographically diverse operations; and
- tax exposures related to cross-border intercompany transfer pricing and other tax risks unique to international operations.

These and other risks also may increase the relative price of our products compared to those manufactured in other countries, reducing the demand for our products in the markets in which we operate, which could have a material adverse effect on our revenues and earnings.

***Changes in U.S. trade policy, including the imposition of tariffs and the resulting consequences, could adversely impact our revenue and profit margins*.**

The U.S. government has indicated an intent to renegotiate, or potentially terminate, certain existing bilateral or multi-lateral trade agreements. It has also initiated the imposition of tariffs on certain foreign goods, including steel and other raw materials. Changes in U.S. trade policy have resulted in, and could further result in, U.S. trading partners adopting responsive trade policies that make it more difficult or costly for us to export our products to those countries. These measures have resulted in increased costs for goods imported into the U.S. If we are unable to increase the price of our products or otherwise mitigate these increased costs, it could adversely impact our revenue and profit margins.

Expenses and contributions related to our defined benefit plans are affected by factors outside our control, including the performance of plan assets, interest rates, actuarial data and experience, and changes in laws and regulations, all of which could impact our funded status.

Our future expense and funding obligations for defined benefit pension plans depend upon a number of factors, including the level of benefits provided for by the plans, the future performance of assets set aside in trusts for these plans, the level of interest rates used to determine the discount rate to calculate the amount of liabilities, actuarial data and experience, and any changes in government laws and regulations. In addition, if the various investments held by our pension trusts do not perform as expected or the liabilities increase as a result of discount rate changes and other actuarial changes, our pension expense and required contributions would increase and, as a result, could materially adversely affect our business or require us to record charges that could be significant and would cause a reduction in our shareholders' equity. We may be required legally to make contributions to the pension plans in the future in excess of our current expectations, and those contributions could be material.

Future actions involving our defined benefit and other postretirement plans, such as annuity purchases, lump-sum payouts, and/or plan terminations could cause us to incur significant pension and postretirement settlement and curtailment charges, and require cash contributions.

We have purchased annuities and offered lump-sum payouts to defined benefit plan and other postretirement plan participants and retirees in the past. If we were to take similar actions in the future, we could incur significant pension settlement and curtailment charges related to the reduction in pension and postretirement obligations from annuity purchases, lump-sum payouts of benefits to plan participants, and/or plan terminations. Pursuing these types of actions could require us to make additional contributions to the defined benefit plans to maintain a legally required funded status.

Work stoppages or similar difficulties could significantly disrupt our operations, reduce our revenues and materially affect our earnings.

A work stoppage at one or more of our facilities, or at facilities of one or more of our suppliers, could have a material adverse effect on our business, financial condition and results of operations. Also, if one or more of our customers were to experience a work stoppage, that customer likely would halt or limit purchases of our products, which could have a material adverse effect on our business, financial condition and results of operations.

We are subject to a wide variety of domestic and foreign laws and regulations that could adversely affect our results of operations, cash flow or financial condition.

We are subject to a wide variety of domestic and foreign laws and regulations, and legal compliance risks, including securities laws, tax laws, employment and pension-related laws, data privacy regulations (including those under the European Union General Data Protection Regulation), competition laws, U.S. and foreign export and trade laws, and laws governing improper business practices. We are affected by both new laws and regulations, and changes to existing laws and regulations which may continue to evolve through interpretations by courts and regulators. Furthermore, the laws and regulations to which we are subject may differ from jurisdiction to jurisdiction, further increasing the cost of compliance, and the risk of noncompliance.

In addition, we could be adversely affected by violations of the FCPA and similar worldwide anti-bribery laws as well as export controls and economic sanction laws. The FCPA and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S government officials for the purpose of obtaining or retaining business. Recently, there has been a substantial increase in the global enforcement of anti-corruption laws. We operate in many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. Our policies mandate compliance with these laws, but we cannot assure you that our internal controls and procedures will always protect us from the improper acts committed by our employees or agents. If we are found to be liable for FCPA, export control or sanction violations, we could suffer from criminal or civil penalties or other sanctions, including loss of export privileges or authorization needed to conduct aspects of our international business, which could have a material adverse effect on our business.

Compliance with the laws and regulations described above or with other applicable foreign, federal, state, and local laws and regulations currently in effect or that may be adopted in the future could materially adversely affect our competitive position, operating results, financial condition and liquidity.

If we are unable to attract and retain key personnel, our business could be materially adversely affected.

Our business substantially depends on the continued service of key members of our management and other key employees. The loss of the services of a significant number of members of our management or other key employees could have a material adverse effect on our business. Our future success also will depend on our ability to attract and retain highly skilled personnel, such as engineering, finance, marketing and senior management professionals. Competition for these types of employees is intense, and we could experience difficulty from time to time in hiring and retaining the personnel necessary to support our business. If we do not succeed in retaining our current employees and attracting new high quality employees, our business could be materially adversely affected.

We may not realize the improved operating results that we anticipate from past and future acquisitions and we may experience difficulties in integrating acquired businesses.

We seek to grow, in part, through strategic acquisitions, joint ventures and other alliances, which are intended to complement or expand our businesses, and expect to continue to do so in the future. These acquisitions involve challenges and risks. In the event that we do not successfully integrate these acquisitions into our existing operations so as to realize the expected return on our investment, our results of operations, cash flow or financial condition could be adversely affected.

Our operating results depend in part on continued successful research, development and marketing of new and/or improved products and services, and there can be no assurance that we will continue to successfully introduce new products and services.

The success of new and improved products and services depends on their initial and continued acceptance by our customers. Our businesses are affected, to varying degrees, by technological change and corresponding shifts in customer demand, which could result in unpredictable product transitions or shortened life cycles, especially as it relates to market and technological changes driven by electrification, climate change requirements, the continued rising importance of e-commerce or increased digitization. We may experience difficulties or delays in the research, development, production, or marketing of new products and services that may prevent us from recouping or realizing a return on the investments required to bring new products and services to market. The end result could have a negative impact on our operating results.

If our internal controls are found to be ineffective, our financial results or our stock price may be adversely affected.

Our most recent evaluation resulted in our conclusion that, as of December 31, 2018, our internal control over financial reporting was effective. We believe that we currently have adequate internal control procedures in place for future periods, including processes related to newly acquired businesses; however, increased risk of internal control breakdowns generally exists in a business environment that is decentralized. In addition, if our internal control over financial reporting is found to be ineffective, investors may lose confidence in the reliability of our financial statements, which may adversely affect our stock price.

Changes in accounting guidance could have an adverse effect on our results of operations, as reported in our financial statements.

Our consolidated financial statements are prepared in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP"), which is periodically revised and/or expanded. Accordingly, from time to time we are required to adopt new or revised accounting guidance and related interpretations issued by recognized authoritative bodies, including the Financial Accounting Standards Board ("FASB") and the SEC. The impact of accounting pronouncements that have been issued but not yet implemented is disclosed in this Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. It is possible that future accounting guidance we are required to adopt, or future changes in accounting principles, could change the current accounting treatment that we apply to our consolidated financial statements and that such changes could have an adverse effect on our results of operations, as reported in our consolidated financial statements.

Certain members of our Board of Directors and management may have actual or potential conflicts of interest because of their ownership of shares of TimkenSteel Corporation ("TimkenSteel") or their relationships with TimkenSteel following the spinoff of TimkenSteel into an independent publicly traded company on June 30, 2014 (the "Spinoff").

Certain members of our Board of Directors and management own shares of TimkenSteel and/or options to purchase shares of TimkenSteel, which could create, or appear to create, potential conflicts of interest when our directors and executive officers are faced with decisions that could have different implications for us and TimkenSteel. One of our directors, Ward J. Timken, Jr., is also Chairman, President and Chief Executive Officer of TimkenSteel. This may create, or appear to create, potential conflicts of interest if Mr. Timken is faced with decisions that could have different implications for TimkenSteel than the decisions have for us.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Timken has manufacturing facilities at multiple locations in the United States and in a number of countries outside the United States. The aggregate floor area of these facilities worldwide is approximately 11.8 million square feet, all of which, except for approximately 2.8 million square feet, is owned in fee. The facilities not owned in fee are leased. The buildings occupied by Timken are principally made of brick, steel, reinforced concrete and concrete block construction. The Company believes all buildings are in satisfactory operating condition to conduct business.

Timken’s Mobile Industries segment's manufacturing facilities and service centers in the United States are located in Los Alamitos, California; Manchester, Connecticut; Carlyle, Illinois; Lenexa, Kansas; Keene and Lebanon, New Hampshire; Iron Station, North Carolina; Bucyrus, Canton, New Philadelphia and Sharon Center, Ohio; Gaffney and Honea Path, South Carolina; Knoxville, Tennessee; and Ogden, Utah. These facilities, including warehouses at plant locations and a technology center and wind center in North Canton, Ohio, have an aggregate floor area of approximately 3.1 million square feet.

Timken’s Mobile Industries segment’s manufacturing plants and service centers outside the United States are located in Belo Horizonte and Rio Clara, Brazil; Yantai, China; Cheltenham, Northampton and Plymouth, England; Colmar, France; Bharuch and Jamshedpur, India; Karmiel, Israel; Cassago, Valmadrea and Villa Carcina, Italy; Sosnowiec, Poland; Tikhvin, Russia and Gauteng, South Africa. These facilities, including warehouses at plant locations, have an aggregate floor area of approximately 2.8 million square feet.

Timken's Process Industries segment's manufacturing plants and service centers in the United States are located in Hueytown, Alabama; Sante Fe Springs, California; Broomfield and Denver, Colorado; New Haven, Connecticut; New Castle, Delaware; Downers Grove, Fulton and Mokena, Illinois; Mishawaka, Indiana; Fort Scott, Kansas; Augusta and Portland, Maine; Springfield, Massachusetts; Ludington, Rochester Hills, South Haven and Traverse City, Michigan; Springfield, Missouri; Hackettstown, New Jersey; Randleman and Rutherfordton, North Carolina; Union, South Carolina; Ferndale and Pasco, Washington; and Princeton, West Virginia; and Casper, Wyoming. These facilities, including warehouses at plant locations and a wind center in North Canton, Ohio, have an aggregate floor area of approximately 3.1 million square feet.

Timken's Process Industries segment's manufacturing plants and service centers outside the United States are located in Mississauga, Prince George and Sasakatoon, Canada; Chengdu, Jiangsu, Wuxi and Xiangtan, China; Dudley, England; Dusseldorf and Werdohl, Germany; Chennai and Durg, India; Arcore and Vimercate, Italy; and Ploiesti and Prahova, Romania. These facilities, including warehouses at plant locations, have an aggregate floor area of approximately 2.8 million square feet.

In addition to the manufacturing and distribution facilities discussed above, Timken owns or leases warehouses and distribution facilities in Argentina, Australia, Brazil, Canada, China, England, France, India, Mexico, New Zealand, Poland, South Africa, Singapore, Spain and the United States.

The extent to which the Company uses its properties varies by property and from time to time. The Company believes that its capacity levels are adequate for its present and anticipated future needs. Most of the Company’s manufacturing facilities remain capable of handling additional volume increases.

Item 3. Legal Proceedings

The Company is involved in various claims and legal actions arising in the ordinary course of business. In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on the Company’s consolidated financial position or results of operations.

In October 2014, the Brazilian government antitrust agency announced that it had opened an investigation of alleged antitrust violations in the bearing industry. The Company’s Brazilian subsidiary, Timken do Brasil Comercial Importadora Ltda, was included in the investigation. While the Company is unable to predict the ultimate length, scope or results of the investigation, management believes that the outcome will not have a material effect on the Company’s consolidated financial position; however, any such outcome may be material to the results of operations of any particular period in which costs, if any, are recognized. Based on current facts and circumstances, the low end of the range for potential penalties, if any, would be immaterial to the Company.

Item 4. Mine Safety Disclosures

Not applicable.

Item 4A. Executive Officers of the Registrant

The executive officers are elected by the Board of Directors normally for a term of one year and until the election of their successors. All executive officers have been employed by Timken or by a subsidiary of the Company during the past five-year period. The executive officers of the Company as of February 15, 2019 are as follows:

Name	Age	Current Position and Previous Positions During Last Five Years
Christopher A. Coughlin	58	2014 Executive Vice President, Group President
		2013 Group President
Philip D. Fracassa	50	2014 Executive Vice President and Chief Financial Officer
		2013 Senior Vice President - Planning and Development
Richard G. Kyle	53	2014 President and Chief Executive Officer
		2013 Chief Operating Officer - B&PT; Director
Ronald J. Myers	60	2017 Executive Vice President - Human Resources
		2015 Vice President of Human Resources
		2013 Vice President - Organizational Advancement

PART II.

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

The Company's common shares are traded on the New York Stock Exchange under the symbol "TKR". The estimated number of record holders of the Company's common shares at December 31, 2018 was 3,831. The estimated number of beneficial shareholders at December 31, 2018 was 55,968.

The following table provides information about the high and low sales prices for the Company's common shares and dividends paid for each quarter for the last two fiscal years.

	2018			2017		
	Stock prices		Dividends	Stock prices		Dividends
	High	Low	per share	High	Low	per share
First quarter	**$ 55.65**	**$ 41.85**	**$ 0.27**	$ 46.45	$ 40.05	$ 0.26
Second quarter	**$ 50.55**	**$ 41.95**	**$ 0.28**	$ 51.75	$ 42.50	$ 0.27
Third quarter	**$ 52.45**	**$ 42.65**	**$ 0.28**	$ 49.95	$ 42.55	$ 0.27
Fourth quarter	**$ 50.42**	**$ 33.98**	**$ 0.28**	$ 53.10	$ 44.73	$ 0.27

Issuer Purchases of Common Shares:

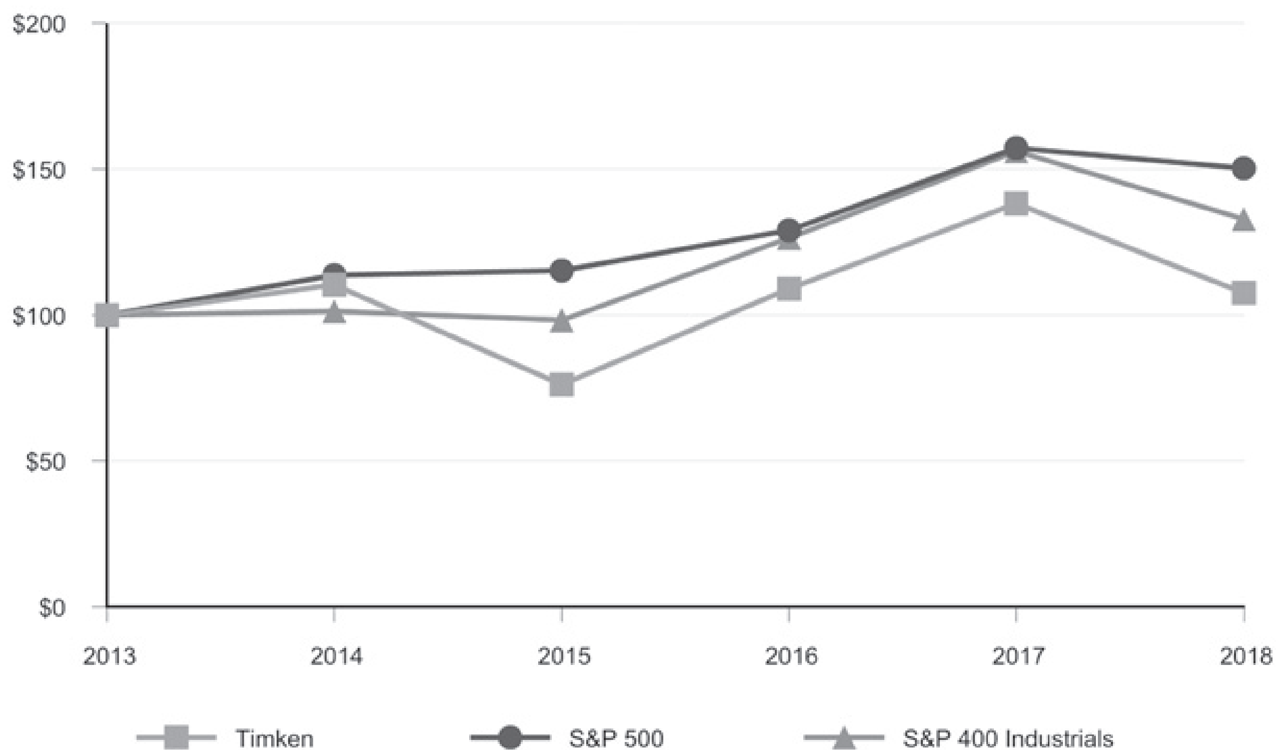
The following table provides information about purchases of its common shares by the Company during the quarter ended December 31, 2018.

Period	Total number of shares purchased (1)	Average price paid per share (2)	Total number of shares purchased as part of publicly announced plans or programs	Maximum number of shares that may yet be purchased under the plans or programs (3)
10/1/2018 - 10/31/2018	**2,639**	**$ 43.42**	**—**	**7,700,485**
11/1/2018 - 11/30/2018	**435,919**	**40.12**	**435,919**	**7,264,566**
12/1/2018 - 12/31/2018	**477,528**	**37.96**	**475,000**	**6,789,566**
Total	**916,086**	**$ 39.00**	**910,919**	**—**

(1) Of the shares purchased in October, November and December, 162, zero and 428, respectively, represent common shares of the Company that were owned and tendered by employees to exercise stock options, and to satisfy withholding obligations in connection with the exercise of stock options and vesting of restricted shares.

(2) For shares tendered in connection with the vesting of restricted shares, the average price paid per share is an average calculated using the daily high and low of the Company's common shares as quoted on the New York Stock Exchange at the time of vesting. For shares tendered in connection with the exercise of stock options, the price paid is the real-time trading share price at the time the options are exercised.

(3) On February 6, 2017, the Company's Board of Directors approved a share repurchase plan pursuant to which the Company may purchase up to ten million of its common shares, in the aggregate. This share purchase plan expires on February 28, 2021. Under this plan the Company purchased shares from time to time in open market purchases or privately negotiated transactions and was able to make all or part of the purchases pursuant to accelerated share repurchases or Rule 10b5-1 plans.



*Total return assumes reinvestment of dividends. Fiscal years ending December 31.

	2014	2015	2016	2017	**2018**
Timken	$ 110	$ 76	$ 109	$ 138	**$ 108**
S&P 500	114	115	129	157	**150**
S&P 400 Industrials	101	98	126	156	**133**

The line graph compares the cumulative total shareholder returns over five years for The Timken Company, the S&P 500 Stock Index and the S&P 400 Industrials Index. The graph assumes, in each case, an initial investment of $100 on January 1, 2014, in Timken common shares, S&P 500 Index and S&P 400 Industrials Index, based on market prices at the end of each fiscal year through and including December 31, 2018, and reinvestment of dividends (and taking into account the value of the TimkenSteel common shares distributed in the Spinoff).

Item 6. Selected Financial Data

Summary of Operations and Other Comparative Data:

(Dollars in millions, except per share and per employee data)	**2018**	2017	2016	2015	2014
Statements of Income					
Net sales	**$ 3,580.8**	$ 3,003.8	$ 2,669.8	$ 2,872.3	$ 3,076.2
Gross profit	**1,040.1**	812.1	706.3	803.8	898.7
Operating income	**454.5**	299.5	244.4	333.2	240.2
Income from continuing operations	**305.5**	202.3	141.1	191.4	85.2
Net income attributable to The Timken Company	**$ 302.8**	$ 203.4	$ 140.8	$ 188.6	$ 113.2
Balance Sheets					
Total assets	**$ 4,445.2**	$ 3,402.4	$ 2,763.2	$ 2,789.0	$ 3,002.9
Total debt	**1,681.6**	962.3	659.2	656.5	526.4
Total liabilities	**2,802.5**	1,927.5	1,452.3	1,439.4	1,408.6
Total equity	**$ 1,642.7**	$ 1,474.9	$ 1,310.9	$ 1,349.6	$ 1,594.3
Other Comparative Data					
Income from continuing operations / net sales	**8.5%**	6.7%	5.3%	6.7%	2.8%
Net income attributable to The Timken Company / net sales	**8.5%**	6.8%	5.3%	6.6%	3.7%
Return on equity (1)	**18.6%**	13.7%	10.8%	14.2%	5.3%
Net sales per employee (2)	**$ 220.5**	$ 206.3	$ 185.3	$ 197.5	$ 210.9
Capital expenditures	**112.6**	104.7	137.5	105.6	126.8
Capital expenditures / net sales	**3.1%**	3.5%	5.2%	3.7%	4.1%
Depreciation and amortization	**146.0**	137.7	131.7	130.8	137.0
Dividends per share	**$ 1.11**	$ 1.07	$ 1.04	$ 1.03	$ 1.00
Basic earnings per share - continuing operations (3)	**3.93**	2.62	1.79	2.23	0.92
Diluted earnings per share - continuing operations (3)	**3.86**	2.58	1.78	2.21	0.91
Basic earnings per share (4)	**3.93**	2.62	1.79	2.23	1.25
Diluted earnings per share (4)	**3.86**	2.58	1.78	2.21	1.24
Number of employees at year-end (5)	**17,477**	15,006	14,111	14,709	14,378
Number of shareholders (6)	**55,968**	56,244	43,458	40,257	44,271

(1) Return on equity is defined as income from continuing operations divided by ending total equity.
(2) Dollars in thousands, based on average number of employees employed during the year.
(3) Based on average number of shares outstanding during the year.
(4) Based on average number of shares outstanding during the year and includes discontinued operations for 2014.
(5) Adjusted to exclude temporary employees for all periods.
(6) Includes an estimated count of shareholders having common shares held for their accounts by banks, brokers and trustees for benefit plans.

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

(Dollars in millions, except per share data)

OVERVIEW

Introduction:

The Timken Company designs and manages a growing portfolio of engineered bearings and power transmission products. With more than a century of innovation and increasing knowledge, we continuously improve the reliability and efficiency of global machinery and equipment to move the world forward. Timken posted $3.6 billion in sales in 2018 and employs more than 17,000 people globally, operating in 35 countries. The Company operates under two reportable segments: (1) Mobile Industries and (2) Process Industries. The following further describes these business segments:

- **Mobile Industries** serves OEM customers that manufacture off-highway equipment for the agricultural, mining and construction markets; on-highway vehicles including passenger cars, light trucks, and medium- and heavy-duty trucks; rail cars and locomotives; outdoor power equipment; rotorcraft and fixed-wing aircraft; and other mobile equipment. Beyond service parts sold to OEMs, aftermarket sales and services to individual end users, equipment owners, operators and maintenance shops are handled directly or through the Company's extensive network of authorized automotive and heavy-truck distributors.
- **Process Industries** serves OEM and end-user customers in industries that place heavy demands on the fixed operating equipment they make or use in heavy and other general industrial sectors. This includes metals, cement and aggregate production; coal power generation and renewable energy sources; oil and gas extraction and refining; pulp and paper and food processing; automation and robotics; and health and critical motion control equipment. Other applications include marine equipment, gear drives, cranes, hoists and conveyors. This segment also supports aftermarket sales and service needs through its global network of authorized industrial distributors and through the provision of services directly to end users.

Timken creates value by understanding customer needs and applying its know-how to serve a broad range of customers in attractive markets and industries across the globe. The Company’s business strengths include its product technology, end-market diversity, geographic reach and aftermarket mix. Timken collaborates with OEMs to improve equipment efficiency with its engineered products and captures subsequent equipment replacement cycles by selling largely through independent channels in the aftermarket. Timken focuses its international efforts and footprint in regions of the world where strong macroeconomic factors such as urbanization, infrastructure development and sustainability create demand for its products and services.

The Company's strategy has three primary elements:

Outgrowing Our Markets. The Company intends to expand into new and existing markets by leveraging its collective knowledge of metallurgy, friction management and mechanical power transmission to create value for Timken customers. Using a highly collaborative technical selling approach, the Company places particular emphasis on creating unique solutions for challenging and/or demanding applications. The Company intends to grow in attractive market sectors around the world, emphasizing those spaces that are highly fragmented, demand high service and value the reliability and efficiency offered by Timken products. The Company also targets those applications that offer significant aftermarket demand, thereby providing product and services revenue throughout the equipment’s lifetime.

Operating With Excellence. Timken operates with a relentless drive for exceptional results and a passion for superior execution. The Company embraces a continuous improvement culture that is charged with increasing efficiency, lowering costs, eliminating waste, encouraging organizational agility and building greater brand equity to fuel future growth. This requires the Company’s ongoing commitment to attract, retain and develop the best talent across the world.

Deploying Capital to Drive Shareholder Value. The Company is intently focused on providing the highest returns for shareholders through its capital allocation framework, which includes: (1) investing in the core business through capital expenditures, research and development and other organic growth initiatives; (2) pursuing strategic acquisitions to broaden its portfolio and capabilities across diverse markets, with a focus on bearings, adjacent power transmission products and related services; (3) returning capital to shareholders through dividends and share repurchases; and (4) maintaining a strong balance sheet and sufficient liquidity. As part of this framework, the Company may also restructure, reposition or divest underperforming product lines or assets.

The following items highlight certain of the Company's more significant strategic accomplishments in 2018:

- On August 30, 2018, the Company's majority-owned subsidiary, Timken India Limited ("Timken India"), completed the acquisition of ABC Bearings Limited ("ABC Bearings"), a manufacturer of tapered, cylindrical and spherical roller bearings and slewing rings in India with expected annual sales at the time of acquisition of approximately $30 million. The acquisition was funded primarily with Timken India stock.

- On September 1, 2018, the Company completed the acquisition of Apiary Investments Holdings Limited ("Cone Drive"), a leader in precision drives used in diverse markets including solar, automation, aerial platforms and food and beverage. Cone Drive, located in Traverse City, Michigan operates in the U.S. and China and had expected annual sales at the time of acquisition of approximately $100 million. The acquisition was funded primarily with new debt.

- On September 18, 2018, the Company completed the acquisition of Rollon S.p.A. ("Rollon"), a leader in engineered linear motion products, specializing in the design and manufacture of linear guides, telescopic rails and linear actuators used in a wide range of attractive applications such as passenger rail, aerospace, packaging and logistics, medical and automation. Rollon, located near Milan, Italy has manufacturing operations in Italy, Germany and the U.S and had expected annual sales at the time of acquisition of approximately $140 million. The acquisition was primarily funded with new debt.

- On September 19, 2018, the Company divested Groeneveld Information Technology Holding B.V. (the "ICT Business"), located in Gorinchem, Netherlands. The Company acquired the ICT business in July 2017 as part of the Groeneveld Group ("Groeneveld") acquisition. The ICT Business, a non-core telematics business, is separate from the Groeneveld lubrications solutions business and employed approximately 70 people. The ICT Business had sales of approximately $15 million for the twelve months ended September 30, 2018.

RESULTS OF OPERATIONS
2018 vs. 2017

Overview:

	2018	2017	$ Change	% Change
Net sales	**$ 3,580.8**	$ 3,003.8	$ 577.0	19.2%
Net income	**305.5**	202.3	103.2	51.0%
Net income (loss) attributable to noncontrolling interest	**2.7**	(1.1)	3.8	(345.5%)
Net income attributable to The Timken Company	**$ 302.8**	$ 203.4	$ 99.4	48.9%
Diluted earnings per share	**$ 3.86**	$ 2.58	$ 1.28	49.6%
Average number of diluted shares	**78,337,481**	78,911,149	—	(0.7%)

The increase in net sales was primarily due to organic revenue growth driven by higher end-market demand, the benefit of acquisitions and the impact of higher pricing. The increase in net income in 2018 compared with 2017 was primarily due to improved performance across the business, driven by the impact of higher volume, favorable price/mix, the net benefit of acquisitions and improved manufacturing performance, as well as lower net actuarial losses ("Mark-to-Market Charges") due to the remeasurement of pension and other postretirement assets and obligations, restructuring charges and interest expense. These factors were partially offset by the impact of higher selling, general and administrative ("SG&A") expenses, higher income tax expenses and higher material and logistics costs (including tariffs).

Outlook:

The Company expects 2019 full-year sales to increase approximately 8% to 10% compared with 2018 primarily due to increased demand across most end-market sectors and the benefit of acquisitions, including the recently completed ABC Bearings, Cone Drive and Rollon acquisitions, offset partially by unfavorable currency. The Company's earnings are expected to be higher in 2019 than 2018, primarily due to the impact of higher volume, favorable price/mix and the benefit of acquisitions, partially offset by higher material, logistics (including tariffs) and SG&A expenses, as well as higher income tax and interest expenses. Additionally, depreciation and amortization expense is expected to increase in 2019, primarily due to incremental depreciation and amortization from acquisitions completed in 2018.

The Company expects to generate operating cash of approximately $450 million in 2019, an increase from 2018 of approximately $118 million, or 35%, as the Company anticipates higher net income and lower working capital requirements. The Company expects capital expenditures to be approximately $150 million in 2019, compared with $113 million in 2018.

THE STATEMENTS OF INCOME

Sales:

	2018	2017	$ Change	% Change
Net sales	**$ 3,580.8**	$ 3,003.8	$ 577.0	19.2%

Net sales increased in 2018 compared with 2017, primarily due to higher organic revenue of $396 million and the benefit of acquisitions of $177 million. The increase in organic revenue was driven by higher demand across all of the Company's end-market sectors, as well as the impact of higher pricing.

Gross Profit:

	2018	2017	$ Change	Change
Gross profit	**$ 1,040.1**	$ 812.1	$ 228.0	28.1%
Gross profit % to net sales	**29.0%**	27.0%	—	200 bps

Gross profit increased in 2018 compared with 2017, primarily due to the impact of higher volume of $133 million, favorable price/mix of $66 million, the benefit of acquisitions of $54 million, improved manufacturing performance of $12 million and lower restructuring costs of $6 million. These factors were partially offset by higher material and logistics costs of $44 million (including tariffs).

Selling, General and Administrative Expenses:

	2018	2017	$ Change	Change
Selling, general and administrative expenses	**$ 580.7**	$ 508.3	$ 72.4	14.2%
Selling, general and administrative expenses % to net sales	**16.2%**	16.9%	—	(70) bps

The increase in SG&A expenses in 2018 compared with 2017 was primarily due to the impact of acquisitions of $39 million, higher compensation expense and other spending increases to support the higher sales levels.

Interest Expense and Income:

	2018	2017	$ Change	% Change
Interest expense	**$ (51.7)**	$ (37.1)	$ (14.6)	39.4%
Interest income	**2.1**	2.9	(0.8)	(27.6%)

Interest expense increased in 2018 compared to 2017 primarily due to an increase in outstanding debt to fund the acquisitions of Groeneveld, Rollon and Cone Drive. Refer to *Note 9 - Financing Arrangements* in the Notes to the Consolidated Financial Statements for further discussion.

Other Income (Expense):

	2018	2017	$ Change	% Change
Non-service pension and other postretirement costs	**$ (6.2)**	$ (15.0)	$ 8.8	(58.7%)
Other income, net	**9.4**	9.6	(0.2)	(2.1%)

The decrease in non-service pension and other postretirement costs for 2018 compared with 2017 was primarily due to lower Mark-to-Market Charges of $8.8 million. The Mark-to-Market Charges resulted from the remeasurement of pension and postretirement plan obligations and assets due to changes in actuarial assumptions, partially offset by the benefit of curtailments for two of the U.S. pension plans. Refer to *Note 12 - Retirement Benefit Plans* in the Notes to the Consolidated Financial Statements for more information.

Income Tax Expense:

	2018	2017	$ Change	Change
Income tax expense	**$ 102.6**	$ 57.6	$ 45.0	78.1%
Effective tax rate	**25.1%**	22.2%	—	290 bps

The effective tax rate for 2018 was 25.1%, which was unfavorable to the U.S. federal statutory rate of 21% primarily due to earnings in certain foreign jurisdictions where the effective rate was higher than 21%, unfavorable U.S. permanent differences and U.S. state and local income tax expenses. These impacts were partially offset by reductions to the one-time net charge related to the taxation of unremitted foreign earnings and the remeasurement of U.S. deferred tax balances to reflect the new U.S. corporate income tax rate enacted under the Tax Cuts and Jobs Act of 2017 ("U.S. Tax Reform").

The effective tax rate for 2017 was 22.2%, which was favorable to the U.S. federal statutory rate of 35% primarily due to earnings in certain foreign jurisdictions where the effective tax rate was less than 35%, U.S. foreign tax credits realized on earnings distributed to the United States, and favorable U.S. permanent deductions and tax credits. The effective tax rate was also favorably impacted by the net reversal of accruals for prior year uncertain tax positions, a valuation allowance release and other discrete items.

These favorable impacts were partially offset by provisional amounts for the one-time net charge related to the taxation of unremitted foreign earnings and the remeasurement of U.S. deferred tax balances to reflect the new U.S. corporate income tax rate enacted under U.S. Tax Reform. U.S. Tax Reform included a number of changes to existing U.S. tax laws that impacted the Company, most notably a reduction of the U.S. corporate income tax rate from 35% to 21% for tax years beginning after December 31, 2017. U.S. Tax Reform also required companies to pay a one-time net charge related to the taxation of unremitted foreign earnings, created new taxes on certain foreign sourced earnings and allowed for immediate expensing of certain depreciable assets after September 27, 2017.

The change in the effective rate for 2018 compared with 2017 was an increase of 2.9%. The increase was primarily due to the net reversal of accruals for prior year uncertain tax positions in 2017. The effective tax rate also increased due to earnings in certain foreign jurisdictions where the effective rate was higher than 21%, unfavorable U.S. permanent differences and the release of valuations allowances in 2017. These impacts were partially offset by reductions to the one-time net charge related to the taxation of unremitted foreign earnings and the remeasurement of U.S. deferred tax balances to reflect the new U.S. corporate income tax rate.

Refer to *Note 16 - Income Taxes* in the Notes to the Consolidated Financial Statements for more information on the computation of the income tax expense in interim periods.

BUSINESS SEGMENTS

The Company's reportable segments are business units that serve different industry sectors. While the segments often operate using shared infrastructure, each reportable segment is managed to address specific customer needs in these diverse market sectors. The primary measurement used by management to measure the financial performance of each segment is EBIT. Refer to *Note 15 - Segment Information* in the Notes to the Consolidated Financial Statements for the reconciliation of EBIT by segment to consolidated income before income taxes.

The presentation of segment results below includes a reconciliation of the changes in net sales for each segment reported in accordance with U.S. GAAP to net sales adjusted to remove the effects of acquisitions completed in 2018 and 2017 and foreign currency exchange rate changes. The effects of acquisitions and foreign currency exchange rate changes on net sales are removed to allow investors and the Company to meaningfully evaluate the percentage change in net sales on a comparable basis from period to period.

The following items highlight the Company's acquisitions completed in 2018 and 2017 by segment based on the customers and underlying markets served:

- The Company acquired ABC Bearings, Cone Drive and Rollon during the third quarter of 2018. Substantially all of the results for ABC Bearings are reported in the Mobile Industries segment. Results for Cone Drive and Rollon are reported in the Mobile Industries and Process Industries segments based on customers and underlying market sectors served.
- The Company acquired Groeneveld during the third quarter of 2017. Substantially all of the results for Groeneveld are reported in the Mobile Industries segment.
- The Company acquired Torsion Control Products, Inc. ("Torsion Control Products") and PT Tech, Inc. ("PT Tech") during the second quarter of 2017. Substantially all of the results for Torsion Control Products are reported in the Mobile Industries segment. Results for PT Tech are reported in the Mobile Industries and Process Industries segments based on customers and underlying market sectors served.

Mobile Industries Segment:

	2018	2017	$ Change	Change
Net sales	**$ 1,903.7**	$ 1,640.0	$ 263.7	16.1%
EBIT	**$ 198.7**	$ 139.0	$ 59.7	42.9%
EBIT margin	**10.4%**	8.5%	—	190 bps

	2018	2017	$ Change	% Change
Net sales	**$ 1,903.7**	$ 1,640.0	$ 263.7	16.1%
Less: Acquisitions	**98.6**	—	98.6	NM
Currency	**(2.3)**	—	(2.3)	NM
Net sales, excluding the impact of acquisitions and currency	**$ 1,807.4**	$ 1,640.0	$ 167.4	10.2%

The Mobile Industries segment's net sales, excluding the effects of acquisitions and foreign currency exchange rate changes, increased in 2018 compared with 2017, reflecting organic growth across all market sectors, as well as higher pricing. EBIT increased in 2018 compared with 2017, primarily due to higher volume of $53 million, the benefit of acquisitions of $15 million, favorable price/mix of $11 million, lower restructuring charges of $9 million and improved manufacturing performance of $5 million. These factors were partially offset by higher material and logistics costs of $24 million (including tariffs) and higher SG&A expenses of $8 million.

Full-year sales for the Mobile Industries segment are expected to be up approximately 4% to 6% in 2019 compared with 2018. This reflects expected growth across most end-market sectors, led by rail, off-highway and aerospace, as well as the benefit of acquisitions, partially offset by the impact of foreign currency translation adjustments. EBIT for the Mobile Industries segment is expected to increase in 2019 compared with 2018 primarily due to the impact of higher volume, favorable price/mix, improved manufacturing performance, and the impact of acquisitions, partially offset by impact of foreign currency exchange rate changes, higher material, logistics (including tariffs) and SG&A expenses.

Process Industries Segment:

	2018	2017	$ Change	Change
Net sales	**$ 1,677.1**	$ 1,363.8	$ 313.3	23.0%
EBIT	**$ 333.8**	$ 222.3	$ 111.5	50.2%
EBIT margin	**19.9%**	16.3%	—	360 bps

	2018	2017	$ Change	% Change
Net sales	**$ 1,677.1**	$ 1,363.8	$ 313.3	23.0%
Less: Acquisitions	**78.7**	—	78.7	NM
Currency	**6.0**	—	6.0	NM
Net sales, excluding the impact of acquisitions and currency	**$ 1,592.4**	$ 1,363.8	$ 228.6	16.8%

The Process Industries segment's net sales, excluding the effects of acquisitions and foreign currency exchange rate changes, increased in 2018 compared with 2017 reflecting increased demand across all market sectors, as well as higher pricing. EBIT increased in 2018 compared with 2017 primarily due to the impact of higher volume of $84 million, favorable price/mix of $51 million, improved manufacturing performance of $6 million and the benefit of acquisitions of $12 million (excluding inventory step-up expense of $8 million). These factors were partially offset by higher material and logistics costs of $20 million (including tariffs) and higher SG&A expenses of $16 million.

Full-year sales for the Process Industries segment are expected to be up approximately 13% to 15% in 2019 compared with 2018. This reflects expected growth across most market sectors, as well as the benefit of acquisitions, partially offset by the impact of foreign currency translation adjustments. EBIT for the Process Industries segment is expected to increase in 2019 compared with 2018 primarily due to the impact of higher volume, favorable price/mix, and the impact of acquisitions, partially offset by higher operating costs.

Corporate:

	2018	2017	$ Change	Change
Corporate expenses	**$ 62.0**	$ 49.1	$ 12.9	26.3%
Corporate expenses % to net sales	**1.7%**	1.6%	—	10 bps

Corporate expense increased in 2018 compared with 2017 primarily due to the impact of acquisition-related costs of $10 million.

RESULTS OF OPERATIONS:
2017 vs. 2016

Overview:

	2017	2016	$ Change	% Change
Net sales	$ 3,003.8	$ 2,669.8	$ 334.0	12.5%
Net income	202.3	141.1	61.2	43.4%
Income attributable to noncontrolling interest	(1.1)	0.3	(1.4)	(466.7%)
Net income attributable to The Timken Company	$ 203.4	$ 140.8	$ 62.6	44.5%
Diluted earnings per share	$ 2.58	$ 1.78	$ 0.80	44.9%
Average number of diluted shares	78,911,149	79,234,324	—	(0.4%)

The increase in net sales was primarily due to higher end-market demand and the benefit of acquisitions. The increase in net income in 2017 compared with 2016 was primarily due to improved performance across the business, as well as lower Mark-to-Market Charges, restructuring charges, and income tax expense, partially offset by lower pre-tax U.S. Continued Dumping and Subsidy Offset Act ("CDSOA") income of $59.6 million. The improvement in business performance reflects higher volume, favorable manufacturing performance, the benefit of acquisitions and the favorable impact of foreign currency exchange rate changes, partially offset by unfavorable price/mix and higher material, logistics and SG&A expenses.

THE STATEMENTS OF INCOME

Sales:

	2017	2016	$ Change	% Change
Net sales	$ 3,003.8	$ 2,669.8	$ 334.0	12.5%

Net sales increased in 2017 compared with 2016 primarily due to higher organic revenue of $186 million, the benefit of acquisitions of $131 million and the favorable impact of foreign currency exchange rate changes of $17 million. The increase in organic revenue was driven by higher demand across most of the Company's market sectors led by the off-highway, industrial distribution and heavy truck sectors, partially offset by lower demand in the rail sector.

Gross Profit:

	2017	2016	$ Change	Change
Gross profit	$ 812.1	$ 706.3	$ 105.8	15.0%
Gross profit % to net sales	27.0%	26.5%	—	50 bps

Gross profit increased in 2017 compared with 2016 primarily due to the impact of higher volume of $74 million, the benefit of acquisitions of $52 million and favorable manufacturing performance of $49 million. These factors were partially offset by higher material and logistics costs of $34 million and unfavorable price/mix of $34 million.

Selling, General and Administrative Expenses:

	2017	2016	$ Change	Change
Selling, general and administrative expenses	$ 508.3	$ 440.2	$ 68.1	15.5%
Selling, general and administrative expenses % to net sales	16.9%	16.5%	—	40 bps

The increased in SG&A expenses in 2017 compared with 2016 was primarily due to the impact of acquisitions and higher incentive compensation expense.

Impairment and Restructuring Charges:

	2017	2016	$ Change
Impairment charges	$ 0.1	$ 3.9	$ (3.8)
Severance and related benefit costs	3.5	15.3	(11.8)
Exit costs	0.7	2.5	(1.8)
Total	$ 4.3	$ 21.7	$ (17.4)

Impairment and restructuring charges of $4.3 million in 2017 were primarily comprised of severance and related benefit costs associated with initiatives to reduce headcount and right-size the Company's manufacturing footprint, including the planned closure of its bearing plant in Pulaski, Tennessee ("Pulaski").

Impairment and restructuring charges of $21.7 million in 2016 were primarily comprised of severance and related benefit costs associated with initiatives to reduce headcount and right-size the Company's manufacturing footprint, including the planned closures of its bearing plants in Altavista, Virginia ("Altavista"), Pulaski and Benoni, South Africa ("Benoni"). In addition, the Company recognized impairment charges of $3.9 million during 2016 that were primarily associated with the planned closures of the Altavista and Benoni bearing plants.

Interest Expense and Income:

	2017	2016	$ Change	% Change
Interest expense	$ (37.1)	$ (33.5)	$ (3.6)	10.7%
Interest income	$ 2.9	$ 1.9	$ 1.0	52.6%

Interest expense increased in 2017 compared to 2016 primarily due to an increase in outstanding debt mostly associated with the Groeneveld acquisition. Refer to *Note 9 - Financing Arrangements* in the Notes to the Consolidated Financial Statements for further discussion.

Other Income (Expense):

	2017	2016	$ Change	% Change
CDSOA income, net	$ —	$ 59.6	$ (59.6)	NM
Non-service pension and other postretirement costs	(15.0)	(69.9)	54.9	(78.5%)
Other income (expense), net	$ 9.4	$ (0.9)	$ 10.3	NM

CDSOA income, net in 2016 represents income recorded in connection with funds distributed to the Company from monies collected by U.S. Customs and Border Protection ("U.S. Customs") from antidumping cases, net of related professional fees. Refer to *Note 20 - Continued Dumping and Subsidy Offset Act* in the Notes to the Consolidated Financial Statements for further discussion.

The decrease in non-service pension and other postretirement costs for 2017 compared to 2016 was primarily due to lower Mark-to-Market Charges of $47 million. The increase in other income (expense), net for 2017, compared to 2016 was primarily due to lower foreign currency exchange losses and gains recorded from the sale of the Company's former manufacturing facilities in Benoni and Altavista during 2017.

Income Tax Expense:

	2017	2016	$ Change	Change
Income tax expense	$ 57.6	$ 60.5	$ (2.9)	(4.8%)
Effective tax rate	22.2%	30.0%	—	(780) bps

The effective tax rate for 2017 was 22.2%, which was favorable to the U.S. federal statutory rate of 35% due to earnings in certain foreign jurisdictions where the effective rate is less than 35%, U.S. foreign tax credits realized on earnings distributed to the United States, and favorable U.S. permanent deductions and tax credits. The effective tax rate was further impacted favorably by the net reversal of accruals for prior year uncertain tax positions, a valuation allowance release, and other discrete items.

These favorable impacts were partially offset by provisional amounts for the one-time net charge related to the taxation of unremitted foreign earnings and the remeasurement of U.S. deferred tax balances to reflect the new U.S. corporate income tax rate enacted under the U.S. Tax Reform. U.S. Tax Reform includes a number of changes to existing U.S. tax laws that impact the Company, most notably a reduction of the U.S. corporate income tax rate from 35% to 21% for tax years beginning after December 31, 2017. U.S. Tax Reform also requires companies to pay a one-time net charge related to the taxation of unremitted foreign earnings, creates new taxes on certain foreign sourced earnings and allows for immediate expensing of certain depreciable assets after September 27, 2017.

The effective tax rate for 2016 was favorable relative to the U.S. federal statutory rate primarily due to U.S. foreign tax credits, earnings in certain foreign jurisdictions where the effective tax rate is less than 35%, the U.S. manufacturing deduction, and certain discrete tax benefits (net). These favorable impacts were partially offset by U.S. taxation of foreign income and losses at certain foreign subsidiaries where no tax benefit could be recorded.

The change in the effective rate for 2017 compared with 2016 was primarily due to favorable discrete tax items. Refer to the table below for additional detail of the impact of each item on income tax expense.

	2016 to 2017 $ Change
Impact of global earnings at the U.S. statutory rate of 35%	$ 20.4
Foreign taxation impact	(10.3)
U.S. taxation [1]	(9.5)
U.S. Tax Reform	35.3
Net reversal of accruals for uncertain tax positions [2]	(26.3)
Other discrete items, net	(12.5)
Total	$ (2.9)

[1] U.S. taxation includes the impact of foreign tax credits, U.S. manufacturing deductions, the U.S. research and experimentation credit, U.S. state and local taxation, U.S. taxation of foreign earnings and other U.S. items.

[2] Net reversal of accruals for uncertain tax positions were primarily driven by expiration of applicable statutes of limitations.

BUSINESS SEGMENTS

The primary measurement used by management to measure the financial performance of each segment is EBIT. Refer to *Note 15 - Segment Information* in the Notes to the Consolidated Financial Statements for the reconciliation of EBIT by segment to consolidated income before income taxes.

The presentation of segment results below includes a reconciliation of the changes in net sales for each segment reported in accordance with U.S. GAAP to net sales adjusted to remove the effects of acquisitions completed in 2017 and 2016 and foreign currency exchange rate changes. The effects of acquisitions and foreign currency exchange rate changes on net sales are removed to allow investors and the Company to meaningfully evaluate the percentage change in net sales on a comparable basis from period to period.

The following items highlight the Company's acquisitions and divestitures completed in 2017 and 2016:

- The Company acquired Groeneveld during the third quarter of 2017. Substantially all of the results for Groeneveld are reported in the Mobile Industries segment.
- The Company acquired Torsion Control Products and PT Tech during the second quarter of 2017. Results for PT Tech are reported in the Mobile Industries and Process Industries segments based on customers and underlying market sectors served.
- The Company acquired EDT Corp. ("EDT") during the fourth quarter of 2016. Substantially all of the results for EDT are reported in the Process Industries segment.
- The Company acquired Lovejoy, Inc. ("Lovejoy") during the third quarter of 2016. Substantially all of the results for Lovejoy are reported in the Process Industries segment.

Mobile Industries Segment:

	2017	2016	$ Change	Change
Net sales	$ 1,640.0	$ 1,446.4	$ 193.6	13.4%
EBIT	$ 139.0	$ 116.8	$ 22.2	19.0%
EBIT margin	8.5%	8.1%	—	40 bps

	2017	2016	$ Change	% Change
Net sales	$ 1,640.0	$ 1,446.4	$ 193.6	13.4%
Less: Acquisitions	96.9	—	96.9	NM
Currency	9.7	—	9.7	NM
Net sales, excluding the impact of acquisitions and currency	$ 1,533.4	$ 1,446.4	$ 87.0	6.0%

The Mobile Industries segment's net sales, excluding the effects of acquisitions and foreign currency exchange rate changes, increased in 2017 compared with 2016, reflecting organic growth in the off-highway and heavy truck market sectors, partially offset by decreased demand in the rail sector. EBIT increased in 2017 compared with 2016 primarily due to higher volume of $32 million, favorable manufacturing performance of $18 million, the benefit of acquisitions of $16 million, lower restructuring charges of $9 million and the impact of foreign currency exchange rate changes of $6 million. These factors were offset partially by higher material and logistics costs of $26 million, increased SG&A expense of $19 million and unfavorable price/mix of $16 million. The higher SG&A expense was primarily due to higher incentive compensation expense.

Process Industries Segment:

	2017	2016	$ Change	Change
Net sales	$ 1,363.8	$ 1,223.4	$ 140.4	11.5%
EBIT	$ 222.3	$ 168.2	$ 54.1	32.2%
EBIT margin	16.3%	13.7%	—	260 bps

	2017	2016	$ Change	% Change
Net sales	$ 1,363.8	$ 1,223.4	$ 140.4	11.5%
Less: Acquisitions	33.9	—	33.9	NM
Currency	7.4	—	7.4	NM
Net sales, excluding the impact of acquisitions and currency	$ 1,322.5	$ 1,223.4	$ 99.1	8.1%

The Process Industries segment's net sales, excluding the effects of acquisitions and foreign currency exchange rate changes, increased $99.1 million, or 8.1%, in 2017 compared with 2016. The increase was primarily driven by organic growth in the industrial distribution, general industrial OE and military marine sectors. EBIT increased in 2017 compared with 2016 primarily due to the impact of higher volume of $49 million, favorable manufacturing performance of $29 million, lower restructuring charges of $7 million and the benefit of acquisitions. These factors were partially offset by unfavorable price/mix of $26 million, higher material and logistics costs of $8 million and higher SG&A expense of $7 million. The higher SG&A expense was due to higher incentive compensation expense.

Corporate:

	2017	2016	$ Change	Change
Corporate expenses	$ 49.1	$ 44.4	$ 4.7	10.6%
Corporate expenses % to net sales	2.3%	1.6%	—	70 bps

THE BALANCE SHEETS

The following discussion is a comparison of the Consolidated Balance Sheets at December 31, 2018 and 2017.

Current Assets:

	December 31,			
	2018	2017	$ Change	% Change
Cash and cash equivalents	**$ 132.5**	$ 121.6	$ 10.9	9.0%
Restricted cash	**0.6**	3.8	(3.2)	(84.2%)
Accounts receivable, net	**546.6**	524.9	21.7	4.1%
Unbilled receivables	**116.6**	—	116.6	NM
Inventories, net	**835.7**	738.9	96.8	13.1%
Deferred charges and prepaid expenses	**28.2**	29.7	(1.5)	(5.1%)
Other current assets	**77.0**	81.2	(4.2)	(5.2%)
Total current assets	**$ 1,737.2**	$ 1,500.1	$ 237.1	15.8%

Refer to the *"Cash Flows"* section for discussion on the change in Cash and cash equivalents. Accounts receivable increased primarily due to higher sales in December 2018 compared to December 2017, an increase in average days outstanding, which includes the impact of acquisitions in 2018, partially offset by the reclassification of revenue recognized in excess of billings to Unbilled receivables under the Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("new revenue standard") and the impact of foreign currency exchange rate changes of $19.3 million.

Unbilled receivables is now presented on the Consolidated Balance Sheet due to the adoption of the new revenue standard, including revenue recognized in excess of billings. Prior to the adoption of the new revenue standard, the Company recognized a portion of its revenues on the percentage-of-completion method. As of December 31, 2017, revenue recognized in excess of billings of $67.3 million related to these revenues was included in "Accounts receivable, less allowances" on the Consolidated Balance Sheet. In accordance with the new revenue standard, $72.7 million of revenue recognized in excess of billings related to these revenues are included in "Unbilled receivables" on the Consolidated Balance Sheet at December 31, 2018. In addition, as part of the adoption of the new revenue standard, the Company identified other customer arrangements in which there is continuous transfer of control to the customer, resulting in an additional $43.9 million of unbilled receivables as of December 31, 2018. Refer to *Note 1 - Significant Accounting Policies* in the Notes to the Consolidated Financial Statements for additional information.

Inventories increased due to the impact of higher production to meet anticipated customer demand and $61.6 million from the businesses acquired during 2018, partially offset by the impact of foreign currency exchange rate changes of $30.4 million.

Property, Plant and Equipment, Net:

	December 31,			
	2018	2017	$ Change	% Change
Property, plant and equipment	**$ 2,486.5**	$ 2,405.6	$ 80.9	3.4%
Less: accumulated depreciation	**(1,574.4)**	(1,541.4)	(33.0)	(2.1%)
Property, plant and equipment, net	**$ 912.1**	$ 864.2	$ 47.9	5.5%

The increase in property, plant and equipment, net in 2018 was primarily due to capital expenditures of $106.7 million and $71.7 million from businesses acquired in 2018, partially offset by depreciation of $99.3 million and the net impact of foreign currency exchange rate changes of $29.5 million in 2018.

Other Assets:

	December 31,			
	2018	2017	$ Change	% Change
Goodwill	**$ 960.5**	$ 511.8	$ 448.7	87.7%
Other intangible assets	**733.2**	420.6	312.6	74.3%
Non-current pension assets	**6.2**	19.7	(13.5)	(68.5%)
Deferred income taxes	**59.0**	61.0	(2.0)	(3.3%)
Other non-current assets	**37.0**	25.0	12.0	48.0%
Total other assets	**$ 1,795.9**	$ 1,038.1	$ 757.8	73.0%

The increase in goodwill in 2018 was primarily due to acquisitions in 2018. The increase in other intangible assets was primarily due to acquisitions of $372.6 million in 2018, partially offset by amortization of $46.8 million and the impact of foreign currency exchange rate changes of $10.6 million in 2018. The decrease in non-current pension assets was primarily due to a decrease in the Company's United Kingdom defined benefit pension plan discount rates and by a change in funded status of two of the Company's U.S. defined benefit pension plans from overfunded to underfunded. The increase in other non-current assets is primarily due to the acquisitions in 2018.

Current Liabilities:

	December 31,			
	2018	2017	$ Change	% Change
Short-term debt	**$ 33.6**	$ 105.4	$ (71.8)	(68.1%)
Current portion of long-term debt	**9.4**	2.7	6.7	248.1%
Accounts payable	**273.2**	265.2	8.0	3.0%
Salaries, wages and benefits	**174.9**	127.9	47.0	36.7%
Income taxes payable	**23.5**	9.8	13.7	139.8%
Other current liabilities	**171.0**	160.7	10.3	6.4%
Total current liabilities	**$ 685.6**	$ 671.7	$ 13.9	2.1%

The decrease in short-term debt was primarily due to the reclassification of borrowings under the Company's Asset Securitization Agreement (the "Accounts Receivable Facility") from short-term debt to long-term debt due to the renewal of the Accounts Receivable Facility for a period of three years (until November 30, 2021) in the third quarter of 2018 and lower borrowings under foreign lines of credit. The increase in accrued salaries, wages and benefits was primarily due to the reclassification of $22.5 million from non-current pension liabilities to current pension liabilities, most of which relates to the expected 2019 payout of deferred compensation to a former executive officer of the Company, as well as higher accruals for incentive compensation and the impact of acquisitions in 2018.

Non-Current Liabilities:

	December 31,			
	2018	2017	$ Change	% Change
Long-term debt	**$ 1,638.6**	$ 854.2	$ 784.4	91.8%
Accrued pension cost	**161.3**	167.3	(6.0)	(3.6%)
Accrued postretirement benefits cost	**108.7**	122.6	(13.9)	(11.3%)
Deferred income taxes	**138.0**	44.0	94.0	213.6%
Other non-current liabilities	**70.3**	67.7	2.6	3.8%
Total non-current liabilities	**$ 2,116.9**	$ 1,255.8	$ 861.1	68.6%

The increase in long-term debt was primarily due to the issuance of $400 million aggregate principal amount of senior notes due 2028 ("2028 Notes") and $350 million of borrowings under the variable-rate term loan due in 2023 ("2023 Term Loan") used to finance the Rollon and Cone Drive acquisitions, as well as the reclassification of borrowings under the Company's Accounts Receivable Facility from short-term debt to long-term debt due to the renewal of this facility for a period of three years (until November 30, 2021).

The decrease in accrued pension costs was primarily due the reclassification of $22.5 million from non-current pension liabilities to current pension liabilities, most of which relates to the expected 2019 payout of deferred compensation to a former executive officer of the Company, partially offset by a change in funded status of two of the Company's U.S. defined benefit pension plans from overfunded to underfunded.

The decrease in accrued postretirement benefit costs was primarily due to an increase in the discount rate used to measure the Company's postretirement benefit plan obligation and the results of an opt out program offered to current retirees, partially offset by lower than expected asset returns and postretirement accrual additions through acquisitions in 2018. The increase in deferred income taxes was primarily due to recording of deferred tax liabilities for non-deductible intangible assets from acquisitions in 2018.

Shareholders' Equity:

	December 31,			
	2018	2017	$ Change	% Change
Common stock	**$ 1,005.0**	$ 956.9	$ 48.1	5.0%
Earnings invested in the business	**1,630.2**	1,408.4	221.8	15.7%
Accumulated other comprehensive loss	**(95.3)**	(38.3)	(57.0)	148.8%
Treasury shares	**(960.3)**	(884.3)	(76.0)	(8.6%)
Noncontrolling interest	**63.1**	32.2	30.9	96.0%
Total equity	**$ 1,642.7**	$ 1,474.9	$ 167.8	11.4%

Earnings invested in the business in 2018 increased primarily by net income attributable to the Company of $302.8 million, partially offset by dividends declared of $85.7 million. The increase in accumulated other comprehensive loss was primarily due to foreign currency adjustments of $60.5 million. See *"Other Disclosures - Foreign Currency*" for further discussion regarding the impact of foreign currency translation.

The increase in treasury shares was primarily due to the Company's purchase of 2.3 million of its common shares for $98.5 million, partially offset by $22.4 million of net shares issued for stock compensation plans for 2018. The increase in noncontrolling interest was primarily due to the shares of Timken India used for the acquisition of ABC Bearings.

CASH FLOWS

	2018	2017	$ Change
Net cash provided by operating activities	**$ 332.5**	$ 236.8	$ 95.7
Net cash used in investing activities	**(865.2)**	(448.7)	(416.5)
Net cash provided by financing activities	**553.1**	168.2	384.9
Effect of exchange rate changes on cash	**(12.7)**	17.6	(30.3)
Increase (decrease) in cash and cash equivalents	**$ 7.7**	$ (26.1)	$ 33.8

Operating Activities:

The increase in net cash provided by operating activities in 2018 compared with 2017 was primarily due to higher net income of $103.2 million and the favorable impact of income taxes on cash of $17.1 million and other balance sheet line items, partially offset by an increase in cash used for working capital items of $95.9 million. Refer to the table below for additional detail of the impact of each line on net cash provided by operating activities.

The following chart displays the impact of working capital items on cash during 2018 and 2017, respectively:

	2018	2017	$ Change
Cash (Used) provided:			
Accounts receivable	**$ (66.4)**	$ (42.3)	$ (24.1)
Unbilled receivables	**(21.8)**	—	(21.8)
Inventories	**(87.1)**	(132.1)	45.0
Trade accounts payable	**(20.2)**	70.7	(90.9)
Other accrued expenses	**32.2**	36.3	(4.1)
Cash used in working capital items	**$ (163.3)**	$ (67.4)	$ (95.9)

The following table displays the impact of income taxes on cash during 2018 and 2017, respectively:

	2018	2017	$ Change
Accrued income tax expense	**$ 102.6**	$ 57.6	$ 45.0
Income tax payments	**(121.3)**	(89.9)	(31.4)
Other miscellaneous	**(0.8)**	(4.3)	3.5
Change in income taxes	**$ (19.5)**	$ (36.6)	$ 17.1

Investing Activities:

The increase in net cash used in investing activities in 2018 compared with 2017 was primarily due to a $418.6 million increase in cash used for acquisitions and $7.9 million increase in cash used in capital expenditures when compared to the prior year, partially offset by $14.0 million in cash proceeds from the divestiture of the ICT Business.

Financing Activities:

The increase in net cash provided by financing activities in 2018 compared with 2017 was primarily due to an increase in net borrowings of $455.5 million needed to fund the Cone Drive and Rollon acquisitions in 2018, partially offset by an increase in cash used for share repurchases of $55.1 million and a reduction in proceeds from stock option activity of $20.1 million during 2018 compared with 2017.

LIQUIDITY AND CAPITAL RESOURCES

Reconciliation of total debt to net debt and the ratio of net debt to capital:

Net Debt:

	December 31,	
	2018	2017
Short-term debt	**$ 33.6**	$ 105.4
Current portion of long-term debt	**9.4**	2.7
Long-term debt	**1,638.6**	854.2
Total debt	**$ 1,681.6**	$ 962.3
Less: Cash and cash equivalents	**132.5**	121.6
Restricted cash	**0.6**	3.8
Net debt	**$ 1,548.5**	$ 836.9

Ratio of Net Debt to Capital:

	December 31,	
	2018	2017
Net debt	**$ 1,548.5**	$ 836.9
Total equity	**1,642.7**	1,474.9
Capital (net debt + total equity)	**$ 3,191.2**	$ 2,311.8
Ratio of net debt to capital	**48.5%**	36.2%

The Company presents net debt because it believes net debt is more representative of the Company's financial position than total debt due to the amount of cash and cash equivalents held by the Company.

At December 31, 2018, $130.0 million of the Company's $132.5 million of cash and cash equivalents resided in jurisdictions outside the U.S. It is the Company's practice to use available cash in the U.S. to pay down its Amended and Restated Credit Agreement ("Senior Credit Facility") or Accounts Receivable Facility in order to minimize total interest expense. Repatriation of non-U.S. cash could be subject to taxes and some portion may be subject to governmental restrictions. Part of the Company's strategy is to grow in attractive market sectors, many of which are outside the U.S. This strategy includes making investments in facilities, equipment and potential new acquisitions. The Company plans to fund these investments, as well as meet working capital requirements, with cash and cash equivalents and unused lines of credit within the geographic location of these investments where feasible.

The Company expects that any cash requirements in excess of cash on hand and cash generated from operating activities will be met by the committed funds available under its Accounts Receivable Facility and Senior Credit Facility. Management believes it has sufficient liquidity to meet its obligations through the term of the Senior Credit Facility and expects to renew the Senior Credit Facility prior to its maturity in June 2020.

On September 28, 2018, the Company renewed its $100 million Accounts Receivable Facility, which now matures on November 30, 2021. The Accounts Receivable Facility is subject to certain borrowing base limitations and is secured by certain domestic accounts receivable of the Company. Borrowings under the Accounts Receivable Facility were not reduced by any such borrowing base limitations at December 31, 2018. As of December 31, 2018, the Company had $75.0 million in outstanding borrowings, which reduced the availability under the facility to $25.0 million. The interest rate on the Accounts Receivable Facility is variable and was 3.22% as of December 31, 2018, which reflects the prevailing commercial paper rate plus facility fees.

The Company has a $500.0 million Senior Credit Facility that matures on June 19, 2020. At December 31, 2018, the Senior Credit Facility had outstanding borrowings of $43.9 million, which reduced the availability to $456.1 million. The Senior Credit Facility has two financial covenants: a consolidated leverage ratio and a consolidated interest coverage ratio. The maximum consolidated leverage ratio permitted under the Senior Credit Facility is 3.5 to 1.0 (3.75 to 1.0 for a limited period up to four quarters following an acquisition with a purchase price of $200 million or greater). As of December 31, 2018, the Company's consolidated leverage ratio was 2.45 to 1.0. The minimum consolidated interest coverage ratio permitted under the Senior Credit Facility is 3.5 to 1.0. As of December 31, 2018, the Company's consolidated interest coverage ratio was 13.74 to 1.0.

The interest rate under the Senior Credit Facility is variable with a spread based on the Company's debt rating. The average rate on outstanding U.S. Dollar borrowings was 3.40% and the average rate on outstanding Euro borrowings was 1.10% as of December 31, 2018. In addition, the Company pays a facility fee based on the consolidated leverage ratio multiplied by the aggregate commitments of all of the lenders under the Senior Credit Facility.

Other sources of liquidity include short-term lines of credit for certain of the Company's foreign subsidiaries, which provide for borrowings up to approximately $273.4 million. Most of these credit lines are uncommitted. At December 31, 2018, the Company had borrowings outstanding of $33.6 million and bank guarantees of $0.4 million, which reduced the aggregate availability under these facilities to $239.4 million.

On September 6, 2018, the Company issued the 2028 Notes in the aggregate principal amount of $400 million. On September 11, 2018, the Company entered into the 2023 Term Loan and borrowed $350 million. Proceeds from the 2028 Notes and the 2023 Term Loan were used to fund the acquisitions of Cone Drive and Rollon, which closed on September 1, 2018 and September 18, 2018, respectively. Refer to *Note 9 - Financing Arrangements* to the Notes to the Consolidated Financial Statements for additional information.

On September 7, 2017, the Company issued senior unsecured notes that mature on September 7, 2027 (the "2027 Notes") in the aggregate principal amount of €150 million. On September 18, 2017, the Company entered into a variable-rate €100 million term loan that matures on September 18, 2020 (the "2020 Term Loan"). On June 14, 2018, the Company repaid approximately €6.5 million under the 2020 Term Loan, reducing the principal balance to €93.5 million as of December 31, 2018. Proceeds from the 2027 Notes and the 2020 Term Loan were used to repay amounts drawn from the Senior Credit Facility to fund the acquisition of Groeneveld, which closed on July 3, 2017.

All of these debt instruments, except the 2028 Notes, have two financial covenants: a consolidated leverage ratio and a consolidated interest coverage ratio. These covenants are similar to those in the Senior Credit Facility. At December 31, 2018, the Company was in full compliance with both of these covenants. The 2028 Notes have no specific financial covenants.

The Company expects to generate operating cash of approximately $450 million in 2019, an increase from 2018 of approximately $118 million or 35%, as the Company anticipates higher net income and lower working capital requirements. The Company expects capital expenditures to be approximately $150 million in 2019, compared with $113 million in 2018.

CONTRACTUAL OBLIGATIONS

The Company’s contractual debt obligations and contractual commitments outstanding as of December 31, 2018 were as follows:

Payments due by period:

Contractual Obligations	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Interest payments	$ **443.2**	$ **63.8**	$ **122.8**	$ **111.5**	$ **145.1**
Long-term debt, including current portion	**1,648.0**	**9.4**	**230.2**	**338.9**	**1,069.5**
Short-term debt	**33.6**	**33.6**	**—**	**—**	**—**
Purchase commitments	**40.3**	**34.5**	**4.1**	**1.7**	**—**
Operating leases	**114.8**	**36.1**	**44.0**	**17.2**	**17.5**
Retirement benefits	**242.7**	**39.9**	**38.1**	**27.1**	**137.6**
Total	$ **2,522.6**	$ **217.3**	$ **439.2**	$ **496.4**	$ **1,369.7**

The interest payments beyond five years primarily relate to long-term fixed-rate notes. Refer to *Note 9 - Financing Arrangements* in the Notes to the Consolidated Financial Statements for additional information.

Purchase commitments are defined as an agreement to purchase goods or services that are enforceable and legally binding on the Company. Included in purchase commitments above are certain obligations related to take-or-pay contracts, capital commitments, service agreements and utilities. Many of these commitments relate to take-or-pay contracts in which the Company guarantees payment to ensure availability of products or services. These purchase commitments do not represent the entire anticipated purchases in the future, but represent only those items that the Company contractually is obligated to purchase. The majority of the products and services purchased by the Company are purchased as needed, with no commitment.

In order to maintain minimum funding requirements, the Company is required to make contributions to the trusts established for its defined benefit pension plans and other postretirement benefit plans. The table above shows the expected future minimum cash contributions to the trusts for the funded plans as well as estimated future benefit payments to participants for the unfunded plans. Those minimum funding requirements and estimated benefit payments can vary significantly. The amounts in the table above are based on actuarial estimates using current assumptions for, among other things, discount rates, expected return on assets and health care cost trend rates. Refer to *Note 12 - Retirement Benefit Plans* and *Note 13 - Other Postretirement Benefit Plans* in the Notes to the Consolidated Financial Statements for additional information.

During 2018, the Company made cash contributions of approximately $11.3 million to its global defined benefit pension plans and $7.4 million to its other postretirement benefit plans. The Company currently expects to make contributions to its global defined benefit pension plans totaling approximately $34 million in 2019, most of which relates to the expected 2019 payout of deferred compensation to a former executive officer of the Company. The Company also expects to make payments of approximately $5 million to its other postretirement benefit plans in 2019. Excluding Mark-to-Market Charges, the Company expects slightly lower pension expense in 2019. Mark-to-Market Charges are not accounted for in the 2019 outlook because the amount will not be known until the fourth quarter of 2019, or on an interim basis if specific events trigger a remeasurement. Refer to *Note 12 - Retirement Benefit Plans* and *Note 13 - Other Postretirement Benefit Plans* in the Notes to the Consolidated Financial Statements for additional information.

Refer to *Note 10 - Contingencies* and *Note 16 - Income Taxes* in the Notes to the Consolidated Financial Statements for additional information regarding the Company's exposure for certain legal and tax matters.

The Company does not have any off-balance sheet arrangements with unconsolidated entities or other persons.

New Accounting Guidance Issued and Not Yet Adopted

Information required for this Item is incorporated by reference to *Note 1 - Significant Accounting Policies* in the Notes to the Consolidated Financial Statements.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The Company’s financial statements are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the periods presented. The following paragraphs include a discussion of some critical areas that require a higher degree of judgment, estimates and complexity.

Revenue recognition:
A contract exists when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable.

Revenue is recognized when performance obligations under the terms of a contract with a customer of the Company are satisfied. Refer to *Note 1 - Significant Accounting Policies* in the Notes to the Consolidated Financial Statements for further discussion around the Company's revenue policy.

Unbilled Receivables:
"Unbilled receivables" on the Consolidated Balance Sheet primarily include unbilled amounts typically resulting from sales under long-term contracts when the following conditions exist; (i) cost-to-cost method of revenue recognition is utilized; (ii) the revenue recognized exceeds the amount billed to the customer; and (iii) the right to payment is primarily subject only to the passage of time. The amounts recorded for unbilled amounts do not exceed their net realizable value. Refer to *Note 1 - Significant Accounting Policies* in the Notes to the Consolidated Financial Statements for further discussion around the Company's policy relating to "Unbilled receivables".

Inventory:
Inventories are valued at the lower of cost or market, with approximately 56% valued by the first-in, first-out ("FIFO") method and the remaining 44% valued by the last-in, first-out ("LIFO") method. The majority of the Company’s domestic inventories are valued by the LIFO method, while all of the Company’s international inventories are valued by the FIFO method. An actual valuation of the inventory under the LIFO method can be made only at the end of each year based on the inventory levels and costs at that time. Accordingly, interim LIFO calculations are based on management’s estimates of expected year-end inventory levels and costs. Because these are subject to many factors beyond management’s control, annual results may differ from interim results as they are subject to the final year-end LIFO inventory valuation. The Company recognized a decrease in its LIFO reserve of $6.2 million during 2018 compared to an increase in its LIFO reserve of $4.7 million during 2017.

Goodwill and Indefinite-lived Intangible Assets:
The Company tests goodwill and indefinite-lived intangible assets for impairment at least annually, performing its annual impairment test as of October 1st. Furthermore, goodwill and indefinite-lived intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Each interim period, the Company assesses whether or not an indicator of impairment is present that would necessitate a goodwill and indefinite-lived intangible assets impairment analysis be performed in an interim period other than during the fourth quarter.

The Company reviews goodwill for impairment at the reporting unit level. The Mobile Industries segment has four reporting units and the Process Industries segment has two reporting units. The reporting units within the Mobile Industries segment are Mobile Industries, Lubrication Systems, Aerospace Drive Systems (formerly Aerospace Transmissions) and Aerospace Bearing Inspection (formerly Aerospace Aftermarket). The reporting units within the Process Industries segment are Process Industries and Industrial Services. The Lubrication Systems reporting unit was established as a result of the Groeneveld acquisition.

Accounting guidance permits an entity to first assess qualitative factors to determine whether additional goodwill impairment testing is required. The Company chose to utilize this qualitative assessment in the annual goodwill impairment testing of the Mobile Industries, Aerospace Bearing Inspection, Process Industries, Industrial Services and Lubrication Systems reporting units in the fourth quarter of 2018. Based on this qualitative assessment, the Company concluded that it was more likely than not that the fair values of these reporting units were exceeding their respective carrying values.

The Company chose to perform a quantitative goodwill impairment analysis in the annual goodwill impairment testing of the Aerospace Drive Systems reporting unit with a goodwill balance of $1.8 million. The quantitative goodwill impairment analysis compares the carrying amount of the reporting unit to its estimated fair value. To the extent that the carrying value of the reporting unit exceeds its estimated fair value, impairment exists and must be recognized.

The Company prepares its quantitative goodwill impairment analysis by comparing the estimated fair value of each reporting unit, using an income approach (a discounted cash flow model), with its carrying value. The income approach requires several assumptions including future sales growth, EBIT margins and capital expenditures. The Company's Aerospace Drive Systems reporting unit provided their forecast of results for the next four years. These forecasts are the basis for the information used in the discounted cash flow model. The discounted cash flow model also requires the use of a discount rate and a terminal revenue growth rate (the revenue growth rate for the period beyond the four years forecast by the reporting units), as well as projections of future operating margins (for the period beyond the forecast four years). During the fourth quarter of 2018, the Company used a discount rate for the Aerospace Drive Systems reporting unit of 13.0% and a terminal revenue growth rate of 2.0%. The quantitative analysis using these assumptions supported the Company's conclusion that the fair value of this reporting unit exceeded its carrying value.

As of December 31, 2018, the Company had $960.5 million of goodwill on its Consolidated Balance Sheet, of which $349.7 million was attributable to the Mobile Industries segment and $610.8 million was attributable to the Process Industries segment. See *Note 8 - Goodwill and Other Intangible Assets* in the Notes to the Consolidated Financial Statements for the carrying amount of goodwill by segment. Material goodwill does not exist at reporting units that are at risk of failing the quantitative goodwill impairment analysis.

Restructuring costs:
The Company's policy is to recognize restructuring costs in accordance with Accounting Standards Codification ("ASC") Topic 420, "Exit or Disposal Cost Obligations," and ASC Topic 712, "Compensation and Non-retirement Post-Employment Benefits." Detailed contemporaneous documentation is maintained and updated to ensure that accruals are properly supported. If management determines that there is a change in estimate, the accruals are adjusted to reflect this change.

Income taxes:
Significant management judgment is required in determining the provision for income taxes, deferred tax assets and liabilities, valuation allowances against deferred tax assets, and accruals for uncertain tax positions.

The Company, which is subject to income taxes in the United States and numerous non-U.S. jurisdictions, accounts for income taxes in accordance with ASC Topic 740, "Income Taxes." Deferred tax assets and liabilities are recorded for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as net operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. Deferred tax assets relate primarily to pension and postretirement benefit obligations in the United States, which the Company believes are more likely than not to result in future tax benefits. The Company records valuation allowances against deferred tax assets by tax jurisdiction when it is more likely than not that such assets will not be realized. In determining the need for a valuation allowance, the historical and projected financial performance of the entity recording the net deferred tax asset is considered along with any other pertinent information. There were no valuation allowance reversals in 2018 and 2016. The Company recorded $12.6 million of tax benefit related to the reversal of valuation allowances in 2017. Refer to *Note 16 - Income Taxes* in the Notes to the Consolidated Financial Statements for further discussion on the valuation allowance reversals.

In the ordinary course of the Company's business, there are many transactions and calculations where the ultimate income tax determination is uncertain. The Company is regularly under audit by tax authorities. Accruals for uncertain tax positions are provided for in accordance with the requirements of ASC Topic 740. The Company records interest and penalties related to uncertain tax positions as a component of income tax expense. In 2018, the Company recorded $3.2 million of net tax benefits for uncertain tax positions which consisted of $6.6 million related to the net reversal of accruals for prior year uncertain tax positions and settlements with tax authorities. This benefit was partially offset by $3.4 million of increases to current and prior year uncertain tax positions. The Company also recorded $14.8 million of uncertain tax positions related to prior years for acquisitions made during 2018.

The SEC issued Staff Accounting Bulletin No. 118 ("SAB 118") in December 2017 to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of U.S. Tax Reform. In accordance with SAB 118, the accounting for the tax effects of U.S. Tax Reform is complete as of December 31, 2018. Refer to *Note 16 - Income Taxes* in the Notes to the Consolidated Financial Statements for further discussion on the uncertain tax positions reserve reversals.

Purchase accounting and business combinations:
Assets acquired and liabilities assumed as part of a business combination are recognized at their acquisition date fair values. Refer to *Note 1 - Significant Accounting Policies* for further discussion regarding the fair value process and *Note 2 - Acquisitions and Divestitures* for further discussion regarding assumptions and estimates.

Benefit Plans:
The Company sponsors a number of defined benefit pension plans that cover eligible associates. The Company also sponsors several funded and unfunded postretirement plans that provide health care and life insurance benefits for eligible retirees and their dependents. These plans are accounted for in accordance with ASC Topic 715-30, "Defined Benefit Plans – Pension," and ASC Topic 715-60, "Defined Benefit Plans – Other Postretirement."

The measurement of liabilities related to these plans is based on management's assumptions related to future events, including discount rates, rates of return on pension plan assets, rates of compensation increases and health care cost trend rates. Management regularly evaluates these assumptions and adjusts them as required and appropriate. Other plan assumptions also are reviewed on a regular basis to reflect recent experience and the Company's future expectations. Actual experience that differs from these assumptions may affect future liquidity, expense and the overall financial position of the Company. While the Company believes that current assumptions are appropriate, significant differences in actual experience or significant changes in these assumptions may affect materially the Company's pension and other postretirement employee benefit obligations and its future expense and cash flow.

The discount rate is used to calculate the present value of expected future pension and postretirement cash flows as of the measurement date. The Company establishes the discount rate by constructing a notional portfolio of high-quality corporate bonds and matching the coupon payments and bond maturities to projected benefit payments under the Company's pension and postretirement welfare plans. The bonds included in the portfolio generally are non-callable. A lower discount rate will result in a higher benefit obligation; conversely, a higher discount rate will result in a lower benefit obligation. The discount rate also is used to calculate the annual interest cost, which is a component of net periodic benefit cost.

The expected rate of return on plan assets is determined by analyzing the historical long-term performance of the Company's pension plan assets, as well as the mix of plan assets between equities, fixed-income securities and other investments, the expected long-term rate of return expected for those asset classes and long-term inflation rates. Short-term asset performance can differ significantly from the expected rate of return, especially in volatile markets. A lower-than-expected rate of return on pension plan assets will increase pension expense and future contributions.

The Company recognizes actuarial gains and losses immediately through net periodic benefit cost upon the annual remeasurement in the fourth quarter, or on an interim basis if specific events trigger a remeasurement.

Defined Benefit Pension Plans:

The Company recognized actuarial losses of $38.8 million during 2018 primarily due to lower than expected returns on plan assets of $83.4 million driven by negative returns on fixed income investments offset by the increase in discount rates used to measure the obligation of $62.4 million. The impact of experience losses and other changes in valuation assumptions resulted in losses of approximately $17.8 million. The discount rate used to measure the U.S. obligation increased by 56 basis points compared to 2017.

In 2019, the Company expects net periodic benefit cost of $9.2 million for defined benefit pension plans, compared with net periodic benefit cost of $35.0 million in 2018. Net periodic benefit cost for 2019 does not include Mark-to-Market Charges that will be recognized immediately through earnings in the fourth quarter of 2019, or on an interim basis if specific events trigger a remeasurement. Excluding the actuarial losses of $38.8 million recognized in 2018, the expected net periodic benefit cost of $9.2 million in 2019 compares to net periodic benefit cost of $6.4 million in 2018 as the Company expects lower expected return on plan assets of $4.9 million, partially offset by lower service costs of $2.2 million.

The Company expects to contribute to its defined benefit pension plans or pay directly to participants of defined benefit plans approximately $34.0 million in 2019 compared with $11.3 million in 2018. The increase in 2019 planned employer contributions/payments is primarily due to the expected payout of deferred compensation to a former executive officer of the Company.

For expense purposes in 2018, the Company applied a weighted-average discount rate of 3.80% to its U.S. defined benefit pension plans. For expense purposes in 2019, the Company will apply a weighted-average discount rate of 4.36% to its U.S. defined benefit pension plans.

For expense purposes in 2018, the Company applied an expected weighted-average rate of return of 5.78% for the Company’s U.S. pension plan assets. For expense purposes in 2019, the Company will apply an expected weighted-average rate of return on plan assets of 6.12%.

The following table presents the sensitivity of the Company's U.S. projected pension benefit obligation ("PBO") and 2018 expense to the indicated increase/decrease in key assumptions:

	Change	+ / - Change at December 31, 2018 PBO	Change to 2018 Expense
Assumption:			
Discount rate	+/- 0.25%	$ 16.6	$ 16.6
Actual return on plan assets	+/- 0.25%	N/A	1.0
Expected return on assets	+/- 0.25%	N/A	—

In the table above, a 25 basis point decrease in the discount rate will increase the PBO by $16.6 million and decrease income before income taxes by $16.6 million. Defined benefit pension plans in the United States represent 66% of the Company's benefit obligation and 64% of the fair value of the Company's plan assets at December 31, 2018.

Other Postretirement Benefit Plans:

The Company recognized actuarial gains of $16.7 million during 2018 primarily due to the impact of a 73 basis point increase in the discount rate used to measure the Company's defined benefit postretirement obligation and due to a number of participants opting out of coverage from the plans in response to a financial incentive program offered to eligible participants of the Company's retiree health and life insurance plans. The Company recognized actuarial gains of $10.6 million as a result of the increase in the discount rate and $10.4 million as a result of the impact of the opt-out program.

In 2019, the Company expects net periodic benefit cost of $2.4 million for other postretirement benefit plans, compared to net periodic benefit credit of $14.4 million in 2018. Net periodic benefit cost for 2019 does not include Mark-to-Market Charges that will be recognized immediately through earnings in the fourth quarter of 2019, or on an interim basis if specific events trigger a remeasurement. Excluding the actuarial gain of $16.7 million recognized in 2018, the expected net periodic benefit cost of $2.4 million in 2019 compares to net periodic benefit cost of $2.4 million in 2018 as the Company expects lower amortization of prior service cost of $0.5 million, partially offset by a lower expected return on plan assets of $0.5 million. The lower expected return on plan assets is primarily due to a reduction in return on assets in the Company's Voluntary Employee Beneficiary Association ("VEBA") trust in 2018 that will affect the expected return on plan assets in 2019.

For expense purposes in 2018, the Company applied a discount rate of 3.57% to its other postretirement benefit plans. For expense purposes in 2019, the Company will apply a discount rate of 4.30% to its other postretirement benefit plans. For expense purposes in 2018, the Company applied an expected rate of return of 4.50% to the VEBA trust assets. For expense purposes in 2019, the Company will apply an expected rate of return of 4.85% to the VEBA trust assets.

The following table presents the sensitivity of the Company's accumulated other postretirement benefit obligation ("ABO") and 2018 expense to the indicated increase/decrease in key assumptions:

	Change	+ / - Change at December 31, 2018 ABO	Change to 2018 Expense
Assumption:			
Discount rate	+/- 0.25%	$ 3.2	$ 3.2
Actual return on plan assets	+/- 0.25%	N/A	0.2
Expected return on assets	+/- 0.25%	N/A	—

In the table above, a 25 basis point decrease in the discount rate will increase the ABO by $3.2 million and decrease income before income taxes by $3.2 million.

For measurement purposes for postretirement benefits, the Company assumed a weighted-average annual rate of increase in per capita cost (health care cost trend rate) for medical and prescription drug benefits of 6.00% for 2019, declining steadily for the next six years to 5.00%; and 8.00% for HMO benefits for 2019, declining gradually for the next 13 years to 5.0%. The assumed health care cost trend rate may have a significant effect on the amounts reported. A one percentage point increase in the assumed health care cost trend rate would have increased the 2018 total service and interest cost components by $0.2 million and would have increased the postretirement obligation by $3.3 million. A one percentage point decrease would provide corresponding reductions of $0.1 million and $3.0 million, respectively.

Other loss reserves:

The Company has a number of loss exposures that are incurred in the ordinary course of business such as environmental clean-up, product liability, product warranty, litigation and accounts receivable reserves. Establishing loss reserves for these matters requires management's judgment with regards to estimating risk exposure and ultimate liability or realization. These loss reserves are reviewed periodically and adjustments are made to reflect the most recent facts and circumstances.

OTHER DISCLOSURES:

Foreign Currency:

Assets and liabilities of subsidiaries are translated at the rate of exchange in effect on the balance sheet date; income and expenses are translated at the average rates of exchange prevailing during the reporting period. Related translation adjustments are reflected as a separate component of accumulated other comprehensive loss. Foreign currency gains and losses resulting from transactions are included in the Consolidated Statements of Income.

The Company recognized a foreign currency exchange impact resulting from transactions of $1.3 million of income, $3.7 million and $5.6 million of expense for the years ended December 31, 2018, 2017 and 2016, respectively. For the year ended December 31, 2018, the Company recorded a negative non-cash foreign currency translation adjustment of $60.5 million that decreased shareholders' equity, compared with a positive non-cash foreign currency translation adjustment of $44.7 million that increased shareholders' equity for the year ended December 31, 2017. The foreign currency translation adjustments for the year ended December 31, 2018 were impacted negatively by the strengthening of the U.S. dollar relative to other currencies as of December 31, 2018 compared to December 31, 2017.

Trade Law Enforcement:

The U.S. government has an antidumping duty order in effect covering tapered roller bearings from China. The Company is a producer of these bearings, as well as ball bearings and other bearing types, in the U.S.

Quarterly Dividend:

On February 6, 2019, the Company's Board of Directors declared a quarterly cash dividend of $0.28 per common share. The quarterly dividend will be paid on March 4, 2019 to shareholders of record as of February 20, 2019. This will be the 387th consecutive quarterly dividend paid on the common shares of the Company.

Forward-Looking Statements

Certain statements set forth in this Annual Report on Form 10-K and in the Company's 2018 Annual Report to Shareholders that are not historical in nature (including the Company's forecasts, beliefs and expectations) are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. In particular, Management's Discussion and Analysis contains numerous forward-looking statements. Forward-looking statements generally will be accompanied by words such as "anticipate," "believe," "could," "estimate," "expect," "forecast," "outlook," "intend," "may," "possible," "potential," "predict," "project" or other similar words, phrases or expressions. You are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K. The Company cautions readers that actual results may differ materially from those expressed or implied in forward-looking statements made by or on behalf of the Company due to a variety of factors, such as:

(a) deterioration in world economic conditions, or in economic conditions in any of the geographic regions in which the Company or its customers or suppliers conduct business, including adverse effects from a global economic slowdown, terrorism or hostilities. This includes: political risks associated with the potential instability of governments and legal systems in countries in which the Company or its customers or suppliers conduct business, changes in currency valuations and recent world events that have increased the risks posed by international trade disputes, tariffs and sanctions;

(b) the effects of fluctuations in customer demand on sales, product mix and prices in the industries in which the Company operates. This includes: the ability of the Company to respond to rapid changes in customer demand, the effects of customer or supplier bankruptcies or liquidations, the impact of changes in industrial business cycles, and whether conditions of fair trade continue in our markets;

(c) competitive factors, including changes in market penetration, increasing price competition by existing or new foreign and domestic competitors, the introduction of new products by existing and new competitors, and new technology that may impact the way the Company's products are produced, sold or distributed;

(d) changes in operating costs. This includes: the effect of changes in the Company's manufacturing processes; changes in costs associated with varying levels of operations and manufacturing capacity; availability and cost of raw materials and energy; changes in the expected costs associated with product warranty claims; changes resulting from inventory management and cost reduction initiatives; the effects of unplanned plant shutdowns; and changes in the cost of labor and benefits;

(e) the success of the Company's operating plans, announced programs, initiatives and capital investments; the ability to integrate acquired companies; and the ability of acquired companies to achieve satisfactory operating results, including results being accretive to earnings;

(f) the Company's ability to maintain appropriate relations with unions or works councils that represent Company associates in certain locations in order to avoid disruptions of business;

(g) unanticipated litigation, claims or assessments. This includes: claims or problems related to intellectual property, product liability or warranty, environmental issues, and taxes;

(h) changes in worldwide financial and capital markets, including availability of financing and interest rates on satisfactory terms, which affect: the Company's cost of funds and/or ability to raise capital; as well as customer demand and the ability of customers to obtain financing to purchase the Company's products or equipment that contain the Company's products;

(i) the Company's ability to satisfy its obligations under its debt agreements, as well as its ability to renew or refinance borrowings on favorable terms;

(j) the impact on the Company's pension obligations and assets due to changes in interest rates, investment performance and other tactics designed to reduce risk; and

(k) those items identified under Item 1A. Risk Factors on pages 6 through 11.

Additional risks relating to the Company's business, the industries in which the Company operates or the Company's common shares may be described from time to time in the Company's filings with the Securities and Exchange Commission. All of these risk factors are difficult to predict, are subject to material uncertainties that may affect actual results and may be beyond the Company's control.

Readers are cautioned that it is not possible to predict or identify all of the risks, uncertainties and other factors that may affect future results and that the above list should not be considered to be a complete list. Except as required by the federal securities laws, the Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk:
Changes in short-term interest rates related to several separate funding sources impact the Company's earnings. These sources are borrowings under the Accounts Receivable Facility, borrowings under the Senior Credit Facility and short-term bank borrowings by its international subsidiaries. If the market rates for short-term borrowings increased by one-percentage-point around the globe, the impact from our variable rate debt would be an increase in interest expense of $6.1 million annually, with a corresponding decrease in income from continuing operations before income taxes of the same amount. This amount was determined by considering the impact of hypothetical interest rates on the Company's borrowing cost and year-end debt balances by category.

Foreign Currency Exchange Rate Change Risk:
Fluctuations in the value of the U.S. dollar compared to foreign currencies, including the Euro, also impact the Company's earnings. The greatest risk relates to products shipped between the Company's European operations and the United States, as well as intercompany loans between Timken affiliates. Foreign currency forward contracts are used to hedge a portion of these intercompany transactions. Additionally, hedges are used to cover third-party purchases of products and equipment. As of December 31, 2018, there were $218.8 million of hedges in place. A uniform 10% weakening of the U.S. dollar against all currencies would have resulted in a charge of $19.6 million related to these hedges, which would have partially offset the otherwise favorable impact of the underlying currency fluctuation. In addition to the direct impact of the hedged amounts, changes in exchange rates also affect the volume of sales or foreign currency sales price as competitors' products become more or less attractive.

Commodity Price Risk:
In the ordinary course of business, the Company is exposed to market risk with respect to commodity price fluctuations, primarily related to our purchases of raw materials and energy, principally steel and natural gas. Whenever possible, the Company manages its exposure to commodity risks primarily through the use of supplier pricing agreements that enable the Company to establish the purchase prices for certain inputs that are used in our manufacturing and distribution business.

Item 8. Financial Statements and Supplementary Data

Consolidated Statements of Income

	Year Ended December 31,		
	2018	2017	2016
(Dollars in millions, except per share data)			
Net sales	**$ 3,580.8**	$ 3,003.8	$ 2,669.8
Cost of products sold	**2,540.7**	2,191.7	1,963.5
Gross Profit	**1,040.1**	812.1	706.3
Selling, general and administrative expenses	**580.7**	508.3	440.2
Impairment and restructuring charges	**4.9**	4.3	21.7
Operating Income	**454.5**	299.5	244.4
Interest expense	**(51.7)**	(37.1)	(33.5)
Interest income	**2.1**	2.9	1.9
Continued Dumping and Subsidy Offset Act income, net	**—**	—	59.6
Non-service pension and other postretirement costs	**(6.2)**	(15.0)	(69.9)
Other income (expense), net	**9.4**	9.6	(0.9)
Income Before Income Taxes	**408.1**	259.9	201.6
Provision for income taxes	**102.6**	57.6	60.5
Net Income	**305.5**	202.3	141.1
Less: Net income (loss) attributable to noncontrolling interest	**2.7**	(1.1)	0.3
Net Income Attributable to The Timken Company	**$ 302.8**	$ 203.4	$ 140.8
Net Income per Common Share Attributable to The Timken Company Common Shareholders			
Basic earnings per share	**$ 3.93**	$ 2.62	$ 1.79
Diluted earnings per share	**$ 3.86**	$ 2.58	$ 1.78
Dividends per share	**$ 1.11**	$ 1.07	$ 1.04

See accompanying Notes to the Consolidated Financial Statements.

Consolidated Statements of Comprehensive Income

	Year Ended December 31,		
	2018	2017	2016
(Dollars in millions)			
Net Income	**$ 305.5**	$ 202.3	$ 141.1
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	**(67.4)**	47.1	(22.8)
Pension and postretirement liability adjustment	**0.4**	(1.8)	1.1
Change in fair value of derivative financial instruments	**3.8**	(3.3)	0.1
Other comprehensive (loss) income, net of tax	**(63.2)**	42.0	(21.6)
Comprehensive Income, net of tax	**242.3**	244.3	119.5
Less: comprehensive (loss) income attributable to noncontrolling interest	**(4.2)**	1.3	2.0
Comprehensive Income Attributable to The Timken Company	**$ 246.5**	$ 243.0	$ 117.5

See accompanying Notes to the Consolidated Financial Statements.

Consolidated Balance Sheets

	December 31,	
	2018	2017
(Dollars in millions)		
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 132.5**	$ 121.6
Restricted cash	**0.6**	3.8
Accounts receivable, less allowances (2018 - $21.9 million; 2017 - $20.3 million)	**546.6**	524.9
Unbilled receivables	**116.6**	—
Inventories, net	**835.7**	738.9
Deferred charges and prepaid expenses	**28.2**	29.7
Other current assets	**77.0**	81.2
Total Current Assets	**1,737.2**	1,500.1
Property, Plant and Equipment, Net	**912.1**	864.2
Other Assets		
Goodwill	**960.5**	511.8
Other intangible assets	**733.2**	420.6
Non-current pension assets	**6.2**	19.7
Deferred income taxes	**59.0**	61.0
Other non-current assets	**37.0**	25.0
Total Other Assets	**1,795.9**	1,038.1
Total Assets	**$ 4,445.2**	$ 3,402.4
LIABILITIES AND EQUITY		
Current Liabilities		
Short-term debt	**$ 33.6**	$ 105.4
Current portion of long-term debt	**9.4**	2.7
Accounts payable, trade	**273.2**	265.2
Salaries, wages and benefits	**174.9**	127.9
Income taxes payable	**23.5**	9.8
Other current liabilities	**171.0**	160.7
Total Current Liabilities	**685.6**	671.7
Non-Current Liabilities		
Long-term debt	**1,638.6**	854.2
Accrued pension cost	**161.3**	167.3
Accrued postretirement benefits cost	**108.7**	122.6
Deferred income taxes	**138.0**	44.0
Other non-current liabilities	**70.3**	67.7
Total Non-Current Liabilities	**2,116.9**	1,255.8
Shareholders' Equity		
Class I and II Serial Preferred Stock without par value:		
Authorized - 10,000,000 shares each class, none issued	**—**	—
Common stock without par value:		
Authorized - 200,000,000 shares		
Issued (including shares in treasury) (2018 - 98,375,135; 2017 - 98,375,135 shares)		
Stated capital	**53.1**	53.1
Other paid-in capital	**951.9**	903.8
Earnings invested in the business	**1,630.2**	1,408.4
Accumulated other comprehensive loss	**(95.3)**	(38.3)
Treasury shares at cost (2018 - 22,421,213; 2017 - 20,672,133 shares)	**(960.3)**	(884.3)
Total Shareholders' Equity	**1,579.6**	1,442.7
Noncontrolling interest	**63.1**	32.2
Total Equity	**1,642.7**	1,474.9
Total Liabilities and Equity	**$ 4,445.2**	$ 3,402.4

See accompanying Notes to the Consolidated Financial Statements.

Consolidated Statements of Cash Flows

	Year Ended December 31,		
	2018	2017	2016
(Dollars in millions)			
CASH PROVIDED (USED)			
Operating Activities			
Net income attributable to The Timken Company	**$ 302.8**	$ 203.4	$ 140.8
Net income (loss)attributable to noncontrolling interest	**2.7**	(1.1)	0.3
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**146.0**	137.7	131.7
Impairment charges	**1.3**	0.1	3.9
Loss (gain) on sale of assets	**0.3**	(2.1)	1.6
Loss on divestitures	**0.8**	—	—
Deferred income tax benefit	**(21.4)**	(0.4)	(15.0)
Stock-based compensation expense	**32.3**	24.7	14.1
Pension and other postretirement expense	**20.7**	28.9	84.0
Pension contributions and other postretirement benefit contributions	**(18.7)**	(23.9)	(24.7)
Changes in operating assets and liabilities:			
Accounts receivable	**(66.4)**	(42.3)	20.3
Unbilled receivables	**(21.8)**	—	—
Inventories	**(87.1)**	(132.1)	10.1
Accounts payable, trade	**(20.2)**	70.7	12.2
Other accrued expenses	**32.2**	36.3	(2.8)
Income taxes	**1.9**	(36.2)	23.5
Other, net	**27.1**	(26.9)	3.9
Net Cash Provided by Operating Activities	**332.5**	236.8	403.9
Investing Activities			
Capital expenditures	**(112.6)**	(104.7)	(137.5)
Acquisitions, net of cash acquired of $30.1 million in 2018, $35.4 million in 2017 and $2.5 million in 2016	**(765.4)**	(346.8)	(72.6)
Proceeds from disposals of property, plant and equipment	**1.5**	7.1	1.5
Proceeds from divestitures	**14.0**	—	—
Investments in short-term marketable securities, net	**(2.8)**	(3.6)	(2.6)
Other	**0.1**	(0.7)	0.2
Net Cash Used in Investing Activities	**(865.2)**	(448.7)	(211.0)
Financing Activities			
Cash dividends paid to shareholders	**(85.7)**	(83.3)	(81.6)
Purchase of treasury shares	**(98.5)**	(43.4)	(101.0)
Proceeds from exercise of stock options	**12.8**	32.9	4.3
Shares surrendered for taxes	**(5.4)**	(11.4)	(1.9)
Proceeds from long-term debt	**1,391.1**	927.8	340.5
Payments on long-term debt	**(663.8)**	(684.5)	(345.3)
Deferred financing costs	**(1.2)**	(1.2)	—
Accounts receivable facility financing borrowings	**152.0**	56.7	50.0
Accounts receivable facility financing payments	**(139.9)**	(42.7)	(50.1)
Short-term debt activity, net	**(6.7)**	19.9	7.2
Other	**(1.6)**	(2.6)	9.1
Net Cash Provided by (Used in) Financing Activities	**553.1**	168.2	(168.8)
Effect of exchange rate changes on cash	**(12.7)**	17.6	(2.4)
Increase (decrease) In Cash, Cash Equivalents and Restricted Cash	**7.7**	(26.1)	21.7
Cash, cash equivalents and restricted cash at beginning of year	**125.4**	151.5	129.8
Cash, Cash Equivalents and Restricted Cash at End of Year	**$ 133.1**	$ 125.4	$ 151.5

See accompanying Notes to the Consolidated Financial Statements.

Consolidated Statements of Shareholders' Equity

		The Timken Company Shareholders					
	Total	Stated Capital	Other Paid-In Capital	Earnings Invested in the Business	Accumulated Other Comprehensive Income (Loss)	Treasury Shares	Non-controlling Interest
(Dollars in millions, except per share data)							
Year Ended December 31, 2016							
Balance at January 1, 2016	$ 1,349.6	$ 53.1	$ 905.1	$ 1,230.1	$ (54.6)	$ (804.3)	$ 20.2
Net income	141.1			140.8			0.3
Foreign currency translation adjustments	(22.8)				(24.5)		1.7
Pension and other postretirement liability adjustment (net of income tax expense of $13.1 million)	1.1				1.1		
Change in fair value of derivative financial instruments, net of reclassifications	0.1				0.1		
Investment in joint venture by noncontrolling interest party	9.3						9.3
Dividends declared to noncontrolling interest	(0.3)						(0.3)
Dividends – $1.04 per share	(81.6)			(81.6)			
Excess tax benefit from stock compensation	(1.1)		(1.1)				
Stock-based compensation expense	14.1		14.1				
Purchase of treasury shares	(101.0)					(101.0)	
Stock option exercise activity	4.3		(2.5)			6.8	
Restricted share activity	—		(8.7)			8.7	
Shares surrendered for taxes	(1.9)					(1.9)	
Balance at December 31, 2016	$ 1,310.9	$ 53.1	$ 906.9	$ 1,289.3	$ (77.9)	$ (891.7)	$ 31.2
Year Ended December 31, 2017							
Cumulative effect of ASU 2016-09	0.5		1.5	(1.0)			
Net income (loss)	202.3			203.4			(1.1)
Foreign currency translation adjustments	47.1				44.7		2.4
Pension and other postretirement liability adjustment (net of $1.1 income tax benefit)	(1.8)				(1.8)		
Change in fair value of derivative financial instruments, net of reclassifications	(3.3)				(3.3)		
Dividends declared to noncontrolling interest	(0.3)						(0.3)
Dividends – $1.07 per share	(83.3)			(83.3)			
Stock-based compensation expense	24.7		24.7				
Purchase of treasury shares	(43.4)					(43.4)	
Stock option exercise activity	32.9		(10.7)			43.6	
Restricted share activity	—		(18.6)			18.6	
Shares surrendered for taxes	(11.4)					(11.4)	
Balance at December 31, 2017	$ 1,474.9	$ 53.1	$ 903.8	$ 1,408.4	$ (38.3)	$ (884.3)	$ 32.2
Year Ended December 31, 2018							
Cumulative effect of the new revenue standard (net of income tax benefit of $1.5 million)	**4.0**			**4.0**			
Cumulative effect of ASU 2018-02	**—**			**0.7**	**(0.7)**		
Net income	**305.5**			**302.8**			**2.7**
Foreign currency translation adjustments	**(67.4)**				**(60.5)**		**(6.9)**
Pension and other postretirement liability adjustment (net of $0.5 income tax expense)	**0.4**				**0.4**		
Change in fair value of derivative financial instruments, net of reclassifications	**3.8**				**3.8**		
Shares issued for the acquisition of ABC Bearings	**66.0**		**30.9**				**35.1**
Dividends – $1.11 per share	**(85.7)**			**(85.7)**			
Stock-based compensation expense	**32.3**		**32.3**				
Purchase of treasury shares	**(98.5)**					**(98.5)**	
Stock option exercise activity	**12.8**		**(3.8)**			**16.6**	
Restricted share activity	**—**		**(11.3)**			**11.3**	
Shares surrendered for taxes	**(5.4)**					**(5.4)**	
Balance at December 31, 2018	**$ 1,642.7**	**$ 53.1**	**$ 951.9**	**$ 1,630.2**	**$ (95.3)**	**$ (960.3)**	**$ 63.1**

See accompanying Notes to the Consolidated Financial Statements.

Note 1 - Significant Accounting Policies

Principles of Consolidation:
The consolidated financial statements include the accounts and operations of the Company in which a controlling interest is maintained. Investments in affiliated companies where the Company exercises significant influence, but does not control, and the activities of which it is not the primary beneficiary, are accounted for using the equity method. All intercompany accounts and transactions are eliminated upon consolidation.

Revenue:
A contract exists when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable.

Revenue is recognized when performance obligations under the terms of a contract with a customer of the Company are satisfied. A majority of the Company's revenue is from short-term, fixed-price contracts and continues to be recognized as of a point in time when products are shipped from the Company's manufacturing facilities or at a later point in time when control of the products transfers to the customer. Revenue was previously recognized for services and certain sales of customer-specific product at the point in time when the shipping terms were satisfied. Under the new revenue standard, the Company now recognizes revenue over time as it satisfies the performance obligations because of the continuous transfer of control to the customer, supported as follows:

- For certain service contracts, this continuous transfer of control to the customer occurs as the Company's service enhances assets that the customer owns and controls at all times and the Company is contractually entitled to payment for work performed to date plus a reasonable margin.
- For U.S. government contracts, the customer is allowed to unilaterally terminate the contract for convenience, and is required to pay the Company for costs incurred plus a reasonable margin and can take control of any work in process.
- For certain non-U.S. government contracts involving customer-specific products, the customer controls the work in process based on contractual termination clauses or restrictions on the Company's use of the product and the Company possesses a right to payment for work performed to date plus a reasonable margin.

As a result of control transferring over time for these products and services, revenue is recognized based on progress toward completion of the performance obligation. The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. The Company has elected to use the cost-to-cost input measure of progress for these contracts because it best depicts the transfer of goods or services to the customer based on incurring costs on the contracts. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenues are recorded proportionally as costs are incurred.

The pricing and payment terms for non-U.S. government contracts are based on the Company's standard terms and conditions or the result of specific negotiations with each customer. The Company's standard terms and conditions require payment 30 days from the invoice date, but the timing of payment for specific negotiated terms may vary. The Company also has both prime and subcontracts in support of the provision of goods and services to the U.S. government. Certain of these contracts are subject to the Federal Acquisition Regulation ("FAR") and are priced commercially based on a competitive market. Under the payment terms of those U.S. government fixed-price contracts, the customer pays the Company performance-based payments, which are interim payments of up to 80% of the contract price for costs incurred to date based on quantifiable measures of performance or on the achievement of specified events or milestones. Because the customer retains a portion of the contract price until completion of such contracts, certain of these U.S. government fixed-price contracts result in revenue recognized in excess of billings, which is presented within "Unbilled Receivables" on the Consolidated Balance Sheet. The portion of the payments retained by the customer until final contract settlement is not considered a significant financing component because the intent is to protect the customer.

Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring goods or providing services. Sales, value add, and other taxes the Company collects concurrent with revenue-producing activities are excluded from revenue. As a practical expedient, the Company may exclude an assessment of whether promised goods or services are performance obligations, if such promised goods and services are immaterial to the customer contract taken as a whole, and combine these with other performance obligations. The Company has elected to recognize incremental costs incurred to obtain contracts, which primarily represent commissions paid to third-party sales agents where the amortization period would be less than one year, as SG&A expenses in the Consolidated Statement of Income as incurred. The Company has also elected not to adjust the promised amount of consideration for the effects of any significant financing component where the Company expects, at contract inception, that the period between when the Company transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less. Finally, the Company's policy is to exclude performance obligations resulting from contracts with a duration of one year or less from its disclosures related to remaining performance obligations.

The amount of consideration to which the Company expects to be entitled in exchange for the goods and services is not generally subject to significant variations. However, the Company does offer certain customers rebates, prompt payment discounts, end-user discounts, the right to return eligible products, and/or other forms of variable consideration. The Company estimates this variable consideration using the expected value amount, which is based on historical experience. The Company includes estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. The Company adjusts the estimate of revenue at the earlier of when the amount of consideration the Company expects to receive changes or when the consideration becomes fixed. The Company recognizes the cost of freight and shipping when control of the products or services has transferred to the customer as an expense in "Cost of products sold" on the Consolidated Statement of Income, because those are costs incurred to fulfill the promise recognized, not a separate performance obligation. To the extent certain freight and shipping fees are charged to customers, the Company recognizes the amounts charged to customers as revenues and the related costs as an expense in "Cost of products sold" when control of the related products or services has transferred to the customer.

Contracts are occasionally modified to account for changes in contract specifications, requirements, and pricing. The Company considers contract modifications to exist when the modification either creates new enforceable rights and obligations or changing existing ones. Substantially all of the Company's contract modifications are for goods or services that are distinct from the existing contract. Therefore, the effect of a contract modification on the transaction price and the Company's measure of progress for the performance obligation to which it relates is generally recognized on a prospective basis.

Cash Equivalents:
The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

Restricted Cash:
Cash of $0.6 million and $3.8 million at December 31, 2018 and 2017, respectively, was restricted. The decrease was primarily due to cash previously restricted for bank guarantees of $3.0 million and a reduction of unclaimed dividends by foreign subsidiaries to minority shareholders of $0.3 million.

Accounts Receivable, Less Allowances:
"Accounts receivable, less allowances" on the Consolidated Balance Sheet include amounts billed and currently due from customers. The amounts due are stated at their net estimated realizable value. The Company maintains an allowance for doubtful accounts, which represents an estimate of the losses expected from the accounts receivable portfolio, to reduce accounts receivable to their net realizable value. The allowance is based upon historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk. The Company extends credit to customers satisfying pre-defined credit criteria. The Company believes it has limited concentration of credit risk due to the diversity of its customer base.

Prior to the adoption of the new revenue standard, the Company recognized a portion of its revenues on the percentage-of-completion method. As of December 31, 2017, revenue recognized in excess of billings of $67.3 million under the percentage-of-completion method were included in "Accounts receivable, less allowances" on the Consolidated Balance Sheet. In accordance with the new revenue standard, $72.7 million of revenue recognized in excess of billings related to such revenues are included in "Unbilled receivables" on the Consolidated Balance Sheet at December 31, 2018.

Unbilled Receivables:
"Unbilled receivables" on the Consolidated Balance Sheet primarily include unbilled amounts typically resulting from sales under long-term contracts when the following conditions exist; (i) cost-to-cost method of revenue recognition is utilized; (ii) the revenue recognized exceeds the amount billed to the customer; and (iii) the right to payment is primarily subject only to the passage of time. The amounts recorded for unbilled amounts do not exceed their net realizable value.

The $116.6 million balance of "Unbilled receivables" at December 31, 2018 resulted from the adoption of the new revenue standard. As discussed above, this included $72.7 million of unbilled receivables formerly accounted for under the percentage of completion method and previously included in "Accounts receivable, less allowances". In addition, as part of the adoption of the new revenue standard, the Company identified other customer arrangements in which there is continuous transfer of control to the customer, resulting in the recognition of an additional $43.9 million of unbilled receivables as of December 31, 2018.

Inventories:
Inventories are valued at the lower of cost or net realizable value, with approximately 56% valued by the FIFO method and the remaining 44% valued by the LIFO method. The majority of the Company's domestic inventories are valued by the LIFO method, while all of the Company's international inventories are valued by the FIFO method.

Investments:
Short-term investments are investments with maturities between four months and one year and are valued at amortized cost, which approximates fair value. The Company held short-term investments as of December 31, 2018 and 2017 with a fair value and cost basis of $21.8 million and $16.4 million, respectively, which were included in other current assets on the Consolidated Balance Sheets.

Property, Plant and Equipment:
Property, plant and equipment, net is valued at cost less accumulated depreciation. Maintenance and repairs are charged to expense as incurred. The provision for depreciation is computed by the straight-line method based upon the estimated useful lives of the assets. The useful lives are approximately 30 years for buildings, three to 10 years for computer software and three to 20 years for machinery and equipment.

The impairment of long-lived assets is evaluated when events or changes in circumstances indicate that the carrying amount of the asset or related group of assets may not be recoverable. If the expected future undiscounted cash flows are less than the carrying amount of the asset, an impairment loss is recognized at that time to reduce the asset to the lower of its fair value or its net book value.

Goodwill and Other Intangible Assets:
Intangible assets subject to amortization are amortized on a straight-line method over their legal or estimated useful lives, with useful lives ranging from one to 20 years. Goodwill and indefinite-lived intangible assets not subject to amortization are tested for impairment at least annually. The Company performs its annual impairment test as of October 1st. Furthermore, goodwill and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying values may not be recoverable in accordance with accounting rules related to goodwill and other intangible assets.

Purchase accounting and business combinations:
Assets acquired and the liabilities assumed as part of a business combination are recognized at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. The Company considers inputs to value the assets and liabilities by taking into account independent appraisals and historical data, supplemented by current and anticipated market conditions. The valuation inputs in these analyses are based on market participant assumptions. The Company may refine these estimates and record adjustments to an asset or liability with the offset to goodwill during the measurement period, which may be up to one year from the acquisition date. Upon the conclusion of the measurement period or final determination of the values of the assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded in the Company's Consolidated Statements of Income. Refer to *Note 2 - Acquisitions and Divestitures* for additional details.

Product Warranties:
The Company provides limited warranties on certain of its products. The Company accrues liabilities for warranties generally based upon specific claims and in certain instances based on historical warranty claim experience in accordance with accounting rules relating to contingent liabilities. When the Company becomes aware of a specific potential warranty claim for which liability is probable and reasonably estimable, a specific charge is recorded and accounted for accordingly. Adjustments are made quarterly to the accruals as claim data and historical experience change.

Income Taxes:
The Company accounts for income taxes in accordance with ASC 740, "Income Taxes." Deferred tax assets and liabilities are recorded for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as net operating loss and tax credit carryforwards. The Company recognizes valuation allowances against deferred tax assets by tax jurisdiction when it is more likely than not those assets will not be realized. Accruals for uncertain tax positions are provided for in accordance with ASC 740-10. The Company recognizes interest and penalties related to uncertain tax positions as a component of income tax expense.

Foreign Currency:
Assets and liabilities of subsidiaries are translated at the rate of exchange in effect on the balance sheet date; income and expenses are translated at the average rates of exchange prevailing during the reporting period. Translation adjustments for assets and liabilities are reflected as a separate component of accumulated other comprehensive loss. Foreign currency gains and losses resulting from transactions are included in the Consolidated Statements of Income. The Company recognized a foreign currency exchange loss resulting from transactions of $1.3 million, $3.7 million and $5.6 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Pension and Other Postretirement Benefits:
The Company recognizes actuarial gains and losses immediately through net periodic benefit cost upon the annual remeasurement in the fourth quarter, or on an interim basis if specific events trigger a remeasurement.

With the adoption of ASU 2017-07 on January 1, 2018, service cost is included in other employee compensation costs within operating income and is the only component of net periodic benefit cost that may be capitalized when applicable. The other components of net periodic benefit cost are presented outside of operating income. Also, actuarial gains and losses are excluded from segment results, while all other components of net periodic benefit cost will continue to be included within segment results. These changes in accounting principles were applied retrospectively; therefore, prior period amounts impacted have been revised accordingly herein. For further information, refer to the description of new accounting guidance adopted below.

Stock-Based Compensation:
The Company recognizes stock-based compensation expense over the related vesting period of the awards based on the fair value on the grant date. Stock options are issued with an exercise price equal to the opening market price of Timken common shares on the date of grant. The fair value of stock options is determined using a Black-Scholes option pricing model, which incorporates assumptions regarding the expected volatility, the expected option life, the risk-free interest rate and the expected dividend yield. The fair value of stock-based awards that will settle in Timken common shares, other than stock options, is based on the opening market price of Timken common shares on the grant date. The fair value of stock-based awards that will settle in cash are remeasured at each reporting period until settlement of the awards.

Earnings Per Share:
Only certain unvested restricted share grants provide for the payment of nonforfeitable dividends. The Company considers these awards as participating securities. Earnings per share are computed using the two-class method. Basic earnings per share are computed by dividing net income less undistributed earnings allocated to unvested restricted shares by the weighted-average number of common shares outstanding during the year. Diluted earnings per share are computed by dividing net income less undistributed earnings allocated to unvested restricted shares by the weighted-average number of common shares outstanding, adjusted for the dilutive impact of outstanding stock-based awards.

Derivative Instruments:
The Company recognizes all derivatives on the Consolidated Balance Sheets at fair value. Derivatives that are not designated as hedges are adjusted to fair value through earnings. If the derivative is designated and qualifies as a hedge, depending on the nature of the hedge, changes in the fair value of the derivatives are either offset against the change in fair value of the hedged assets, liabilities or firm commitments through earnings or recognized in accumulated other comprehensive loss until the hedged item is recognized in earnings. The Company’s holdings of forward foreign currency exchange contracts qualify as derivatives pursuant to the criteria established in derivative accounting guidance, and the Company has designated certain of those derivatives as hedges.

Use of Estimates:
The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Because actual results could differ from these estimates, the Company reviews and updates these estimates and assumptions regularly to reflect recent experience.

Recent Accounting Pronouncements:

New Accounting Guidance Adopted:

Revenue recognition

The new revenue standard introduces a five-step revenue recognition model in which an entity should recognize revenue to depict the transfer of 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. The new revenue standard also requires disclosures sufficient to enable users to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers, including qualitative and quantitative disclosures about contracts with customers, significant judgments and changes in judgments and assets recognized from the costs to obtain or fulfill a contract. For further information about the Company's revenues from contracts with customers, refer to *Note 14 - Revenue*.

On January 1, 2018, the Company adopted the new revenue standard and all of the related amendments using the modified retrospective method and applied those provisions to all open contracts. The Company recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of retained earnings. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

The cumulative effect of changes made to the balance sheet as of January 1, 2018 for the adoption of the new revenue standard was as follows:

	Balance at December 31, 2017	Effect of Accounting Change	**Balance at January 1, 2018**
ASSETS			
Accounts receivable, less allowances	$ 524.9	$ (67.3)	**$ 457.6**
Unbilled receivables	—	95.7	**95.7**
Inventories, net	738.9	(22.9)	**716.0**
Other current assets	81.2	3.0	**84.2**
Deferred income taxes	61.0	(1.5)	**59.5**
LIABILITIES			
Other current liabilities	160.7	3.0	**163.7**
EQUITY			
Earnings invested in the business	1,408.4	4.0	**1,412.4**

The tables below reflect changes to financial statement line items as a result of adopting the new revenue standard. The adoption of the new revenue standard did not have an impact on "Net cash used in operating activities" on the Consolidated Statement of Cash Flows for the year ended December 31, 2018.

Consolidated Statement of Income for the year ended December 31, 2018:

	Previous Accounting Method	**Effect of Accounting Change**	**As Reported**
Net sales	**$ 3,566.7**	**$ 14.1**	**$ 3,580.8**
Cost of products sold	**2,532.5**	**8.2**	**2,540.7**
Selling, general, and administrative expenses	**578.9**	**1.8**	**580.7**
Income before income taxes	**404.0**	**4.1**	**408.1**
Provision for income taxes	**101.6**	**1.0**	**102.6**
Net income	**302.4**	**3.1**	**305.5**
Net income attributable to The Timken Company	**$ 299.7**	**$ 3.1**	**$ 302.8**
Basic earnings per share	**$ 3.89**	**$ 0.04**	**$ 3.93**
Diluted earnings per share	**$ 3.82**	**$ 0.04**	**$ 3.86**

Consolidated Balance Sheet as of December 31, 2018:

	Previous Accounting Method	Effect of Accounting Change	As Reported
ASSETS			
Accounts receivable, less allowances	**$ 619.3**	**$ (72.7)**	**$ 546.6**
Unbilled receivables	**—**	**116.6**	**116.6**
Inventories, net	**866.8**	**(31.1)**	**835.7**
Other current assets	**74.1**	**2.9**	**77.0**
Deferred income taxes	**61.5**	**(2.5)**	**59.0**
LIABILITIES			
Other current liabilities	**168.1**	**2.9**	**171.0**
EQUITY			
Earnings invested in the business	**1,619.9**	**10.3**	**1,630.2**

Pension and other postretirement benefits

As mentioned above, the FASB issued ASU 2017-07, “Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost,” in March 2017. The Company adopted ASU 2017-07 on January 1, 2018 on a retrospective basis, which resulted in the reclassification of certain amounts from "Cost of products sold" and "Selling, general and administrative expenses" to "Non-service pension and other postretirement costs" in the Consolidated Statement of Income. As a result, prior period amounts impacted have been revised accordingly.

The following tables reflect the changes to financial statement line items resulting from the adoption of ASU 2017-07:

For the year ended December 31, 2017:

	As Previously Reported	Effect of Accounting Change	As Adjusted
Cost of products sold	$ 2,193.4	$ (1.7)	$ 2,191.7
Selling, general, and administrative expenses	521.4	(13.1)	508.3
Operating income	284.7	14.8	299.5
Non-service pension and other postretirement costs	—	(15.0)	(15.0)

For the year ended December 31, 2016:

	As Previously Reported	Effect of Accounting Change	As Adjusted
Cost of products sold	$ 2,001.3	$ (37.8)	$ 1,963.5
Selling, general, and administrative expenses	470.7	(30.5)	440.2
Pension settlement charges	1.6	(1.6)	—
Operating income	174.5	69.9	244.4
Non-service pension and other postretirement costs	—	(69.9)	(69.9)

Other new accounting guidance adopted

In November 2016, the FASB issued ASU 2016-18, “Statement of Cash Flows (Topic 230): Restricted Cash.” ASU 2016-18 requires that a statement of cash flows explain the change in the total of cash, cash equivalents, and restricted cash during the period. On January 1, 2018, the Company adopted the provisions of ASU 2016-18 on a retrospective basis, which resulted in the addition of restricted cash balances and movements in the Company’s Statement of Cash Flows for all periods presented. As a result, for the year ended December 31, 2018 and 2017, restricted cash balances of $0.6 million and $3.8 million, respectively, were included in the Company's ending balance on the Statement of Cash Flows.

In February 2018, the FASB issued ASU 2018-02, "Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." ASU 2018-02 allows for certain tax effects resulting from the U.S. Tax Reform to be reclassified from accumulated other comprehensive income (or loss) to retained earnings. This standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018, with early adoption permitted. Also, ASU 2018-02 may be applied in the period of adoption or retrospectively to each period in which the effect of the change in the statutory income tax rate in the U.S. Tax Reform is recognized. On January 1, 2018, the Company early adopted the provisions of ASU 2018-02, with the related impact applied in the period of adoption. In doing so, the Company elected to reclassify $0.7 million of related income tax effects from accumulated other comprehensive loss to retained earnings in the first quarter of 2018.

In January 2017, the FASB issued ASU 2017-04, “Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment.” Prior to the issuance of this new accounting guidance, entities first assessed qualitative factors to determine whether a two-step goodwill impairment test was necessary. When entities bypassed or failed the qualitative analysis, they were required to apply a two-step goodwill impairment test. Step 1 compared a reporting unit’s fair value to its carrying amount to determine if there is a potential impairment. If the carrying amount of a reporting unit exceeded its fair value, Step 2 was required to be completed. Step 2 involved determining the implied fair value of goodwill and comparing it to the carrying amount of that goodwill to measure the impairment loss, if any. ASU 2017-04 eliminates Step 2 of the goodwill impairment test, and instead will require that a goodwill impairment loss be measured at the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 is effective for public companies for years beginning after December 15, 2019, with early adoption permitted, and must be applied prospectively. The Company adopted ASU 2017-04 on October 1, 2018 in conjunction with the Company's annual goodwill impairment test. The adoption of this standard had no impact on the Company's results of operations and financial condition in the current year.

New Accounting Guidance Issued and Not Yet Adopted:

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities", which impacts both designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. ASU 2017-12 amends and clarifies the requirements to qualify for hedge accounting, removes the requirement to recognize changes in fair value from certain hedges in current earnings, and specifies the presentation of changes in fair value in the income statement for all hedging instruments. ASU 2017-12 is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted, including in any interim period for which financial statements have not yet been issued, but the effect of adoption is required to be reflected as of the beginning of the fiscal year of adoption. The Company currently does not expect the adoption of ASU 2017-12 to materially impact the Company's results of operations and financial condition.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." ASU 2016-13 changes how entities will measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. The new guidance will replace the current incurred loss approach with an expected loss model. The new expected credit loss impairment model will apply to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-maturity debt instruments, net investments in leases, loan commitments and standby letters of credit. Upon initial recognition of the exposure, the expected credit loss model requires entities to estimate the credit losses expected over the life of an exposure (or pool of exposures). The estimate of expected credit losses should consider historical information, current information and reasonable and supportable forecasts, including estimates of prepayments. Financial instruments with similar risk characteristics should be grouped together when estimating expected credit losses. ASU 2016-13 does not prescribe a specific method to make the estimate, so its application will require significant judgment. ASU 2016-13 is effective for public companies in fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. The Company is currently evaluating the effect that the adoption of ASU 2016-13 will have on the Company's results of operations and financial condition.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)." ASU 2016-02 was issued to increase transparency and comparability among entities by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about lease arrangements. ASU 2016-02 is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company plans to adopt the new standard on January 1, 2019 using the cumulative-effect adjustment transition method. The Company also elected the package of practical expedients to not reassess prior conclusions related to contracts containing leases, lease classification and initial direct costs. The Company has created a cross-functional implementation team to identify all leases and perform all data gathering required. Additionally, the Company is continuing to advance in implementing an enterprise-wide lease management system to assist in the related accounting and is evaluating additional changes to the related processes and internal controls to ensure requirements are met for reporting and disclosure purposes. While the assessment of the impact this new standard will have on the consolidated financial statements is ongoing, the Company expects to recognize a right-to-use asset and a lease liability between $95 million and $115 million for its operating lease commitments on the Consolidated Balance Sheet, but does not expect the new standard to have a material impact on its consolidated results of operations or cash flows.

Note 2 - Acquisitions and Divestitures

The Company completed three acquisitions in 2018. On September 18, 2018, the Company completed the acquisition of Rollon, a leader in engineered linear motion products, specializing in the design and manufacture of linear guides, telescopic rails and linear actuators used in a wide range of industries such as passenger rail, aerospace, packaging and logistics, medical and automation. On September 1, 2018, the Company completed the acquisition of Cone Drive, a leader in precision drives used in diverse markets including solar, automation, aerial platforms, and food and beverage. On August 30, 2018, the Company's majority-owned subsidiary, Timken India, completed the acquisition of ABC Bearings, a manufacturer of tapered, cylindrical and spherical roller bearings and slewing rings in India. Consideration for the acquisition of ABC Bearings consisted of Timken India stock. Refer to the Consolidated Statement of Shareholders' Equity for more information on the acquisition of ABC Bearings. The expected annual sales at the time of acquisition for Rollon, Cone Drive, and ABC Bearings were approximately $140 million, $100 million, and $30 million, respectively. The total purchase price for these acquisitions, net of cash acquired of $30.1 million, was $834.3 million, which included $540.0 million for Rollon. The Company incurred acquisition-related costs of $9.6 million in 2018 to complete these acquisitions. Based on markets and customers served, the majority of the results for Rollon and Cone Drive are reported in the Process Industries segment and substantially all of the results for ABC Bearings are reported in the Mobile Industries segment.

During 2017, the Company completed three acquisitions. On July 3, 2017, the Company completed the acquisition of Groeneveld, a leading provider of automatic lubrication solutions used in on- and off-highway applications. On May 5, 2017, the Company completed the acquisition of the assets of PT Tech, a manufacturer of engineered clutches, brakes, hydraulic power take-off units and other torque management devices used in the mining, aggregate, wood recycling and metals industries. On April 3, 2017, the Company completed the acquisition of Torsion Control Products, a manufacturer of engineered torsional couplings used in the construction, agriculture and mining industries. Aggregate sales for these companies for the most recent 12 months prior to their respective acquisitions totaled approximately $146.2 million. The total purchase price for these acquisitions was $346.2 million, net of $35.4 million of cash received. In 2017, the Company incurred acquisition-related costs of $3.7 million to complete these acquisitions. Based on markets and customers served, substantially all of the results for Groeneveld, PT Tech and Torsion Control Products are reported in the Mobile Industries segment. Certain measurement period adjustments related to these acquisitions were recorded in 2018, resulting in a $3.2 million reduction to Goodwill.

The purchase price allocations at fair value, net of cash acquired for acquisitions in 2018 and 2017, as well as any purchase price adjustments from acquisitions made in prior periods, are presented below:

	2018	2017
Assets:		
Accounts receivable	**$ 42.5**	$ 27.6
Inventories	**61.6**	29.4
Other current assets	**11.2**	3.3
Property, plant and equipment	**71.7**	31.5
Goodwill	**465.0**	149.7
Other intangible assets	**372.6**	173.6
Other non-current assets	**20.2**	1.8
Total assets acquired	**$ 1,044.8**	$ 416.9
Liabilities:		
Accounts payable, trade	**$ 35.2**	$ 9.5
Salaries, wages and benefits	**9.1**	5.8
Income taxes payable	**2.5**	—
Other current liabilities	**8.1**	8.6
Short-term debt	**2.5**	0.1
Long-term debt	**3.0**	2.9
Accrued pension cost	**5.7**	—
Accrued postretirement liability	**11.7**	—
Deferred taxes	**115.5**	42.2
Other non-current liabilities	**17.2**	1.0
Total liabilities assumed	**$ 210.5**	$ 70.1
Net assets acquired	**$ 834.3**	$ 346.8

The 2018 acquisitions presented above include goodwill of $311.5 million and intangible assets of $261.7 million for Rollon.

In determining the fair value of the amounts above, the Company utilized various forms of the income, cost and market approaches depending on the asset or liability being valued. The estimation of fair value required significant judgment related to future net cash flows, discount rates, competitive trends, market comparisons and other factors. Inputs were generally determined by taking into account independent appraisals and historical data, supplemented by current and anticipated market conditions.

In addition to measurement period adjustments occurring in 2018 for 2017 acquisitions, the amounts for 2018 in the table above represent the preliminary purchase price allocation for Rollon, Cone Drive and ABC Bearings. This purchase price allocation, including the residual amount allocated to goodwill, is based on preliminary information and is subject to change as additional information concerning final asset and liability valuations is obtained. The purchase price allocation is preliminary as a result of the proximity of the acquisition dates to December 31, 2018. The primary areas of the preliminary purchase price allocation that have not been finalized relate to the fair value of inventories, accounts receivables, intangible assets, contingencies and the related impacts on deferred income taxes. During the measurement period, we will adjust assets and liabilities if new information is obtained about facts and circumstances that existed as of the acquisition date that, if known, would have resulted in revised estimated values of those assets or liabilities as of that date. The effect of measurement period adjustments to the estimated fair values will be reflected as if the adjustments had been completed on the acquisition date.

Note 2 - Acquisitions and Divestitures (continued)

The following table summarizes the preliminary purchase price allocation at fair value for identifiable intangible assets acquired in 2018 and 2017:

	2018		2017	
		Weighted-Average Life		Weighted-Average Life
Trade names (indefinite life)	**$ 46.8**	**Indefinite**	$ 31.1	Indefinite
Trade names (finite life)	**3.7**	**11 years**	2.2	13 years
Technology and know-how	**121.8**	**17 years**	29.8	16 years
Customer relationships	**199.6**	**18 years**	108.9	17 years
Other	**0.2**	**6 years**	0.2	5 years
Capitalized software	**0.5**	**5 years**	1.4	3 years
Total intangible assets	**$ 372.6**		$ 173.6	

Divestiture:
On September 19, 2018, the Company completed the sale of the ICT Business, located in Gorinchem, Netherlands. The Company acquired the business in July 2017 as part of the Groeneveld acquisition. The ICT Business is separate from the Groeneveld lubrications solutions business and had sales of approximately $15 million for the twelve months ended September 30, 2018.

Note 3 - Investment in Joint Venture

On March 6, 2014, Timken Lux Holdings II S.á r.l, a subsidiary of the Company, entered into a joint venture agreement with Holme Services Limited ("joint venture partner"). During 2015, the Company and its joint venture partner established TUBC Limited, a Cyprus entity, for the purpose of producing bearings to serve the rail market sector in Russia. The Company and its joint venture partner have a 51% controlling interest and 49% controlling interest, respectively, in TUBC Limited. During 2016, the Company and its joint venture partner amended and restated the joint venture agreement and contributed $9.7 million and $9.3 million, respectively, to TUBC Limited. No additional contributions were made during 2017 or 2018.

Note 4 - Earnings Per Share

The following table sets forth the reconciliation of the numerator and the denominator of basic earnings per share and diluted earnings per share for the years ended December 31, 2018, 2017 and 2016:

	2018	2017	2016
Numerator:			
Net income attributable to The Timken Company	**$ 302.8**	$ 203.4	$ 140.8
Less: undistributed earnings allocated to nonvested stock	**—**	—	—
Net income available to common shareholders for basic and diluted earnings per share	**$ 302.8**	$ 203.4	$ 140.8
Denominator:			
Weighted average number of shares outstanding - basic	**77,119,602**	77,736,398	78,516,029
Effect of dilutive securities:			
Stock options and awards - based on the treasury stock method	**1,217,879**	1,174,751	718,295
Weighted average number of shares outstanding, assuming dilution of stock options and awards	**78,337,481**	78,911,149	79,234,324
Basic earnings per share	**$ 3.93**	$ 2.62	$ 1.79
Diluted earnings per share	**$ 3.86**	$ 2.58	$ 1.78

The exercise prices for certain stock options that the Company has awarded exceed the average market price of the Company's common shares. Such stock options are antidilutive and were not included in the computation of diluted earnings per share. The antidilutive stock options outstanding were 1,139,146, 512,657 and 2,826,733 during 2018, 2017 and 2016, respectively.

Note 5 - Accumulated Other Comprehensive Income (Loss)

The following tables present details about components of accumulated other comprehensive income (loss) for the years ended December 31, 2018 and December 31, 2017, respectively:

	Foreign currency translation adjustments	Pension and postretirement liability adjustments	Change in fair value of derivative financial instruments	Total
Balance at December 31, 2017	**$ (35.1)**	**$ (0.3)**	**$ (2.9)**	**$ (38.3)**
Cumulative effect of ASU 2018-02	**—**	**(0.1)**	**(0.6)**	**(0.7)**
Balance at January 1, 2018	**(35.1)**	**(0.4)**	**(3.5)**	**(39.0)**
Other comprehensive (loss) income before reclassifications and income taxes	**(67.4)**	**0.9**	**6.4**	**(60.1)**
Amounts reclassified from accumulated other comprehensive (loss) income, before income tax	**—**	**—**	**(1.3)**	**(1.3)**
Income tax expense	**—**	**(0.5)**	**(1.3)**	**(1.8)**
Net current period other comprehensive (loss) income, net of income taxes	**(67.4)**	**0.4**	**3.8**	**(63.2)**
Noncontrolling interest	**6.9**	**—**	**—**	**6.9**
Net current period comprehensive (loss) income, net of income taxes, noncontrolling interest and cumulative effect of accounting change	**(60.5)**	**0.3**	**3.2**	**(57.0)**
Balance at December 31, 2018	**$ (95.6)**	**$ —**	**$ 0.3**	**$ (95.3)**

	Foreign currency translation adjustments	Pension and postretirement liability adjustments	Change in fair value of derivative financial instruments	Total
Balance at December 31, 2016	$ (79.8)	$ 1.5	$ 0.4	$ (77.9)
Other comprehensive income (loss) before reclassifications and income taxes	47.1	(4.0)	(7.1)	36.0
Amounts reclassified from accumulated other comprehensive income (loss), before income tax	—	1.1	1.8	2.9
Income tax benefit	—	1.1	2.0	3.1
Net current period other comprehensive income (loss), net of income taxes	47.1	(1.8)	(3.3)	42.0
Noncontrolling interest	(2.4)	—	—	(2.4)
Net current period comprehensive income (loss), net of income taxes and noncontrolling interest	44.7	(1.8)	(3.3)	39.6
Balance at December 31, 2017	$ (35.1)	$ (0.3)	$ (2.9)	$ (38.3)

Other comprehensive (loss) income before reclassifications and income taxes includes the effect of foreign currency.

Note 6 - Inventories

The components of inventories at December 31, 2018 and 2017 were as follows:

	2018	2017
Manufacturing supplies	**$ 32.4**	$ 29.0
Raw materials	**102.4**	90.4
Work in process	**287.7**	245.2
Finished products	**452.7**	404.3
Subtotal	**$ 875.2**	$ 768.9
Allowance for surplus and obsolete inventory	**(39.5)**	(30.0)
Total Inventories, net	**$ 835.7**	$ 738.9

Inventories at December 31, 2018 valued on the FIFO cost method were 56% and the remaining 44% were valued by the LIFO method. If all inventories had been valued at FIFO, inventories would have been $173.9 million and $167.6 million greater at December 31, 2018 and 2017, respectively. The Company recognized an increase in its LIFO reserve of $6.2 million during 2018, compared to a decrease in its LIFO reserve of $11.9 million during 2017. The impacts of LIFO liquidations in 2018 were immaterial. The decrease in the LIFO reserve in 2017 was due to lower unit costs primarily driven by favorable efficiency variances that more than offset higher material and labor costs.

Note 7 - Property, Plant and Equipment

The components of property, plant and equipment, net at December 31, 2018 and 2017 were as follows:

	2018	2017
Land and buildings	**$ 484.1**	$ 483.0
Machinery and equipment	**2,002.4**	1,922.6
Subtotal	**$ 2,486.5**	$ 2,405.6
Less: accumulated depreciation	**(1,574.4)**	(1,541.4)
Property, Plant and Equipment, net	**$ 912.1**	$ 864.2

Total depreciation expense was $99.2 million, $97.7 million and $95.5 million in 2018, 2017 and 2016, respectively. Additionally, depreciation expense is expected to increase in 2019, primarily due to incremental deprecation from acquisitions completed in 2018.

Note 8 - Goodwill and Other Intangible Assets

Goodwill:

The Company tests goodwill and indefinite-lived intangible assets for impairment at least annually, performing its annual impairment test as of October 1st. Furthermore, goodwill and indefinite-lived intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

The Company reviews goodwill for impairment at the reporting unit level. The Mobile Industries segment has four reporting units and the Process Industries segment has two reporting units.

Changes in the carrying value of goodwill were as follows:

Year ended December 31, 2018:

	Mobile Industries	Process Industries	Total
Beginning Balance	**$ 254.3**	**$ 257.5**	**$ 511.8**
Acquisitions	**108.4**	**356.6**	**465.0**
Divestiture	**(5.1)**	**—**	**(5.1)**
Foreign currency translation adjustments and other changes	**(7.9)**	**(3.3)**	**(11.2)**
Ending Balance	**$ 349.7**	**$ 610.8**	**$ 960.5**

The $465.0 million addition from acquisitions resulted primarily from the acquisitions of Rollon, Cone Drive and ABC Bearings, partially offset by measurement period adjustments of $3.2 million recorded in 2018 for 2017 acquisitions. In addition, goodwill was reduced by $5.1 million as a result of the divestiture of the ICT Business. The Company does not expect the goodwill from the Rollon and Cone Drive acquisitions to be tax deductible, but is still evaluating the tax deductibility of goodwill from the ABC Bearings acquisition. Refer to *Note 2 - Acquisitions and Divestitures* for further information.

Year ended December 31, 2017:

	Mobile Industries	Process Industries	Total
Beginning Balance	$ 97.2	$ 260.3	$ 357.5
Acquisitions	150.8	(1.1)	149.7
Other	6.3	(1.7)	4.6
Ending Balance	$ 254.3	$ 257.5	$ 511.8

The Groeneveld, PT Tech and Torsion Control Products acquisitions added a total of $150.8 million of goodwill to the Mobile Industries segment. The $14.1 million of goodwill acquired through the PT Tech and Torsion Control Products acquisitions is expected to be tax deductible over 15 years. The $136.7 million of goodwill acquired through the Groeneveld acquisition is not expected to be tax deductible. The Company paid a net purchase price adjustment of $0.6 million in January 2017 in connection with the acquisition of EDT, which resulted in an increase to goodwill. The Company also adjusted its purchase price allocation for the Lovejoy acquisition in 2017, which resulted in a $1.7 million reduction to goodwill.

No goodwill impairment losses were recorded in 2018 or 2017.

Intangible Assets:
The following table displays intangible assets as of December 31, 2018 and 2017:

	2018			2017		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Intangible assets subject to amortization:						
Customer relationships	**$ 481.5**	**$ 99.8**	**$ 381.7**	$ 324.6	$ 103.0	$ 221.6
Technology and know-how	**245.0**	**40.4**	**204.6**	128.7	33.8	94.9
Trade names	**11.3**	**4.8**	**6.5**	8.6	4.3	4.3
Capitalized Software	**266.4**	**236.5**	**29.9**	261.5	226.5	35.0
Other	**40.8**	**35.2**	**5.6**	10.3	6.2	4.1
	$ 1,045.0	**$ 416.7**	**$ 628.3**	$ 733.7	$ 373.8	$ 359.9
Intangible assets not subject to amortization:						
Trade names	**$ 96.2**		**$ 96.2**	$ 52.0		$ 52.0
FAA air agency certificates	**8.7**		**8.7**	8.7		8.7
	$ 104.9		**$ 104.9**	$ 60.7		$ 60.7
Total intangible assets	**$ 1,149.9**	**$ 416.7**	**$ 733.2**	$ 794.4	$ 373.8	$ 420.6

Intangible assets acquired in 2018 totaled $372.6 million from the Rollon, Cone Drive and ABC Bearings acquisitions. Intangible assets subject to amortization were assigned useful lives of three to 20 years and had a weighted-average amortization period of 17.2 years. Intangible assets acquired in 2017 totaled $173.6 million from the acquisitions of Groeneveld, PT Tech and Torsion Control Products. Intangible assets subject to amortization acquired in 2017 were assigned useful lives of two to 20 years and had a weighted-average amortization period of 16.8 years.

Amortization expense for intangible assets was $46.8 million, $40.0 million and $36.2 million for the years ended December 31, 2018, 2017 and 2016, respectively. Amortization expense for intangible assets is estimated to be approximately $55.1 million in 2019, $50.4 million in 2020, $46.4 million in 2021, $41.9 million in 2022, and $39.3 million in 2023.

Note 9 - Financing Arrangements

Short-term debt as of December 31, 2018 and 2017 was as follows:

	2018	2017
Variable-rate Accounts Receivable Facility with an interest rate of 2.15% at December 31, 2017	**$ —**	$ 62.9
Borrowings under variable-rate lines of credit for certain of the Company's foreign subsidiaries with various banks with interest rates ranging from 0.29% to 1.00% at December 31, 2018 and 0.32% to 2.22% at December 31, 2017	**33.6**	42.5
Short-term debt	**$ 33.6**	$ 105.4

On September 28, 2018, the Company extended the maturity date of its $100 million Accounts Receivable Facility to November 30, 2021. Under the terms of the Accounts Receivable Facility, the Company sells, on an ongoing basis, certain domestic trade receivables to Timken Receivables Corporation, a wholly owned consolidated subsidiary that, in turn, uses the trade receivables to secure borrowings that are funded through a vehicle that issues commercial paper in the short-term market. Borrowings under the Accounts Receivable Facility are limited to certain borrowing base limitations however, the Accounts Receivable Facility was not reduced by any such borrowing base limitations at December 31, 2018. As of December 31, 2018, there were outstanding borrowings of $75.0 million under the Accounts Receivable Facility, which reduced the availability under this facility to $25.0 million. The cost of this facility, which is the prevailing commercial paper rate plus facility fees, is considered a financing cost and is included in "Interest expense" in the Consolidated Statements of Income. The outstanding balance under the Accounts Receivable Facility was classified as short-term or long-term in accordance with the terms of the agreement. The Accounts Receivable Facility was reclassified from short-term debt to long-term debt due to the renewal of this facility for a period of three years. The yield rate was 3.22%, 2.15% and 1.65%, at December 31, 2018, 2017 and 2016, respectively.

The lines of credit for certain of the Company's foreign subsidiaries provide for short-term borrowings up to $273.4 million in the aggregate. Most of these lines of credit are uncommitted. At December 31, 2018, the Company's foreign subsidiaries had borrowings outstanding of $33.6 million and guarantees of $0.4 million, which reduced the aggregate availability under these facilities to $239.4 million. The weighted-average interest rate on these lines of credit during the year were 0.6%, 0.7% and 0.7% in 2018, 2017 and 2016, respectively. The weighted-average interest rate on lines of credit outstanding at December 31, 2018 and 2017 was 0.32% and 0.41%, respectively. The decrease in the weighted-average interest rate was primarily due to a decrease in borrowing rates in Europe.

Long-term debt as of December 31, 2018 and 2017 was as follows:

	2018	2017
Variable-rate Senior Credit Facility with an average interest rate on U.S. Dollar of 3.40% and Euro of 1.10% at December 31, 2018 and 2.40% and 1.10%, respectively, at December 31, 2017	**$ 43.9**	$ 52.0
Variable-rate Euro Term Loan[1] with an interest rate of 1.13% at December 31, 2018 and December 31, 2017	**107.1**	119.7
Variable-rate Accounts Receivable Facility with an interest rate of 3.22% at December 31, 2018	**75.0**	—
Variable-rate Term Loan[1] with an interest rate of 3.77% at December 31, 2018	**347.1**	—
Fixed-rate Senior Unsecured Notes[1], maturing on September 1, 2024, with an interest rate of 3.875%	**347.7**	346.9
Fixed-rate Euro Senior Unsecured Notes[1], maturing on September 7, 2027, with an interest rate of 2.02%	**171.4**	179.3
Fixed-rate Senior Unsecured Notes[1], maturing on December 15, 2028, with an interest rate of 4.50%	**395.8**	—
Fixed-rate Medium-Term Notes, Series A[1], maturing at various dates through May 2028, with interest rates ranging from 6.74% to 7.76%	**154.6**	154.5
Other	**5.4**	4.5
Total debt	**$ 1,648.0**	$ 856.9
Less current maturities	**9.4**	2.7
Long-term debt	**$ 1,638.6**	$ 854.2

[1] Net of discount and fees

The Company has a $500 million Senior Credit Facility, which matures on June 19, 2020. At December 31, 2018, the Company had $43.9 million of outstanding borrowings under the Senior Credit Facility, which reduced the availability under this facility to $456.1 million. The Senior Credit Facility has two financial covenants: a consolidated leverage ratio and a consolidated interest coverage ratio. At December 31, 2018, the Company was in full compliance with both of these covenants.

On September 6, 2018, the Company issued $400 million aggregate principal amount of fixed-rate 4.50% senior unsecured notes, the 2028 Notes. On September 11, 2018, the Company entered into the $350 million variable-rate term loan, the 2023 Term Loan. Proceeds from the 2028 Notes and the 2023 Term Loan were used to fund the acquisitions of Cone Drive and Rollon, which closed on September 1, 2018 and September 18, 2018, respectively.

On September 7, 2017, the Company issued €150 million aggregate principal amount of fixed-rate 2.02% senior unsecured notes, the 2027 Notes. On September 18, 2017, the Company entered into the €100 million variable-rate term loan, the 2020 Term Loan. On June 14, 2018, the Company repaid €6.5 million under the 2020 Term Loan, reducing the principal balance to €93.5 million as of December 31, 2018. Proceeds from the 2027 Notes and 2020 Term Loan were used to repay amounts drawn from the Senior Credit Facility to fund the Groeneveld acquisition, which closed on July 3, 2017. Refer to *Note 2 - Acquisitions and Divestitures* for additional information.

All of these debt instruments, except the 2028 Notes, have two financial covenants: a consolidated leverage ratio and a consolidated interest coverage ratio. These covenants are similar to those in the Senior Credit Facility. At December 31, 2018, the Company was in full compliance with both of these covenants. The 2028 Notes have no specific financial covenants.

The maturities of long-term debt and capital leases for the five years subsequent to December 31, 2018 are as follows:

Year		
2019	$	9.4
2020		152.5
2021		77.7
2022		0.5
2023		338.4
Thereafter		1,069.5

Interest paid was $42.5 million in 2018, $31.5 million in 2017 and $30.1 million in 2016. This differs from interest expense due to the timing of payments and interest capitalized of $0.4 million in 2018, $0.7 million in 2017 and $1.1 million in 2016.

The Company and its subsidiaries lease a variety of real property and equipment. Rent expense under operating leases amounted to $35.7 million, $35.2 million and $30.0 million in 2018, 2017 and 2016, respectively.

Future minimum lease payments for noncancelable operating leases at December 31, 2018 are as follows:

Year		
2019	$	36.1
2020		27.1
2021		16.9
2022		11.1
2023		6.1
Thereafter		17.5

Note 10 - Contingencies

The Company and certain of its subsidiaries have been identified as potentially responsible parties for investigation and remediation under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), known as the Superfund, or similar state laws with respect to certain sites. Claims for investigation and remediation have been asserted against numerous other entities, which are believed to be financially solvent and are expected to fulfill their proportionate share of the obligation.

On December 28, 2004, the United States Environmental Protection Agency (“USEPA”) sent Lovejoy, Inc. ("Lovejoy") a Special Notice Letter that identified Lovejoy as a potentially responsible party, together with at least 14 other companies, at the Ellsworth Industrial Park Site, Downers Grove, DuPage County, Illinois (the “Site”). The Company acquired Lovejoy in 2016. Lovejoy’s Downers Grove property is situated within the Ellsworth Industrial Complex. The USEPA and the Illinois Environmental Protection Agency (“IEPA”) allege there have been one or more releases or threatened releases of hazardous substances, allegedly including, but not limited to, a release or threatened release on or from Lovejoy's property, at the Site. The relief sought by the USEPA and IEPA includes further investigation and potential remediation of the Site and reimbursement of response costs. Lovejoy’s allocated share of past and future costs related to the Site, including for investigation and/or remediation, could be significant. All previously pending property damage and personal injury lawsuits against Lovejoy related to the Site have been settled or dismissed.

The Company had total environmental accruals of $5.5 million and $5.0 million for various known environmental matters that are probable and reasonably estimable as of December 31, 2018 and 2017, respectively, which includes the Lovejoy matter discussed above. These accruals were recorded based upon the best estimate of costs to be incurred in light of the progress made in determining the magnitude of remediation costs, the timing and extent of remedial actions required by governmental authorities and the amount of the Company’s liability in proportion to other responsible parties.

In addition, the Company is subject to various lawsuits, claims and proceedings, which arise in the ordinary course of its business. The Company accrues costs associated with legal and non-income tax matters when they become probable and reasonably estimable. Accruals are established based on the estimated undiscounted cash flows to settle the obligations and are not reduced by any potential recoveries from insurance or other indemnification claims. Management believes that any ultimate liability with respect to these actions, in excess of amounts provided, will not materially affect the Company’s Consolidated Financial Statements.

In October 2014, the Brazilian government antitrust agency announced that it had opened an investigation of alleged antitrust violations in the bearing industry. The Company’s Brazilian subsidiary, Timken do Brasil Comercial Importadora Ltda, was included in the investigation. While the Company is unable to predict the ultimate length, scope or results of the investigation, management believes that the outcome will not have a material effect on the Company’s consolidated financial position. However, any such outcome may be material to the results of operations of any particular period in which costs, if any, are recognized. Based on current facts and circumstances, the low end of the range for potential penalties, if any, would be immaterial to the Company.

Product Warranties:

In addition to the contingencies above, the Company provides limited warranties on certain products. The product warranty liability included in "Other current liabilities" on the Consolidated Balance Sheets for 2018 and 2017 was $7.1 million and $5.8 million, respectively. The Company is also currently evaluating claims raised by certain customers with respect to the performance of bearings sold into the wind energy sector. Management believes that the outcome of these claims will not have a material effect on the Company’s consolidated financial position; however, the effect of any such outcome may be material to the results of operations of any particular period in which costs in excess of amounts provided, if any, are recognized.

Note 11 - Stock Compensation Plans

Under its long-term incentive plan, the Company's common shares have been made available for grant, at the discretion of the Compensation Committee of the Board of Directors, to officers and key employees in the form of stock option awards. Stock option awards typically have a ten-year term and generally vest in 25% increments annually beginning on the first anniversary of the date of grant.

During 2018, 2017 and 2016, the Company recognized stock-based compensation expense of $4.8 million ($3.7 million after tax or $0.05 per diluted share), $5.2 million ($3.2 million after tax or $0.04 per diluted share) and $5.9 million ($3.7 million after tax or $0.05 per diluted share), respectively, for stock option awards.

The fair value of stock option awards granted was estimated at the date of grant using a Black-Scholes option-pricing method with the following assumptions:

	2018	2017	2016
Weighted-average fair value per option	**$ 10.29**	$ 10.60	$ 6.49
Risk-free interest rate	**2.62%**	1.96%	1.22%
Dividend yield	**2.30%**	2.96%	3.04%
Expected stock volatility	**27.78%**	32.25%	34.12%
Expected life - years	**5**	5	5

Historical information was the primary basis for the selection of the expected dividend yield, expected volatility and the expected lives of the options. The dividend yield was calculated based upon the last dividend prior to the grant compared to the trailing 12 months' daily stock prices. The risk-free interest rate was based upon yields of U.S. zero coupon issues with a term equal to the expected life of the option being valued.

A summary of stock option award activity for the year ended December 31, 2018 is presented below:

	Number of Shares	Weighted-average Exercise Price	Weighted-average Remaining Contractual Term	Aggregate Intrinsic Value (millions)
Outstanding - beginning of year	3,151,121	$ 36.65		
Granted - new awards	481,520	44.65		
Exercised	(394,751)	33.50		
Canceled or expired	(47,940)	39.66		
Outstanding - end of year	3,189,950	$ 38.21	6 years	$ 19.3
Options expected to vest	3,189,950	$ 38.21	6 years	$ 19.3
Options exercisable	1,992,857	$ 37.15	5 years	$ 5.3

The total intrinsic value of stock option awards exercised during the years ended December 31, 2018, 2017 and 2016 was $6.7 million, $14.7 million and $1.7 million, respectively. Net cash proceeds from the exercise of stock option awards were $12.8 million, $32.9 million and $4.3 million, respectively.

In addition to stock option awards, the Company has granted performance-based restricted stock units, time-based restricted stock units, deferred shares and restricted shares under its long-term incentive plan. A summary of those awards granted in 2018 is presented below:

	Expected to Settled in Equity	Expected to Settled in Cash	Total Awards Granted
Performance-based restricted stock units	232,690	5,670	238,360
Time-based restricted stock units	151,835	3,440	155,275
Deferred shares	4,000		4,000

Performance-based restricted stock units are calculated and awarded based on the achievement of specified performance objectives and cliff vest three years from the date of grant. The majority of time-based restricted stock units vest in 25% increments annually beginning on the first anniversary of the grant, with the remainder fully-vesting on the first anniversary of the grant. Deferred shares cliff vest 5 years from the date of grant. For time-based restricted stock units that are expected to settle in cash, the Company had $0.8 million and $0.7 million accrued in "Salaries, wages and benefits" as of December 31, 2018 and 2017, respectively, on the Consolidated Balance Sheets.

A summary of stock award activity, including performance-based restricted stock units, time-based restricted stock units, deferred shares and restricted shares that will settle in common shares for the year ended December 31, 2018 is as follows:

	Number of Shares	Weighted-average Grant Date Fair Value
Outstanding - beginning of year	1,245,274	$ 37.56
Granted - new awards	388,525	44.83
Vested	(290,287)	40.49
Canceled or expired	(147,020)	41.23
Outstanding - end of year	1,196,492	$ 38.76

As of December 31, 2018, a total of 1,196,492 stock awards have been awarded that have not yet vested. The Company distributed shares totaling 290,287 in 2018, 445,036 in 2017, and 188,383 in 2016 due to the vesting of stock awards; the grant date fair value of these vested shares was $11.8 million, $16.5 million and $7.8 million, respectively. Shares awarded totaled 388,525 in 2018, 407,436 in 2017 and 613,165 in 2016. The Company recognized compensation expense of $27.5 million, $19.5 million and $8.2 million for the years ended December 31, 2018, 2017 and 2016, respectively, relating to stock award activity.

As of December 31, 2018, the Company had unrecognized compensation expense of $35.9 million related to stock options and stock awards, which is expected to be recognized over a total weighted-average period of two years. The number of shares available for future grants for all plans at December 31, 2018 was 3,759,864.

Note 12 - Retirement Benefit Plans

The Company and its subsidiaries sponsor a number of defined benefit pension plans, which cover eligible employees, including certain employees in foreign countries. These plans generally are noncontributory. Pension benefits earned generally are based on years of service and compensation during active employment. The cash contributions for the Company's defined benefit pension plans were $11.3 million, $11.5 million and $15.0 million in 2018, 2017 and 2016, respectively.

The following tables summarize the net periodic benefit cost information and the related assumptions used to measure the net periodic benefit cost for the years ended December 31:

	U.S. Plans			International Plans		
	2018	2017	2016	**2018**	2017	2016
Components of net periodic benefit cost:						
Service cost	**$ 12.6**	$ 12.2	$ 13.1	**$ 1.7**	$ 1.6	$ 1.4
Interest cost	**24.0**	24.6	26.6	**7.2**	7.5	10.5
Expected return on plan assets	**(29.3)**	(28.0)	(30.1)	**(11.6)**	(11.1)	(10.7)
Amortization of prior service cost	**1.7**	1.4	1.7	**0.1**	—	0.1
Recognition of net actuarial losses	**30.0**	23.1	41.5	**8.8**	0.1	19.4
Curtailment	**(10.2)**	(1.1)	—	**—**	—	(0.1)
Net periodic benefit cost	**$ 28.8**	$ 32.2	$ 52.8	**$ 6.2**	$ (1.9)	$ 20.6

Assumptions	**2018**	2017	2016
U.S. Plans:			
Discount rate	**3.75% to 3.94%**	4.34% to 4.50%	4.50% to 4.70%
Future compensation assumption	**2.50%**	2.50% to 3.00%	2.50% to 3.00%
Expected long-term return on plan assets	**5.75% to 6.50%**	5.75% to 6.50%	5.75% to 6.75%
International Plans:			
Discount rate	**1.25% to 9.00%**	1.25% to 9.00%	2.00% to 8.50%
Future compensation assumption	**2.00% to 8.00%**	2.00% to 8.00%	2.20% to 8.00%
Expected long-term return on plan assets	**2.50% to 9.00%**	0.75% to 9.25%	0.82% to 9.25%

The Company recognized actuarial losses of $38.8 million during 2018 primarily due to lower than expected returns on plan assets of $83.4 million driven by negative returns on fixed income investments offset by the increase in discount rates used to measure the obligation of $62.4 million. The impact of experience losses and other changes in valuation assumptions resulted in losses of approximately $17.8 million. The discount rate used to measure the U.S. obligation increased by 56 basis points from 3.80% during 2017 compared to 4.36% in 2018.

During the fourth quarter of 2018, the Board of Directors approved the freezing of the benefits for two of the Company's U.S. defined benefit pension plans, effective December 31, 2022. In conjunction with this action, the Company recognized a curtailment gain of $10.2 million in 2018.

The Company recognized actuarial losses of $23.2 million during 2017 primarily due to the impact of a net reduction in the discount rate used to measure its defined benefit pension obligations of $52.9 million and the impact of experience losses and other changes in valuation assumptions of $8.7 million, partially offset by higher than expected returns on plan assets of $38.4 million. The impact of the net reduction in the discount rate used to measure the Company's defined benefit obligation was primarily driven by a 54 basis point reduction in the discount rate used to measure its U.S. defined benefit plan obligations, which decreased from 4.34% in 2016 to 3.80% in 2017.

The Company recognized actuarial losses of $60.9 million during 2016 primarily due to the impact of a net reduction in the discount rate used to measure its defined benefit pension obligations of $86.9 million and the impact of experience losses and other changes in valuation assumptions of $10.2 million, partially offset by higher than expected returns on plan assets of $36.2 million. The impact of the net reduction in the discount rate used to measure the Company's defined benefit obligation was primarily driven by a 125 and 36 basis point reduction in the discount rate used to measure its defined benefit plan obligations in the United Kingdom and U.S., respectively.

For expense purposes in 2018, the Company applied a weighted-average discount rate of 3.80% to its U.S. defined benefit pension plans. For expense purposes in 2019, the Company will apply a weighted-average discount rate of 4.36% to its U.S. defined benefit pension plans.

For expense purposes in 2018, the Company applied a weighted-average expected rate of return of 5.78% for the Company's U.S. pension plan assets. For expense purposes in 2019, the Company will apply a weighted-average expected rate of return on plan assets of 6.12%.

The following tables set forth the change in benefit obligation, change in plan assets, funded status and amounts recognized on the Consolidated Balance Sheets for the defined benefit pension plans as of December 31, 2018 and 2017:

	U.S. Plans		International Plans	
	2018	2017	**2018**	2017
Change in benefit obligation:				
Benefit obligation at beginning of year	**$ 643.0**	$ 612.4	**$ 335.2**	$ 314.2
Service cost	**12.6**	12.2	**1.7**	1.6
Interest cost	**24.0**	24.6	**7.2**	7.5
Plan amendments	**—**	2.8	**3.6**	—
Actuarial losses	**(36.7)**	60.5	**(7.4)**	0.9
International plan exchange rate change	**—**	—	**(17.2)**	32.2
Curtailment	**(10.2)**	(1.8)	**—**	—
Benefits paid	**(95.8)**	(67.7)	**(24.8)**	(21.2)
Acquisitions	**49.7**	—	**2.0**	—
Benefit obligation at end of year	**$ 586.6**	$ 643.0	**$ 300.3**	$ 335.2
Change in plan assets:				
Fair value of plan assets at beginning of year	**$ 531.9**	$ 529.6	**$ 292.4**	$ 268.7
Actual return on plan assets	**(37.5)**	65.5	**(5.1)**	12.0
Company contributions / payments	**5.3**	4.5	**6.0**	7.0
International plan exchange rate change	**—**	—	**(15.4)**	25.9
Acquisitions	**44.4**	—	**1.5**	—
Benefits paid	**(95.8)**	(67.7)	**(24.8)**	(21.2)
Fair value of plan assets at end of year	**448.3**	531.9	**254.6**	292.4
Funded status at end of year	**$ (138.3)**	$ (111.1)	**$ (45.7)**	$ (42.8)

	U.S. Plans		International Plans	
	2018	2017	**2018**	2017
Amounts recognized on the Consolidated Balance Sheets:				
Non-current assets	**$ —**	$ 6.7	**$ 6.2**	$ 13.0
Current liabilities	**(27.4)**	(4.8)	**(1.5)**	(1.5)
Non-current liabilities	**(110.9)**	(113.0)	**(50.4)**	(54.3)
	$ (138.3)	$ (111.1)	**$ (45.7)**	$ (42.8)

Amounts recognized in accumulated other comprehensive loss:				
Net prior service cost	**$ 6.4**	$ 8.1	**$ 4.0**	$ 0.5
Accumulated other comprehensive loss	**$ 6.4**	$ 8.1	**$ 4.0**	$ 0.5

Changes in prior service cost recognized in accumulated other comprehensive loss:				
Accumulated other comprehensive loss at beginning of year	**$ 8.1**	$ 7.4	**$ 0.5**	$ 0.5
Prior service cost	**—**	2.8	**—**	—
Recognized prior service cost	**(1.7)**	(1.4)	**(0.1)**	—
(Loss) gain recognized due to curtailment	**—**	(0.7)	**3.6**	—
Total recognized in accumulated other comprehensive loss at December 31	**$ 6.4**	$ 8.1	**$ 4.0**	$ 0.5

The presentation in the above tables for amounts recognized in accumulated other comprehensive loss on the Consolidated Balance Sheets is before the effect of income taxes.

The following table summarizes assumptions used to measure the benefit obligation for the defined benefit pension plans at December 31:

Assumptions	**2018**	2017
U.S. Plans:		
Discount rate	**4.05% to 4.43%**	3.75% to 3.80%
Future compensation assumption	**2.50%**	2.50%
International Plans:		
Discount rate	**1.50% to 11.00%**	1.25% to 9.00%
Future compensation assumption	**2.00% to 8.23%**	2.00% to 8.00%

Defined benefit pension plans in the United States represent 66% of the benefit obligation and 64% of the fair value of plan assets as of December 31, 2018.

Certain of the Company's defined benefit pension plans were overfunded as of December 31, 2018. As a result, $6.2 million and $19.7 million at December 31, 2018 and 2017, respectively, are included in non-current pension assets on the Consolidated Balance Sheets. The current portion of accrued pension cost, which was included in salaries, wages and benefits on the Consolidated Balance Sheets, was $28.9 million and $6.4 million at December 31, 2018 and 2017, respectively. The increase in the current portion of accrued pension cost relates to the expected 2019 deferred compensation to a former executive officer of the Company. In 2018, the current portion of accrued pension cost relates to unfunded plans and represents the actuarial present value of expected payments related to the plans to be made over the next 12 months.

The accumulated benefit obligation at December 31, 2018 exceeded the market value of plan assets for several of the Company's pension plans. For these plans, the projected benefit obligation was $599.2 million, the accumulated benefit obligation was $583.3 million and the fair value of plan assets was $410.7 million at December 31, 2018.

The total pension accumulated benefit obligation for all plans was $864.9 million and $941.5 million at December 31, 2018 and 2017, respectively.

Investment performance decreased the value of the Company's pension assets by 5.1% in 2018.

As of December 31, 2018 and 2017, the Company's defined benefit pension plans did not directly hold any of the Company's common shares.

The estimated prior service cost for the defined benefit pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year is $1.8 million.

Plan Assets:
The Company's target allocation for pension plan assets, as well as the actual pension plan asset allocations as of December 31, 2018 and 2017, was as follows:

	Current Target Allocation			Percentage of Pension Plan Assets at December 31,	
Asset Category				**2018**	2017
Equity securities	15%	to	21%	**18%**	14%
Fixed income securities	70%	to	80%	**76%**	80%
Other investments	4%	to	10%	**6%**	6%
Total				**100%**	100%

The Company recognizes its overall responsibility to ensure that the assets of its various defined benefit pension plans are managed effectively and prudently and in compliance with its policy guidelines and all applicable laws. Preservation of capital is important; however, the Company also recognizes that appropriate levels of risk are necessary to allow its investment managers to achieve satisfactory long-term results consistent with the objectives and the fiduciary character of the pension funds. Asset allocations are established in a manner consistent with projected plan liabilities, benefit payments and expected rates of return for various asset classes, and are reviewed regularly by management. The expected rate of return for the investment portfolio is based on expected rates of return for various asset classes, as well as historical asset class and fund performance.

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 at the measurement date (exit price). The FASB provides accounting rules that classify the inputs used to measure fair value into the following hierarchy:

Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 - Unadjusted quoted prices in active markets for similar assets or liabilities, or unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs other than quoted prices that are observable for the asset or liability.

Level 3 - Unobservable inputs for the asset or liability.

The following table presents the fair value hierarchy for those investments of the Company's pension assets measured at fair value on a recurring basis as of December 31, 2018:

	U.S. Pension Plans				International Pension Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Cash and cash equivalents	$ 18.6	$ —	$ —	$ 18.6	$ 0.8	$ —	$ —	$ 0.8
Government and agency securities	29.9	2.7	—	32.6	—	—	—	—
Corporate bonds - investment grade	—	71.7	—	71.7	—	—	—	—
Mutual funds - fixed income	60.8	—	—	60.8	—	—	—	—
Mutual funds - international equity	24.0	—	—	24.0	—	—	—	—
Mutual funds - domestic equity	2.6	—	—	2.6	—	—	—	—
Mutual funds - other assets	1.2	—	—	1.2	—	—	—	—
Other assets	0.1	—	—	0.1	—	—	—	—
	$ 137.2	$ 74.4	$ —	$ 211.6	$ 0.8	$ —	$ —	$ 0.8
Investments measured at net asset value:								
Cash and cash equivalents				$ 0.2				$ —
Equity securities - international companies				—				2.2
Common collective funds - domestic equities				54.0				—
Common collective funds - international equities				9.4				13.6
Common collective funds - fixed income				137.3				76.2
Limited partnerships				24.0				—
Real estate partnerships				11.8				—
Liability hedging investments				—				122.9
Common collective fund - diversified growth				—				18.5
Other assets				—				20.4
Total Assets				$ 448.3				$ 254.6

The following table presents the fair value hierarchy for those investments of the Company's pension assets measured at fair value on a recurring basis as of December 31, 2017:

	U.S. Pension Plans				International Pension Plans			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Cash and cash equivalents	$ 27.2	$ —	$ —	$ 27.2	$ 4.8	$ —	$ —	$ 4.8
Government and agency securities	15.5	3.4	—	18.9	—	—	—	—
Corporate bonds - investment grade	—	105.1	—	105.1	—	—	—	—
Mutual funds - fixed income	44.9	—	—	44.9	—	—	—	—
Mutual funds - international equity	17.5	—	—	17.5	—	—	—	—
	$ 105.1	$ 108.5	$ —	$ 213.6	$ 4.8	$ —	$ —	$ 4.8
Investments measured at net asset value:								
Cash and cash equivalents				$ 0.2				$ 0.1
Equity securities - international companies				—				1.0
Common collective funds - domestic equities				37.0				—
Common collective funds - international equities				11.5				25.3
Common collective funds - fixed income				220.9				86.2
Limited partnerships				31.8				—
Real estate partnerships				16.9				—
Liability hedging investments				—				132.5
Common collective fund - diversified growth				—				21.2
Other assets				—				21.3
Total Assets				$ 531.9				$ 292.4

Cash and cash equivalents are valued at redemption value. Government and agency securities are valued at the closing price reported in the active market in which the individual securities are traded. Certain corporate bonds are valued at the closing price reported in the active market in which the bond is traded. Equity securities (both common and preferred stock) are valued at the closing price reported in the active market in which the individual security is traded. Common collective funds are valued based on a net asset value per share. Asset-backed securities are valued based on quoted prices for similar assets in active markets. When such prices are unavailable, the plan trustee determines a valuation from the market maker dealing in the particular security.

Limited partnerships include investments in funds that invest primarily in private equity, venture capital and distressed debt. Limited partnerships are valued based on the ownership interest in the net asset value of the investment, which is used as a practical expedient to fair value, per the underlying investment fund, which is based upon the general partner's own assumptions about the assumptions a market participant would use in pricing the assets and liabilities of the partnership. Real estate investments include funds that invest in companies that primarily invest in commercial and residential properties, commercial mortgage-backed securities, debt and equity securities of real estate operating companies, and real estate investment trusts. Other real estate investments are valued based on the ownership interest in the net asset value of the investment, which is used as a practical expedient to fair value per the underlying investment fund, which is based on appraised values and current transaction prices.

Liability hedging investments mainly include investments in index-linked liability driven investing open-end swap funds. These funds invest in cash held deposits that reflect the index-linked deferred annuity with payment terms of specific years linked to UK inflation measures. The underlying assets in this investment are valued daily.

Common collective funds - diversified growth investments are pooled funds that invest in a multiple underlying asset classes, such as equities, fixed income, commodities, alternative investments, and cash in an effort to achieve returns on investment through capital appreciation and income. The underlying assets in this investment are valued daily.

Cash Flows:

Employer Contributions to Defined Benefit Plans	
2017	$ 11.5
2018	11.3
2019 (planned)	34.0

The increase in 2019 planned employer contributions/payments is primarily due to the expected payout of deferred compensation to a former executive officer of the Company.

Future benefit payments, including lump sum distributions, are expected to be as follows:

Benefit Payments	
2019	$ 89.4
2020	62.9
2021	73.9
2022	63.3
2023	60.7
2024-2028	273.1

Employee Savings Plans:
The Company sponsors defined contribution retirement and savings plans covering substantially all employees in the United States and employees at certain non-U.S. locations. The Company made contributions to its defined contribution plans of $23.7 million, $21.8 million and $20.2 million in 2018, 2017 and 2016, respectively. Participants in certain of these plans may elect to hold a portion of their investments in the Company's common shares. At December 31, 2018, the plans held 2,614,501 of the Company’s common shares with a fair value of $97.6 million. The Company paid dividends totaling $2.9 million, $3.0 million and $3.7 million in 2018, 2017 and 2016, respectively, to plans to be disbursed to participant accounts holding the Company’s common shares.

Note 13 - Other Postretirement Benefit Plans

The Company and its subsidiaries sponsor several funded and unfunded postretirement plans that provide health care and life insurance benefits for eligible retirees and dependents. Depending on retirement date and employee classification, certain health care plans contain contribution and cost-sharing features such as deductibles, coinsurance and limitations on employer-provided subsidies. The remaining health care and life insurance plans are noncontributory.

The following tables summarize the net periodic benefit cost information and the related assumptions used to measure the net periodic benefit cost for the years ended December 31:

		2018		2017		2016
Components of net periodic benefit cost:						
Service cost	**$**	**0.2**	$	0.1	$	0.3
Interest cost		**7.6**		9.1		11.0
Expected return on plan assets		**(3.7)**		(5.6)		(6.3)
Amortization of prior service (credit) cost		**(1.7)**		(1.0)		1.0
Recognition of net actuarial (gains) losses		**(16.7)**		(4.0)		4.5
Curtailment		**—**		—		0.1
Net periodic benefit cost	**$**	**(14.3)**	$	(1.4)	$	10.6

Assumptions:	**2018**	2017	2016
Discount rate	**3.57%**	3.97%	4.39%
Rate of return	**4.50%**	6.00%	6.00%

The Company recognized actuarial gains of $16.7 million during 2018 primarily due to the impact of a 73 basis point increase in the discount rate used to measure the Company's defined benefit postretirement obligation, which increased from 3.57% in 2017 to 4.30% in 2018 and due to a number of participants opting out of coverage from the plans in response to a financial incentive program offered to eligible participants of the Company's retiree health and life insurance plans. The Company recognized actuarial gains of $10.6 million as a result of the increase in the discount rate and $10.4 million as a result of the impact of the opt-out program. These actuarial gains were partially offset by lower than expected returns on plan assets of $4.0 million and by the impact of experience losses and other changes in valuation assumptions of $0.3 million.

The Company recognized actuarial gains of $4.0 million during 2017 primarily due to a number of participants opting out of coverage from the plans in response to a financial incentive program offered to eligible participants of the Company's retiree health and life insurance plans. In addition, the Company adopted the MP-2017 scales as its best estimate of future mortality improvements for defined benefit postretirement obligations. The Company recognized actuarial gains of $14.4 million as a result of the impact of the opt-out program, $5.0 million as a result of changes in mortality tables and higher than expected returns on plan assets of $3.7 million. These actuarial gains were partially offset by the impact of experience losses and other changes in valuation assumptions of $12.2 million and a $6.9 million impact of a 40 basis point reduction in the discount rate used to measure its defined benefit postretirement obligations, which decreased from 3.97% in 2016 to 3.57%.

The Company recognized actuarial losses of $4.5 million during 2016 primarily due to the impact of a 42 basis point reduction in the discount rate used to measure its defined benefit postretirement obligations of $8.2 million and lower than expected returns on plan assets of $0.2 million, partially offset by and the impact of experience gains and other changes in valuation assumptions of $3.9 million.

The discount rate assumption is based on current rates of high-quality long-term corporate bonds over the same period that benefit payments will be required to be made. The expected rate of return on plan assets assumption is based on the weighted-average expected return on the various asset classes in the plans' portfolio. The asset class return is developed using historical asset return performance as well as current market conditions such as inflation, interest rates and equity market performance.

For expense purposes in 2018, the Company applied a discount rate of 3.57% to its other postretirement benefit plans. For expense purposes in 2019, the Company will apply a discount rate of 4.30% to its other postretirement benefit plans.

For expense purposes in 2018, the Company applied an expected rate of return of 4.50% to the VEBA trust assets. For expense purposes in 2019, the Company will apply an expected rate of return of 4.85% to the VEBA trust assets.

The following tables set forth the change in benefit obligation, change in plan assets, funded status and amounts recognized on the Consolidated Balance Sheets of the other postretirement benefit plans as of December 31, 2018 and 2017:

	2018	2017
Change in benefit obligation:		
Benefit obligation at beginning of year	**$ 219.8**	$ 241.4
Service cost	**0.2**	0.1
Interest cost	**7.6**	9.1
Plan amendments	**(4.4)**	1.2
Actuarial gains	**(20.7)**	(0.3)
International plan exchange rate change	**(0.1)**	—
Benefits paid	**(27.2)**	(31.7)
Acquisitions	**11.7**	—
Benefit obligation at end of year	**$ 186.9**	$ 219.8
Change in plan assets:		
Fair value of plan assets at beginning of year	**$ 92.4**	$ 102.4
Company contributions / payments	**7.4**	12.4
Return on plan assets	**(0.3)**	9.3
Benefits paid	**(27.2)**	(31.7)
Fair value of plan assets at end of year	**72.3**	92.4
Funded status at end of year	**$ (114.6)**	$ (127.4)
Amounts recognized on the Consolidated Balance Sheets:		
Current liabilities	**$ (5.9)**	$ (4.8)
Non-current liabilities	**(108.7)**	(122.6)
	$ (114.6)	$ (127.4)
Amounts recognized in accumulated other comprehensive income:		
Net prior service cost	**$ (10.8)**	$ (8.1)
Accumulated other comprehensive income	**$ (10.8)**	$ (8.1)
Changes to prior service cost recognized in accumulated other comprehensive (income) loss:		
Accumulated other comprehensive income at beginning of year	**$ (8.1)**	$ (10.3)
Prior service (credit) cost	**(4.4)**	1.2
Recognized prior service credit	**1.7**	1.0
Total recognized in accumulated other comprehensive income at December 31	**$ (10.8)**	$ (8.1)

The presentation in the above tables for amounts recognized in accumulated other comprehensive (income) loss on the Consolidated Balance Sheets is before the effect of income taxes.

The following table summarizes assumptions used to measure the benefit obligation for the other postretirement benefit plans at December 31:

Assumptions:	**2018**	2017
Discount rate	**4.30%**	3.57%

The current portion of accrued postretirement benefit cost, which was included in salaries, wages and benefits on the Consolidated Balance Sheets, was $5.9 million and $4.8 million at December 31, 2018 and 2017, respectively. In 2018, the current portion of accrued postretirement benefit cost related to unfunded plans and represented the actuarial present value of expected payments related to the plans to be made over the next 12 months.

The estimated prior service cost for the postretirement plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year is a credit of $2.2 million.

For measurement purposes, the Company assumed a weighted-average annual rate of increase in the per capita cost (health care cost trend rate) for medical benefits of 6.0% for 2019, declining gradually to 5.0% in 2023 and thereafter; and 6.0% for 2019, declining gradually to 5.0% in 2023 and thereafter for prescription drug benefits; and 8.0% for 2019, declining gradually to 5.0% in 2031 and thereafter for HMO benefits. Most of the Company's postretirement plans include caps that limit the amount of the benefit provided by the Company to participants each year, which lessens the impact of health care inflation costs to the Company.

The assumed health care cost trend rate may have a significant effect on the amounts reported. A one percentage point increase in the assumed health care cost trend rate would have increased the 2018 total service and interest cost components by $0.2 million and would have increased the postretirement benefit obligation by $3.3 million. A one percentage point decrease would provide corresponding reductions of $0.2 million and $3.0 million, respectively.

Plan Assets:

The Company's target allocation for the VEBA trust assets, as well as the actual VEBA trust asset allocation as of December 31, 2018 and 2017, was as follows:

	Current Target Allocation			Percentage of VEBA Assets at December 31,	
Asset Category				**2018**	2017
Equity securities	14%	to	20%	**17%**	17%
Fixed income securities	80%	to	86%	**83%**	83%
Total				**100%**	100%

Preservation of capital is important; however, the Company also recognizes that appropriate levels of risk are necessary to allow its investment managers to achieve satisfactory long-term results consistent with the objectives and the fiduciary character of the postretirement funds. Asset allocations are established in a manner consistent with projected plan liabilities, benefit payments and expected rates of return for various asset classes. The expected rate of return for the investment portfolio is based on expected rates of return for various asset classes, as well as historical asset class and fund performance.

The following table presents those investments of the Company's VEBA trust assets measured at net asset value on a recurring basis as of December 31, 2018 and 2017, respectively:

	2018	2017
Assets:		
Cash and cash equivalents	**$ 9.9**	$ 13.0
Common collective fund - U.S. equities	**6.8**	9.5
Common collective fund - international equities	**5.2**	6.7
Common collective fund - fixed income	**50.4**	63.2
Total Assets	**$ 72.3**	$ 92.4

Cash and cash equivalents are valued at redemption value. Common collective funds are valued based on a net asset value per share, which is used as a practical expedient to fair value. When such prices are unavailable, the plan trustee determines a valuation from the market maker dealing in the particular security.

Cash Flows:

The Company did not make any employer contributions to the VEBA Trust in 2018 and 2017. The Company does not expect to make any employer contributions in 2019.

Future benefit payments are expected to be as follows:

	Future Benefit Payments
2019	$ 20.8
2020	19.7
2021	18.5
2022	17.4
2023	16.4
2024-2028	67.5

Note 14 - Revenue

The following table presents details deemed most relevant to the users of the financial statements about total revenue for the years ended December 31, 2018 and 2017:

	December 31, 2018		
	Mobile	**Process**	**Total**
United States	**$ 1,028.8**	**$ 769.5**	**$ 1,798.3**
Americas excluding United States	**208.9**	**176.7**	**385.6**
Europe / Middle East / Africa	**382.5**	**380.2**	**762.7**
Asia-Pacific	**283.5**	**350.7**	**634.2**
Net sales	**$ 1,903.7**	**$ 1,677.1**	**$ 3,580.8**
	December 31, 2017		
	Mobile[1]	Process[1]	Total[1]
United States	$ 938.4	$ 664.6	$ 1,603.0
Americas excluding United States	182.5	150.7	333.2
Europe / Middle East / Africa	305.0	265.3	570.3
Asia-Pacific	214.1	283.2	497.3
Net sales	$ 1,640.0	$ 1,363.8	$ 3,003.8
	December 31, 2016		
	Mobile[1]	Process[1]	Total[1]
United States	$ 853.1	$ 625.6	$ 1,478.7
Americas excluding United States	175.1	133.1	308.2
Europe / Middle East / Africa	242.9	218.4	461.3
Asia-Pacific	175.3	246.3	421.6
Net sales	$ 1,446.4	$ 1,223.4	$ 2,669.8

[1] Prior period amounts have not been adjusted under the modified retrospective adoption method.

When reviewing revenues by sales channel, the Company separates net sales to original equipment manufacturers from sales to distributors and end users. The following table presents the percent of revenues by sales channel for the year ended December 31, 2018:

Revenue by sales channel	**December 31, 2018**
Original equipment manufacturers	**58%**
Distribution/end users	**42%**

In addition to disaggregating revenue by segment and geography and by sales channel as shown above, the Company believes information about the timing of transfer of goods or services, type of customer and distinguishing service revenue from product sales is also relevant. During the year ended December 31, 2018, approximately 10% of total net sales were recognized on an over-time basis because of the continuous transfer of control to the customer, with the remainder recognized as of a point in time. The payment terms with the U.S. government or its contractors, which represented approximately 7% of total net sales, differ from those of non-government customers. Finally, approximately 5% of total net sales represented service revenue.

Remaining Performance Obligations:
Remaining performance obligations represent the transaction price of orders meeting the definition of a contract in the new revenue standard for which work has not been performed and excludes unexercised contract options. Performance obligations having a duration of more than one year are concentrated in contracts for certain products and services provided to the U.S. government or its contractors. The aggregate amount of the transaction price allocated to remaining performance obligations for such contracts with a duration of more than one year was approximately $127 million at December 31, 2018.

Unbilled Receivables:

The following table contains a rollforward of unbilled receivables for the year ended December 31, 2018:

	December 31, 2018
Beginning balance, January 1	$ **95.7**
Additional unbilled revenue recognized	**342.3**
Less: amounts billed to customers	**(321.4)**
Ending balance	$ **116.6**

There were no impairment losses recorded on unbilled receivables for the year ended December 31, 2018.

Note 15 - Segment Information

The Company operates under two reportable segments: (1) Mobile Industries and (2) Process Industries.

Description of types of products and services from which each reportable segment derives its revenues:
The Company's reportable segments are business units that target different industry sectors. While the segments often operate using a shared infrastructure, each reportable segment is managed to address specific customer needs in these diverse market segments.

Mobile Industries offers an extensive portfolio of bearings, seals, lubrication devices and systems, as well as power transmission components, engineered chain, augers, belts, couplings, clutches, brakes and related products and maintenance services, to OEMs and end users of: off-highway equipment for the agricultural, construction, mining, outdoor power equipment and powersports markets; on-highway vehicles including passenger cars, light trucks and medium- and heavy-duty trucks; rail cars and locomotives. Beyond service parts sold to OEMs, aftermarket sales and services to individual end users, equipment owners, operators and maintenance shops are handled directly or through the Company's extensive network of authorized automotive and heavy-truck distributors, and include hub units, specialty kits and more. Mobile Industries also provides power transmission systems and flight-critical components for civil and military aircraft, which include bearings, helicopter transmission systems, rotor-head assemblies, turbine engine components, gears and housings.

Process Industries supplies industrial bearings and assemblies, power transmission components such as gears and gearboxes, linear motion products, couplings, seals, lubricants, chains, belts and related products and services to OEMs and end users in industries that place heavy demands on operating equipment they make or use. This includes: metals, mining, cement and aggregate production; wind energy and solar; coal power generation and oil and gas; pulp and paper in applications including printing presses; packaging and automation; and cranes, hoists, drawbridges, gear drives, conveyors, health and critical motion control equipment, marine equipment and food processing equipment. This segment also supports aftermarket sales and service needs through its global network of authorized industrial distributors and through the provision of services directly to end users. In addition, the Company’s industrial services group offers end users a broad portfolio of maintenance support and capabilities that include repair and service for bearings and gearboxes as well as electric motor rewind, repair and services.

Measurement of segment profit or loss and segment assets:
The Company evaluates performance and allocates resources based on return on capital and profitable growth. The primary measurement used by management to measure the financial performance of each segment is EBIT.

The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies.

Factors used by management to identify the enterprise’s reportable segments:
Net sales by geographic area are reported by the destination of net sales, which is reflective of how the Company operates its segments. Long-lived assets by geographic area are reported by the location of the subsidiary.

Timken’s non-U.S. operations are subject to normal international business risks not generally applicable to a domestic business. These risks include currency fluctuation, changes in tariff restrictions, difficulties in establishing and maintaining relationships with local distributors and dealers, import and export licensing requirements, difficulties in staffing and managing geographically diverse operations and restrictive regulations by foreign governments, including price and exchange controls, compliance with a variety of foreign laws and regulations, including unexpected changes in taxation and environmental regulatory requirements, and disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the FCPA.

Business Segment Information:
The following tables provide segment financial information and a reconciliation of segment results to consolidated results:

	2018	2017	2016
Net sales to external customers:			
Mobile Industries	**$ 1,903.7**	$ 1,640.0	$ 1,446.4
Process Industries	**1,677.1**	1,363.8	1,223.4
	$ 3,580.8	$ 3,003.8	$ 2,669.8
Segment EBIT:			
Mobile Industries	**$ 198.7**	$ 139.0	$ 116.8
Process Industries	**333.8**	222.3	168.2
Total EBIT, for reportable segments	**$ 532.5**	$ 361.3	$ 285.0
Corporate expenses	**(62.0)**	(49.1)	(44.4)
CDSOA income, net	**—**	—	59.6
Corporate pension-related charges [1]	**(12.8)**	(18.1)	(67.0)
Interest expense	**(51.7)**	(37.1)	(33.5)
Interest income	**2.1**	2.9	1.9
Income before income taxes	**$ 408.1**	$ 259.9	$ 201.6

[1] Corporate pension-related charges represent curtailments, professional fees associated with pension de-risking and actuarial (losses) and gains that resulted from the remeasurement of pension and other postretirement plan assets and obligations as a result of changes in assumptions.

	2018	2017
Assets employed at year-end:		
Mobile Industries	**$ 1,984.5**	$ 1,775.7
Process Industries	**2,211.3**	1,383.1
Corporate [2]	**249.4**	243.6
	$ 4,445.2	$ 3,402.4

[2] Corporate assets include corporate buildings and cash and cash equivalents.

	2018	2017	2016
Capital expenditures:			
Mobile Industries	**$ 48.3**	$ 57.3	$ 88.4
Process Industries	**63.3**	46.2	48.4
Corporate	**1.0**	1.2	0.7
	$ 112.6	$ 104.7	$ 137.5
Depreciation and amortization:			
Mobile Industries	**$ 71.3**	$ 70.0	$ 64.9
Process Industries	**73.5**	66.6	65.6
Corporate	**1.2**	1.1	1.2
	$ 146.0	$ 137.7	$ 131.7

Note 15 - Segment Information (continued)

Geographic Financial Information:

	2018	2017	2016
Property, Plant and Equipment, net:			
United States	**$ 371.7**	$ 392.1	$ 418.0
Americas excluding United States	**13.7**	14.7	14.9
Europe / Middle East / Africa	**236.6**	203.4	141.1
Asia-Pacific	**290.1**	254.0	230.4
	$ 912.1	$ 864.2	$ 804.4

Refer to *Note 14 - Revenue* for further information pertaining to geographic net sales information.

Note 16 - Income Taxes

Income before income taxes, based on geographic location of the operations to which such earnings are attributable, is provided below. As the Company has elected to treat certain foreign subsidiaries as branches for U.S. income tax purposes, pretax income attributable to the United States shown below may differ from the pretax income reported in the Company's annual U.S. federal income tax return.

Income before income taxes:

	2018	2017	2016
United States	**$ 202.0**	$ 107.4	$ 102.3
Non-United States	**206.1**	152.5	99.3
Income before income taxes	**$ 408.1**	$ 259.9	$ 201.6

The provision for income taxes consisted of the following:

	2018	2017	2016
Current:			
Federal	**$ 46.1**	$ 9.1	$ 44.1
State and local	**9.9**	4.6	0.1
Foreign	**68.0**	44.3	31.3
	$ 124.0	$ 58.0	$ 75.5
Deferred:			
Federal	**$ (19.9)**	$ 13.6	$ (20.5)
State and local	**(0.7)**	(4.6)	0.1
Foreign	**(0.8)**	(9.4)	5.4
	$ (21.4)	$ (0.4)	$ (15.0)
United States and foreign tax provision on income	**$ 102.6**	$ 57.6	$ 60.5

The Company made net income tax payments of $121.3 million, $89.9 million and $49.7 million in 2018, 2017 and 2016, respectively.

Note 16 - Income Taxes (continued)

The following table is the reconciliation between the provision for income taxes and the amount computed by applying the U.S. federal income tax rate 21% (35% in 2017 and 2016) to income before taxes:

	2018	2017	2016
Income tax at the U.S. federal statutory rate	**$ 85.7**	$ 91.0	$ 70.6
Adjustments:			
State and local income taxes, net of federal tax benefit	**6.8**	3.1	2.6
Tax on foreign remittances and U.S. tax on foreign income	**21.1**	93.0	8.3
Foreign losses without current tax benefits	**3.7**	8.9	6.4
Foreign earnings taxed at different rates including tax holidays	**11.1**	(18.0)	(5.2)
U.S. domestic manufacturing deduction	**—**	(3.9)	(5.0)
U.S. foreign tax credit	**(21.2)**	(104.2)	(8.0)
Accruals and settlements related to tax audits	**(3.8)**	(34.4)	(8.1)
Valuation allowance changes	**—**	(12.6)	0.2
U.S. Tax Reform	**(10.6)**	35.3	—
Other items, net	**9.8**	(0.6)	(1.3)
Provision for income taxes	**$ 102.6**	$ 57.6	$ 60.5
Effective income tax rate	**25.1%**	22.2%	30.0%

U.S. Tax Reform reduced the U.S. federal statutory rate from 35% to 21% beginning in 2018. U.S. Tax Reform also required companies to pay a one-time net charge related to the taxation of unremitted foreign earnings and to remeasure its U.S. deferred tax balances to the lower corporate income tax rate for the 2017 tax year. Additionally, U.S. Tax Reform created taxes on certain foreign sourced earnings known as the global intangible low-taxed income (“GILTI”) tax for tax year 2018. The Company has elected to account for GILTI as a period cost in the year the tax is incurred. The SEC issued SAB 118 in December 2017 to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of U.S. Tax Reform. In accordance with SAB 118, the accounting for the tax effects of U.S. Tax Reform was completed as of December 31, 2018.

Provisional estimates of $25.2 million for the one-time net charge related to the taxation of unremitted foreign earnings and $10.1 million related to the remeasurement of U.S. deferred tax balances to reflect the new U.S. corporate income tax rate were recognized as components of income tax expense for the year ended December 31, 2017. For the year ended December 31, 2018, the Company recorded $8.2 million of tax benefit for changes to the provisional estimate for the remeasurement of net U.S. deferred tax balances as a result of adjustments to finalize purchase accounting for prior-year acquisitions, the remeasurement of anticipatory tax credits for foreign branches and changes to U.S. deferred tax assets included in the 2017 U.S. federal income tax return. Over the same period, the Company recorded $2.4 million of tax benefit for changes in the provisional estimate of the 2017 one-time net charge related to the taxation of unremitted foreign earnings as a result of additional federal and state regulatory guidance issued and the filing of the Company's 2017 U.S. federal income tax return.

The Company has recorded its adjustments to provisional estimates throughout the SAB 118 period and that period has concluded as of December 31, 2018. The Company has now completed the accounting for the enactment date income tax effects. The U.S. Treasury and Internal Revenue Service ("IRS") continue to issue regulatory and interpretive guidance related to U.S. Tax Reform. Final regulations for the one-time net charge related to the taxation of unremitted foreign earnings were released in January 2019. The Company expects to record additional tax expense related to these final regulations in the first quarter of 2019.

No additional income tax provision has been made on any remaining undistributed foreign earnings not subject to the one-time net charge related to the taxation of unremitted foreign earnings or any additional outside basis differences as these amounts continue to be indefinitely reinvested in foreign operations. The Company has concluded its evaluation of its indefinite reinvestment assertion of undistributed foreign earnings in light of U.S. Tax Reform. The amounts of undistributed foreign earnings were $651.1 million and $479.6 million at December 31, 2018 and 2017, respectively. It is not practicable to calculate taxes that might be payable on such earnings that are indefinitely reinvested outside the United States.

Note 16 - Income Taxes (continued)

The effect of temporary differences giving rise to deferred tax assets and liabilities at December 31, 2018 and 2017 was as follows:

	2018	2017
Deferred tax assets:		
Accrued postretirement benefits cost	**$ 28.9**	$ 35.7
Accrued pension cost	**59.5**	53.4
Other employee benefit accruals	**16.8**	6.4
Tax loss and credit carryforwards	**86.1**	92.6
Other, net	**42.9**	29.0
Valuation allowances	**(77.5)**	(79.4)
	$ 156.7	$ 137.7
Deferred tax liabilities - principally depreciation and amortization	**(235.7)**	(120.7)
Net deferred tax (liabilities) assets	**$ (79.0)**	$ 17.0

The Company has U.S. federal and state tax credit and loss carryforwards with tax benefits totaling $1.8 million, portions of which will expire in 2019 and continue until 2038. In addition, the Company has loss carryforwards in various non-U.S. jurisdictions with tax benefits totaling $84.3 million, portions of which will expire in 2019 while others will be carried forward indefinitely. The Company has provided valuation allowances of $69.1 million against certain of these carryforwards. A majority of the non-U.S. loss carryforwards represent local country net operating losses for branches of the Company or entities treated as branches of the Company under U.S. tax law. Tax benefits have been recorded for these losses in the United States. Substantially all of the related local country net operating loss carryforwards are offset fully by valuation allowances. In addition to loss and credit carryforwards, the Company has provided valuation allowances of $8.4 million against other deferred tax assets.

As of December 31, 2018, the Company had $26.0 million of total gross unrecognized tax benefits, all of which would favorably impact the Company's effective income tax rate in any future period if such benefits were recognized. As of December 31, 2018, the Company believes it is reasonably possible that the amount of unrecognized tax positions could decrease by approximately $1.0 million during the next 12 months. The potential decrease would be primarily driven by settlements with tax authorities and the expiration of various applicable statutes of limitation. As of December 31, 2018, the Company had accrued $2.5 million of interest and penalties related to uncertain tax positions. The Company records interest and penalties related to uncertain tax positions as a component of income tax expense.

As of December 31, 2017, the Company had $14.0 million of total gross unrecognized tax benefits, all of which would favorably impact the Company's effective income tax rate in any future period if such benefits were recognized. As of December 31, 2017, the Company had accrued $3.0 million of interest and penalties related to uncertain tax positions.

As of December 31, 2016, the Company had $39.2 million of total gross unrecognized tax benefits. Included in this amount was $35.9 million of unrecognized tax benefits that would favorably impact the Company's effective income tax rate in any future period if such benefits were recognized. As of December 31, 2016, the Company had accrued $8.5 million of interest and penalties related to uncertain tax positions.

The following table reconciles the Company's total gross unrecognized tax benefits for the years ended December 31, 2018, 2017 and 2016:

	2018	2017	2016
Beginning balance, January 1	**$ 14.0**	$ 39.2	$ 50.4
Tax positions related to the current year:			
Additions	**0.4**	2.7	—
Tax positions related to prior years:			
Additions	**17.8**	6.9	5.7
Reductions	**(2.9)**	(5.2)	(7.8)
Settlements with tax authorities	**(2.2)**	—	(9.1)
Lapses in statutes of limitation	**(1.1)**	(29.6)	—
Ending balance, December 31	**$ 26.0**	$ 14.0	$ 39.2

During 2018, gross unrecognized tax benefits increased primarily for prior year tax matters in multiple jurisdictions related to acquisitions. These increases were partially offset by settlements with the tax authorities for prior year tax matters related to the Company's international operations.

During 2017, gross unrecognized tax benefits decreased primarily due to expiration of applicable statutes of limitations in multiple jurisdictions. These decreases were partially offset by accruals related to both current and prior year tax matters, including certain U.S. federal taxes, U.S. state and local taxes and taxes related to the Company's international operations.

During 2016, gross unrecognized tax benefits decreased primarily due to settlements with tax authorities related to various prior year tax matters, including certain U.S. federal taxes, U.S. state and local taxes and taxes related to the Company's international operations. The decrease also was related to reductions in unrecognized tax benefits for changes in judgment regarding prior year tax matters in multiple jurisdictions. These decreases were partially offset by accruals related to prior year tax matters, including certain U.S. federal taxes, U.S. state and local taxes and taxes related to the Company's international operations.

As of December 31, 2018, the Company is subject to examination by the IRS for tax years 2015 to the present. The Company also is subject to tax examination in various U.S. state and local tax jurisdictions for tax years 2011 to the present, as well as various foreign tax jurisdictions, including Mexico, China, Poland and India for tax years as early as 2002 to the present. The Company's unrecognized tax benefits were presented on the Consolidated Balance Sheets as a component of other non-current liabilities.

Note 17 - Fair Value

The following tables present the fair value hierarchy for those assets and liabilities on the Consolidated Balance Sheets measured at fair value on a recurring basis as of December 31, 2018 and 2017:

	December 31, 2018			
	Total	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	**$ 105.9**	**$ 104.4**	**$ 1.5**	**$ —**
Cash and cash equivalents measured at net asset value	**26.6**			
Restricted cash	**0.6**	**0.6**	**—**	**—**
Short-term investments	**21.8**	**—**	**21.8**	**—**
Short-term investments measured at net asset value	**—**			
Foreign currency hedges	**4.6**	**—**	**4.6**	**—**
Total Assets	**$ 159.5**	**$ 105.0**	**$ 27.9**	**$ —**
Liabilities:				
Foreign currency hedges	**$ 0.7**	**$ —**	**$ 0.7**	**$ —**
Total Liabilities	**$ 0.7**	**$ —**	**$ 0.7**	**$ —**

	December 31, 2017			
	Total	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	$ 108.5	$ 107.3	$ 1.2	$ —
Cash and cash equivalents measured at net asset value	13.1			
Restricted cash	3.8	3.8	—	—
Short-term investments	16.2	—	16.2	—
Short-term investments measured at net asset value	0.2			
Foreign currency hedges	1.3	—	1.3	—
Total Assets	$ 143.1	$ 111.1	$ 18.7	$ —
Liabilities:				
Foreign currency hedges	$ 7.1	$ —	$ 7.1	$ —
Total Liabilities	$ 7.1	$ —	$ 7.1	$ —

Cash and cash equivalents are highly liquid investments with maturities of three months or less when purchased and are valued at redemption value. Short-term investments are investments with maturities between four months and one year and generally are valued at amortized cost, which approximates fair value. A portion of the cash and cash equivalents and short-term investments are valued based on net asset value. The Company uses publicly available foreign currency forward and spot rates to measure the fair value of its foreign currency forward contracts.

Additionally, the Company remeasures certain assets to fair value, using Level 3 measurements, as a result of the occurrence of triggering events such as purchase accounting for acquisitions. See *Note 2 - Acquisitions and Divestitures* for further discussion.

The Company does not believe it has significant concentrations of risk associated with the counterparts to its financial instruments.

No material assets were measured at fair value on a nonrecurring basis during the years ended December 31, 2018 and 2017.

Financial Instruments:

The Company’s financial instruments consist primarily of cash and cash equivalents, short-term investments, net accounts receivable, trade accounts payable, short-term borrowings and long-term debt. Due to their short-term nature, the carrying value of cash and cash equivalents, short-term investments, accounts receivable, trade accounts payable, and short-term borrowings are a reasonable estimate of their fair value. Due to the nature of fair value calculations for variable-rate debt, the carrying value of the Company's long-term variable-rate debt is a reasonable estimate of its fair value. The fair value of the Company’s long-term fixed-rate debt, based on quoted market prices, was $1,077.5 million and $720.3 million at December 31, 2018 and 2017, respectively. The carrying value of this debt was $1,070.7 million and $682.4 million at December 31, 2018 and 2017, respectively. The fair value of long-term fixed-rate debt was measured using Level 2 inputs.

Note 18 - Derivative Instruments and Hedging Activities

The Company is exposed to certain risks relating to its ongoing business operations. The primary risks managed by using derivative instruments are foreign currency exchange rate risk and interest rate risk. Forward contracts on various foreign currencies are entered into in order to manage the foreign currency exchange rate risk associated with certain of the Company's commitments denominated in foreign currencies. From time to time, interest rate swaps are used to manage interest rate risk associated with the Company's fixed, and floating-rate borrowings.

The Company designates certain foreign currency forward contracts as cash flow hedges of forecasted revenues and certain interest rate hedges as cash flow hedges of fixed-rate borrowings.

The Company does not purchase or hold any derivative financial instruments for trading purposes. As of December 31, 2018 and 2017, the Company had $218.8 million and $386.9 million, respectively, of outstanding foreign currency forward contracts at notional value. Refer to *Note 17 - Fair Value* for the fair value disclosure of derivative financial instruments.

Cash Flow Hedging Strategy:
For certain derivative instruments that are designated and qualify as cash flow hedges (*i.e.*, hedging the exposure to variability in expected future cash flows that is attributable to a particular risk), the effective portion of the gain or loss on the derivative instrument is reported as a component of other comprehensive income and reclassified into earnings in the same line item associated with the forecasted transaction and in the same period or periods during which the hedged transaction affects earnings. The remaining gain or loss on the derivative instrument in excess of the cumulative change in the present value of future cash flows of the hedged item, if any (*i.e.*, the ineffective portion), or hedge components excluded from the assessment of effectiveness, are recognized in the Consolidated Statement of Income during the current period.

To protect against a reduction in the value of forecasted foreign currency cash flows resulting from export sales, the Company has instituted a foreign currency cash flow hedging program. The Company hedges portions of its forecasted cash flows denominated in foreign currencies with forward contracts. When the dollar strengthens significantly against foreign currencies, the decline in the present value of future foreign currency revenue is offset by gains in the fair value of the forward contracts designated as hedges. Conversely, when the dollar weakens, the increase in the present value of future foreign currency cash flows is offset by losses in the fair value of the forward contracts.

The maximum length of time over which the Company hedges it exposure to the variability in future cash flows for forecast transactions is generally eighteen months or less.

Purpose for Derivative Instruments not designated as Hedging Instruments:

For derivative instruments that are not designated as hedging instruments, the instruments are typically forward contracts. In general, the practice is to reduce volatility by selectively hedging transaction exposures including intercompany loans, accounts payable and accounts receivable. Intercompany loans between entities with different functional currencies typically are hedged with a forward contract at the inception of loan with a maturity date at the maturity of the loan. The revaluation of these contracts, as well as the revaluation of the underlying balance sheet items, is recorded directly to the income statement so the adjustment generally offsets the revaluation of the underlying balance sheet items to protect cash payments and reduce income statement volatility.

The following table presents the impact of derivative instruments not designated as hedging instruments for the years ended December 31, 2018, 2017, and 2016, and the related location within the Consolidated Statements of Income.

		Amount of gain or (loss) recognized in income		
		Year Ended December 31,		
Derivatives not designated as hedging instruments	**Location of gain or (loss) recognized in income**	**2018**	2017	2016
Foreign currency forward contracts	Other income (expense), net	**$ 5.1**	$ (10.2)	$ 0.1

Note 19 - Research and Development

The Company performs research and development under Company-funded programs and under contracts with the federal government and others. Expenditures committed to research and development amounted to $37.3 million, $35.3 million and $31.8 million in 2018, 2017 and 2016, respectively. Expenditures may fluctuate from year-to-year depending on special projects and needs.

Note 20 - Continued Dumping and Subsidy Offset Act

CDSOA provides for distribution of monies collected by U.S. Customs on entries of merchandise subject to antidumping orders that entered the United States prior to October 1, 2007, to qualifying domestic producers where the domestic producers have continued to invest in their technology, equipment and people. During the year ended December 31, 2016, the Company recognized pretax CDSOA income of $59.6 million, net of related expenses.

In September 2002, the World Trade Organization ruled that CDSOA payments are not consistent with international trade rules. In February 2006, U.S. legislation was enacted that ended CDSOA distributions for imports covered by antidumping duty orders entering the United States after September 30, 2007. Instead, any such antidumping duties collected would remain with the U.S. Treasury.

CDSOA has been the subject of significant litigation since 2002, and U.S. Customs has withheld CDSOA distributions in recent years while litigation was ongoing. In recent months, much of the CDSOA litigation that involves antidumping orders where Timken is a qualifying domestic producer has concluded.

During 2016, the Company received CDSOA distributions of $60.6 million, representing funds that would have been distributed to the Company at the end of calendar years 2011 through 2016.

Note 21 - Quarterly Financial Data

(Unaudited)

	2018				
	1st	2nd	3rd	4th	Total
Net sales	**$ 883.1**	**$ 906.3**	**$ 881.3**	**$ 910.1**	**$ 3,580.8**
Gross profit	**264.9**	**267.4**	**253.3**	**254.5**	**1,040.1**
Selling, general and administrative expenses	**148.6**	**141.8**	**142.0**	**148.3**	**580.7**
Impairment and restructuring charges	**0.2**	**0.3**	**2.6**	**1.8**	**4.9**
Net income (1)	**80.5**	**91.9**	**72.3**	**60.8**	**305.5**
Net income attributable to noncontrolling interests	**0.3**	**0.9**	**0.7**	**0.8**	**2.7**
Net income attributable to The Timken Company	**80.2**	**91.0**	**71.6**	**60.0**	**302.8**
Net income per share - Basic:	**$ 1.03**	**$ 1.18**	**$ 0.93**	**$ 0.78**	**$ 3.93**
Net income per share - Diluted:	**$ 1.02**	**$ 1.16**	**$ 0.91**	**$ 0.77**	**$ 3.86**
Dividends per share	**$ 0.27**	**$ 0.28**	**$ 0.28**	**$ 0.28**	**$ 1.11**

	2017				
	1st	2nd	3rd	4th	Total
Net sales	$ 703.8	$ 750.6	$ 771.4	$ 778.0	$ 3,003.8
Gross profit	182.2	201.1	216.1	212.7	812.1
Selling, general and administrative expenses	117.6	123.9	134.0	132.8	508.3
Impairment and restructuring charges	1.7	0.8	1.3	0.5	4.3
Net income (2)	38.1	82.0	54.1	28.1	202.3
Net (loss) income attributable to noncontrolling interests	(0.1)	(0.5)	0.6	(1.1)	(1.1)
Net income attributable to The Timken Company	38.2	82.5	53.5	29.2	203.4
Net income per share - Basic:	$ 0.49	$ 1.06	$ 0.69	$ 0.38	$ 2.62
Net income per share - Diluted:	$ 0.48	$ 1.04	$ 0.68	$ 0.37	$ 2.58
Dividends per share	$ 0.26	$ 0.27	$ 0.27	$ 0.27	$ 1.07

Earnings per share are computed independently for each of the quarters presented; therefore, the sum of the quarterly earnings per share may not equal the total computed for the year.

(1) Net income for the fourth quarter of 2018 included net actuarial losses of $19.7 million, partially offset by curtailment gains of $10.2 million.

(2) Net income for the second quarter of 2017 included a $34 million reversal of accruals for uncertain tax positions. Net income for the fourth quarter of 2017 included net actuarial losses of $13.7 million and $35.3 million of income tax expense related to U.S. Tax Reform.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of The Timken Company and subsidiaries

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of The Timken Company and subsidiaries (the Company) as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and the financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 15, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/Ernst & Young LLP

We have served as the Company's auditor since 1910.

Cleveland, OH
February 15, 2019

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

Not applicable.

Item 9A. Controls and Procedures

As of the end of the period covered by this Annual Report on Form 10-K, the Company's management carried out an evaluation, under the supervision and with the participation of the Company's principal executive officer and principal financial officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures as defined in Exchange Act Rule 13a-15(e). Based upon that evaluation, the principal executive officer and principal financial officer concluded that the Company's disclosure controls and procedures were effective as of the end of the period covered by this Annual Report on Form 10-K.

There have been no changes during the Company's fourth quarter of 2018 in the Company's internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Report of Management on Internal Control Over Financial Reporting

The management of The Timken Company is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Timken's internal control system was designed to provide reasonable assurance regarding the preparation and fair presentation of published financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Timken management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this assessment under COSO's "Internal Control-Integrated Framework," management believes that, as of December 31, 2018, Timken's internal control over financial reporting is effective.

On August 30, 2018, the Company's majority-owned subsidiary, Timken India, completed the acquisition of ABC Bearings. On September 1, 2018, the Company completed the acquisition of Cone Drive. On September 18, 2018, the Company completed the acquisition of Rollon. As permitted by SEC guidance, the scope of Timken's evaluation of internal control over financial reporting as of December 31, 2018 did not include the internal control over financial reporting of ABC Bearings, Cone Drive and Rollon. The results of ABC Bearings, Cone Drive and Rollon are included in the Company's consolidated financial statements beginning August 30, 2018, September 1, 2018 and September 18, 2018, respectively. The combined total assets of ABC Bearings, Cone Drive and Rollon represented 24% and 51% of the Company's of total and net assets, respectively, at December 31, 2018. The combined net sales of ABC Bearings, Cone Drive and Rollon represented 3% of the Company's consolidated net sales for 2018 and the combined net income of ABC Bearings, Cone Drive and Rollon represented less than 1% of the Company's net income for 2018. The Company will include ABC Bearings, Cone Drive and Rollon in the Company's internal control over financial reporting assessment as of December 31, 2019.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2018 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is presented in this Annual Report on Form 10-K.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of The Timken Company and subsidiaries

Opinion on Internal Control over Financial Reporting

We have audited The Timken Company and subsidiaries' internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control- Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, The Timken Company and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

As indicated in the accompanying Report of Management on Internal Control Over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of ABC Bearings Limited ("ABC Bearings"), Apiary Investments Holding Limited ("Cone Drive"), and Rollon S.p.A ("Rollon"), which are included in the 2018 consolidated financial statements of the Company and constituted 24% and 51% of total and net assets, respectively, as of December 31, 2018 and 3% and less than 1% of revenues and net income, respectively, for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of ABC Bearings, Cone Drive, and Rollon.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and the financial statement schedule listed in the Index at Item 15(a) of the Company and our report dated February 15, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

Cleveland, OH
February 15, 2019

Item 9B. Other Information

Not applicable.

PART III.

Item 10. Directors, Executive Officers and Corporate Governance

Required information is set forth under the captions "Nominees" and “Section 16(a) Beneficial Ownership Reporting Compliance” in the proxy statement filed in connection with the annual meeting of shareholders to be held on or about May 10, 2019 (the "Proxy Statement"), and is incorporated herein by reference. Information regarding the executive officers of the registrant is included in Part I hereof. Information regarding the Company’s Audit Committee and its Audit Committee Financial Expert is set forth under the caption “Audit Committee” in the Proxy Statement, and is incorporated herein by reference.

The General Policies and Procedures of the Board of Directors of the Company and the charters of its Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are also available on the Company’s website at www.timken.com/about/governance-documents and are available to any shareholder upon request to the Corporate Secretary. The information on the Company’s website is not incorporated by reference into this Annual Report on Form 10-K.

The Company has adopted a code of ethics that applies to all of its employees, including its principal executive officer, principal financial officer and principal accounting officer, as well as its directors. The Company’s code of ethics, The Timken Company Standards of Business Ethics Policy, is available on its website at www.timken.com/about/governance-documents. The Company intends to disclose any amendment to, or waiver from, its code of ethics by posting such amendment or waiver, as applicable, on its website.

Item 11. Executive Compensation

Required information is set forth under the captions “Compensation Discussion and Analysis,” “2018 Summary Compensation Table,” “2018 Grants of Plan-Based Awards,” “Outstanding Equity Awards at 2018 Year-End,” “2018 Option Exercises and Stock Vested,” “2018 Pension Benefits Table,” “2018 Nonqualified Deferred Compensation,” “Potential Payments Upon Termination or Change-in-Control,” “Director Compensation,” “Compensation Committee,” and “Compensation Committee Report” in the Proxy Statement, and is incorporated herein by reference.

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

Required information, including with respect to institutional investors owning more than 5% of the Company’s common shares, is set forth under the caption “Beneficial Ownership of Common Shares” in the Proxy Statement, and is incorporated herein by reference.

Required information is set forth under the caption “Equity Compensation Plan Information” in the Proxy Statement, and is incorporated herein by reference.

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

Required information is set forth under the captions "Nominees," "Independence Determinations" and "Related Party Transactions Approval Policy" in the Proxy Statement, and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

Required information regarding fees paid to and services provided by the Company’s independent auditor during the years ended December 31, 2018 and 2017 and the pre-approval policies and procedures of the Audit Committee of the Company’s Board of Directors is set forth under the caption “Auditor” in the Proxy Statement, and is incorporated herein by reference.

PART IV.

Item 15. Exhibits and Financial Statement Schedules

(a)(1) - Financial Statements are included in Part II, Item 8 of the Annual Report on Form 10-K.

(a)(2) - Schedule II - Valuation and Qualifying Accounts is submitted as a separate section of this report. Schedules I, III, IV and V are not applicable to the Company and, therefore, have been omitted.

(a)(3) Listing of Exhibits

Exhibit

(2.1) Share Purchase Agreement Dated June 27, 2017, between Mr. H.J. Groeneveld and Timken Europe B.V., was filed on July 3, 2017 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

(3.1) Amended Articles of Incorporation of Registrant, (effective May 7, 2013) were filed on July 31, 2013 with Form 10-Q (Commission File No. 1-1169) and are incorporated herein by reference.

(3.2) Amended Regulations of the Registrant adopted on May 10, 2016, were filed on July 28, 2016 with Form 10-Q (Commission File No. 1-1169) and are incorporated herein by reference.

(4.1) Third Amended and Restated Credit Agreement, dated as of June 19, 2015, by and among: The Timken Company; Bank of America, N.A. and KeyBank National Association as Co-Administrative Agents; KeyBank National Association as Paying Agent, L/C Issuer and Swing Line Lender; and the other Lenders party thereto, was filed on June 23, 2015 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

(4.2) Credit Agreement, dated as of September 11, 2018, among The Timken Company, KeyBank National Association, as Administrative Agent, and the Lenders party thereto, was filed on September 14, 2018 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

(4.3) Indenture dated as of July 1, 1990, between The Timken Company and Ameritrust Company of New York, was filed with Form S-3 dated July 12, 1990 (Registration No. 333-35773) and is incorporated herein by reference.

(4.4) First Supplemental Indenture, dated as of July 24, 1996, by and between The Timken Company and Mellon Bank, N.A. was filed on November 13, 1996 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(4.5) Indenture, dated as of February 18, 2003, between The Timken Company and The Bank of New York, as Trustee, providing for Issuance of Notes in Series was filed on March 27, 2003 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(4.6) Indenture, dated as of August 20, 2014, by and between The Timken Company and The Bank of New York Mellon Trust Company, N.A., was filed on August 20, 2014 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

(4.7) Indenture, dated as of September 6, 2018, by and between The Timken Company and The Bank of New York Mellon Trust Company, N.A., as Trustee, was filed on September 6, 2018 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

(4.8) First Supplemental Indenture, dated as of September 6, 2018, by and between The Timken Company and The Bank of New York Mellon Trust Company, N.A., as Trustee (including Form of Note), was filed on September 6, 2018 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

(4.9) The Company is also a party to agreements with respect to other long-term debt in total amount less than 10% of the Registrant's consolidated total assets. The Registrant agrees to furnish a copy of such agreements upon request.

Management Contracts and Compensation Plans

(10.1) The Timken Company 1996 Deferred Compensation Plan for officers and other key employees, amended and restated effective December 31, 2010, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.2) The Timken Company Director Deferred Compensation Plan, amended and restated effective December 31, 2008, was filed on February 25, 2010 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.3) Form of The Timken Company 1996 Deferred Compensation Plan Election Agreement, amended and restated as of January 1, 2008, was filed on February 25, 2010 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

Management Contracts and Compensation Plans

(10.4) Form of The Timken Company Director Deferred Compensation Plan Election Agreement, amended and restated as of January 1, 2008, was filed on February 25, 2010 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.5) The Timken Company Long-Term Incentive Plan for directors, officers and other key employees as amended and restated as of February 5, 2008 and approved by the shareholders on May 1, 2008 was filed on March 18, 2008 as Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A (Commission File No. 1-1169) and is incorporated herein by reference.

(10.6) The Timken Company 2011 Long-Term Incentive Plan, as amended and restated as of February 13, 2015 for directors, officers and other key employees as approved by the shareholders on May 7, 2015 was filed on March 27, 2015 with Definitive Proxy Statement on Schedule 14A (Commission File No. 1-1169) and is incorporated herein by reference.

(10.7) Amended and Restated Supplemental Pension Plan of The Timken Company, amended and restated effective as of January 1, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.8) Amended and Restated Supplemental Pension Plan of The Timken Company, effective as of June 30, 2014, was filed on October 30, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.9) Amendment No. 1 to the Amended and Restated Supplemental Pension Plan of The Timken Company, effective as of June 30, 2014, was filed on October 30, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.10) Amended and Restated Supplemental Pension Plan of The Timken Company, effective as of October 1, 2018, was filed on October 30, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.11) The Timken Company Senior Executive Management Performance Plan, as amended and restated as of February 13, 2015 and approved by shareholders on May 7, 2015, was filed on March 27, 2015 with Definitive Proxy Statement on Schedule 14A (Commission File No. 1-1169) and is incorporated herein by reference.

(10.12) Form of Severance Agreement (for Executive Officers appointed on or after November 12, 2015), as adopted on November 12, 2015, was filed on February 24, 2016 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.13) Form of Severance Agreement as adopted on December 9, 2010 was filed on February 22, 2011 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.14) Form of Indemnification Agreement entered into with all Directors who are not Executive Officers of the Company was filed on July 31, 2013 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.15) Form of Indemnification Agreement entered into with all Directors who are not Executive Officers of the Company was filed on July 31, 2013 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.16) Form of Indemnification Agreement entered into with all Executive Officers of the Company who are not Directors of the Company was filed on July 31, 2013 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.17) Form of Amended and Restated Employee Excess Benefits Agreement entered into with certain Executive Officers and certain key employees of the Company, was filed on February 26, 2009 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference

(10.18) Form of Amended and Restated Employee Excess Benefits Agreement entered into with certain Executive Officers and certain key employees of the Company, was filed on February 26, 2009 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.19) Form of Employee Excess Benefits Agreement, entered into with all Executive Officers after January 1, 2011, was filed on August 4, 2011 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.20) Amendment No. 1 to the Employee Excess Benefits Agreement, dated January 1, 2011, entered into with Richard G. Kyle, approved as of November 8, 2018 is attached hereto as Exhibit 10.1.

(10.21) Form of Amendment No. 1 to The Amended and Restated Employee Excess Benefit Agreement, entered into with certain Executive Officers and certain key employees of the Company, was filed on September 2, 2009 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

Management Contracts and Compensation Plans

(10.22) Form of Amendment No. 1 to The Amended and Restated Employee Excess Benefits Agreement with all Executive Officers after January 1, 2011 and Form of Amendment No. 2 to the Amended and Restated Excess Benefits Agreement with certain Executive Officers and certain key employees of the Company, as adopted December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.23) Amendment No. 2 to the Amended and Restated Employee Excess Benefits Agreement, dated December 17, 2008, entered into with Christopher A. Coughlin, approved as of November 8, 2018 is attached hereto as Exhibit 10.2.

(10.24) Amendment No. 3 to the Amended and Restated Employee Excess Benefits Agreement, dated December 18, 2008, entered into with Philip D. Fracassa, approved as of November 8, 2018 is attached hereto as Exhibit 10.3.

(10.25) Form of Amendment No. 1 to The Amended and Restated Employee Excess Benefits Agreement entered into with the Chief Executive Officer, as adopted December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.26) Form of Amendment No. 2 to The Amended and Restated Employee Excess Benefits Agreement entered into with the Chief Executive Officer, as adopted December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.27) Form of Nonqualified Stock Option Agreement for transferable options for Officers, as adopted on August 12, 2015, was filed on February 24, 2016 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.28) Form of Nonqualified Stock Option Agreement for Officers, as adopted on November 6, 2008, was filed on February 26, 2009 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.29) Form of Nonqualified Stock Option Agreement for Officers, as adopted on December 10, 2009, was filed on February 25, 2010 with Form 10-K (Commission File No. 1-1169), and is incorporated herein by reference.

(10.30) Form of Nonqualified Stock Option Agreement for Non-Employee Directors, as adopted on December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.31) Form of Nonqualified Stock Option Agreement for transferable options for Officers, as adopted on December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.32) Form of Nonqualified Stock Option Agreement for non-transferable options for Non-Officer Employees, as adopted on December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.33) Form of Nonqualified Stock Option Agreement, as adopted on February 8, 2018, was filed on May 1, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.34) Form of Nonqualified Stock Option Agreement (U.S), as adopted on September 24, 2018, was filed on October 30, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.35) Form of Nonqualified Stock Option Agreement (Non-U.S), as adopted on September 24, 2018, was filed on October 30, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.36) Form of Restricted Share Agreement for Non-Employee Directors, as adopted on December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.37) Form of Restricted Share Agreement for Non-Employee Directors (ratable vesting over five years), as adopted on August 12, 2015, was filed on February 24, 2016 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.38) Form of Restricted Share Agreement for Non-Employee Directors (one year vesting), as adopted on February 12, 2015, was filed on February 24, 2016 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.39) Form of Performance Shares Agreement was filed on February 11, 2010 with Form 8-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.40) Form of Deferred Shares Agreement, as adopted on February 2, 2009, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.41) Form of Deferred Shares Agreement (five year cliff vesting) entered into with employees after January 1, 2012, as adopted on December 8, 2011, was filed on February 17, 2012 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

Management Contracts and Compensation Plans

(10.42) Form of Deferred Shares Agreement (five year cliff vesting) entered into with employees after August 12, 2015, as adopted on August 12, 2015, was filed on February 24, 2016 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.43) Form of Deferred Shares Agreement (three year cliff vesting) entered into with employees after November 12, 2015, as adopted on November 12, 2015, was filed on February 24, 2016 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.44) Form of Deferred Shares Agreement (three year cliff vesting), as adopted on February 8, 2018, was filed on May 1, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.45) Form of Deferred Shares Agreement (five year cliff vesting), as adopted on February 8, 2018, was filed on May 1, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.46) Form of Deferred Shares Agreement (three year cliff vesting), as adopted on September 24, 2018, was filed on October 30, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.47) Form of Deferred Shares Agreement (five year cliff vesting), as adopted on September 24, 2018, was filed on October 30, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.48) Form of Performance-Based Restricted Stock Unit Agreement entered into with key employees was filed on May 2, 2012 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.49) Form of Performance-Based Restricted Stock Unit Agreement, as adopted on February 8, 2018, was filed on May 1, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.50) Form of Time-Based Restricted Stock Unit Agreement entered into with key employees was filed on May 2, 2012 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.51) Form of Time-Based Restricted Stock Unit Agreement (Cliff Vesting) entered into with key employees was filed on February 28, 2014 with Form 10-K (Commission File No. 1-1169) and is incorporated herein by reference.

(10.52) Form of Time-Based Restricted Stock Unit Agreement, as adopted on February 8, 2018, was filed on May 1, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.53) Form of Time-Based Restricted Stock Unit Agreement for Nonemployee Directors (annual grant), as adopted February 8, 2018, was filed on May 1, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.54) Form of Time-Based Restricted Stock Unit Agreement for Nonemployee Directors (new member grant), as adopted February 8, 2018, was filed on May 1, 2018 with Form 10-Q (Commission File No. 1-1169) and is incorporated herein by reference.

(10.55) Form of Associate Non-Compete Agreement entered into with key employees was filed on December 3, 2012 with Form 10-Q/A (Commission File No. 1-1169) and is incorporated herein by reference.

Listing of Exhibits (continued)

(10.1) Amendment No. 1 to the Employee Excess Benefits Agreement entered into with Richard G. Kyle

(10.2) Amendment No. 2 to the Amended and Restated Employee Excess Benefits Agreement entered into with Christopher A. Coughlin.

(10.3) Amendment No. 3 to the Amended and Restated Employee Excess Benefits Agreement entered into with Philip D. Fracassa.

(12) Computation of Ratio of Earnings to Fixed Charges.

(21) A list of subsidiaries of the Registrant.

(23) Consent of Independent Registered Public Accounting Firm.

(24) Power of Attorney.

(31.1) Principal Executive Officer's Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

(31.2) Principal Financial Officer's Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

(32) Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

(101) Financial statements from the Annual Report on Form 10-K of The Timken Company for the year ended December 31, 2018, formatted in XBRL: (i) the Consolidated Statements of Income, (ii) the Consolidated Statements of Comprehensive Income (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Shareholders' Equity and (vi) the Notes to the Consolidated Financial Statements.

SIGNATURES

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

THE TIMKEN COMPANY

By: /s/ Richard G. Kyle
Richard G. Kyle
President, Chief Executive Officer and Director
(Principal Executive Officer)
Date: February 15, 2019

By: /s/ Philip D. Fracassa
Philip D. Fracassa
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)
Date: February 15, 2019

By: /s/ Shelly M. Chadwick
Shelly M. Chadwick
Vice President - Finance and Chief Accounting Officer
(Principal Accounting Officer)
Date: February 15, 2019

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 and on the dates indicated.

By: /s/ Maria A. Crowe *
Maria A. Crowe, Director
Date: February 15, 2019

By: /s/ Elizabeth A. Harrell *
Elizabeth A. Harrell
Date: February 15, 2019

By: /s/ Richard G. Kyle *
Richard G. Kyle, Director
Date: February 15, 2019

By: /s/ John A. Luke, Jr.*
John A. Luke, Jr., Director
Date: February 15, 2019

By: /s/ Christopher L. Mapes *
Christopher L. Mapes, Director
Date: February 15, 2019

By: /s/ James F. Palmer *
James F. Palmer, Director
Date: February 15, 2019

By: /s/ Ajita G. Rajendra *
Ajita G. Rajendra, Director
Date: February 15, 2019

By: /s/ Joseph W. Ralston *
Joseph W. Ralston, Director
Date: February 15, 2019

By: /s/ Frank C. Sullivan *
Frank C. Sullivan, Director
Date: February 15, 2019

By: /s/ John M. Timken, Jr.*
John M. Timken, Jr., Director
Date: February 15, 2019

By: /s/ Ward J. Timken, Jr.*
Ward J. Timken, Jr., Director
Date: February 15, 2019

By: /s/ Jacqueline F. Woods *
Jacqueline F. Woods, Director
Date: February 15, 2019

* By: /s/ Philip D. Fracassa
Philip D. Fracassa, attorney-in-fact
By authority of Power of Attorney
filed as Exhibit 24 hereto
Date: February 15, 2019

Schedule II—Valuation and Qualifying Accounts

The Timken Company and Subsidiaries

Allowance for uncollectible accounts:	2018	2017	2016
Balance at beginning of period	**$ 20.3**	$ 20.2	$ 16.9
Additions:			
Charged to costs and expenses (1)	**3.1**	3.8	4.8
Charged to other accounts (2)	**1.3**	0.4	0.2
Deductions (3)	**2.8**	4.1	1.7
Balance at end of period	**$ 21.9**	$ 20.3	$ 20.2

Allowance for surplus and obsolete inventory:	2018	2017	2016
Balance at beginning of period	**$ 30.0**	$ 21.1	$ 18.4
Additions:			
Charged to costs and expenses (4)	**16.1**	10.3	13.4
Charged to other accounts (2)	**2.3**	6.0	0.4
Deductions (5)	**8.9**	7.4	11.1
Balance at end of period	**$ 39.5**	$ 30.0	$ 21.1

Valuation allowance on deferred tax assets:	2018	2017	2016
Balance at beginning of period	$ 79.4	$ 85.5	$ 83.7
Additions			
Charged to costs and expenses (6)	—	6.5	3.8
Deductions (7)	1.9	12.6	2.0
Balance at end of period	**$ 77.5**	$ 79.4	$ 85.5

(1) Provision for uncollectible accounts included in expenses.
(2) Currency translation and change in reserves due to acquisitions, net of divestitures.
(3) Actual accounts written off against the allowance, net of recoveries.
(4) Provision for surplus and obsolete inventory included in expenses.
(5) Inventory items written off against the allowance.
(6) Increase in valuation allowance is recorded as a component of the provision for income taxes.
(7) Amount primarily relates to the reversal of valuation allowances due to the realization of net operating loss.

Exhibit 31.1

Principal Executive Officer's Certifications
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Richard G. Kyle, certify that:

1. I have reviewed this quarterly report on Form 10-K of The Timken Company;

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 an 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 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.

Date: February 15, 2019

By: /s/ Richard G. Kyle

Richard G. Kyle
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Principal Financial Officer's Certifications
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Philip D. Fracassa, certify that:

1. I have reviewed this quarterly report on Form 10-K of The Timken Company;

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 an 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 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.

Date: February 15, 2019

By: /s/ Philip D. Fracassa

Philip D. Fracassa
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32

Certification Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the quarterly report of The Timken Company (the "Company") on Form 10-K for the period ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company certifies, pursuant to 18 U.S.C. 1350, as adopted pursuant to 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

Date: February 15, 2019

By: /s/ Richard G. Kyle

Richard G. Kyle
President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ Philip D. Fracassa

Philip D. Fracassa
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

The foregoing certification is being furnished solely pursuant to 18 U.S.C. 1350 and is not being filed as part of the Report or as a separate disclosure document.

APPENDIX: RECONCILIATION OF GAAP TO NON-GAAP MEASURES

RECONCILIATION OF NET INCOME TO ADJUSTED NET INCOME, EBIT AND MARGIN[1]	2018	2017	2016	2015	2008[7]
Net Sales	$3,580.8	$3,003.8	$2,669.8	$2,872.3	$3,346.8
Net Income Attributable to The Timken Company	302.8	203.4	140.8	188.6	267.7
Discontinued operations	-	-	-	-	(163.1)
Income from Continuing Operations	302.8	203.4	140.8	188.6	104.6
CDSOA income, net of expense	-	-	(59.6)	-	(9.1)
Pension related charges[5]	12.8	18.1	67.0	100.0	-
Impairment and restructuring charges[6]	7.1	13.1	28.0	15.9	35.3
Loss (gain) on divestitures and sale of real estate	0.8	(3.6)	(0.5)	(28.7)	0.8
Acquisition related charges	20.6	9.0	4.2	5.7	-
Tax Indemnification and related items	1.5	(1.0)	-	-	-
Health care plan modification costs	-	(0.7)	2.9	-	-
Fixed asset write-off	-	-	-	9.7	-
Noncontrolling interest	(1.3)	-	-	-	-
Provision for income taxes	(16.8)	(30.8)	(13.8)	(74.6)	(5.3)
Adjusted Net Income	$327.5	$207.5	$169.0	$216.6	$126.3
Net income (loss) attributable to noncontrolling interest	2.7	(1.1)	0.3	2.8	
Provision for income taxes (as reported)	102.6	57.6	60.5	26.3	
Interest expense	51.7	37.1	33.5	33.4	
Interest income	(2.1)	(2.9)	(1.9)	(2.7)	
Less: Noncontrolling interest	(1.3)	-	-	-	
Less: Provision for income taxes	(16.8)	(30.8)	(13.8)	(74.6)	
Adjusted EBIT	$500.5	$329.0	$275.2	$351.0	
Adjusted EBIT Margin (% of net sales)	14.0%	11.0%	10.3%	12.2%	

RECONCILIATION OF DILUTED EPS TO ADJUSTED EPS[1]	2018	2017	2016	2015	2008[7]
Diluted Earnings per Share (EPS)—Continuing Operations	$3.86	$2.58	$1.78	$2.21	$1.09
Adjusted EPS—Continuing Operations	$4.18	$2.63	$2.13	$2.54	$1.32
Diluted Shares	78,337,481	78,911,149	79,234,324	85,346,246	95,947,643

RECONCILIATION OF ADJUSTED NET OPERATING PROFIT AFTER TAXES	2018	2017	2016	2015
Adjusted EBIT	$500.5	$329.0	$275.2	$351.0
Adjusted tax rate	26.5%	30.0%	30.5%	31.0%
Calculated income taxes	132.6	98.7	83.9	108.8
Adjusted net operating profit after taxes (ANOPAT)	$367.9	$230.3	$191.3	$242.2

RECONCILIATION OF ADJUSTED INVESTED CAPITAL	2018	2017	2016	2015	2014
Total debt	$1,681.6	$962.3	$659.2	$656.5	$526.4
Total equity	1,642.7	1,474.9	1,310.9	1,349.6	1,594.3
Invested capital (Total debt + Total equity)	3,324.3	2,437.2	$1,970.1	2,006.1	$2,120.7
Invested capital (two-point average)	$2,880.8	$2,203.7	$1,988.1	$2,063.4	

CALCULATION OF RETURN ON ADJUSTED INVESTED CAPITAL[2]	2018	2017	2016	2015
ANOPAT	$367.9	$230.3	$191.3	$242.2
Invested capital (two-point average)	2,880.8	2,203.7	1,988.1	2,063.4
Return on invested capital	12.8%	10.5%	9.6%	11.7%

RECONCILIATION OF FREE CASH FLOW[3]	2018	2017
Net cash provided from operating activities	$332.5	$236.8
Less: capital expenditures	112.6	104.7
Free cash flow	$219.9	$132.1

RECONCILIATION OF NET DEBT[4]	2018	2017
Short-term debt	$43.0	$108.1
Long-term debt	1,638.6	854.2
Total debt	1,681.6	962.3
Less: Cash, cash equivalents and restricted cash	133.1	125.4
Net debt	$1,548.5	$836.9

CALCULATION OF NET DEBT TO CAPITAL[4]	2018	2017
Net debt	$1,548.5	$836.9
Total equity	1,642.7	1,474.9
Total capital	3,191.2	2,311.8
Net debt to capital	48.5%	36.2%

[1] Management believes consolidated earnings before interest and taxes (EBIT) is a non-GAAP measure that is useful to investors as it is representative of the Company's performance and that it is appropriate to compare GAAP net income to consolidated EBIT. Management also believes that non-GAAP measures of adjusted EBIT, adjusted EBIT Margin, adjusted net income and adjusted diluted earnings per share are useful to investors as they are representative of the Company's core operations and are used in the management of the business, including decisions concerning the allocation of resources and assessment of performance.

[2] The Company uses ANOPAT/Average Invested Capital as a non-GAAP ratio that indicates return on invested capital, which is useful to investors as a measure of return on their investment.

[3] Management believes that free cash flow is a non-GAAP measure that is useful to investors because it is a meaningful indicator of cash generated from operating activities available for the execution of its business strategy.

[4] Capital, used for the ratio of net debt to capital, is a non-GAAP measure defined as total debt less cash, cash equivalents and restricted cash plus total shareholders' equity. Management believes Net Debt and the ratio of Net Debt to Capital are important measures of the Company's financial position, due to the amount of cash, cash equivalents and restricted cash on hand.

[5] Pension related charges represent curtailments, professional fees associated with pension de-risking and actuarial gains and losses that resulted from the remeasurement of pension plan assets and obligations as a result of changes in assumptions. The Company recognizes actuarial gains and losses through earnings in connection with the annual remeasurement in the fourth quarter, or on an interim basis if specific events trigger a remeasurement. Pension related charges also include pension settlement charges.

[6] Impairment and restructuring charges, including items recorded in cost of products sold, are related to plant closures, the rationalization of certain plants and severance related to cost reduction initiatives. The Company re-assesses its operating footprint and makes adjustments as needed that result in restructuring charges. However, management believes these actions are not representative of the Company's core operations.

[7] Data for 2008 is shown on a pro forma basis and reflects the carve out of the TimkenSteel business, which was spun-off on June 30, 2014. These results have not been audited, but were prepared in a consistent manner with years that were audited and recast at the time of the spin-off of TimkenSteel. This unaudited pro forma 2008 financial data is being supplied to provide comparable results for 2008 to be considered in connection with the stated 12% compound annual growth rate for adjusted EPS from 2008 to 2018 on page 1 of the Annual Report. The 2008 unaudited pro forma consolidated financial information is not necessarily indicative of operating results or financial position that would have occurred had the spinoff of TimkenSteel occurred at that time.

Shareholder Information

2018

World Headquarters

The Timken Company
4500 Mount Pleasant St. NW
North Canton, OH 44720-5450

234-262-3000

www.timken.com

Stock Listing

Timken shares are traded on the New York Stock Exchange under the symbol TKR.

Annual Meeting of Shareholders

May 10, 2019, 10 a.m.
Timken World Headquarters

Independent Registered Public Accounting Firm

Ernst & Young LLP
950 Main Ave.
Suite 1800
Cleveland, OH 44113-7214

Publications

The Annual Meeting Notice and Proxy Card are mailed to shareholders in March.

Copies of the Annual Report, Proxy Statement, Forms 10-K and 10-Q may be obtained from the company's website, http://investors.timken.com/ or by written request at no charge from:

The Timken Company
Treasury/Shareholder Relations
WHQ-03
4500 Mount Pleasant St. NW
North Canton, OH 44720-5450

Investor Relations

Jason Hershiser
Manager – Investor Relations
The Timken Company
4500 Mount Pleasant St. NW
North Canton, OH 44720-5450

234-262-7101
jason.hershiser@timken.com

Shareholder Information

Dividends on common shares are generally payable in March, June, September and December.

The Timken Company offers an open enrollment dividend reinvestment and stock purchase plan through its transfer agent EQ. This program allows current shareholders and new investors the opportunity to purchase common shares without a broker.

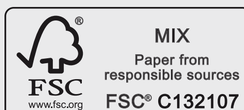
Shareholders of record may increase their investment in the company by reinvesting their dividends at no cost. Shares held in the name of a broker must be transferred to the shareholder's name to permit reinvestment. Information and enrollment materials are available online or by contacting EQ.

Inquiries regarding dividend reinvestment, dividend payments, change of address or lost certificates should be directed to:

EQ
Shareowner Services
P.O. Box 64874
St. Paul, MN 55164-0874

800-468-9716 or
651-450-4064

www.shareowneronline.com



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