UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2019

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: <u>000-03134</u>

PARK-OHIO HOLDINGS CORP.

(Exact name of registrant as specified in its charter)

Ohio	34-1867219
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
6065 Parkland Boulevard, Cleveland, Ohio	44124
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code (440) 947-2000

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered				
Common Stock, Par Value \$1.00 Per Share	РКОН	The NASDAQ Stock Market LLC				

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

None

Park-Ohio Holdings Corp. is a successor issuer to Park-Ohio Industries, Inc.

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

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

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 \boxtimes No \square

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 ($\S 232.405$ of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \boxtimes No \square

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or 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	☑						
Ion-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 account standards provided pursuant to Section 13(a) of the Exchange Act. □									
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☑ No Aggregate market value of the registrant's Common Stock held by non-affiliates of the registrant: Approximately \$442,186,000 based on the closing price of \$32.59 per share registrant's Common Stock on June 28, 2019.									
Number of shares outstanding of registrant's Common Stock, par value \$1.0	00 per shar	e, as of February 28, 2020: 12,666,202.							

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for the Annual Meeting of Shareholders to be held on or about May 28, 2020 are incorporated by reference into Part III of this Form 10-K.

PARK-OHIO HOLDINGS CORP.

FORM 10-K ANNUAL REPORT FOR THE FISCAL YEAR ENDED DECEMBER 31, 2019

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Part I

Item 1. Business

Overview

Park-Ohio Holdings Corp. ("Holdings" or "ParkOhio"), incorporated in Ohio since 1998, is a diversified international company providing world-class customers with a supply chain management outsourcing service, capital equipment used on their production lines, and manufactured components used to assemble their products.

References herein to "we" or "the Company" include, where applicable, Holdings and Park-Ohio Industries, Inc. and Holdings' other direct and indirect subsidiaries.

The Company operates through three reportable segments: Supply Technologies, Assembly Components and Engineered Products. As of December 31, 2019, we employed approximately 7,100 people.

The following table summarizes the key attributes of each of our business segments:

Supply Technologies	Assembly Components	Engineered Products
вирру тесниотодиез	Assembly Components	Ingineered Froducts
\$611.5 million	\$539.5 million	\$467.3 million
Sourcing, planning and procurement of over 245,000 production components, including: • Fasteners • Pins • Valves • Hoses • Wire harnesses • Clamps and fittings • Rubber and plastic components • Other Class C and MRO products	Fuel filler assemblies Gasoline direct injection systems Extruded and molded rubber and thermoplastic products Control arms Knuckles Engine cradles and brackets Oil pans	 Induction heating and melting systems Pipe threading systems Industrial oven systems Forging presses Forged steel and machined products
Heavy-duty truck Power sports and recreational equipment Aerospace and defense Semiconductor equipment Electrical distribution and controls Consumer electronics Bus and coaches Automotive Agricultural and construction equipment HVAC Lawn and garden Plumbing Medical	Automotive and light vehicle Agricultural equipment Construction equipment Heavy-duty truck Marine equipment Bus	Ferrous and non-ferrous metals Coatings Forging Foundry Heavy-duty truck Construction equipment Automotive Oil and gas Rail Aerospace and defense Power generation
	Sourcing, planning and procurement of over 245,000 production components, including: • Fasteners • Pins • Valves • Hoses • Wire hamesses • Clamps and fittings • Rubber and plastic components • Other Class C and MRO products • Heavy-duty truck • Power sports and recreational equipment • Aerospace and defense • Semiconductor equipment • Electrical distribution and controls • Consumer electronics • Bus and coaches • Automotive • Agricultural and construction equipment • HVAC • Lawn and garden • Plumbing	\$611.5 million Sourcing, planning and procurement of over 245,000 production components, including: • Fasteners • Pins • Valves • Hoses • Wire hamesses • Clamps and fittings • Rubber and plastic components • Other Class C and MRO products • Heavy-duty truck • Power sports and recreational equipment • Aerospace and defense • Semiconductor equipment • Electrical distribution and controls • Consumer electronics • Bus and coaches • Automotive • Agricultural equipment • Heavy-duty truck • Marine equipment • Bus • Bus

The Company consists of the following segments:

Supply Technologies

Our Supply Technologies business provides our customers with Total Supply Management™, a proactive solutions approach that manages the efficiencies of every aspect of supplying production parts and materials to our customers' manufacturing floor, from strategic planning to program implementation. Total Supply Management™ includes engineering and design support, part usage and cost analysis, supplier selection, quality assurance, bar coding, product packaging and tracking, just-in-time and point-of-use delivery, electronic billing services and ongoing technical support. We operate more than 60 logistics service centers in the United States, Mexico, Canada, Czech Republic, Puerto Rico, Scotland, Hungary, China, Taiwan, Singapore, India, England, France, Spain, Poland, Malaysia, Northern Ireland and Ireland, as well as production sourcing and support centers in the United States and Asia. Through our supply chain management programs, we supply more than 245,000 globally-sourced production components, many of which are specialized and customized to meet individual customers' needs.

Total Supply Management[™] provides our customers with an expert partner in strategic planning, global sourcing, technical services, parts and materials, logistics, distribution and inventory management of production components. Some production components are characterized by low per unit supplier prices relative to the indirect costs of supplier management, quality assurance, inventory management and delivery to the production line. In addition, Supply Technologies delivers an increasingly broad range of higher-value production components including valves, fuel hose assemblies, electro-mechanical hardware, labels, fittings, steering components and many others. Applications engineering specialists and the direct sales force work closely with the engineering staff of OEM customers to recommend the appropriate production components for a new product or to suggest alternative components that reduce overall production costs, streamline assembly or enhance the appearance or performance of the end product. Supply Technologies also provides spare parts and aftermarket products to end users of its customers' products.

Total Supply Management™ is typically provided to customers pursuant to sole-source arrangements. We believe our approach distinguishes us from traditional buy/sell distributors, as well as manufacturers who supply products directly to customers, because we provide the supply chain management of our customers' high-volume production components. We administer the processes customized to each customer's needs by replacing numerous current suppliers with a sole-source relationship with Supply Technologies. Our highly-developed, customized information systems provide global transparency and flexibility through the complete supply chain. This enables our customers to: (1) significantly reduce the direct and indirect cost of production component processes by outsourcing internal purchasing, quality assurance and inventory fulfillment responsibilities; (2) reduce the amount of working capital invested in inventory and floor space; (3) reduce component costs through purchasing efficiencies, including bulk buying and supplier consolidation; and (4) receive technical expertise in production component selection, design and engineering. Our sole-source arrangements foster long-term, entrenched supply relationships with our customers and, as a result, the average tenure of service for our top 50 Supply Technologies clients exceeds ten years. Supply Technologies also supplies wholesale industrial products to other manufacturers and distributors pursuant to master or authorized distributor relationships.

The Supply Technologies segment also engineers and manufactures precision cold-formed and cold-extruded fasteners and other products, including locknuts, SPAC® nuts, SPAC® bolts and wheel hardware, which are principally used in applications where controlled tightening is required due to high vibration. Supply Technologies produces both standard items and specialty products to customer specifications, which are used in large volumes by customers in the automotive, heavy-duty truck and rail industries.

Markets and Customers. For the year ended December 31, 2019, approximately 66% of Supply Technologies' net sales were to domestic customers. Remaining sales were primarily to manufacturing facilities of large, multinational customers located in Europe, Mexico, Asia and Canada. Total Supply Management™ is used extensively in a variety of industries, and demand is generally related to the state of the economy and to the overall level of manufacturing activity.

Supply Technologies markets and sells its approach to over 8,700 customers domestically and internationally. The five largest customers, to which Supply Technologies sells through sole-source contracts to multiple operating divisions or locations, accounted for approximately 32% and 30% of the sales of Supply Technologies in 2019 and 2018, respectively. The loss of any two or more of its top five customers could have a material adverse effect on the results of operations and financial condition of this segment.

Competition. A limited number of companies compete with Supply Technologies to provide supply management services for production parts and materials. Supply Technologies competes primarily on the basis of its Total Supply Management™ approach, including engineering and design support, part usage and cost analysis, supplier selection, quality assurance, bar coding, product packaging and tracking, just-in-time and point-of-use delivery, electronic billing services and ongoing technical support, and its geographic reach, extensive product selection, price and reputation for high service levels. Numerous U.S. and foreign companies compete with Supply Technologies in manufacturing cold-formed and cold-extruded products.

Assembly Components

Assembly Components manufactures products oriented towards fuel efficiency and reduced emission standards. Assembly Components designs, develops and manufactures: aluminum products; highly efficient, high pressure direct fuel injection fuel rails and pipes; fuel filler pipes that route fuel from the gas cap to the gas tank; and flexible multi-layer plastic and rubber assemblies used to transport fuel from the vehicle's gas tank and then, at extreme high pressure, to the engine's fuel injector nozzles. These advanced products, coupled with Turbo Enabled engines, make up large and growing engine architecture for all worldwide car manufacturers. Assembly Components also designs and manufactures Turbo Charging hoses along with Turbo Coolant hoses that will be required as engines get downsized to 3 or 4 cylinders from 6 or 8 cylinders. This engine downsizing increases efficiency, while dramatically decreasing pollution levels. In addition, our Assembly Components segment operates what we believe is one of the few aluminum component suppliers that have the capability to provide a wide range of high-volume, high-quality products utilizing a broad range of processes including gravity and low pressure permanent mold, die-cast and lost-foam, as well as emerging alternative casting technologies. We also provide machining to our aluminum products customers.

Assembly Components operates more than 25 manufacturing facilities and two technical offices in the United States, Mexico, China, England and the Czech Republic. In addition, we also provide value-added services such as design engineering, machining and parts assembly.

Markets and Customers. For the year ended December 31, 2019, approximately 72% of Assembly Components' net sales were to domestic customers. The five largest customers of Assembly Components accounted for approximately 47% and 51% of segment sales for 2019 and 2018, respectively. These sales, across multiple operating divisions, are through sole-source contracts. The loss of any one of these customers could have a material adverse effect on the results of operations and financial condition of this segment.

Competition. Assembly Components competes principally on the basis of its ability to: (1) engineer and manufacture high-quality, cost-effective assemblies utilizing multiple technologies in large volumes; (2) provide timely delivery; and (3) retain the manufacturing flexibility necessary to quickly adjust to the needs of its customers. There are few domestic companies with the capabilities to meet customers' stringent quality and service standards and lean manufacturing techniques. As one of these suppliers, Assembly Components is well-positioned to benefit as customers continue to consolidate their supplier base.

Engineered Products

Our Engineered Products segment operates a diverse group of niche manufacturing businesses that design and manufacture a broad range of highly-engineered products, including induction heating and melting systems, pipe threading systems and forged and machined products. We manufacture these products in more than 10 domestic facilities throughout the United States and more than 20 international facilities in Canada, Mexico, the United Kingdom, Belgium, Germany, China, Italy, India, Japan, Spain and Brazil.

Our induction heating and melting business utilizes proprietary technology and specializes in the engineering, construction, service and repair of induction heating and melting systems, primarily for the ferrous and non-ferrous metals, silicon, coatings, forging, foundry, automotive and construction equipment industries. Our induction heating and melting systems are engineered and built to customer specifications and are used primarily for melting, heating, and surface hardening of metals and curing of coatings. Approximately 44% of our induction heating and melting systems' revenues are derived from the sale of replacement parts and provision of field service, primarily for the installed base of our own products. Our pipe threading business serves the oil and gas industry. We also engineer and install mechanical forging presses, sell spare parts and

provide field service for the large existing base of mechanical forging presses and hammers in North America. We machine, induction harden and surface finish crankshafts and camshafts, used primarily in locomotives. We forge aerospace and defense structural components such as landing gears and struts, as well as rail products such as railcar center plates and draft lugs.

In May 2019, the Company acquired EFCO, Inc. d/b/a Erie Press Systems ("EP") for a total purchase price of \$9.1 million, including potential contingent consideration. EP is an industry-recognized leader in the manufacturing of advanced forging presses, hydraulic and mechanical presses, and metal stretch-forming and carbon extrusion machines for several end markets, including aerospace and defense, primary metals and high-speed rail. EP is included in our Engineered Products segment results from the date of acquisition.

Markets and Customers. For the year ended December 31, 2019, approximately 58% of Engineered Products' net sales were to domestic customers. We sell induction heating and other capital equipment to component manufacturers and OEMs in the ferrous and non-ferrous metals, silicon, coatings, forging, foundry, automotive, truck, construction equipment and oil and gas industries. We sell forged and machined products to locomotive manufacturers, machining companies and sub-assemblers who finish aerospace and defense products for OEMs, and railcar builders and maintenance providers.

Competition. We compete with small-to medium-sized domestic and international equipment manufacturers on the basis of service capability, ability to meet customer specifications, delivery performance and engineering expertise. We compete domestically and internationally with small-to medium-sized forging and machining businesses on the basis of product quality and precision.

Sales and Marketing

Supply Technologies markets its products and services in the United States, Mexico, Canada, Europe and Asia primarily through its direct sales force, which is assisted by applications engineers who provide the technical expertise necessary to assist the engineering staff of OEM customers in designing new products and improving existing products. Assembly Components primarily markets and sells its products in North America through internal sales personnel and independent sales representatives. Engineered Products primarily markets and sells its products in North America through both internal sales personnel and independent sales representatives. Induction heating and pipe threading equipment is also marketed and sold in Europe, Asia, Latin America and Africa through both internal sales personnel and independent sales representatives. In some instances, the internal engineering staff assists in the sales and marketing effort through joint design and applications-engineering efforts with major customers.

Raw Materials and Suppliers

Supply Technologies purchases substantially all of its production components from third-party suppliers. Supply Technologies has multiple sources of supply for its components. An increasing portion of Supply Technologies' production components are purchased from suppliers in foreign countries, primarily Canada, Taiwan, China, South Korea, Singapore, India and multiple European countries. Supply Technologies is dependent upon the ability of such suppliers to meet stringent quality and performance standards and to conform to delivery schedules. Assembly Components and Engineered Products purchase substantially all of their raw materials, principally metals and certain component parts incorporated into their products, from third-party suppliers and manufacturers. Most raw materials required by Assembly Components and Engineered Products are commodity products available from several domestic suppliers. Management believes that raw materials and component parts other than certain specialty products are available from alternative sources.

Our suppliers of raw materials and component parts may significantly and quickly increase their prices in response to increases in costs of the raw materials, such as steel, that they use to manufacture our raw materials and component parts. While we generally attempt to pass along increased raw material prices to our customers in the form of price increases, there may be a time delay between the increased raw material prices and our ability to increase the price of our products, or we may be unable to increase the prices of our products due to various factors. See the discussion of risks associated with raw material supply and costs in Item 1A "Risk Factors".

Backlog

Management believes that backlog is not a meaningful measure for Supply Technologies, as a majority of Supply Technologies' customers require just-in-time delivery of production components. Management believes that Assembly Components' backlog is not a meaningful measure, as a significant portion of sales are on a release or firm order basis. The backlog of Engineered Products' orders believed to be firm as of December 31, 2019 was \$220.5 million, compared with \$226.1 million as of December 31, 2018. Nearly all of Engineered Products' backlog as of December 31, 2019 is scheduled to be shipped in 2020.

Environmental, Health and Safety Regulations

We are subject to numerous federal, state and local laws and regulations designed to protect public health and the environment, particularly with regard to discharges and emissions, as well as handling, storage, treatment and disposal of various substances and wastes. Failure to comply with applicable environmental laws and regulations and permit requirements could result in civil and criminal fines or penalties or enforcement actions, including regulatory or judicial orders enjoining or curtailing operations or requiring corrective measures. Pursuant to certain environmental laws, owners or operators of facilities may be liable for the costs of response or other corrective actions for contamination identified at or emanating from current or former locations, without regard to whether the owner or operator knew of, or was responsible for, the presence of any such contamination, and for related damages to natural resources. Additionally, persons who arrange for the disposal or treatment of hazardous substances or materials may be liable for costs of response at sites where they are located, whether or not the site is owned or operated by such person.

From time to time, we have incurred, and are presently incurring, costs and obligations for correcting environmental noncompliance and remediating environmental conditions at certain of our properties. In general, we have not experienced difficulty in complying with environmental laws in the past, and compliance with environmental laws has not had a material adverse effect on our financial condition, liquidity and results of operations. Our capital expenditures on environmental control facilities were not material during the past five years and such expenditures are not expected to be material to us in the foreseeable future.

We are currently, and may in the future be, required to incur costs relating to the investigation or remediation of property, including property where we have disposed of our waste, and for addressing environmental conditions. For instance, we have been identified as a potentially responsible party at third-party sites under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, or comparable state laws, which provide for strict and, under certain circumstances, joint and several liability. We are participating in the cost of certain clean-up efforts at several of these sites. The availability of third-party payments or insurance for environmental remediation activities is subject to risks associated with the willingness and ability of the third party to make payments. However, our share of such costs has not been material and, based on available information, we do not expect our exposure at any of these locations to have a material adverse effect on our results of operations, liquidity or financial condition.

Available Information

We file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements and other information with the Securities and Exchange Commission ("SEC"). The public can obtain copies of these materials by accessing the SEC's website at http://www.sec.gov. In addition, as soon as reasonably practicable after such materials are filed with or furnished to the SEC, we make such materials available on our website free of charge at http://www.pkoh.com. The information on our website is not a part of this Annual Report on Form 10-K.

Information About our Executive Officers

Information with respect to our executive officers as of March 12, 2020, is as follows:

	Name Age	<u>Position</u>
Matthew V. Crawford	50	Chairman of the Board, Chief Executive Officer and President
Patrick W. Fogarty	58	Vice President and Chief Financial Officer
Robert D. Vilsack	59	Secretary and Chief Legal Officer

Mr. Crawford was elected President in 2019 and Chairman of the Board and Chief Executive Officer in 2018. Prior to that, he served as President and Chief Operating Officer since 2003. Mr. Crawford became one of our directors in August 1997 and has served as President of Crawford Group, Inc. since 1995.

Mr. Fogarty has been Vice President and Chief Financial Officer since 2015. Prior to that, Mr. Fogarty was Director of Corporate Development since 1997 and served as Director of Finance from 1995 to 1997.

Mr. Vilsack has been Secretary and Chief Legal Officer since joining us in 2002.

Item 1A. Risk Factors

The following are certain risk factors that could affect our business, results of operations and financial condition. These risks are not the only ones we face. If any of the following risks occur, our business, results of operations or financial condition could be adversely affected.

The industries in which we operate are cyclical and are affected by the economy in general.

We sell products to customers in industries that experience cyclicality (expectancy of recurring periods of economic growth and slowdown) in demand for products and may experience substantial increases and decreases in business volume throughout economic cycles. Industries we serve, including the automotive and vehicle parts, heavy-duty truck, industrial equipment, steel, rail, oil and gas, electrical distribution and controls, aerospace and defense, recreational equipment, HVAC, electrical components, appliance and semiconductor equipment industries, are affected by consumer spending, general economic conditions and the impact of international trade. A downturn in any of the industries we serve could have a material adverse effect on our financial condition, liquidity and results of operations.

Adverse credit market conditions may significantly affect our access to capital, cost of capital and ability to meet liquidity needs.

Disruptions, uncertainty or volatility in the credit markets may adversely impact our ability to access credit already arranged and the availability and cost of credit to us in the future. These market conditions may limit our ability to replace, in a timely manner, maturing liabilities and access the capital necessary to grow and maintain our business. Accordingly, we may be forced to delay raising capital or pay unattractive interest rates, which could increase our interest expense, decrease our profitability and significantly reduce our financial flexibility. Longer-term disruptions in the capital and credit markets as a result of uncertainty, changing or increased regulation, reduced alternatives or failures of significant financial institutions could adversely affect our access to liquidity needed for our business. Any disruption could require us to take measures to conserve cash until the markets stabilize or until alternative credit arrangements or other funding for our business needs can be arranged. Such measures could include deferring capital expenditures and reducing or eliminating future share repurchases or other discretionary uses of cash. Overall, our results of operations, financial condition and cash flows could be materially adversely affected by disruptions in the credit markets.

Adverse global economic conditions may have significant effects on our customers and suppliers that could result in material adverse effects on our business and operating results.

Significant reductions in available capital and liquidity from banks and other providers of credit, substantial reductions and fluctuations in equity and currency values worldwide, volatility in commodity prices for such items as crude oil, and concerns that the worldwide economy may enter into a prolonged recessionary period, may materially adversely affect our customers' access to capital or willingness to spend capital on our products or their ability to pay for products that they will order or have already ordered from us. In addition, unfavorable global economic conditions may materially adversely affect our suppliers' access to capital and liquidity with which they maintain their inventories, production levels and product quality, which could cause them to raise prices or lower production levels.

These potential effects of adverse global economic conditions are difficult to forecast and mitigate. As a consequence, our operating results for a particular period are difficult to predict, and, therefore, prior results are not necessarily indicative of results to be expected in future periods. Any of the foregoing effects could have a material adverse effect on our business, results of operations and financial condition.

Adverse global economic conditions may have significant effects on our customers that would result in our inability to borrow or to meet our debt service coverage ratio in our revolving credit facility.

As of December 31, 2019, we were in compliance with our debt service coverage ratio covenant and other covenants contained in our revolving credit facility. While we expect to remain in compliance throughout 2020, declines in demand in the automotive industry and in sales volumes could adversely impact our ability to remain in compliance with certain of these financial covenants. Additionally, to the extent our customers are adversely affected by a decline in the economy in general, they may not be able to pay their accounts payable to us on a timely basis or at all, which would make the accounts receivable ineligible for purposes of the revolving credit facility and could reduce our borrowing base and our ability to borrow.

Because a significant portion of our sales is to the automotive and heavy-duty truck industries, a decrease in the demand of these industries or the loss of any of our major customers in these industries could adversely affect our financial health.

Demand for certain of our products is affected by, among other things, the relative strength or weakness of the automotive and heavy-duty truck industries. The domestic automotive and heavy-duty truck industries are highly cyclical and may be adversely affected by international competition. In addition, the automotive and heavy-duty truck industries are significantly unionized and subject to work slowdowns and stoppages resulting from labor disputes. We derived 35% and 8% of our net sales during the year ended December 31, 2019 from the automotive and heavy-duty truck industries, respectively.

The loss of a portion of business to any of our major automotive or heavy-duty truck customers could have a material adverse effect on our financial condition, cash flow and results of operations. We cannot assure you that we will maintain or improve our relationships in these industries or that we will continue to supply these customers at current levels.

Our Supply Technologies customers are generally not contractually obligated to purchase products and services from us.

We supply products and services to our Supply Technologies customers generally under purchase orders as opposed to long-term contracts. When we do enter into long-term contracts with our Supply Technologies customers, many of them only establish pricing terms and do not obligate our customers to buy required minimum amounts from us or to buy from us exclusively. Accordingly, many of our Supply Technologies customers may decrease the number of products and services that they purchase from us or even stop purchasing from us altogether, either of which could have a material adverse effect on our net sales and profitability.

We are dependent on key customers.

We rely on several key customers. For the year ended December 31, 2019, our ten largest customers accounted for approximately 31% of our net sales. Many of our customers place orders for products on an as-needed basis and operate in cyclical industries and, as a result, their order levels have varied from period to period in the past and may vary significantly in the future. Due to competitive issues, we have lost key customers in the past and may again in the future. Customer orders are dependent upon their markets and may be subject to delays or cancellations. As a result of dependence on our key customers, we could experience a material adverse effect on our business and results of operations if any of the following were to occur:

- the loss of any key customer, in whole or in part;
- the insolvency or bankruptcy of any key customer;
- · a declining market in which customers reduce orders or demand reduced prices; or
- a strike or work stoppage at a key customer facility, which could affect both their suppliers and customers.

If any of our key customers become insolvent or file for bankruptcy, our ability to recover accounts receivable from that customer would be adversely affected and any payments we received in the preference period prior to a bankruptcy filing may be potentially forfeitable, which could adversely impact our results of operations.

We operate in highly competitive industries.

The markets in which all three of our segments sell their products are highly competitive. Some of our competitors are large companies that have greater financial resources than we have. We believe that the principal competitive factors for our Supply Technologies segment are an approach reflecting long-term business partnership and reliability, sourced product quality

and conformity to customer specifications, timeliness of delivery, price and design and engineering capabilities. We believe that the principal competitive factors for our Assembly Components and Engineered Products segments are product quality and conformity to customer specifications, design and engineering capabilities, product development, timeliness of delivery and price. The rapidly evolving nature of the markets in which we compete may attract new entrants as they perceive opportunities, and our competitors may foresee the course of market development more accurately than we do. In addition, our competitors may develop products that are superior to our products or may adapt more quickly than we do to new technologies or evolving customer requirements.

We expect competitive pressures in our markets to remain strong. These pressures arise from existing competitors, other companies that may enter our existing or future markets and, in some cases, our customers, which may decide to internally produce items we sell. We cannot assure you that we will be able to compete successfully with our competitors. Failure to compete successfully could have a material adverse effect on our financial condition, liquidity and results of operations.

The loss of key executives could adversely impact us.

Our success depends upon the efforts, abilities and expertise of our executive officers and other senior managers, including Matthew Crawford, our Chairman, Chief Executive Officer and President, as well as the president of each of our operating units. Additionally, an event of default occurs under our revolving credit facility if Messrs. M. Crawford and Edward Crawford, our former President, or certain of their related parties own in the aggregate less than 15% of Holdings' outstanding common stock and, if at such time, neither Mr. M. Crawford nor Mr. E. Crawford holds the office of chairman, chief executive officer or president. The loss of the services of Mr. M. Crawford, senior and executive officers, and/or other key individuals could have a material adverse effect on our financial condition, liquidity and results of operations.

We may encounter difficulty in expanding our business through targeted acquisitions.

We have pursued, and may continue to pursue, targeted acquisition opportunities that we believe would complement our business. We cannot assure you that we will be successful in consummating any acquisitions.

Any targeted acquisitions will be accompanied by the risks commonly encountered in acquisitions of businesses. We may not successfully overcome these risks or any other problems encountered in connection with any of our acquisitions, including the possible inability to integrate an acquired business' operations, information technology, services and products into our business; diversion of management's attention; the assumption of unknown liabilities; increases in our indebtedness; the failure to achieve the strategic objectives of those acquisitions; and other unanticipated problems, some or all of which could materially and adversely affect us. The process of integrating operations could cause an interruption of, or loss of momentum in, our activities. Any delays or difficulties encountered in connection with any acquisition and the integration of our operations could have a material adverse effect on our business, results of operations, financial condition or prospects of our business.

Our Supply Technologies business depends upon third parties for substantially all of our component parts.

Our Supply Technologies business purchases substantially all of its component parts from third-party suppliers and manufacturers. As such, it is subject to the risk of price fluctuations and periodic delays in the delivery of component parts. Failure by suppliers to continue to supply us with these component parts on commercially reasonable terms, or at all, could have a material adverse effect on us. We depend upon the ability of these suppliers, among other things, to meet stringent performance and quality specifications and to conform to delivery schedules. Failure by third-party suppliers to comply with these and other requirements could have a material adverse effect on our financial condition, liquidity and results of operations.

The raw materials used in our production processes and by our suppliers of component parts are subject to price and supply fluctuations that could increase our costs of production and adversely affect our results of operations.

Our supply of raw materials for our Assembly Components and Engineered Products businesses could be interrupted for a variety of reasons, including availability and pricing. Prices for raw materials necessary for production have fluctuated significantly in the past and significant increases could adversely affect our results of operations and profit margins. While we generally attempt to pass along increased raw materials prices to our customers in the form of price increases, there may be a time delay between the increased raw materials prices and our ability to increase the price of our products, or we may be unable to increase the prices of our products due various factors.

Our suppliers of component parts, particularly in our Supply Technologies business, may significantly and quickly increase their prices in response to increases in costs of the raw materials, such as steel, that they use to manufacture our component parts. We may not be able to increase our prices commensurate with our increased costs. Consequently, our results of operations and financial condition may be materially adversely affected.

The energy costs involved in our production processes and transportation are subject to fluctuations that are beyond our control and could significantly increase our costs of production.

Our manufacturing process and the transportation of raw materials, components and finished goods are energy intensive. Our manufacturing processes are dependent on adequate supplies of electricity and natural gas. A substantial increase in the cost of transportation fuel, natural gas or electricity could have a material adverse effect on our margins. We may experience higher than anticipated gas costs in the future, which could adversely affect our results of operations. In addition, a disruption or curtailment in supply could have a material adverse effect on our production and sales levels.

Potential product liability risks exist from the products that we sell.

Our businesses expose us to potential product liability risks that are inherent in the design, manufacture and sale of our products and products of third-party vendors that we use or resell. While we currently maintain what we believe to be suitable and adequate product liability insurance, we cannot assure you that we will be able to maintain our insurance on acceptable terms or that our insurance will provide adequate protection against potential liabilities. In the event of a claim against us, a lack of sufficient insurance coverage could have a material adverse effect on our financial condition, liquidity and results of operations. Moreover, even if we maintain adequate insurance, any successful claim could have a material adverse effect on our financial condition, liquidity and results of operations.

Some of our employees belong to labor unions, and strikes or work stoppages could adversely affect our operations.

As of December 31, 2019, we were a party to seven collective bargaining agreements with various labor unions that covered approximately 670 full-time employees. Our inability to negotiate acceptable contracts with these unions could result in, among other things, strikes, work stoppages or other slowdowns by the affected workers and increased operating costs as a result of higher wages or benefits paid to union members. If the unionized workers were to engage in a strike, work stoppage or other slowdown, or other employees were to become unionized, we could experience a significant disruption of our operations and higher ongoing labor costs, which could have a material adverse effect on our business, financial condition and results of operations.

We operate and source internationally, which exposes us to the risks of doing business abroad.

Our operations are subject to the risks of doing business abroad, including the following:

- fluctuations in currency exchange rates;
- · limitations on ownership and on repatriation of earnings;
- transportation delays and interruptions;
- political, social and economic instability and disruptions;
- potential disruption that could be caused by the partial or complete reconfiguration of the European Union;
- government embargoes or foreign trade restrictions;
- the imposition of duties and tariffs and other trade barriers;
- · import and export controls;
- labor unrest and current and changing regulatory environments;
- the potential for nationalization of enterprises;
- disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the U.S. Foreign Corrupt Practices Act
 ("FCPA"):
- · increasingly complex laws and regulations concerning privacy and data security, including the European Union's General Data Protection Regulation;
- difficulties in staffing and managing multinational operations;
- limitations on our ability to enforce legal rights and remedies; and
- potentially adverse tax consequences.

On January 31, 2020, the United Kingdom ("UK") exited the European Union ("EU"). The long-term effects of Brexit will depend on any agreements the UK makes to retain access to EU markets. Given the lack of comparable precedent, it is unclear what financial, trade and legal implications the withdrawal of the UK from the EU will have and how such withdrawal will affect us. It is possible that the withdrawal could, among other things, affect the legal and regulatory environments to which our businesses are subject, impact trade between the UK and the EU through potential restrictions on the free movement of goods and labor between the UK and the EU, create economic and political uncertainty in the region, and create other impediments to our ability to transact within and between the UK and EU.

We are also exposed to risks relating to U.S. policy with respect to companies doing business in foreign jurisdictions. Changes in tax policy, trade regulations or trade agreements, such as the disallowance of tax deductions on imported merchandise or the imposition of new tariffs on imported products, could have a material adverse effect on our business and results of operations.

In addition, we could be adversely affected by violations of the FCPA and similar worldwide anti-bribery 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. officials for the purpose of obtaining or retaining business. Our policies mandate compliance with these anti-bribery 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. We cannot assure you that our internal controls and procedures always will protect us from the reckless or criminal acts committed by our employees or agents. For example, in connection with responding to a subpoena from the staff of the SEC, regarding a third party, we disclosed to the staff that the third party participated in a payment on our behalf to a foreign tax official that implicates the FCPA. If we are found to be liable for FCPA violations (either due to our own acts or our inadvertence or due to the acts or inadvertence of others), we could suffer from criminal or civil penalties or other sanctions. Which could have a material adverse effect on our business.

Any of the events enumerated above could have an adverse effect on our operations in the future by reducing the demand for our products and services, decreasing the prices at which we can sell our products or otherwise having an adverse effect on our business, financial condition or results of operations. We cannot assure you that we will continue to operate in compliance with applicable customs, currency exchange control regulations, transfer pricing regulations or any other laws or regulations to which we may be subject. We also cannot assure you that these laws will not be modified.

U.S. federal income tax reform could adversely affect us.

On December 22, 2017, U.S. federal tax legislation, commonly referred to as the Tax Cuts and Jobs Act (the "TCJA"), was signed into law, significantly reforming the U.S. Internal Revenue Code. The TCJA, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of interest, allows for the expensing of capital expenditures, creates a new minimum tax on certain foreign-sourced earnings and modifies or repeals many business deductions and credits. The TCJA contains many provisions which continue to be clarified through new regulations and we continue to examine the impact the TCJA may have on our business

We are subject to significant environmental, health and safety laws and regulations and related compliance expenditures and liabilities.

Our businesses are subject to many foreign, federal, state and local environmental, health and safety laws and regulations, particularly with respect to the use, handling, treatment, storage, discharge and disposal of substances and hazardous wastes used or generated in our manufacturing processes. Compliance with these laws and regulations is a significant factor in our business. We have incurred and expect to continue to incur significant expenditures to comply with applicable environmental laws and regulations. Our failure to comply with applicable environmental laws and regulations and permit requirements could result in civil or criminal fines or penalties or enforcement actions, including regulatory or judicial orders enjoining or curtailing operations or requiring corrective measures, installation of pollution control equipment or remedial

We are currently, and may in the future be, required to incur costs relating to the investigation or remediation of property, including property where we have disposed of our waste, and for addressing environmental conditions. Some environmental laws and regulations impose liability and responsibility on present and former owners, operators or users of facilities and sites for contamination at such facilities and sites without regard to causation or knowledge of contamination. In addition, we

occasionally evaluate various alternatives with respect to our facilities, including possible dispositions or closures. Investigations undertaken in connection with these activities may lead to discoveries of contamination that must be remediated, and closures of facilities may trigger compliance requirements that are not applicable to operating facilities. Consequently, we cannot assure you that existing or future circumstances, the development of new facts or the failure of third parties to address contamination at current or former facilities or properties will not require significant expenditures by us.

We expect to continue to be subject to increasingly stringent environmental and health and safety laws and regulations. It is difficult to predict the future interpretation and development of environmental and health and safety laws and regulations or their impact on our future earnings and operations. We anticipate that compliance will continue to require increased capital expenditures and operating costs. Any increase in these costs, or unanticipated liabilities arising from, among other things, discovery of previously unknown conditions or more aggressive enforcement actions, could adversely affect our results of operations, and there is no assurance that they will not exceed our reserves or have a material adverse effect on our financial condition.

We may experience breaches of, or disruptions to, our information technology systems, or other compromises of our data, including the improper disclosure of personal or confidential data, which may adversely affect our operations and reputation.

We utilize information technology systems in connection with our business operations, including processing orders, managing inventory and accounts receivable collections, purchasing products, maintaining cost-effective operations, routing and re-routing orders. We also depend on our information technology systems to maintain confidential, proprietary and personal information relating to our current, former and prospective employees, customers and other third parties in these systems and in systems of third-party providers who we engage in connection with the processing and storage of certain information. Our information technology systems and those of our third-party providers are subject to disruptions or damage, which may be caused by a wide array of causes, including telecommunications failures, computer failures, power outages, computer viruses, cybersecurity breaches and other intrusions, which could result in the disruption of our operations, or information misappropriation, such as theft of intellectual property or inappropriate disclosure of personal and confidential information. In addition, we could also experience data or cybersecurity breaches stemming from the intentional or negligent acts of our employees or other third parties. To the extent our information technology systems are disabled for a long period of time, key business processes could be interrupted. Any such operational disruptions and/or misappropriation of information, whether in systems we maintain or are maintained by others, could have a material adverse effect on our business. In addition, any such damage, compromise or breach to our systems or those of our vendors, could result in a violation of privacy and other laws, and expose us to significant legal and financial liability.

Operating problems in our business may materially adversely affect our financial condition and results of operations.

We are subject to the usual hazards associated with manufacturing and the related storage and transportation of raw materials, products and waste, including explosions, fires, leaks, discharges, inclement weather, natural disasters, mechanical failure, unscheduled downtime and transportation interruption or calamities. The occurrence of material operating problems at our facilities may have a material adverse effect on our operations as a whole, both during and after the period of operational difficulties.

We have a significant amount of goodwill, and any future goodwill impairment charges could adversely impact our results of operations.

As of December 31, 2019, we had goodwill of \$108.4 million. The future occurrence of a potential indicator of impairment, such as a significant adverse change in legal factors or business climate, unanticipated competition, a material negative change in relationships with significant customers, strategic decisions made in response to economic or competitive conditions, loss of key personnel or a more-likely-than-not expectation that a reporting unit or a significant portion of a reporting unit will be sold or disposed of, could result in goodwill impairment charges, which could adversely impact our results of operations. We have recorded goodwill impairment charges in the past, and such charges materially impacted our historical results of operations. For additional information, see Note 5, Goodwill, to the consolidated financial statements included elsewhere herein.

Our Chairman of the Board, Chief Executive Officer and President and former President collectively beneficially own a significant portion of Holdings' outstanding common stock and their interests may conflict with yours.

As of December 31, 2019, Matthew Crawford, our Chairman of the Board, Chief Executive Officer and President, and Edward Crawford, our former President, collectively beneficially owned approximately 28% of Holdings' outstanding common stock. Mr. M. Crawford is Mr. E. Crawford's son. Their interests could conflict with your interests.

Our business and operating results may be adversely affected by natural disasters, other catastrophic events or public health issues, all of which are beyond our control.

While we have taken precautions to prevent production and service interruptions at our global facilities, severe weather conditions such as hurricanes, tomadoes, and earthquakes; other natural disasters; or public health issues, including the outbreak of COVID-19, in areas in which we have manufacturing facilities or from which we obtain products may cause physical damage to our properties, closure of one or more of our business facilities, lack of adequate work force in a market, temporary disruption in the supply of inventory, disruption in the transport of products and utilities, or delays in the delivery of products to our customers. Any of these factors may disrupt our operations and adversely affect our financial condition and results of operations.

The insurance that we maintain may not fully cover all potential expenses.

We maintain property, business interruption and casualty insurance, but such insurance may not cover all risks associated with the hazards of our business and is subject to limitation, including deductible and maximum liabilities covered. We are potentially at risk if one or more of our insurance carriers fail. Additionally, severe disruptions in the domestic and global financial markets could adversely impact the ratings and survival of some insurers. In the future, we may not be able to obtain coverage at current levels, and our premiums may increase significantly on coverage that we maintain.

Uncertainty relating to the calculation of London Interbank Offered Rate ("LIBOR") and other reference rates and their potential discontinuance may adversely affect interest expense related to our outstanding debt, including amounts borrowed under our revolving credit facility.

National and international regulators and law enforcement agencies have conducted investigations into a number of rates or indices, which are deemed to be "reference rates." Actions by such regulators and law enforcement agencies may result in changes to the manner in which certain reference rates are determined, their discontinuance, or the establishment of alternative reference rates. In particular, on July 27, 2017, the Chief Executive of the U.K. Financial Conduct Authority, which regulates LIBOR, announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR after 2021. Such announcement indicates that the continuation of LIBOR on the current basis cannot and will not be guaranteed after 2021. As such, it appears highly likely that LIBOR will be discontinued or modified by the end of 2021.

At this time, it is not possible to predict the effect that these developments, any discontinuance, modification or other reforms to LIBOR or any other reference rate, or the establishment of alternative reference rates, may have on LIBOR or other benchmarks, including LIBOR-based borrowings under our revolving credit facility. Furthermore, the use of alternative reference rates or other reforms could cause the market value of, the applicable interest rate on and the amount of interest paid on our benchmark-based borrowings to be materially different than expected and could materially adversely impact our ability to refinance such borrowings or raise future indebtedness on a cost effective basis.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

As of December 31, 2019, our operations included numerous manufacturing and supply chain logistics services facilities located in 25 states in the United States and in Puerto Rico, as well as in Asia, Canada, Europe, Mexico and Brazil. We lease our world headquarters located in Cleveland, Ohio, which also includes the world headquarters for certain of our businesses. We believe our manufacturing, logistics and corporate office facilities are well-maintained and are suitable and adequate, and they have sufficient productive capacity to meet our current needs.

The following table provides information relative to our principal facilities as of December 31, 2019.

Related Industry Segment ⁽¹⁾	Location	Owned or Leased	Use
SUPPLY	Brampton, Ontario, Canada	Leased	Manufacturing
TECHNOLOGIES	Minneapolis, MN	Leased	Logistics
	Carnegie, PA	Leased	Manufacturing
	Cleveland, OH	Leased	Supply Technologies Corporate Office
	Dayton, OH	Leased	Logistics
	Carol Stream, IL	Leased	Logistics
	Memphis, TN	Leased	Logistics
	Solon, OH	Leased	Logistics
	Streetsboro, OH	Leased	Manufacturing
	Allentown, PA	Leased	Logistics
	Suwanee, GA	Leased	Logistics
	Dublin, VA	Leased	Logistics
	Tulsa, OK	Leased	Logistics
ASSEMBLY	Ocala, FL	Owned	Manufacturing
COMPONENTS	Conneaut, OH	Leased/Owned	Manufacturing
	Lexington, TN	Owned	Manufacturing
	Lobelville, TN	Owned	Manufacturing
	Rootstown, OH	Owned	Manufacturing
	Cleveland, OH	Leased/Owned	Manufacturing
	Wapakoneta, OH	Owned	Manufacturing
	Angola, IN	Owned	Manufacturing
	Huntington, IN	Leased	Manufacturing
	Fremont, IN	Owned	Manufacturing
	Big Rapids, MI	Owned	Manufacturing
	Acuna, Mexico	Owned	Manufacturing
ENGINEERED	Cicero, IL	Owned	Manufacturing
PRODUCTS	Cuyahoga Heights, OH	Owned	Manufacturing
	Pune, India	Owned	Manufacturing
	Canton, OH	Owned	Manufacturing
	Newport, AR	Owned	Manufacturing
	Warren, OH	Owned	Manufacturing
	Leini, Italy	Owned	Manufacturing
	Erie, PA	Owned	Manufacturing
	Madison Heights, MI	Leased	Manufacturing
	Canton, OH	Leased	Manufacturing
	La Roeulx, Belgium	Owned	Manufacturing
	Brookfield, WI	Leased	Manufacturing
	Wickliffe, OH	Owned	Manufacturing
	Valencia, Spain	Owned	Manufacturing
	Euclid, OH	Owned	Manufacturing
	Albertville, AL	Leased	Office
	Chennai, India	Owned	Manufacturing
(1) Each segment has other facilities,	none of which is deemed to be a principal	l facility.	

Item 3. Legal Proceedings

We are subject to various pending and threatened lawsuits in which claims for monetary damages are asserted in the ordinary course of business. While any litigation involves an element of uncertainty, in the opinion of management, liabilities, if any, arising from currently pending or threatened litigation are not expected to have a material adverse effect on our financial condition, liquidity or results of operations.

In addition to the routine lawsuits and asserted claims noted above, we were a party to the lawsuits and legal proceedings described below as of December 31, 2019:

We were a co-defendant in approximately 114 cases asserting claims on behalf of approximately 215 plaintiffs alleging personal injury as a result of exposure to asbestos. These asbestos cases generally relate to production and sale of asbestos-containing products and allege various theories of liability, including negligence, gross negligence and strict liability, and seek compensatory and, in some cases, punitive damages.

In every asbestos case in which we are named as a party, the complaints are filed against multiple named defendants. In substantially all of the asbestos cases, the plaintiffs either claim damages in excess of a specified amount, typically a minimum amount sufficient to establish jurisdiction of the court in which the case was filed (jurisdictional minimums generally range from \$25,000 to \$75,000), or do not specify the monetary damages sought. To the extent that any specific amount of damages is sought, the amount applies to claims against all named defendants.

There are three asbestos cases, involving 19 plaintiffs, that plead specified damages against named defendants. In each of the three cases, the plaintiff is seeking compensatory and punitive damages based on a variety of potentially alternative causes of action. In two cases, the plaintiff has alleged three counts at \$3 million compensatory and punitive damages each; one count at \$3 million compensatory and \$1 million punitive damages; one count at \$1 million. In the third case, the plaintiff has alleged compensatory and punitive damages, each in the amount of \$20.0 million, for three separate causes of action, and \$5.0 million compensatory damages for the fifth cause of action

Historically, we have been dismissed from asbestos cases on the basis that the plaintiff incorrectly sued one of our subsidiaries or because the plaintiff failed to identify any asbestos-containing product manufactured or sold by us or our subsidiaries. We intend to vigorously defend these asbestos cases and believe we will continue to be successful in being dismissed from such cases. However, it is not possible to predict the ultimate outcome of asbestos-related lawsuits, claims and proceedings due to the unpredictable nature of personal injury litigation. Despite this uncertainty, and although our results of operations and cash flows for a particular period could be adversely affected by asbestos-related lawsuits, claims and proceedings, management believes that the ultimate resolution of these matters will not have a material adverse effect on our financial condition, liquidity or results of operations. Among the factors management considered in reaching this conclusion were: (a) our historical success in being dismissed from these types of lawsuits on the bases mentioned above; (b) many cases have been improperly filed against one of our subsidiaries; (c) in many cases the plaintiffs have been unable to establish any causal relationship to us or our products or premises; (d) in many cases, the plaintiffs have been unable to demonstrate that they have suffered any identifiable injury or compensable loss at all or that any injuries that they have incurred did in fact result from alleged exposure to asbestos; and (e) the complaints assert claims against multiple defendants and, in most cases, the damages alleged are not attributed to individual defendants. Additionally, we do not believe that the amounts claimed in any of the asbestos cases are meaningful indicators of our potential exposure because the amounts claimed typically bear no relation to the extent of the plaintiff's injury, if any.

Our cost of defending these lawsuits has not been material to date and, based upon available information, our management does not expect its future costs for asbestos-related lawsuits to have a material adverse effect on our results of operations, liquidity or financial position.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

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

Our common stock, par value \$1.00 per share, trades on the Nasdaq Global Select Market under the symbol "PKOH".

The number of shareholders of record of our common stock as of February 28, 2020 was 357.

Issuer Purchases of Equity Securities

Set forth below is information regarding repurchases of our common stock during the fourth quarter of the year ended December 31, 2019.

P eriod	Total Number of Shares Purchased		Average rice Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans (1)	Maximum Number of Shares That May Yet Be Purchased Under the Plans or Program ⁽²⁾			
October 1 — October 31, 2019	96	\$	28.27	_	355,616			
November 1 — November 30, 2019	_		_	_	355,616			
December 1 — December 31, 2019	_		_	_	355,616			
Total	96	\$	28.27		355,616			

⁽¹⁾ Consists of an aggregate total of 96 shares of common stock we acquired from recipients of restricted stock awards at the time of vesting of such awards in order to settle recipient minimum withholding tax liabilities.

⁽²⁾ On March 4, 2013, we announced a share repurchase program whereby we may repurchase up to 1.0 million shares of our outstanding common stock.

Item 6. Selected Financial Data

	 Year Ended December 31,										
	 2019		2018		2017		2016		2015		
			(In milli	ions, e	xcept per sh	are d	ata)				
Income Statement Data:											
Net sales	\$ 1,618.3	\$	1,658.1	\$	1,412.9	\$	1,276.9	\$	1,463.8		
Operating income	83.1		97.3		83.8		63.0		91.3		
Net income attributable to ParkOhio common shareholders	38.6		53.6		28.6		31.7		48.1		
Earnings per common share attributable to ParkOhio shareholders:											
Basic	\$ 3.16	\$	4.37	\$	2.34	\$	3.94	\$	3.77		
Diluted	\$ 3.12	\$	4.28	\$	2.30	\$	3.88	\$	3.68		
Cash dividends per common share	\$ 0.50	\$	0.50	\$	0.50	\$	0.50	\$	0.375		

Results for 2019 include net expense of \$4.3 million due to the retirement and resignation of our former President and \$4.2 million of plant closure and relocation, severance and other costs.

Results for 2018 include a gain on the sale of assets of \$1.9 million.

Results for 2017 include income of \$3.3 million from the reversal of a litigation reserve, a loss on extinguishment of debt of \$11.0 million and a one-time net tax expense of \$4.2 million related to the U.S. Tax Cuts and Jobs Act (the "TCJA").

Results for 2016 include an asset impairment charge of \$4.0 million.

Results for 2015 include litigation judgment costs of \$2.2 million.

	Year Ended December 31,									
		2019	2018			2017	2016			2015
Other Financial Data:										
Net cash flows provided by operating activities	\$	63.7	\$	54.8	\$	46.7	\$	72.9	\$	44.7
Capital expenditures, net		(40.1)		(45.1)		(27.9)		(28.5)		(36.5)
Selected Balance Sheet Data (as of period end):										
Cash and cash equivalents		56.0		55.7		82.8		64.3		62.0
Total assets		1,310.4		1,208.5		1,132.5		974.3		942.1
Long-term debt(1)		545.2		547.5		515.5		439.0		445.8

⁽¹⁾ Excluding current portion.

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

Our consolidated financial statements include the accounts of Park-Ohio Holdings Corp. and its subsidiaries. All intercompany transactions have been eliminated in consolidation.

EXECUTIVE OVERVIEW

General

We are a diversified international company providing world-class customers with a supply chain management outsourcing service, capital equipment used on their production lines, and manufactured components used to assemble their products. We operate through three reportable segments: Supply Technologies, Assembly Components and Engineered Products. Refer to Part 1, Item 1. Business for descriptions of our business segments.

2019 Acquisition

In May 2019, the Company acquired EFCO, Inc. d/b/a Erie Press Systems ("EP") for a total purchase price of \$9.1 million, including potential contingent consideration. EP is an industry-recognized leader in the manufacturing of advanced forging presses, hydraulic and mechanical presses, and metal stretch-forming and carbon extrusion machines for several end markets, including aerospace and defense, primary metals and high-speed rail. EP is included in our Engineered Products segment.

Subsequent Event

On January 31, 2020, the Company's Board of Directors declared a quarterly dividend of \$0.125 per common share. The dividend was paid on February 28, 2020, to shareholders of record as of the close of business on February 14, 2020 and resulted in a cash outlay of \$1.6 million.

RESULTS OF OPERATIONS

This section of this Annual Report on Form 10-K generally discusses 2019 and 2018 items and year-to-year comparisons between 2019 and 2018. Discussions of 2017 items and year-over-year comparisons between 2018 and 2017 that are not included in this Annual Report on Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

2019 Compared with 2018 and 2018 Compared with 2017

								2019	vs. 2018		2018 v	s. 2017
		2019 2018			2017	\$	Change	%Change	\$ Change		%Change	
					(Dollars in m	nillions, except per share data)						
Net sales	\$	1,618.3	\$	1,658.1	\$	1,412.9	\$	(39.8)	(2)%	\$	245.2	17 %
Cost of sales		1,358.0		1,386.6		1,180.1		(28.6)	(2)%		206.5	17 %
Gross profit		260.3		271.5		232.8		(11.2)	(4)%		38.7	17 %
Gross profit as a percentage of net sales		16.1%		16.4%		16.5%						
Selling, general and administrative ("SG&A") expenses	S	177.2		176.1		152.3		1.1	1 %		23.8	16 %
SG&A expenses as a percentage of net sales		10.9%		10.6%		10.8%						
Gain on sale of assets		_		(1.9)		_		1.9	*		(1.9)	*
Litigation settlement gain		_		_		(3.3)		_	*		(3.3)	*
Operating income		83.1		97.3		83.8		(14.2)	(15)%		13.5	16 %
Other components of pension income and other postretirement benefits expense, net		5.6		8.8		6.4		(3.2)	(36)%		2.4	38 %
Interest expense, net		(33.8)		(34.3)		(31.5)		0.5	(1)%		(2.8)	9%
Loss on extinguishment of debt		_		_		(11.0)		_	*		11.0	*
Income before income taxes		54.9		71.8		47.7		(16.9)	(24)%		24.1	51 %
Income tax expense		(15.2)		(16.6)		(18.2)		1.4	(8)%		1.6	(9)%
Net income		39.7		55.2		29.5		(15.5)	(28)%		25.7	87 %
Net income attributable to noncontrolling interest		(1.1)		(1.6)		(0.9)		0.5	(31)%		(0.7)	78 %
Net income attributable to ParkOhio common shareholders	\$	38.6	\$	53.6	\$	28.6	\$	(15.0)	(28)%	\$	25.0	87 %
Earnings per common share attributable to ParkOhio common shareholders												
Basic	\$	3.16	\$	4.37	\$	2.34	\$	(1.21)	(28)%	\$	2.03	87 %
Diluted	\$	3.12	\$	4.28	\$	2.30	\$	(1.16)	(27)%	\$	1.98	86 %

^{*} Calculation not meaningful

2019 Compared with 2018

Net Sales

Net sales decreased 2% to \$1,618.3 million in 2019 compared to \$1,658.1 million in 2018. The decrease in net sales was due to lower customer demand for our products in our Supply Technologies and Assembly Components segments, driven by softening demand in certain key end markets of Supply Technologies, the impact of the United Auto Workers ("UAW") labor strike at General Motors ("GM"), lower levels of demand at our Assembly Components factories in China, and the pass-through of lower aluminum prices. Overall, these sales decreases were partially offset by increased sales in our Engineered Products segment driven by our May 2019 acquisition of EP and increasing demand for our capital equipment, aftermarket sales and services and our aerospace forgings.

Cost of Sales & Gross Profit

Cost of sales decreased 2% to \$1,358.0 million in 2019 compared to \$1,386.6 million in 2018. The decrease in cost of sales was in-line with the decrease in net sales described above.

Our gross margin percentage decreased to 16.1% in 2019 compared to 16.4% in 2018, due primarily to \$3.5 million of non-recurring costs related to plant closure and consolidation in our Assembly Components and Supply Technologies segments.

SG&A Expenses

SG&A expenses increased to \$177.2 million, or 10.9% of net sales, in 2019 from \$176.1 million, or 10.6% of net sales, in 2018. This increase in SG&A expenses is due primarily to \$4.3 million of one-time net expense related to an executive departure in June 2019, as discussed further in Note 3 to the consolidated financial statements. This increase was partially offset by lower stock compensation expense, incentive compensation expense and professional fees.

Gain on Sale of Assets

During 2018, the Company sold land to a third party, resulting in cash proceeds of \$2.8 million and a pre-tax gain on sale of \$1.9 million.

Other Components of Pension Income and Other Postretirement Benefits ("OPEB") Expense, Net

Other components of pension income and OPEB expense, net was \$5.6 million in 2019 compared to \$8.8 million in 2018. The decrease in 2019 relates to the recognition of higher net actuarial losses in 2019 compared to the prior year, driven by lower returns on plan assets in 2018 to be amortized over future periods starting in 2019.

Interest Expense, Net

Interest expense, net decreased to \$33.8 million in 2019 compared to \$34.3 million in 2018. The decrease was due to lower average outstanding borrowings as a result of net debt repayments of \$4.5 million during 2019. Our average effective borrowing rate was approximately 5.8% in both years.

Income Tax Expense

The provision for income taxes was \$15.2 million in 2019 (an effective rate of 27.7%) compared to a provision of \$16.6 million in 2018 (an effective rate of 23.1%). The 2019 rate is higher due to the impact of the \$6.0 million one-time, non-deductible payment in 2019 to a former executive, and a benefit in 2018 of approximately \$3.0 million related to reversals of previously-recorded valuation allowances in certain foreign tax jurisdictions.

SEGMENT RESULTS

For purposes of measuring business segment performance, the Company utilizes segment operating income, which is defined as revenues less expenses identifiable to the product lines within each segment. The Company does not allocate items that are non-operating or unusual in nature or are corporate costs, which include but are not limited to executive and share-based compensation and corporate office costs. Segment operating income reconciles to consolidated income before income taxes by deducting corporate costs; certain non-cash and/or non-operating items; Other components of pension income and OPEB expense, net; and interest expense, net.

Supply Technologies Segment

	 Year Ended December 31,							
	 2019		2018		2017			
			(Dollars in millions)					
Net sales	\$ 611.5	\$	636.8	\$	561.8			
Segment operating income	\$ 42.0	\$	49.0	\$	43.3			
Segment operating income margin	6.9%		7.7%		7.7%			

2019 Compared to 2018

Net sales were down 4% in 2019 compared to 2018 due primarily to lower customer demand in certain end markets, including the Company's semiconductor market, which was down 13%; the Company's agricultural and industrial equipment market, which was down 15%; and the Company's consumer products market, which was down 19%. These decreases were offset by higher customer demand in the Company's truck and truck-related market, which was up 9%; and the Company's aerospace and defense market, which was up 7%.

Segment operating income and operating income margin were down \$7.0 million and 80 basis points, respectively, in 2019 compared to 2018. These decreases were due primarily to lower profit flow-through from the lower sales volumes; unfavorable sales mix; an increase in product costs from both general inflation and tariffs; and \$0.6 million of non-recurring costs related to plant closure and consolidation.

Assembly Components Segment

	 Year Ended December 31,							
	 2019		2018		2017			
	(Dollars in millions)							
Net sales	\$ 539.5	\$	578.3	\$	524.5			
Segment operating income	\$ 36.2	\$	42.9	\$	47.8			
Segment operating income margin	6.7%		7.4%		9.1%			

2019 Compared to 2018

Net sales were down 7% in 2019 compared to 2018 due primarily to the impact of the UAW labor strike at GM in 2019, lower levels of demand in China, anticipated end-of-life programs, and the pass-through of lower aluminum prices.

Segment operating income and operating income margin were down \$6.7 million and 70 basis points, respectively, in 2019 compared to 2018. These decreases were driven by \$3.3 million of non-recurring costs related to plant closure and consolidation; the impact of the UAW labor strike at GM; lower profit flow-through from the lower sales volumes noted above; and unfavorable sales mix.

Engineered Products Segment

	 Year Ended December 31,							
	2019		2018		2017			
	(Dollars in millions)							
Net sales	\$ 467.3	\$	443.0	\$	326.6			
Segment operating income	\$ 37.7	\$	38.4	\$	19.5			
Segment operating income margin	8.1%		8.7%		6.0%			

2019 Compared to 2018

Net sales were up 5% in 2019 compared to 2018 due primarily to the acquisitions of EP in May 2019 and Canton Drop Forge ("CDF") in February 2018; increased customer demand for our induction and pipe threading equipment and aftermarket parts and services in our industrial equipment group; and increased demand for aerospace products in our forged and machined products group. These increases were partially offset by lower customer demand for our oil and gas forged products.

Segment operating income and operating income margin were down \$0.7 million and 60 basis points, respectively, in 2019 compared to 2018. These decreases were due primarily to unfavorable product mix and manufacturing inefficiencies, including an unplanned temporary shut-down of a production line at one of our forging plants.

Liquidity and Capital Resources

The following table summarizes the major components of cash flows:

	2019		2018	2017
Cash provided (used) by:			(In millions)	
Operating activities	\$ 6	3.7	\$ 54.8	\$ 46.7
Investing activities	(4	3.2)	(89.2)	(67.6)
Financing activities	(1:	5.3)	9.4	33.7
Effect of exchange rate on cash	().1	(2.1)	5.7
Increase (decrease) in cash and cash equivalents	\$).3	\$ (27.1)	\$ 18.5

Operating Activities

Cash provided by operating activities increased by \$8.9 million in 2019 compared to 2018, due primarily to lower working capital usage in 2019 compared to 2018, driven by efficiencies in 2019 and higher working capital levels in 2018 to support higher sales levels. The lower net working capital usage in 2019 was partially offset by lower profitability in 2019 compared to 2018.

Investing Activities

Capital expenditures were \$40.1 million in 2019, \$45.1 million in 2018 and \$27.9 million in 2017. These capital expenditures were primarily for growth initiatives, with the majority in our Assembly Components and Engineered Products segments. In the Assembly Components segment, we continued to launch newly awarded products in our fuel products and aluminum businesses. In the Engineered Products segment, we continued to invest in a new forging line at the Company's facility in Arkansas.

In 2019, we spent \$8.1 million on acquisition of EP. See Note 4 to the consolidated financial statements included elsewhere herein for additional information.

In 2018, we spent \$46.9 million on acquisitions of businesses, primarily CDF and Hydrapower Dynamics Limited ("Hydrapower"). See Note 4 to the consolidated financial statements included elsewhere herein for additional information.

Financing Activities

Cash used by financing activities in 2019 included net debt repayments of \$4.5 million, dividend payments of \$7.0 million, treasury share repurchases of \$0.9 million, and payments of withholding taxes on share awards of \$2.9 million.

Cash provided by financing activities in 2018 included net borrowings of \$40.3 million on our revolving credit facility to fund our 2018 acquisitions, and repayments of other debt of \$12.4 million. During 2018, we also paid dividends of \$6.4 million; repurchased treasury shares for \$9.0 million; and made payments of withholding taxes on share awards of \$3.1 million.

During September 2018, we repatriated cash of \$24.4 million from a foreign subsidiary to the U.S. and utilized the cash to pay down a portion of the amount outstanding under our revolving credit facility in the U.S.

Liquidity

Overall, our cash provided by operating activities in 2019 was used to fund our capital expenditures, the EP acquisition, and our financing activities described above. Overall, our cash balance increased by \$0.3 million during 2019, as we used substantially all excess cash to make debt repayments. See Note 7 to the consolidated financial statements included elsewhere herein for further discussion of our financing arrangements.

The following table summarizes our indicators of liquidity:

	2019		2018
	(Dollars	in mill	ions)
Cash and cash equivalents	\$ 56.0	\$	55.7
Gross debt (excluding unamortized debt issuance costs)	\$ 568.5	\$	573.1
Working capital (excluding cash)	\$ 364.7	\$	366.0
Net debt as a % of capitalization	56%)	58%

Our liquidity needs are primarily for working capital and capital expenditures. Our primary sources of liquidity have been cash provided by operations, funds available from existing bank credit arrangements and the sale of our debt securities. Our existing financial resources (working capital and available bank borrowing arrangements) and anticipated cash from operations are expected to be adequate to meet anticipated cash requirements for at least the next twelve months, including but not limited to our ability to maintain current operations and fund capital expenditure requirements, service our debt and pay dividends.

As of December 31, 2019, we had \$173.2 million outstanding under the revolving credit facility, approximately \$195.3 million of unused borrowing availability and cash and cash equivalents of \$56.0 million.

The Company had cash and cash equivalents held by foreign subsidiaries of \$45.4 million at December 31, 2019 and \$46.2 million at December 31, 2018. We do not expect restrictions on repatriation of cash held outside the U.S. to have a material effect on our overall liquidity, financial condition or results of operations for the foreseeable future.

Senior Notes

In April 2017, Park-Ohio Industries, Inc. ("Park-Ohio"), the operating subsidiary of Park-Ohio Holdings Corp., completed the sale, in a private placement, of \$350.0 million aggregate principal amount of 6.625% Senior Notes due 2027 (the "Notes"). The net proceeds from the issuance of the Notes were used to repay in full our previously outstanding 8.125% Senior Notes due 2021 and our outstanding termloan, and to repay a portion of the borrowings then outstanding under our revolving credit facility.

Credit Agreement

In June 2018, Park-Ohio entered into Amendment No. 1 to its Seventh Amended and Restated Credit Agreement (the "Credit Agreement"). The Amendment to the Credit Agreement, among other things, provided increases in the revolving credit facility from \$35.0 million to \$375.0 million, the Canadian revolving subcommitment from \$35.0 million to \$40.0 million, and the European revolving subcommitment from \$25.0 million. Furthermore, the Company has the option, pursuant to the Credit Agreement, to increase the availability under the revolving credit facility by an aggregate incremental amount up to \$100.0 million. In November 2019, Park-Ohio entered into Amendment No. 4 to the Credit Agreement, extending the maturity of the Credit Agreement to November 16, 2024.

Finance Leases

On August 13, 2015, the Company entered into a Finance Lease Agreement (the "Lease Agreement"). The Lease Agreement provides the Company up to \$50.0 million for finance leases. Finance lease obligations of \$17.2 million were borrowed under the Lease Agreement to acquire machinery and equipment as of December 31, 2019.

Covenants

The future availability of bank borrowings under the revolving credit facility provided by the Credit Agreement is based on our ability to meet a debt service ratio covenant, which could be materially impacted by negative economic trends. Failure to meet the debt service ratio covenant could materially impact the availability and interest rate of future borrowings.

At December 31, 2019, our debt service coverage ratio was 2.1, and, therefore, we were in compliance with the debt service coverage ratio covenant in the revolving credit facility provided by the Credit Agreement. The debt service coverage ratio is calculated at the end of each fiscal quarter based on the following ratio: (1) the most recently ended four fiscal quarters of consolidated EBITDA, as defined in the Credit Agreement, minus cash taxes paid, minus unfunded capital expenditures, plus cash tax refunds; to (2) consolidated debt charges, which are consolidated cash interest expense, plus scheduled principal payments on indebtedness, plus scheduled reductions in our term debt as defined in the Credit Agreement. The debt service coverage ratio must be greater than 1.0 and not less than 1.15 for any two consecutive fiscal quarters. We were also in compliance with the other covenants contained in the revolving credit facility as of December 31, 2019. While we expect to remain in compliance throughout 2020, declines in sales volumes in 2020 could adversely impact our ability to remain in compliance with certain of these financial covenants. Additionally, to the extent our customers are adversely affected by declines in the economy in general, they may be unable to pay their accounts payable to us on a timely basis or at all, which could make our accounts receivable ineligible for purposes of the revolving credit facility and could reduce our borrowing base and our ability to borrow under such facility.

Dividends

The Company paid dividends to shareholders of \$6.3 million during 2019. In January 2020, our Board of Directors declared a quarterly dividend of \$0.125 per common share. The dividend was paid on February 28, 2020 to shareholders of record as of the close of business on February 14, 2020 and resulted in a cash outlay of \$1.6 million. Although we currently intend to pay a quarterly dividend on an ongoing basis, all future dividend declarations will be at the discretion of our Board of Directors and dependent upon then-existing conditions, including our operating results and financial condition, capital requirements, contractual restrictions, business prospects and other factors that our Board of Directors may deem relevant.

Contractual Obligations

The following table summarizes our principal contractual obligations and other commercial commitments over various future periods as of December 31, 2019:

Payments Due or Commitment Expiration Per Period

(In millions)	Total	Ι	ess Than 1 Year	1	-3 Years	rs 3-5 Years		3-5 Years		Years 3-5 Years		ears 3-5 Years			ore than 5 Years
Short-term and long-term debt obligations	\$ 551.3	\$	9.8	\$	6.5	\$	178.7	\$	356.3						
Interest obligations (1)	169.0		23.2		46.4		46.4		53.0						
Operating lease obligations	65.5		11.9		18.6		14.5		20.5						
Finance lease obligations	17.2		7.0		6.8		2.7		0.7						
Purchase obligations (2)	179.0		177.7		1.2		0.1		_						
Pension obligations (3)	61.1		5.7		12.0		12.4		31.0						
Postretirement obligations (3)	7.3		1.0		1.7		1.6		3.0						
Transition tax	8.2		_		1.0		4.2		3.0						
Standby letters of credit and bank guarantees	33.8		28.9		4.6		0.1		0.2						
Total	\$ 1,092.4	\$	265.2	\$	98.8	\$	260.7	\$	467.7						

- (1) Interest obligations are included on the Notes only and assume the Notes are paid at maturity. The calculation of interest on debt outstanding under our revolving credit facility and other variable rate debt (\$4.9 million based on 2.85% average interest rate and outstanding borrowings of \$173.2 million at December 31, 2019, respectively) is not included above due to the estimation required.
- (2) Purchase obligations include contractual obligations for raw materials and services.
- (3) Pension and postretirement obligations include projected benefit payments to participants only through 2028.

The table above excludes the liability for unrecognized income tax benefits disclosed in Note 8 to the consolidated financial statements included elsewhere herein, since we cannot predict, with reasonable reliability, the timing of potential cash settlements with the respective taxing authorities.

Off-Balance Sheet Arrangements

We do not have off-balance sheet arrangements, financing or other relationships with unconsolidated entities or other persons or derivative instruments.

Critical Accounting Policies and Estimates

Preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make certain estimates and assumptions which affect amounts reported in our consolidated financial statements. On an ongoing basis, we evaluate the accounting policies and estimates that are used to prepare financial statements. Management has made their best estimates and judgments of certain amounts included in the financial statements, giving due consideration to materiality. We do not believe that there is great likelihood that materially different amounts would be reported under different conditions or using different assumptions related to the accounting policies described below. However, application of these accounting policies involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates.

Certain accounting policies that require significant management estimates and are deemed critical to our results of operations or financial position are discussed below. On a regular basis, critical accounting policies are reviewed with the Audit Committee of the Board of Directors.

Revenue Recognition: We recognize revenue, other than from long-term contracts, when our obligations under the contact terms are satisfied and control transfers to the customer, typically upon shipment. Revenue from certain long-term contracts is accounted for over time, when products are manufactured or services are performed, as control transfers under these

arrangements. We follow the input method since reasonably reliable estimates of revenue and costs of a contract can be made. See Note 2 of the consolidated financial statements included elsewhere herein for additional disclosures on revenue.

Allowance for Obsolete and Slow-Moving Inventory: Inventories are generally valued using first-in, first-out ("FIFO") or the weighted-average inventory method; stated at the lower of cost or net realizable value; and have been reduced by an allowance for obsolete and slow-moving inventories. The estimated allowance is based on management's review of inventories on hand with minimal sales activity, which is compared to estimated future usage and sales. Inventories identified by management as slow-moving or obsolete are reserved for based on estimated selling prices less disposal costs. Though we consider these allowances adequate and proper, changes in economic conditions in specific markets in which we operate could have a material effect on allowances required.

Impairment of Long-Lived Assets: In accordance with Accounting Standards Codification ("ASC") 360, "Property, Plant and Equipment," management performs impairment tests of long-lived assets, including property and equipment and operating lease right-of-use assets, whenever an event occurs or circumstances change that indicate that the carrying value may not be recoverable or the useful life of the asset has changed. We review our long-lived assets for indicators of impairment such as a decision to idle certain facilities and consolidate certain operations, a current-period operating or cash flow loss or a forecast that demonstrates continuing losses associated with the use of a long-lived asset and the expectation that, more likely than not, a long-lived asset will be sold or otherwise disposed of significantly before the end of its previously estimated useful life.

When we identify impairment indicators, assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other group of assets (for example, plant location or asset level). We determine whether the carrying amount of the asset group is recoverable by comparing the carrying value to the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the assets. If the carrying value of the asset group exceeds the expected undiscounted cash flows, we estimate the fair value of the asset group by using appraisals or recent selling experience in selling similar assets, or for certain assets with reasonably predictable cash flows by performing a discounted cash flow analysis utilizing the income approach to estimate fair value when market information is not available to determine whether an impairment existed.

Business Combinations: Business combinations are accounted for using the purchase method of accounting under ASC 805, "Business Combinations." This method requires the Company to record assets and liabilities of the business acquired at their estimated fair values as of the acquisition date. Any excess of the cost of the acquisition over the fair value of the net assets acquired is recorded as goodwill. The Company uses valuation specialists to perform appraisals and assist in the determination of the fair values of the assets acquired and liabilities assumed. These valuations require management to make estimates and assumptions including discount rates, rates of return on assets, long-term sales growth rates, and royalty rates.

Goodwill and Indefinite-Lived Intangible Assets: As required by ASC 350, "Intangibles - Goodwill and Other" ("ASC 350"), management performs impairment testing of goodwill at least annually, as of October 1 of each year, or more frequently if impairment indicators arise. In accordance with ASC 350, management tests goodwill for impairment at the reporting unit level. A reporting unit is an operating segment pursuant to ASC 280, "Segment Reporting", or one level below the operating segment (component level) as determined by the availability of discrete financial information that is regularly reviewed by operating segment management. Our reporting units have been identified at the component level. For 2019, 2018 and 2017, we performed quantitative testing for each reporting unit with a goodwill balance.

Our annual goodwill impairment analysis utilizes a quantitative approach comparing 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, an impairment charge is recorded. In applying the quantitative approach, we use an income approach to estimate the fair value of the reporting unit. The income approach uses a number of factors, including future business plans, actual and forecasted operating results, and market data. The significant assumptions employed under this method include discount rates; revenue growth rates, including assumed terminal growth rates; and operating margins used to project future cash flows for a reporting unit. The discount rates utilized reflect market-based estimates of capital costs and discount rates adjusted for management's assessment of a market participant's view with respect to other risks associated with the projected cash flows of the individual reporting unit. Our estimates are based upon assumptions we believe to be reasonable, but which by nature are uncertain and unpredictable. We believe we incorporate ample sensitivity ranges into our analysis of goodwill impairment testing for a reporting unit, such that actual experience would need to be materially out of the range of expected assumptions in order for an

impairment to remain undetected. We validate our estimates of fair value under the income approach by considering the implied control premium and conclude whether that premium is reasonable based on recent market transactions.

The results of testing as of October 1, 2019, 2018 and 2017 for all reporting units confirmed that the estimated fair value exceeded carrying values, and no impairment existed as of those dates.

Additionally, we test all indefinite-lived intangible assets for impairment at least annually, as of October 1 of each year, or more frequently if impairment indicators arise. In 2019, 2018 and 2017, we utilized a quantitative approach using the royalty relief method. The significant assumptions employed under this method include discount rates, revenue growth rates, including assumed terminal growth rates, and royalty rates. The discount rates utilized reflect market-based estimates of capital costs and discount rates adjusted for management's assessment of a market participant's view with respect to other risks associated with the projected cash flows of the individual reporting unit. Our estimates are based upon assumptions we believe to be reasonable, but which by nature are uncertain and unpredictable. We believe we incorporate ample sensitivity ranges into our analysis of intangible impairment testing, such that actual experience would need to be materially out of the range of expected assumptions in order for an impairment to remain undetected.

The results of testing as of October 1, 2019, 2018 and 2017 for all reporting units confirmed that the estimated fair value exceeded carrying values, and no impairment existed as of those dates.

See Notes 5 and 6 of the consolidated financial statements included elsewhere herein for additional disclosure on goodwill and indefinite-lived intangibles.

Income Taxes: In accordance with ASC 740, "Income Taxes" ("ASC 740"), we account for income taxes under the asset and liability method, whereby deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and the tax bases of assets and liabilities and are measured using the currently enacted tax rates. Specifically, we measure gross deferred tax assets for deductible temporary differences and carryforwards, such as operating losses and tax credits, using the applicable enacted tax rates and apply the more likely than not measurement criterion.

In determining if it is more likely than not that all or some portion of a deferred tax asset will be realized, we consider the following factors: future reversals of existing taxable temporary differences; taxable income in prior years if carryback is permitted under the tax law; tax planning strategies that could accelerate taxable income; and future taxable income. Based on these factors, when we have determined that the realizability of certain domestic and foreign deferred tax assets is more likely than not to not be realized, a valuation allowance has been established.

Further, at each interim reporting period, we estimate an effective income tax rate that is expected to be applicable for the full year. Significant judgment is involved regarding the application of global income tax laws and regulations and when projecting the jurisdictional mix of income. Additionally, interpretation of tax laws, court decisions or other guidance provided by taxing authorities influences our estimate of the effective income tax rates. As a result, our actual annual effective income tax rates and related income tax liabilities may differ materially from our interim estimated effective tax rates and related income tax liabilities. Any resulting differences are recorded in the period they become known.

Pension and Other Postretirement Benefit Plans: We and our subsidiaries have pension plans, principally noncontributory defined benefit or noncontributory defined contribution plans and postretirement benefit plans covering substantially all employees. The measurement of liabilities related to these plans is based on management's assumptions related to future events, including interest rates, return on pension plan assets, rate of compensation increases, and health care cost trends. Pension plan asset performance in the future will directly impact our net income. We have evaluated our pension and other postretirement benefit assumptions, considering current trends in interest rates and market conditions and believe our assumptions are appropriate.

We consult with our actuaries at least annually when reviewing and selecting the discount rates to be used. The discount rates used by the Company are based on yields of various corporate and governmental bond indices with actual maturity dates that approximate the estimated benefit payment streams of the related pension plans. The discount rates are also reviewed in comparison with current benchmark indices, economic market conditions and the movement in the benchmark yield since the previous fiscal year. The liability weighted-average discount rate for the defined benefit pension plan is 3.22% for 2019, compared with 4.24% in 2018. For the other postretirement benefit plan, the rate is 2.94% for 2019 and 4.06% for 2018. This

rate represents the interest rates generally available in the United States, which is the Company's only country with other postretirement benefit liabilities. Another assumption that affects the Company's pension expense is the expected long-term rate of return on assets. The Company's pension plans are funded. The weighted-average expected long-term rate of return on assets assumption is 8.25% for 2019. In determining the expected return on plan assets, we consider both historical performance and an estimate of future long-term rates of return on assets similar to those in our plan. We consult with and consider opinions of financial and actuarial experts in developing appropriate return assumptions.

Legal Contingencies: We are involved in a variety of claims, suits, investigations and administrative proceedings with respect to commercial, premises liability, product liability, employment and environmental matters arising from the ordinary course of business. We accrue reserves for legal contingencies, on an undiscounted basis, when it is probable that we have incurred a liability and we can reasonably estimate an amount. When a single amount cannot be reasonably estimated, but the cost can be estimated within a range and no amount within the range is a better estimate than any other amount, we accrue the minimum amount in the range. Based upon facts and information currently available, we believe the amounts reserved are adequate for such pending matters. We monitor the development of legal proceedings on a regular basis and will adjust our reserves when, and to the extent, additional information becomes available.

Environmental

We have been identified as a potentially responsible party at third-party sites under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, or comparable state laws, which provide for strict and, under certain circumstances, joint and several liability. We are participating in the cost of certain clean-up efforts at several of these sites. However, our share of such costs has not been material and based on available information, management does not expect our exposure at any of these locations to have a material adverse effect on our results of operations, liquidity or financial condition.

We have been named as one of many defendants in a number of asbestos-related personal injury lawsuits. Our cost of defending such lawsuits has not been material to date and, based upon available information, management does not expect our future costs for asbestos-related lawsuits to have a material adverse effect on our results of operations, liquidity or financial condition. We caution, however, that inherent in management's estimates of our exposure are expected trends in claims severity, frequency and other factors that may materially vary as claims are filed and settled or otherwise resolved.

Seasonality; Variability of Operating Results

The timing of orders placed by our customers has varied with, among other factors, orders for customers' finished goods, customer production schedules, competitive conditions and general economic conditions. The variability of the level and timing of orders has, from time to time, resulted in significant periodic and quarterly fluctuations in the operations of our business units. Such variability is particularly evident in the industrial equipment business unit included in the Engineered Products segment, which typically ships a few large systems per year.

Forward-Looking Statements

This Annual Report on Form 10-K contains certain statements that are "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. The words "believes", "anticipates", "plans", "expects", "intends", "estimates" and similar expressions are intended to identify forward-looking statements.

These forward-looking statements, including statements regarding future performance of the Company, that are subject to known and unknown risks, uncertainties and other factors that may cause our actual results, performance and achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These factors that could cause actual results to differ materially from expectations include, but are not limited to, the following: our substantial indebtedness; the uncertainty of the global economic environment; general business conditions and competitive factors, including pricing pressures and product innovation; demand for our products and services; the impact of labor disturbances affecting our customers; raw material availability and pricing; fluctuations in energy costs; component part availability and pricing; changes in our relationships with customers and suppliers; the financial condition of our customers, including the impact of any bankruptcies; our ability to successfully integrate recent and future acquisitions into existing operations; the amounts and timing, if any, of purchases of our common stock; changes in general economic conditions such as inflation rates, interest rates, tax rates, unemployment rates, higher labor and healthcare costs, recessions and changing government policies, laws and regulations, including those related to the current global uncertainties and crises, such as tariffs and surcharges; adverse impacts to us, our suppliers and customers from acts of terrorism or hostilities; public health issues, including the outbreak of COVID-19 and its impact on our facilities and operations and our customers and suppliers; our ability to meet various covenants, including financial covenants, contained in the agreements governing our indebtedness; disruptions, uncertainties or volatility in the credit markets that may limit our access to capital; potential disruption due to a partial or complete reconfiguration of the European Union; increasingly stringent domestic and foreign governmental regulations, including those affecting the environment or import and export controls and other trade barriers; inherent uncertainties involved in assessing our potential liability for environmental remediation-related activities; the outcome of pending and future litigation and other claims and disputes with customers; our dependence on the automotive and heavy-duty truck industries, which are highly cyclical; the dependence of the automotive industry on consumer spending; our ability to negotiate contracts with labor unions; our dependence on key management; our dependence on information systems; our ability to continue to pay cash dividends, and the other factors we describe under "Item 1A. Risk Factors" included in this Annual Report on Form 10-K. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law. In light of these and other uncertainties, the inclusion of a forward-looking statement herein should not be regarded as a representation by us that our plans and objectives will be achieved. The Company assumes no obligation to update the information in this Annual Report on Form 10-K, except to the extent required by law.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk, including changes in interest rates. As of December 31, 2019, we are subject to interest rate risk on borrowings under the floating rate revolving credit facility provided by our Credit Agreement, which consisted of borrowings of \$173.2 million at December 31, 2019. A 100-basis point increase in the interest rate would have resulted in an increase in interest expense on these borrowings of approximately \$1.7 million for the year ended December 31, 2019.

Our foreign subsidiaries generally conduct business in local currencies. We face translation risks related to the changes in foreign currency exchange rates. Amounts invested in our foreign operations are translated in U.S. dollars at the exchange rates in effect at the balance sheet date. The resulting translation adjustments are recorded as a component of Accumulated other comprehensive loss in the Shareholders' equity section of the accompanying Consolidated Balance Sheets. Sales and expenses at our foreign operations are translated into U.S. dollars at the applicable monthly average exchange rates. Therefore, changes in exchange rates may either positively or negatively affect our net sales and expenses from foreign operations as expressed in U.S. dollars.

Our largest exposures to commodity prices relate to steel and natural gas prices, which have fluctuated widely in recent years. We do not have any commodity swap agreements, forward purchase or hedge contracts.

Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Park-Ohio Holdings Corp.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Park-Ohio Holdings Corp. and subsidiaries (the Company) as of December 31, 2019 and 2018, 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, 2019, and the related notes and 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, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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, 2019, 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 March 12, 2020 expressed an unqualified opinion thereon.

Adoption of ASU No. 2016-02

As discussed in Note 1 to the consolidated financial statements, the Company changed its method for accounting for leases in 2019 due to the adoption of ASU 2016-02, Leases (Topic 842).

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 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 1967.

Cleveland, Ohio March 12, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Park-Ohio Holdings Corp.

Opinion on Internal Control over Financial Reporting

We have audited Park-Ohio Holdings Corp. and subsidiaries' internal control over financial reporting as of December 31, 2019, 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, Park-Ohio Holdings Corp. and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

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, 2019 and 2018, 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, 2019, and the related notes and financial statement schedule listed in the Index at Item 15(a) and our report dated March 12, 2020 expressed an unqualified opinion thereon.

As indicated in the accompanying Management's Report 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 EFCO Inc., which is included in the 2019 consolidated financial statements of the Company and constituted approximately one percent of the Company's total assets as of December 31, 2019, and less than one percent of the Company's total revenues, 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 EFCO Inc.

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 Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We 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

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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, Ohio March 12, 2020

Park-Ohio Holdings Corp. and Subsidiaries Consolidated Balance Sheets

	Dec	cember 31, 2019	Decemb	er 31, 2018
			except share	
ASSETS		Œ	···· <i>)</i>	
Current assets:				
Cash and cash equivalents	\$	56.0	\$	55.7
Accounts receivable, net		261.3		264.4
Inventories, net		327.2		317.8
Unbilled contract revenue		61.7		66.3
Other current assets		19.5		16.4
Total current assets		725.7		720.6
Property, plant and equipment, net		237.6		219.4
Operating lease right-of-use assets		64.3		_
Goodwill		108.4		103.4
Intangible assets, net		90.6		95.3
Pension assets		65.0		57.0
Other long-term assets		18.8		12.8
Total assets	\$	1,310.4	\$	1,208.5
LIABILITIES AND SHAREHOLDERS' EQUITY				
Current liabilities:				
Trade accounts payable	\$	175.0	\$	177.8
Current portion of long-term debt and short-term debt		16.8		17.9
Current portion of operating lease liabilities		11.9		_
Accrued employee compensation		25.7		27.5
Deferred revenue		35.7		39.5
Other accrued expenses		39.9		36.2
Total current liabilities		305.0		298.9
Long-term liabilities, less current portion:				
Long-term debt		545.2		547.5
Long-term operating lease liabilities		53.6		_
Deferred income taxes		28.5		23.4
Other long-term liabilities		28.5		26.1
Total long-term liabilities		655.8		597.0
Park-Ohio Holdings Corp. and Subsidiaries shareholders' equity:				
Capital stock, par value \$1 a share				
Serial preferred stock: Authorized 632,470 shares: Issued and outstanding none		_		_
Common stock: Authorized - 40,000,000 shares; Issued - 15,706,398 shares in 2019 and 15,555,275 in 2018		15.7		15.6
Additional paid-in capital		129.8		125.7
Retained earnings		298.2		265.9
Treasury stock, at cost, 3,040,623 shares in 2019 and 2,928,869 shares in 2018		(71.1)		(67.3)
Accumulated other comprehensive loss		(37.0)		(40.9)
Total Park-Ohio Holdings Corp. and Subsidiaries shareholders' equity		335.6		299.0
Noncontrolling interests		14.0		13.6
Total equity		349.6		312.6
Total liabilities and shareholders' equity	\$	1,310.4	\$	1,208.5

 $The \ accompanying \ notes \ are \ an \ integral \ part \ of \ these \ consolidated \ financial \ statements.$

Park-Ohio Holdings Corp. and Subsidiaries Consolidated Statements of Income

	 Year Ended December 31,			31,		
	 2019		2018		2017	
	(In mi	llions, e	xcept per sha	re data)	
Net sales	\$ 1,618.3	\$	1,658.1	\$	1,412.9	
Cost of sales	 1,358.0		1,386.6		1,180.1	
Gross profit	260.3		271.5		232.8	
Selling, general and administrative expenses	177.2		176.1		152.3	
Gain on sale of assets	_		(1.9)		_	
Litigation settlement gain	 _		_		(3.3)	
Operating income	83.1		97.3		83.8	
Other components of pension income and other postretirement benefits expense, net	5.6		8.8		6.4	
Interest expense, net	(33.8)		(34.3)		(31.5)	
Loss on extinguishment of debt	_		_		(11.0)	
Income before income taxes	 54.9		71.8		47.7	
Income tax expense	(15.2)		(16.6)		(18.2)	
Net income	 39.7		55.2		29.5	
Net income attributable to noncontrolling interest	(1.1)		(1.6)		(0.9)	
Net income attributable to ParkOhio common shareholders	\$ 38.6	\$	53.6	\$	28.6	
Earnings per common share attributable to ParkOhio common shareholders:						
Basic	\$ 3.16	\$	4.37	\$	2.34	
Diluted	\$ 3.12	\$	4.28	\$	2.30	
Weighted-average shares used to compute earnings per share:						
Basic	 12.2		12.3		12.2	
Diluted	 12.4		12.5		12.5	

 $The \, accompanying \, notes \, are \, an \, integral \, part \, of \, these \, consolidated \, financial \, statements.$

Park-Ohio Holdings Corp. and Subsidiaries Consolidated Statements of Comprehensive Income

	Year Ended December 31,				
		2019			2017
			(In millions)		
Net income	\$	39.7	\$ 55.2	\$	29.5
Other comprehensive income (loss):					
Currency translation		(1.1)	(9.7)	19.2
Pensions and other postretirement benefits, net of tax		5.0	(13.3)	5.6
Total other comprehensive income (loss)		3.9	(23.0)	24.8
Total comprehensive income, net of tax		43.6	32.2		54.3
Comprehensive income attributable to noncontrolling interest		(1.1)	(1.6)	(0.9)
Comprehensive income attributable to ParkOhio common shareholders	\$	42.5	\$ 30.6	\$	53.4

 $The \ accompanying \ notes \ are \ an \ integral \ part \ of \ these \ consolidated \ financial \ statements.$

Park-Ohio Holdings Corp. and Subsidiaries Consolidated Statements of Shareholders' Equity

	Common	Stock						
_	Shares	Amount	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive (Loss) Income	Noncontrolling Interest	Total
	(In whole shares)				(In mi	illions)		
Balance at December 31, 2016	14,846,035	\$ 14.9	\$ 108.8	\$ 193.6	\$ (48.6)	\$ (42.7)	\$ 10.0	\$236.0
Comprehensive income	_	_	_	28.6	_	24.8	0.9	54.3
Stock-based compensation	_	_	8.6	_	_	_	_	8.6
Restricted stock awards issued	266,280	0.3	(0.3)	_	_	_	_	_
Restricted stock cancelled	(2,000)	_	_	_	_	_	_	_
Performance shares issued	4,694	_	_	_	_	_	_	_
Exercise of stock options	38,000	_	0.7	_	_	_	_	0.7
Dividends	_	_	_	(6.3)	_	_	(0.6)	(6.9)
Purchase of treasury stock (178,243 shares)	_	_	_	_	(6.6)	_	_	(6.6)
Acquisition adjustment	_	_	_	_	_	_	1.7	1.7
Other	_	_	_	0.2	_	_	_	0.2
Balance at December 31, 2017	15,153,009	15.2	117.8	216.1	(55.2)	(17.9)	12.0	288.0
Comprehensive income	_	_	_	53.6	_	(23.0)	1.6	32.2
Stock-based compensation	_	_	8.3	_	_	_	_	8.3
Restricted stock awards issued	410,100	0.4	(0.4)	_	_	_	_	_
Restricted stock cancelled	(7,834)	_	_	_	_	_	_	_
Dividends	_	_	_	(6.4)	_	_	_	(6.4)
Purchase of treasury stock (304,512 shares)	_	_	_	_	(12.1)	_	_	(12.1)
Adoption of ASU 2014-09	_	_	_	2.6	_	_	_	2.6
Balance at December 31, 2018	15,555,275	15.6	125.7	265.9	(67.3)	(40.9)	13.6	312.6
Comprehensive income	_	_	_	38.6	_	3.9	1.1	43.6
Stock-based compensation	_	_	4.1	_	_	_	_	4.1
Restricted stock awards issued ⁽¹⁾	266,123	0.2	(0.1)	_	_	_	_	0.1
Restricted stock cancelled	(115,000)	(0.1)	0.1	_	_	_	_	_
Dividends	_	_	_	(6.3)	_	_	(0.7)	(7.0)
Purchase of treasury stock (111,754 shares)	_	_	_	_	(3.8)	_	_	(3.8)
Balance at December 31, 2019	15,706,398	\$ 15.7	\$ 129.8	\$ 298.2	\$ (71.1)	\$ (37.0)	\$ 14.0	\$349.6

(1) - Includes 52,173 restricted share units converted to common stock.

Ye:	ar Ended December 3	1,
2019	2018	2017
\$ 0.50	\$ 0.50	\$ 0.50

 $The \ accompanying \ notes \ are \ an \ integral \ part \ of \ these \ consolidated \ financial \ statements.$

Park-Ohio Holdings Corp. and Subsidiaries Consolidated Statements of Cash Flows

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oceeds fromsale of assets siness acquisitions, net of cash acquired Net cash used by investing activities NANCING ACTIVITIES oceeds from (payments on) revolving credit facility, net yments on term loans and other debt oceeds from other long-term debt ayments on) proceeds from finance lease facilities, net suance of 6.625% senior notes due 2027 offerred financing costs purchase of 8.125% senior notes due 2021 emium on early extinguishment of debt			
Net cash used by investing activities NANCING ACTIVITIES Deceds from (payments on) revolving credit facility, net Syments on term loans and other debt Deceds from other long-term debt Deceds from finance lease facilities, net Strange of 6.625% senior notes due 2027 Deferred financing costs Depurchase of 8.125% senior notes due 2021 Demium on early extinguishment of debt	(40.1)	(45.1)	
Net cash used by investing activities NANCING ACTIVITIES Deceds from (payments on) revolving credit facility, net syments on term loans and other debt Deceds from other long-term debt ayments on) proceeds from finance lease facilities, net strange of 6.625% senior notes due 2027 Deferred financing costs purchase of 8.125% senior notes due 2021 Demiumon early extinguishment of debt	_	2.8	
NANCING ACTIVITIES Deceds from (payments on) revolving credit facility, net syments on term loans and other debt Deceds from other long-term debt Deceds from other long-ter	(8.1)	(46.9)	
poceeds from (payments on) revolving credit facility, net syments on term loans and other debt poceeds from other long-term debt payments on) proceeds from finance lease facilities, net suance of 6.625% senior notes due 2027 perend financing costs purchase of 8.125% senior notes due 2021 emium on early extinguishment of debt	(48.2)	(89.2)	
yments on term loans and other debt oceeds from other long-term debt ayments on) proceeds from finance lease facilities, net suance of 6.625% senior notes due 2027 eferred financing costs upurchase of 8.125% senior notes due 2021 emium on early extinguishment of debt			
boceeds from other long-term debt ayments on) proceeds from finance lease facilities, net suance of 6.625% senior notes due 2027 eferred financing costs epurchase of 8.125% senior notes due 2021 emium on early extinguishment of debt	7.8	40.3	
ayments on) proceeds from finance lease facilities, net suance of 6.625% senior notes due 2027 eferred financing costs epurchase of 8.125% senior notes due 2021 emiumon early extinguishment of debt	(10.3)	(15.5)	
suance of 6.625% senior notes due 2027 eferred financing costs epurchase of 8.125% senior notes due 2021 emiumon early extinguishment of debt	1.4	4.0	
eferred financing costs purchase of 8.125% senior notes due 2021 emiumon early extinguishment of debt	(3.4)	(0.9)	
epurchase of 8.125% senior notes due 2021 emium on early extinguishment of debt	_	_	
emiumon early extinguishment of debt	_	_	
	_	_	(
	_	_	
vidends	(7.0)	(6.4)	
rchases of treasury stock	(0.9)	(9.0)	
yments of withholding taxes on stock awards	(2.9)	(3.1)	
her	_	_	
Net cash (used) provided by financing activities	/4 = a\	9.4	
fect of exchange rate changes on cash	(15.3)	(2.1)	
crease (decrease) in cash and cash equivalents	(15.3)	(27.1)	
sh and cash equivalents at beginning of year	0.1	82.8	
sh and cash equivalents at end of year \$			\$
	0.1 0.3 55.7	\$ 55.7	\$
come taxes paid \$ terest paid \$	0.1	\$ 55.7 \$ 21.0	

The accompanying notes are an integral part of these consolidated financial statements.

(Dollars in millions, except per share data.)

NOTE 1 — Summary of Significant Accounting Policies

Consolidation and Basis of Presentation: Park-Ohio Holdings Corp. ("ParkOhio," "we" or the "Company") is a diversified international company providing world-class customers with a supply chain management outsourcing service, capital equipment used on their production lines, and manufactured components used to assemble their products. The Company operates through three reportable segments: Supply Technologies, Assembly Components and Engineered Products. The consolidated financial statements include the accounts of the Company and all of its majority-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation. The Company does not have off-balance sheet arrangements or financings with unconsolidated entities or other persons. The Company leases certain real properties owned by related parties as described in Note 11. Transactions with related parties are not material to the Company's financial position, results of operations or cash flows.

Accounting Estimates: The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts in the consolidated financial statements. Actual results could differ from those estimates.

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

Accounts Receivable and Allowance for Doubtful Accounts: Accounts receivable are recorded at net realizable value. Accounts receivable are reduced by an allowance for amounts that may become uncollectable in the future. The allowance for doubtful accounts was \$4.9 million and \$6.2 million at December 31, 2019 and 2018, respectively. The Company's policy is to identify and reserve for specific collectability concerns based on customers' financial condition and payment history as well as a general reserve based on historical trends and other information. During 2019 and 2018, we sold, without recourse, \$112.7 million and \$106.8 million, respectively, of accounts receivable to mitigate accounts receivable concentration risk and to increase working capital efficiency. Sales of accounts receivable are reflected as a reduction of accounts receivable in the Consolidated Balance Sheets, and the proceeds are included in cash flows from operating activities in the Consolidated Statements of Cash Flows. Expense in the amount of \$1.1 million and \$1.0 million in 2019 and 2018, respectively, related to the discount on sale of accounts receivable is recorded in the Consolidated Statements of Income

Inventories: Inventories are valued using first-in, first-out ("FIFO") or the weighted-average inventory method and stated at the lower of cost or net realizable value, except for the inventories at Canton Drop Forge ("CDF"), which was acquired on February 1, 2018. CDF inventories are stated using the last-in, first-out ("LIFO") method.

Major Classes of Inventories		nber 31, 2019	December 31, 2018		
Raw materials and supplies	\$	92.6	\$	85.0	
Work in process		51.3		48.9	
Finished goods		181.3		182.0	
LIFO reserve		2.0		1.9	
Inventories, net	\$	327.2	\$	317.8	
Other Inventory Items					
Inventory reserves	\$	(34.2)	\$	(34.9)	
Consigned inventory	\$	8.2	\$	10.3	

Property, Plant and Equipment: Property, plant and equipment is carried at cost. Additions and improvements that extend the lives of assets are capitalized, and expenditures for repairs and maintenance are charged to operations as incurred.

Depreciation of fixed assets, including amounts capitalized under finance leases, is computed principally by the straight-line method based on the estimated useful lives of the assets ranging from five to 40 years for buildings, and one to 20 years for machinery and equipment (with the majority in the range of three to ten years).

The following table summarizes property, plant and equipment:

	Decemb	er 31, 2019	Decen	nber 31, 2018
Land and land improvements	\$	12.1	\$	11.9
Buildings		84.8		82.3
Machinery and equipment		424.0		392.6
Leased property under finance leases		39.2		35.8
Total property, plant and equipment		560.1		522.6
Less: Accumulated depreciation		322.5		303.2
Property, plant and equipment, net	\$	237.6	\$	219.4

	Year Ended December 31,						
	2019		2018		2017		
\$	27.7	\$	29.4	\$	24.9		

Goodwill and Indefinite-Lived Assets: In accordance with Accounting Standards Codification ("ASC") 350,
"Intangibles — Goodwill and Other" ("ASC 350"), goodwill and indefinite life intangible assets are not amortized but rather are tested annually for impairment as of October 1, or whenever events or changes in circumstances indicate there may be an indicator of impairment in accordance with ASC 350. Goodwill is tested for impairment at the reporting unit level and is based on the net assets of each reporting unit, including goodwill and intangible assets, compared to its fair value. Our reporting units have been identified one level below the operating segment level. The Company completed its annual goodwill and indefinite-lived intangibles impairment testing as of October 1 of each year, noting no impairment. To determine fair value, the Company uses an income approach, utilizing a discounted cash flow model based on forecasted cash flows and weighted average cost of capital for its goodwill testing, and a relief of royalty method for its indefinite-lived intangibles testing.

See Notes 5 and 6 for additional disclosures about goodwill and indefinite-lived intangibles.

Impairment of Other Long-Lived Assets: Other long-lived assets, including operating lease right-of-use assets, are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Upon indications of impairment, assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. The asset group would be considered impaired when the estimated future net undiscounted cash flows generated by the asset group are less than its carrying value. Impairment losses are measured by comparing the estimated fair value of the asset group to its carrying value.

Fair Values of Financial Instruments: Certain financial instruments are required to be recorded at fair value. The Company measures financial assets and liabilities at fair value in three levels of inputs. The three-tier fair value hierarchy, which prioritizes the inputs used in the valuation methodologies, is as follows:

- Level 1 Valuations based on quoted prices for identical assets and liabilities in active markets.
- Level 2 Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.
- Level 3 Valuations based on unobservable inputs reflecting our own assumptions, consistent with reasonably available assumptions made by other market participants. These valuations require significant judgment.

Changes in assumptions or estimation methods could affect the fair value estimates; however, we do not believe any such changes would have a material impact on our financial condition, results of operations or cash flows. The carrying value of cash and cash equivalents, accounts receivable, accounts payable and borrowings under the Credit Agreement (as defined in Note 7) approximate fair value at December 31, 2019 and December 31, 2018 because of the short-term nature of these instruments. The fair values of long-term debt and pension plan assets are disclosed in Note 7 and Note 12, respectively.

The Company has not changed its valuation techniques for measuring fair value during 2019, and there were no transfers between levels during the periods presented.

Pension and Other Postretirement Benefits: We account for our pensions and other post-retirement benefits in accordance with ASC Topic 715, "Compensation — Retirement Benefits." Net actuarial gains and losses are amortized to expense when they exceed the 10% accounting corridor, based on the greater of the plan assets or benefit obligations, over an average employee future service period. Refer to Note 12 for more information.

Income Taxes: The Company accounts for income taxes under the asset and liability method, whereby deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and the tax bases of assets and liabilities and are measured using the current enacted tax rates. In determining these amounts, management determined the probability of realizing deferred tax assets, taking into consideration factors including historical operating results, cumulative earnings and losses, expectations of future earnings, taxable income and the extended period of time over which the postretirement benefits will be paid. As required by ASC 740, "Income Taxes" ("ASC 740"), the Company records valuation allowances if, based on the weight of available evidence, it is more likely than not that all or some portion of our deferred tax assets will not be realized.

Revenue Recognition: The Company recognizes revenue, other than from long-term contracts within the Engineered Products segment, when its obligations under the contract terms are satisfied and control transfers to the customer, typically upon shipment. Revenue from certain long-term contracts is accounted for over time, when products are manufactured or services are performed, as control transfers under these arrangements. We follow this method since reasonably reliable estimates of revenue and costs of a contract can be made. See Note 2 for additional disclosure on revenue.

Cost of Sales: Cost of sales is primarily comprised of direct materials and supplies consumed in the manufacture of product; manufacturing labor, depreciation expense and direct overhead expense; and shipping and handling costs.

Concentration of Credit Risk: The Company sells its products to customers in diversified industries. The Company performs ongoing credit evaluations of its customers' financial condition but does not require collateral to support customer receivables. The Company establishes an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information. As of December 31, 2019, the Company had uncollateralized receivables with six customers in the automotive industry, each with several locations, aggregating \$44.8 million, which represented approximately 17% of the Company's trade accounts receivable. During 2019, sales to these customers amounted to approximately \$280.6 million, which represented approximately 17% of the Company's net sales.

Environmental: The Company expenses environmental costs related to existing conditions resulting from past or current operations and from which no current or future benefit is discernible. Costs that extend the life of the related property or mitigate or prevent future environmental contamination are capitalized. The Company records a liability when environmental assessments and/or remedial efforts are probable and can be reasonably estimated. The estimated liability of the Company is not reduced for possible recoveries from insurance carriers and is undiscounted.

Foreign Currency Translation: The functional currency of the Company's subsidiaries outside the United States is the local currency. Financial statements are translated into U.S. dollars at year-end exchange rates for assets and liabilities and weighted-average exchange rates during the period for revenues and expenses. The resulting translation adjustments are recorded in Accumulated other comprehensive income (loss) in shareholders' equity. Gains and losses resulting from foreign currency transactions, including intercompany transactions that are not considered long-term investments, are included in the Consolidated Statements of Income.

Warranties: The Company estimates the amount of warranty claims on sold products that may be incurred based on current and historical data. The actual warranty expense could differ from the estimates made by the Company based on product performance. The following table presents the changes in the Company's product warranty liability:

	Year Ended December 31,						
		2019		2018		2017	
Balance at January 1	\$	6.2	\$	7.9	\$	7.1	
Claims paid during the year		(4.1)		(5.3)		(4.0)	
Warranty expense		4.3		3.6		4.7	
Acquired warranty liabilities		_		_		0.1	
Balance at December 31	\$	6.4	\$	6.2	\$	7.9	

Weighted-Average Number of Shares Used in Computing Earnings Per Share: The following table sets forth the weighted-average number of shares used in the computation of earnings per share:

	Year Ended December 31,				
	2019	2019 2018			
	(In whole shares)				
Weighted average basic shares outstanding	12,225,481	12,255,490	12,211,978		
Dilutive impact of employee stock awards	153,608	253,023	243,963		
Weighted average diluted shares outstanding	12,379,089	12,508,513	12,455,941		

Outstanding stock awards with exercise prices greater than the average price of the common shares are anti-dilutive and are not included in the computation of diluted earnings per share. For the years ended December 31, 2019, 2018 and 2017, the anti-dilutive shares were insignificant.

Accounting Standards Adopted

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02, "Leases (Topic 842)." This accounting standard requires that a lessee recognize a right-of-use asset and a lease liability on its balance sheet for all leases, including operating leases, with a term greater than 12 months. In July 2018, the FASB issued updated guidance, which allows an additional transition method to adopt the new leases standard at the adoption date, rather than as of the beginning of the earliest period presented. The Company elected to transition to the new standard on its effective date of January 1, 2019 and therefore did not adjust its prior period financial information. On the transition date, we recognized operating right-of-use assets and related lease liabilities of \$69.7 million. We elected the package of transition provisions available for expired or existing contracts, which allowed us to carryforward our historical assessments of (1) whether contracts are or contain leases, (2) lease classification and (3) initial direct costs. The Company also made an accounting policy election not to record a right-of-use asset or lease liability related to leases with an initial term of 12 months or less, and elected to not separate lease and non-lease components for all leases. See Note 10, "Leases" for additional disclosure.

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." The ASU affects any entity that is required to apply the provisions of Topic 220, "Income Statement-Reporting Comprehensive Income," and has items of other comprehensive income for which the related tax effects are presented in other comprehensive income as required by GAAP. The Company has evaluated ASU 2018-02 and has decided not to make the election to reclassify the income tax effects of the TCJA from accumulated other comprehensive income to retained earnings.

Recent Accounting Standards Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses of Financial Instruments," which replaces the current incurred loss impairment model with a methodology that reflects expected credit losses. Under the new methodology, entities will be required to measure expected credit losses on financial instruments held at amortized cost, including trade receivables, based on historical experience, current conditions and reasonable forecasts. Adoption of this guidance is required for interimand annual periods beginning after December 15, 2019. We plan to adopt this standard as of January 1, 2020. The Company is in the process of evaluating the impact of the new standard but does not expect adoption to have a material impact.

No other recently issued ASUs are expected to have a material impact on our results of operations, financial condition or liquidity.

NOTE 2 — Revenue

Substantially all of the Company's contracts have a single performance obligation to transfer products to or, in limited cases, perform services for the customer. Accordingly, the Company recognizes revenue when its obligations under the contract terms are satisfied and control transfers to the customer. Revenue is recognized at an amount that reflects the consideration the Company expects to receive in exchange for the good or service, including estimated provisions for rebates, discounts, returns and allowances. The Company sells its products both directly to customers, and in limited cases, through distributors, generally under agreements with payment terms between 30-90 days; the Company has no financing components.

The majority of the Company's revenue is derived from contracts (i) with an original contract length of one year or less, or (ii) for which it recognizes revenue at the amount at which it has the right to invoice as products or services are delivered. The Company has elected the practical expedient not to disclose the value of remaining performance obligations associated with these types of contacts.

The Company also has certain contracts which contain performance obligations that are immaterial in the context of the contract with the customer. The Company has elected the practical expedient not to assess whether these promised goods or services are performance obligations.

Supply Technologies provides our customers with Total Supply ManagementTM, a proactive solutions approach that manages the efficiencies of every aspect of supplying production parts and materials to our customers' manufacturing floor, from strategic planning to program implementation. Within this segment, contracts routinely consist of a long-term agreement or master service agreement with quantity and pricing specified through individual purchase orders. Revenue is recognized at a point in time, which is the shipping point, as that is when control transfers to the customer.

Assembly Components designs, develops and manufactures: aluminum products; highly efficient, high pressure direct fuel injection fuel rails and pipes; fuel filler pipes that route fuel from the gas cap to the gas tank; and flexible multi-layer plastic and rubber assemblies used to transport fuel from the vehicle's gas tank and then, at extreme high pressure, to the engine's fuel injector nozzles. Within this segment, contracts routinely consist of a long-term agreement or master service agreement with quantity and pricing specified through individual purchase orders. Revenue is recognized at a point in time, which is at the shipping point, as that is when control transfers to the customer.

Engineered Products operates a diverse group of niche manufacturing businesses that design and manufacture a broad range of highly-engineered products, including induction heating and melting systems, pipe threading systems and forged and machined products. Engineered Products also produces and provides services and spare parts for the equipment it manufactures. In this segment, revenue is recognized for certain revenue streams at a point in time, and over time for other revenue streams. For point in time arrangements, revenue is recognized at the shipping point, as that is when control transfers to the customer. For over time arrangements, revenue is recognized over the time during which products are manufactured or services are performed, as control transfers under these arrangements over a period of time. Over time arrangements represent 18% of the Company's total consolidated sales for the year ended December 31, 2019. The Company uses the input method to calculate the contract revenues to be recognized, which utilizes costs incurred to date in relation to total expected costs to satisfy the

Company's performance obligation under the contract. Incurred costs represent work performed and therefore best depict the transfer of control to the customer.

For over time arrangements, contract liabilities primarily relate to advances or deposits received from the Company's customers before revenue is recognized. These amounts, which totaled \$35.7 million and \$39.5 million at December 31, 2019 and December 31, 2018, respectively, are recorded as Deferred revenue in the Consolidated Balance Sheets

For over time arrangements, contract assets primarily relate to revenue recognized in advance of billings to customers under long-term contracts accounted for under percentage of completion. These amounts, which totaled \$61.7 million and \$66.3 million at December 31, 2019 and December 31, 2018, respectively, are recorded as Unbilled contract revenue in the Consolidated Balance Sheets.

The Company has elected to account for shipping and handling as activities to fulfill the promise to transfer its products. As such, shipping and handling fees billed to customers in a sales transaction are recorded in Net sales, and shipping and handling costs incurred are recorded in Cost of sales. The Company has elected to exclude from Net sales any value-added, sales or other taxes which it collects concurrent with revenue-producing activities.

We disaggregate our revenue by product line and geographic region of our customer, as we believe these criteria best depict how the nature, amount, timing and uncertainty of our revenues and cash flows are affected by economic factors. See details in the tables below.

	 Year Ended December 31,			
	2019		2018	
RODUCT LINE	_			
Supply Technologies	\$ 532.9	\$	555.3	
Engineered specialty fasteners and other products	78.6		81.5	
Supply Technologies Segment	611.5		636.8	
Eval while a and place is an advata	353.8		382.5	
Fuel, rubber and plastic products				
Aluminum products	 185.7		195.8	
Assembly Components Segment	539.5		578.3	
Industrial equipment	323.8		312.1	
Forged and machined products	143.5		130.9	
Engineered Products Segment	467.3		443.0	
Total revenues	\$ 1,618.3	\$	1,658.1	

	Supp	oly Technologies Segment	As	ssembly Components Segment	Engineered Products Segment		Total Revenues
Year Ended December 31, 2019	'-						
GEOGRAPHIC REGION							
United States	\$	404.5	\$	388.1	\$	271.3	\$ 1,063.9
Europe		98.0		14.6		80.2	192.8
Asia		40.3		21.4		66.2	127.9
Mexico		54.7		37.3		13.8	105.8
Canada		12.2		76.7		23.9	112.8
Other		1.8		1.4		11.9	15.1
Total	\$	611.5	\$	539.5	\$	467.3	\$ 1,618.3
Year Ended December 31, 2018							
GEOGRAPHIC REGION							
United States	\$	421.8	\$	410.2	\$	254.3	\$ 1,086.3
Europe		98.2		7.8		77.3	183.3
Asia		49.2		30.0		61.2	140.4
Mexico		53.3		34.0		16.2	103.5
Canada		13.3		94.9		22.5	130.7
Other		1.0		1.4		11.5	13.9
Total	\$	636.8	\$	578.3	\$	443.0	\$ 1,658.1

NOTE3 — Segments

The Company operates through three reportable segments: Supply Technologies, Assembly Components and Engineered Products. Supply Technologies provides our customers with Total Supply ManagementTM services for a broad range of high-volume, specialty production components. Assembly Components manufactures cast aluminum components, automotive and industrial rubber and thermoplastic products, gasoline direct injection systems, fuel filler and hydraulic assemblies for automotive, agricultural equipment, construction equipment, heavy-duty truck and marine equipment industries, and also provides value-added services such as design and engineering, machining and assembly. Engineered Products operates a diverse group of niche manufacturing businesses that design and manufacture a broad range of high-quality products engineered for specific customer applications.

For purposes of measuring business segment performance, the chief operating decision maker utilizes segment operating income, which is defined as revenues less expenses identifiable to the product lines within each segment. The Company does not allocate items that are non-operating, unusual in nature; or are corporate costs, which include but are not limited to executive compensation and corporate office costs. Segment operating income reconciles to consolidated income before income taxes by deducting corporate costs, certain non-cash and/or non-operating items; Other components of pension income and other postretirement benefits ("OPEB") expense, net; and interest expense, net.

Results by business segment were as follows:

		Year Ended December 31,						
		2019		2018		2017		
Net sales:								
Supply Technologies	\$	611.5	\$	636.8	\$	561.8		
Assembly Components		539.5		578.3		524.5		
Engineered Products		467.3		443.0		326.6		
	\$	1,618.3	\$	1,658.1	\$	1,412.9		
Segment operating income:	<u> </u>							
Supply Technologies	\$	42.0	\$	49.0	\$	43.3		
Assembly Components		36.2		42.9		47.8		
Engineered Products		37.7		38.4		19.5		
Total segment operating income		115.9		130.3		110.6		
Corporate costs		(28.5)		(34.9)		(30.1)		
One-time net expense related to former President		(4.3)		_		_		
Cain on sale of assets		_		1.9		_		
Litigation settlement gain		_		_		3.3		
Operating income	·	83.1		97.3		83.8		
Other components of pension income and other postretirement benefits expense, net		5.6		8.8		6.4		
Interest expense, net		(33.8)		(34.3)		(31.5)		
Loss on extinguishment of debt		_				(11.0)		
Income before income taxes	\$	54.9	\$	71.8	\$	47.7		

	 Year Ended December 31,				
	2019		2018		2017
litures:					
ologies	\$ 6.1	\$	5.2	\$	3.3
nents	19.5		24.3		18.6
	14.3		15.4		5.7
	0.2		0.2		0.3
	\$ 40.1	\$	45.1	\$	27.9
n expense:					
	\$ 4.8	\$	5.3	\$	4.7
	20.1		22.2		20.7
	8.8		8.4		5.6
	0.5		0.4		0.5
	\$ 34.2	\$	36.3	\$	31.5
	\$ 355.9	\$	330.1	\$	344.4
	413.4		378.3		351.4
	455.1		433.1		353.6
	86.0		67.0		83.1
	\$ 1,310.4	\$	1,208.5	\$	1,132.5

At December 31, 2019, 2018 and 2017, approximately 71%, 68% and 65%, respectively, of the Company's assets were located in the United States.

NOTE 4 — Acquisitions

On May 31, 2019, the Company acquired EFCO, Inc. d/b/a Erie Press Systems ("EP") for \$9.1 million, including potential contingent consideration. EP, which had revenue of approximately \$12 million since the date of the acquisition, is an industry-recognized leader in the manufacturing of advanced forging presses, hydraulic and mechanical presses, and metal stretch-forming and carbon extrusion machines for several end markets, including aerospace and defense, primary metals and high-speed rail. EP is included in the Company's Engineered Products segment.

During 2019, the Company paid \$8.1 million in cash (net of \$10.4 million of cash and cash equivalents acquired). In addition, the purchase agreement stipulates potential contingent consideration of up to an additional \$1.0 million based on two-year cumulative earnings before interest and taxes. The estimated fair value of the contingent consideration, valued using level 3 inputs, was approximately \$1.0 million as of December 31, 2019, resulting in total consideration of \$9.1 million.

The allocation of the purchase price for EP was finalized in 2019. Below is the purchase price allocation as of December 31, 2019 related to the acquisition of EP:

$\label{eq:park-ohio} \mbox{PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES} \\ \mbox{NOTES TO CONSOLIDATED FINANCIAL STATEMENTS} \mbox{$-($Continued)$}$

Current assets	\$ 6.4
Current liabilities	(6.4)
Property, plant and equipment	2.9
Intangible assets	1.8
Goodwill	5.2
Deferred income tax liabilities	(0.8)
Total purchase price (including potential contingent consideration)	9.1

Goodwill associated with the EP acquisition is not deductible for income tax purposes.

On February 1, 2018, the Company acquired CDF for \$35.6 million in cash for its Engineered Products segment. CDF manufactures forgings for high-performance applications in the global aerospace, oil and gas, and other markets.

On October 1, 2018, the Company acquired Hydrapower Dynamics Limited ("Hydrapower") for \$7.8 million in cash for its Assembly Components segment. Headquartered in Birmingham, England, Hydrapower is a manufacturer of fluid handling systems incorporating hoses, manipulated tubes and fabricated assemblies for the bus and truck, automotive, agricultural and construction end markets.

During 2018, the Company made two other acquisitions in its Supply Technologies segment totaling a cash purchase price of \$3.5 million. Both acquired companies distribute products into the aerospace and defense end markets.

NOTE 5 — Goodwill

The changes in the carrying amount of goodwill by reportable segment are as follows:

	Supply Technologies		Assembly Components		 Engineered Products	Total		
Balance at January 1, 2018	\$	15.4	\$	54.1	\$ 30.7	\$	100.2	
Acquisitions and adjustments		(0.5)		1.9	3.6		5.0	
Foreign currency translation		(0.7)		_	(1.1)		(1.8)	
Balance at December 31, 2018		14.2		56.0	 33.2		103.4	
Acquisitions and adjustments		_		_	5.0		5.0	
Foreign currency translation		0.4		_	(0.4)		_	
Balance at December 31, 2019	\$	14.6	\$	56.0	\$ 37.8	\$	108.4	

NOTE 6 — Other Intangible Assets

	December 31, 2019						December 31, 2018						
	Weighted Average Remaining Useful Life (Years)			Net Value		Gross Value		Accumulated Amortization		Net Value			
Customer relationships	10.0	\$	86.6	\$	39.6	\$	47.0	\$	86.0	\$	34.5	\$	51.5
Indefinite-lived tradenames	*		24.6		*		24.6		24.1		*		24.1
Technology	15.5		22.9		5.3		17.6		22.9		4.1		18.8
Other	7.5		4.8		3.4		1.4		4.1		3.2		0.9
Total		\$	138.9	\$	48.3	\$	90.6	\$	137.1	\$	41.8	\$	95.3

^{*} Not applicable, as these tradenames have an indefinite life.

Amortization expense of other intangible assets as follows:

	Year Ended December 31,							
	2019		2018			2017		
Amortization expense	\$	6.5	\$	6.9	\$	6.6		
We estimate amortization expense for the five years subsequent to December 31, 2019 as follows:								
2020				\$		6.5		
2021				\$		6.5		
2022				\$		6.4		
2023				\$		6.3		
2024				\$		6.1		

NOTE7 — Financing Arrangements

Debt consists of the following:

				Carryin	ng Value at		
	Maturity Date	Interest Rate at December 31, 2019	December 31, 2019		Dec	ember 31, 2018	
Senior Notes due 2027	April 15, 2027	6.625%	\$	350.0	\$	350.0	
Revolving credit facility	November 26, 2024	2.85%		173.2		165.1	
Industrial Equipment Group European Facilities	December 21, 2021	3.25%		4.6		12.6	
Finance leases	Various	Various		17.2		20.7	
Other	Various	Various		23.5		24.7	
Total debt				568.5		573.1	
Less: Current portion of long-term debt and short-term debt				(16.8)		(17.9)	
Less: Unamortized debt issuance costs				(6.5)		(7.7)	
Total long-term debt, net			\$	545.2	\$	547.5	

In 2018, Park-Ohio Industries, Inc. ("Park-Ohio"), the operating subsidiary of Park-Ohio Holdings Corp., entered into Amendment No. 1 to Seventh Amended and Restated Credit Agreement (the "Credit Agreement") with a group of banks to increase the revolving credit facility from \$35.0 million to \$375.0 million, the Canadian revolving subcommitment from \$35.0 million to \$40.0 million and the European revolving subcommitment from \$25.0 million. Furthermore, Park-Ohio has the option, pursuant to the Amended Credit Agreement, to increase the availability under the revolving credit facility by an aggregate incremental amount up to \$100.0 million. In November 2019, Park-Ohio entered into Amendment No. 4 to the Credit Agreement, extending the maturity of the Credit Agreement to November 26, 2024.

In April 2017, Park-Ohio completed the issuance, in a private placement, of \$350.0 million aggregate principal amount of 6.625% Senior Notes due 2027 (the "Notes"). Interest on the Notes is payable semi-annually in arrears on April 15 and October 15 of each year, and the Notes mature on April 15, 2027. The Notes are unsecured senior obligations of Park-Ohio and are guaranteed on an unsecured senior basis by the 100% owned material domestic subsidiaries of Park-Ohio.

On December 21, 2016, the Company, through its subsidiary, IEGE Industrial Equipment Holding Company Limited, entered into a financing agreement with Banco Bilbao Vizcaya Argentaria, S.A. The financing agreement provides the Company a loan up to \$28.1 million as of December 31, 2019, as well as a revolving credit facility for up to \$11.2 million to fund working capital and general corporate needs. The Company had \$4.6 million outstanding on the loan as of December 31, 2019. No amounts have been drawn on the revolving credit facility as of December 31, 2019.

On August 13, 2015, the Company entered into a finance lease agreement (the "Lease Agreement"). The Lease Agreement provides the Company up to \$50.0 million for finance leases. Finance lease obligations of \$17.2 million were borrowed under the Lease Agreement as of December 31, 2019 to acquire machinery and equipment. See Note 11 for additional disclosure.

On October 21, 2015, the Company, through its subsidiary, Southwest Steel Processing LLC, entered into a financing agreement with the Arkansas Development Finance Authority. The agreement provides the Company the ability to borrow up to \$11.0 million for expansion of its manufacturing facility in Arkansas. The loan matures in September 2025. The Company has borrowed \$8.4 million under this agreement as of December 31, 2019.

The following table represents fair value information of the Notes, classified as Level 1, at December 31, 2019 and 2018. The fair value was estimated using quoted market prices.

	De	cember 31, 2019	December 31, 2018		
Carrying amount	\$	350.0	\$	350.0	
Fair value	\$	358.3	\$	345.8	

Maturities of short-term and long-term debt, excluding finance leases, during each of the five years subsequent to December 31, 2019 are as follows:

2020	\$ 9.8
2021	\$ 3.5
2022	\$ 3.0
2023	\$ 2.9
2024	\$ 175.8

Foreign subsidiaries of the Company had \$16.2 million of borrowings at December 31, 2019 and \$26.1 million at December 31, 2018.

We had outstanding bank guarantees and letters of credit of approximately \$33.8 million at December 31, 2019 and \$27.5 million at December 31, 2018 under our credit arrangements.

The weighted average interest rate on all debt was approximately 5.8% in 2019 and 2018 and 6.1% in 2017.

NOTE 8 — Income Taxes

Income before income taxes consists of the following:

	 Year Ended December 31,							
	2019		2018		2017			
United States	\$ 26.2	\$	35.1	\$	21.4			
Outside the United States	28.7		36.7		26.3			
	\$ 54.9	\$	71.8	\$	47.7			

Income taxes consists of the following:

	Year Ended December 31,						
	2019			2018	2017		
Current expense:							
Federal	\$	5.9	\$	6.4	\$	14.3	
State		0.7		0.6		0.7	
Foreign		7.2		9.0		7.6	
	,	13.8		16.0		22.6	
Deferred expense (benefit):							
Federal		1.8		1.3		(5.4)	
State		(0.2)		0.1		0.3	
Foreign		(0.2)		(0.8)		0.7	
		1.4		0.6		(4.4)	
Income tax expense	\$	15.2	\$	16.6	\$	18.2	

The Tax Cuts and Jobs Act (the "TCJA") was enacted on December 22, 2017. The TCJA reduced the US federal corporate tax rate from 35% to 21%, required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, created new taxes on its global intangible low-taxed income ("GILTI"), and provided a foreign-derived intangible income deduction ("FDII"). In 2017, we recorded provisional amounts for certain enactment-date effects of the TCJA by applying the guidance in Staff Accounting Bulletin ("SAB") 118 because we had not yet completed our enactment-date accounting for these effects. During 2018, the Company finalized its accounting for the 2017 enactment of the TCJA and recorded net expense of \$0.3 million related to the remeasurement of taxes and the one-time transition tax.

The TCJA subjects a U.S. shareholder to tax on GILTI earned by certain foreign subsidiaries. The FASB Staff Q&A, Topic 740, No. 5, Accounting for Global Intangible Low-Taxed Income, states that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred as a period expense. We have elected to account for GILTI as a current period expense. The impact of GILTI at December 31, 2019 and 2018 was an increase in tax expense of \$1.9 million and \$3.1 million, respectively. The impact of FDII at December 31, 2019 and 2018 was a decrease in tax expense of \$0.8 million and \$0.6 million, respectively.

A reconciliation of income tax expense computed by applying the statutory federal income tax rate to income tax expense as recorded is as follows:

	Year Ended December 31,					
	2019		2018			2017
Income tax at U.S. statutory rate	\$	11.5	\$	15.1	\$	16.7
Effect of state income taxes, net		0.3		0.6		0.7
Effect of foreign operations		1.9		3.5		(5.2)
Valuation allowance		0.6		(3.0)		5.3
Uncertain tax positions		0.1		(0.3)		(2.0)
Non-deductible items		0.3		0.5		0.5
Non-deductible compensation		2.2		0.8		0.4
Manufacturer's deduction		_		_		(0.8)
Foreign tax credit		(1.7)		(2.2)		_
Other tax credits		(0.8)		_		_
GLTI		1.9		3.1		_
FDII		(0.8)		(0.6)		_
Net impact of TCJA		_		0.3		4.2
Other, net		(0.3)		(1.2)		(1.6)
Income tax as recorded	\$	15.2	\$	16.6	\$	18.2

Significant components of the Company's net deferred income tax assets and liabilities are as follows:

	 Year Ended December 31,				
	 2019	2018			
Deferred income tax assets:		_			
Postretirement benefit obligation	\$ 1.7 \$	1.8			
Inventory	8.7	8.5			
Net operating loss and credit carryforwards	11.6	11.4			
Operating lease liabilities	13.8	_			
Accrued litigation	_	0.1			
Compensation	2.9	4.7			
Disallowed interest	4.6	2.7			
Other	4.8	4.0			
Total deferred income tax assets	 48.1	33.2			
Deferred income tax liabilities:					
Depreciation and amortization	21.0	17.6			
Pension	13.9	12.3			
Intangible assets	16.8	16.1			
Right-of-use assets	13.5	_			
Other	3.0	3.2			
Total deferred income tax liabilities	 68.2	49.2			
Net deferred income tax liabilities prior to valuation allowances	(20.1)	(16.0)			
Valuation allowances	(4.8)	(5.3)			
Net deferred income tax liability	\$ (24.9) \$	(21.3)			

At December 31, 2019, the Company has U.S., state and foreign net operating loss carryforwards and U.S. foreign tax credit carryforwards for income tax purposes. The foreign net operating loss carryforward is \$26.5 million, of which \$12.4 million expires between 2020 and 2039 and the remainder has no expiration date. The Company has a tax benefit from a state net operating loss carryforward of \$2.3 million that expires between 2020 and 2039. The Company also has a non-consolidated U.S. net operating loss carryforward of \$1.5 million that expires between 2036 and 2037. The foreign tax credit carryforward is \$0.1 million and expires in 2029.

As of December 31, 2019 and 2018, the Company was not in a cumulative three-year loss position and it was determined that it was more likely than not that its U.S. deferred tax assets will be realized. For the year ended December 31, 2018, the Company recorded a tax benefit of \$6.3 million related to the reversal of valuation allowance, of which \$3.0 million was recorded in income tax expense with the remainder reflected in deferred taxes. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income (including reversals of deferred tax liabilities). The Company reviews all valuation allowances related to deferred tax assets and will reverse these valuation allowances, partially or totally, when appropriate under ASC 740.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	2019	2018	2017
Unrecognized Tax Benefit — January 1,	\$ 0.9	\$ 1.2	\$ 2.9
Gross Increases to Tax Positions Related to Current Year	0.5	0.1	0.1
Gross Increases to Tax Positions Related to Prior Years	2.6	_	0.6
Gross Decreases to Tax Positions Related to Prior Years	_	(0.1)	_
Gross Decreases related to settlements with taxing authorities	_	(0.1)	(0.4)
Expiration of Statute of Limitations	(0.3)	(0.2)	(1.9)
Other	_	_	(0.1)
Unrecognized Tax Benefit — December 31,	\$ 3.7	\$ 0.9	\$ 1.2

The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate is \$1.0 million at December 31, 2019 and \$0.8 million at December 31, 2018. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in income tax expense. During the years ended December 31, 2019 and 2018, the Company recognized a tax expense of approximately \$0.1 million and a tax benefit of \$0.1 million, respectively, in net interest and penalties due to the expiration of various uncertain tax positions. The Company had approximately \$0.2 million and \$0.1 million for the payment of interest and penalties accrued at December 31, 2019 and 2018, respectively. It is reasonably possible that within the next twelve months the amount of gross unrecognized tax benefits could be reduced by approximately \$0.1 million as a result of the closure of tax statutes related to existing uncertain tax positions.

The Company is subject to taxation in the U.S. and various state and foreign jurisdictions. The Company's tax years for 2016 through 2019 remain open for examination by the Internal Revenue Service and 2014 through 2019 remain open for examination by various state and foreign taxing authorities.

As of December 31, 2019, the Company has accumulated undistributed earnings generated by our foreign subsidiaries of approximately \$194.9 million. Because \$146.8 million of such earnings have previously been subject to the one-time transition taxes required by the TCJA, any additional taxes due with respect to such earnings or the excess of the amount for financial reporting over the tax basis of our foreign investments would generally be limited to foreign withholding and state income taxes. We intend, however, to indefinitely reinvest these earnings and expect future U.S. cash generation to be sufficient to meet future U.S. cash needs.

NOTE 9 - Stock-Based Compensation

The Company follows the provisions of ASC 718, "Compensation — Stock Compensation" ("ASC 718"), which requires all share-based payments to employees to be recognized in the income statement based on their grant date fair values. Compensation expense for awards with service conditions only that are subject to graded vesting is recognized on a straight-line basis over the term of the vesting period.

A summary of restricted share and performance share activity for the year ended December 31, 2019 is as follows:

	Time-Based			Performa	Based	
	Number of Shares			Number of Shares		Weighted Average Grant Date Fair Value
	(in whole shares)			(in whole shares)		
Outstanding — beginning of year	529,947	\$	35.98	_	\$	_
Granted(a)	268,948		32.01	50,000		32.55
Vested	(212,261)		37.68	_		_
Canceled or expired	(115,000)		39.35	_		_
Outstanding — end of year	471,634	\$	32.06	50,000	\$	32.55
·		_				

(a) Included in the granted amount are 2,825 restricted share units.

The Company recognized compensation expense of \$4.1 million, \$8.3 million and \$8.6 million for the years ended December 31, 2019, 2018 and 2017, respectively, relating to time-based awards and performance-based awards. The amount in 2019 is net of \$1.7 million of forfeitures related to the departure of our former President.

The performance-based award in 2019 relates to a five-year cumulative profit target through 2023. Through December 31, 2019, no compensation expense was recognized as achievement of the performance target is deemed not probable.

The total fair value of restricted shares and share units that vested during the years ended December 31, 2019, 2018 and 2017 was \$8.0 million, \$8.3 million and \$7.0 million, respectively.

As of December 31, 2019, the Company had unrecognized compensation expense of \$8.6 million related to restricted shares. The unrecognized compensation expense is expected to be recognized over a total weighted average period of 2.3 years.

NOTE 10 — Commitments and Contingencies

The Company is subject to various pending and threatened legal proceedings arising in the ordinary course of business. The Company records a liability for loss contingencies in the consolidated financial statements when a loss is known or considered probable and the amount can be reasonably estimated. Our provisions are based on historical experience, current information and legal advice, and they may be adjusted in the future based on new developments. Estimating probable losses requires the analysis of multiple forecasted factors that often depend on judgments and potential actions by third parties. Although it is not possible to predict with certainty the ultimate outcome or cost of these matters, the Company believes they will not have a material adverse effect on our consolidated financial statements.

Our subsidiaries are involved in a number of contractual and warranty-related disputes. We believe that appropriate liabilities for these contingencies have been recorded; however, actual results may differ materially from our estimates.

In addition to the routine lawsuits and asserted claims noted above, we are also a co-defendant in approximately 114 cases asserting claims on behalf of approximately 215 plaintiffs alleging personal injury as a result of exposure to asbestos. These asbestos cases generally relate to production and sale of asbestos-containing products and allege various theories of liability, including negligence, gross negligence and strict liability, and seek compensatory and, in some cases, punitive damages. In every asbestos case in which we are named as a party, the complaints are filed against multiple named defendants. To the extent that any specific amount of damages is sought, the amount applies to claims against all named defendants.

Historically, we have been dismissed from asbestos cases on the basis that the plaintiff incorrectly sued one of our subsidiaries or because the plaintiff failed to identify any asbestos-containing product manufactured or sold by us or our subsidiaries. We intend to vigorously defend these asbestos cases and believe we will continue to be successful in being dismissed from such cases. However, it is not possible to predict the ultimate outcome of asbestos-related lawsuits, claims and proceedings due to the unpredictable nature of personal injury litigation.

Despite this uncertainty, and although our results of operations and cash flows for a particular period could be adversely affected by asbestos-related lawsuits, claims and proceedings, management believes that the ultimate resolution of these matters will not have a material adverse effect on our financial condition, liquidity or results of operations. Among the factors management considered in reaching this conclusion were: (a) our historical success in being dismissed from these types of lawsuits on the bases mentioned above; (b) many cases have been improperly filed against one of our subsidiaries; (c) in many cases the plaintiffs have been unable to establish any causal relationship to us or our products or premises; (d) in many cases, the plaintiffs have been unable to demonstrate that they have suffered any identifiable injury or compensable loss at all or that any injuries that they have incurred did in fact result from alleged exposure to asbestos; and (e) the complaints assert claims against multiple defendants and, in most cases, the damages alleged are not attributed to individual defendants. Additionally, we do not believe that the amounts claimed in any of the asbestos cases are meaningful indicators of our potential exposure because the amounts claimed typically bear no relation to the extent of the plaintiffs injury, if any.

NOTE11 - Lease Arrangements

We lease manufacturing facilities, warehouse space, office space, machinery and equipment, information technology equipment and vehicles under operating leases. We also lease one building and machinery and equipment under finance leases. For operating leases with terms greater than 12 months, we record the operating right-of-use asset and related lease liability at the present value of lease payments over the lease term. In certain real estate leases, we have options to renew lease terms, generally at our sole discretion. We evaluate renewal options at the lease commencement date to determine if we are reasonably certain to exercise the option on the basis of economic factors.

The discount rate implicit in our operating leases is generally not determinable, and therefore the Company determines the discount rate for each lease based on its incremental borrowing rate. The incremental borrowing rate is calculated based on lease term, currency and collateral adjustments.

During 2019, the Company obtained right-of-use assets in exchange for new operating lease liabilities of \$13.0 million.

Balance Sheet as of December 31, 2019

	Classification on the Balance Sheet	Decem	ber 31, 2019
Assets			
Operating lease assets	Operating lease right-of-use assets	\$	64.3
Finance lease assets	Property, plant and equipment, net		27.1
Total lease assets		\$	91.4
Liabilities			
Current			
Operating	Current portion of operating lease liabilities	\$	11.9
Finance	Current portion of long-term debt and short-term debt		7.0
Noncurrent			
Operating	Long-term operating lease liabilities		53.6
Finance	Long-term debt		10.2
Total lease liabilities		\$	82.7
Weighted-average remaining lease to	erm(in years)		
Operating leases			7.1
Finance leases			3.9
Weighted-average discount rate			
Operating leases			5.4%
Finance leases			3.7%

Lease Expense for 2019

Operating lease expense is recognized on a straight-line basis over the lease term, with variable payments recognized in the period those payments are incurred.

	 2019
Finance lease expense	
Amortization of right-of-use assets	\$ 3.7
Interest on lease liabilities	0.7
Operating lease expense	17.4
Other lease expense(1)	6.3
Total lease expense	\$ 28.1

 $(1) \hbox{ - Other lease expense includes variable lease costs and short-term lease costs.} \\$

Total lease expense for 2018 and 2017 was \$27.4 million and \$22.3 million, respectively.

Cash Flow Information for 2019

	20	19
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows for operating leases	\$	17.2
Operating cash flows for finance leases	\$	0.7
Financing cash flows for finance leases	\$	3.4

Maturities of Lease Liabilities as of December 31, 2019, were as follows:

	Operating Leases		Finance Leases	
2020	\$	14.9	\$	7.4
2021		12.5		4.3
2022		10.7		3.1
2023		9.1		2.0
2024		8.4		0.9
Thereafter		23.2		0.9
Total lease payments		78.8		18.6
Less: amount of lease payments representing interest		(13.3)		(1.4)
Total present value of future lease payments	\$	65.5	\$	17.2

The future minimum lease payments as of December 31, 2018, as reported in the Annual Report on Form 10-K for year ended December 31, 2018 under ASC 840 "Leases," are as follows:

	Op	perating leases	Finance Leases	
2019	\$	18.5	\$	7.3
2020		14.0		6.5
2021		10.5		3.3
2022		9.1		2.2
2023		7.2		1.4
Thereafter		23.2		1.6
Total minimum lease payments	\$	82.5		22.3
Amounts representing interest				(1.6)
Present value of minimum lease payments				20.7
Current maturities				(6.6)
Long-term finance lease obligation			\$	14.1

Certain of the Company's leases are with related parties at an annual rental expense of approximately \$2.2 million. Transactions with related parties are not material to the Company's financial position, results of operations or cash flows.

NOTE 12 — Pensions and Postretirement Benefits

The Company and its subsidiaries have pension plans, principally noncontributory defined benefit or noncontributory defined contribution plans, covering substantially all employees. In addition, the Company has an unfunded postretirement benefit plan. One of its defined benefit plans, covering most U.S. employees not covered by collective bargaining agreements, utilizes a cash balance formula. Under a cash balance formula, a plan participant accumulates a retirement benefit consisting of pay credits that are based upon a percentage of current eligible earnings and current interest credits. For the remaining defined benefit plans, benefits are based on the employee's years of service. For the defined contribution plans, the costs charged to operations and the amount funded are based upon a percentage of the covered employees' compensation.

The Company's objectives for the pension plan are to monitor the funded ratio; create general investment goals with regard to acceptable risk and liquidity needs ensuring the long-term interests of participants and beneficiaries are considered; and manage risk by minimizing the short-term and long-term risk of actual expenses and contribution requirements.

$\label{eq:park-ohio} \begin{minipage}{ll} PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES \\ NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) \\ \end{minipage}$

The following tables set forth the changes in benefit obligation, plan assets, funded status and amounts recognized in the consolidated balance sheet for the defined benefit pension and postretirement benefit plans as of December 31, 2019 and 2018:

	 Pension Benefits			Postretirement Benefits			
	2019		2018		2019		2018
Change in benefit obligation	 				_		
Benefit obligation at beginning of year	\$ 71.2	\$	60.5	\$	8.5	\$	9.3
Service cost	3.8		3.7		_		_
Interest cost	2.6		2.2		0.3		0.3
Actuarial losses (gains)	7.4		(5.3)		0.5		0.4
Acquisition of CDF	_		14.9		_		_
Benefits and expenses paid	(5.6)		(4.8)		(1.3)		(1.5)
Benefit obligation at end of year	\$ 79.4	\$	71.2	\$	8.0	\$	8.5
Change in plan assets	 						
Fair value of plan assets at beginning of year	\$ 128.2	\$	134.8	\$	_	\$	_
Actual return on plan assets	22.7		(12.1)		_		_
Company contributions	_		_		1.3		1.5
Cash transfer to fund postretirement benefit payments	(0.9)		(1.0)		_		_
Acquisition of CDF	_		11.3		_		_
Benefits and expenses paid	(5.6)		(4.8)		(1.3)		(1.5)
Fair value of plan assets at end of year	\$ 144.4	\$	128.2	\$	_	\$	_
Funded (underfunded) status of the plans	\$ 65.0	\$	57.0	\$	(8.0)	\$	(8.5)

Amounts recognized in the consolidated balance sheets consist of:

	Pension Benefits			Postretirement Bene			enefits	
		2019		2018		2019		2018
Pension assets	\$	65.0	\$	57.0	\$	_	\$	_
Other current liabilities		_		_		0.9		0.9
Other long-term liabilities		_		_		7.1		7.6
	\$	65.0	\$	57.0	\$	8.0	\$	8.5
Amounts recognized in Accumulated other comprehensive loss								
Net actuarial loss	\$	28.1	\$	34.7	\$	2.6	\$	2.4
Net prior service cost (credit)		0.2		0.3		_		(0.1)
Accumulated other comprehensive loss	\$	28.3	\$	35.0	\$	2.6	\$	2.3

The pension plan weighted-average asset allocation at December 31, 2019 and 2018 and target allocation for 2020 are as follows:

		Plan A	Assets
	Target 2020	2019	2018
Asset Category			
Equity securities	45-75%	59.2%	57.6%
Debt securities	20-40%	25.5%	26.5%
Other	0-20%	15.3%	15.9%
	100%	100%	100%

The following table sets forth, by level within the fair value hierarchy, the pension plans assets:

	2019				2018					
		Level 1		Total		Level 1		Total		
Common stock	\$	40.0	\$	40.0	\$	34.2	\$	34.2		
Equity securities		43.9		43.9		37.9		37.9		
Foreign stock		7.0		7.0		5.7		5.7		
U.S. Government obligations		8.6		8.6		4.8		4.8		
Fixed income securities		11.5		11.5		13.1		13.1		
Corporate bonds		14.2		14.2		12.0		12.0		
Cash and cash equivalents		2.7		2.7		6.3		6.3		
Total	\$	127.9			\$	114.0				
Investments measured at net asset value:										
Common collective trusts				_				0.1		
Hedge funds				16.5				14.1		
Total assets at fair value			\$	144.4			\$	128.2		

Valuation Methodologies: Following is a description of the valuation methodologies used for pension plan assets measured at fair value. There have been no changes in the methodologies used at December 31, 2019 and 2018.

Common stock, equity securities and foreign stock - These securities consist of direct investments in the stock of publicly-traded companies. Such investments are valued based on the closing price reported in an active market on which the individual securities are traded. As such, the direct investments are classified as Level 1.

U.S. Government obligations, fixed income securities and corporate bonds - Valued at the closing price of each security.

Cash equivalents - Consists of primarily money market funds and certificates of deposit, for which book value equals fair value.

Common collective trusts - Valued at the net unit value of units held by the trust at year end. The unit value is determined by the total value of fund assets divided by the total number of units of the fund owned. The equity investments in collective trusts are predominantly in index funds for which the underlying securities are actively traded in public markets based upon readily measurable prices. Common collective trusts are measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables above to permit a reconciliation of the fair value hierarchy to the total plan assets.

Hedge funds - Consists of direct investments in hedge funds through limited partnership interests. Net asset values are based on the estimated fair value of the ownership interest in the investment as determined by the general partner. The majority of the holdings of the hedge funds are in equity securities traded on public exchanges. The investment terms of the hedge funds allow capital to be redeemed quarterly given prior notice with certain limitations. Hedge funds measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables above to permit a reconciliation of the fair value hierarchy to the total plan assets.

For additional information regarding fair value measurements, see Note 1.

The following tables summarize the assumptions used in the valuation of pension and postretirement benefit obligations at December 31 and the measurement of the net periodic benefit cost in the following year. The Company used a spot rate approach by applying the specific spot rates along the yield curve to the relevant projected cash flows in the estimation of the service and interest components of benefit cost.

$\label{eq:park-ohio} \begin{minipage}{ll} PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES \\ NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) \\ \end{minipage}$

Weighted-Average assumptions as of December 31,

					,				
	P	ension Benefits		Postretirement Benefits					
	2019	2018	2017	2019	2018	2017			
Assumptions used to determine benefit obligation at year-en	d								
Discount rate	3.22%	4.24%	3.52%	2.94%	4.06%	3.32%			
Rate of compensation increase	3.00%	3.00%	3.00%	N/A	N/A	N/A			
Health care cost trend rate	N/A	N/A	N/A	6.25%	6.50%	6.50%			
Ultimate health care cost trend rate	N/A	N/A	N/A	5.00%	5.00%	5.00%			
Year of ultimate trend rate	N/A	N/A	N/A	2025	2025	2025			
Assumptions used to determine expense									
Discount rate for benefit obligations	4.11%	3.51%	3.90%	4.06%	3.35%	3.61%			
Discount rate for service costs	4.14%	3.60%	3.98%	4.34%	3.70%	4.24%			
Discount rate for interest costs	3.72%	3.08%	3.20%	3.72%	2.92%	2.90%			
Expected return on plan assets	8.25%	8.25%	8.25%	N/A	N/A	N/A			
Rate of compensation increase	3.00%	3.00%	3.00%	N/A	N/A	N/A			
Medical health care benefits rate increase	N/A	N/A	N/A	6.50%	6.50%	6.50%			
Medical drug benefits rate increase	N/A	N/A	N/A	6.50%	6.50%	6.50%			
Ultimate health care cost trend rate	N/A	N/A	N/A	5.00%	5.00%	5.00%			
Year of ultimate trend rate	N/A	N/A	N/A	2025	2025	2025			

In determining its expected return on plan assets assumption for the year ended December 31, 2019, the Company considered historical experience, its asset allocation, expected future long-term rates of return for each major asset class, and an assumed long-term inflation rate. This assumption was supported by the asset return generation model, which projected future asset returns using simulation and asset class correlation.

	Pension Benefits							Postretirement Benefits						
		2019	2018		2017		2019		2018			2017		
Components of net periodic benefit cost														
Service costs	\$	3.8	\$	3.7	\$	2.4	\$	_	\$	_	\$	_		
Interest costs		2.6		2.2		1.8		0.3		0.3		0.3		
Expected return on plan assets		(10.9)		(11.6)		(9.7)		_		_		_		
Amortization of prior service cost (credit)		_		_		_		(0.1)		(0.1)		(0.1)		
Recognized net actuarial loss		2.2		0.3		1.2		0.3		0.1		0.1		
Benefit (income) costs	\$	(2.3)	\$	(5.4)	\$	(4.3)	\$	0.5	\$	0.3	\$	0.3		
Other changes in plan assets and benefit obligations recognized in accumulated other comprehensive (income) loss ("AOCP")														
AOCI at beginning of year	\$	35.0	\$	16.8	\$	26.1	\$	2.3	\$	2.0	\$	1.5		
Net (loss) gain arising during the year		(2.2)		(0.3)		(1.1)		(0.3)		(0.1)		(0.1)		
Recognition of prior service credit		_		_		_		0.1		0.1		0.1		
Recognition of actuarial loss		(4.5)		18.5		(8.2)		0.5		0.3		0.5		
Total recognized in accumulated other comprehensive loss at end of year	\$	28.3	\$	35.0	\$	16.8	\$	2.6	\$	2.3	\$	2.0		

The estimated net loss for the defined benefit pension plans that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the year ending December 31, 2020 is approximately \$1.9 million.

The estimated net loss and prior service cost for the postretirement plans that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the year ending December 31, 2020 is \$0.2 million.

Below is a table summarizing the Company's expected future benefit payments and the expected payments due to Medicare subsidy over the next ten years:

			Postretirement Benefits						
	Pension	Benefits	Gross			Expected Medicare Subsidy		Net including Medicare Subsidy	
2020	\$	5.7	\$	1.0	\$	0.1	\$	0.9	
2021		5.9		0.9		0.1		0.8	
2022		6.1		0.8		0.1		0.7	
2023		6.2		0.8		0.1		0.7	
2024		6.2		0.8		0.1		0.7	
2025 to 2029		31.0		3.0		0.3		2.7	

The Company expects to make no contributions to its defined benefit plans in 2020 and beyond, as pension benefits are expected to be paid out of plan assets and postretirement benefits are paid directly by the Company.

Under the postretirement benefit plan, health care benefits are provided on both a contributory and noncontributory basis. The assumed health care cost trend rate has a significant effect on the amounts reported. A one-percentage-point change in the assumed health care cost trend rate would have the following effects:

	1-Percent Point Increas		1-Percentage Point Decrease	
Effect on total of service and interest cost components in 2020	\$	_	\$ _	
Effect on postretirement benefit obligation as of December 31, 2020	\$	0.5	\$ (0.4	4)

In January 2008, a Supplemental Executive Retirement Plan ("SERP") for the Company's former President, Chairman and Chief Executive Officer ("Former CEO") was approved by the Compensation Committee of the Board of Directors of the Company. The SERP provides an annual supplemental retirement benefit for up to \$0.4 million upon the Former CEO's termination of employment with the Company. As of December 31, 2019, the Former CEO is fully vested in the SERP. The Company recorded income of \$0.1 million in 2019 and 2018 and \$0.2 million in 2017 related to the SERP. As of December 31, 2019, the Company has recorded a liability of \$3.0 million related to the SERP in Other long-term liabilities.

$\label{eq:park-ohio} \begin{minipage}{ll} PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES \\ NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) \\ \end{minipage}$

The components of and changes in accumulated other comprehensive income (loss) for the years ended December 31, 2019, 2018, and 2017 were as follows:

	Cumulative Translation Adjustment	Pension and Postretirement Benefits	Total
Balance at January 1, 2017	\$ (30.8)	\$ (11.9)	\$ (42.7)
Currency translation	19.2	_	19.2
Pension and OPEB activity, net of tax	_	5.6	5.6
Balance at December 31, 2017	(11.6)	(6.3)	(17.9)
Currency translation	(9.7)	_	(9.7)
Pension and OPEB activity, net of tax	_	(13.3)	(13.3)
Balance at December 31, 2018	(21.3)	(19.6)	(40.9)
Currency translation	(1.1)	_	(1.1)
Pension and OPEB activity, net of tax	_	5.0	5.0
Balance at December 31, 2019	\$ (22.4)	\$ (14.6)	\$ (37.0)

No income taxes are provided on currency translation as foreign earnings are considered permanently re-invested.

NOTE 14 — Subsequent Event

On January 31, 2020, the Company's Board of Directors declared a quarterly dividend of \$0.125 per common share. The dividend was paid on February 28, 2020, to shareholders of record as of the close of business on February 14, 2020 and resulted in a cash outlay of \$1.6 million.

$\label{eq:park-ohio} \begin{minipage}{ll} PARK-OHIO HOLDINGS CORP. AND SUBSIDIARIES \\ NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) \\ \end{minipage}$

NOTE 15 — Selected Quarterly Financial Data (Unaudited)

	Quarter Ended						
		Mar. 31		Jun. 30		Sept. 30	 Dec. 31
2019							
Net sales	\$	420.1	\$	415.3	\$	403.4	\$ 379.5
Gross profit		65.3		66.2		66.5	62.3
Net income		11.7		7.9		12.4	7.7
Net income attributable to noncontrolling interest		(0.5)		(0.3)		(0.2)	(0.1)
Net income attributable to ParkOhio common shareholders	\$	11.2	\$	7.6	\$	12.2	\$ 7.6
Earnings per common share attributable to ParkOhio common shareholders:							
Basic	\$	0.92	\$	0.62	\$	1.00	\$ 0.62
Diluted	\$	0.90	\$	0.61	\$	0.99	\$ 0.61
Cash dividends per common share	\$	0.125	\$	0.125	\$	0.125	\$ 0.125
2018							
Net sales	\$	405.7	\$	432.2	\$	414.3	\$ 405.9
Gross profit		65.1		73.1		65.9	67.4
Net income		10.2		15.0		14.7	15.3
Net income attributable to noncontrolling interest		(0.4)		(0.2)		(0.5)	(0.5)
Net income attributable to ParkOhio common shareholders	\$	9.8	\$	14.8	\$	14.2	\$ 14.8
Earnings per common share attributable to ParkOhio common shareholders:							
Basic	\$	0.80	\$	1.20	\$	1.15	\$ 1.21
Diluted	\$	0.78	\$	1.18	\$	1.14	\$ 1.19
Cash dividends per common share	\$	0.125	\$	0.125	\$	0.125	\$ 0.125

Results for the second quarter of 2019 include net expense of \$4.3 million due to the retirement and resignation of our former President.

Income of \$1.9 million from the gain on sale of assets was recorded in the second quarter of 2018.

Supplementary Financial Data

Schedule II

PARK-OHIO HOLDINGS CORP.

${\bf SCHEDULE\,II-VALUATION\,AND\,QUALIFYING\,ACCOUNTS\,AND\,RESERVES}$

	Balance at Beginning of	Charged to Deductions Costs and and			Balance at End of
Description V. F. J. D. J. 21 2010	 Period	Expenses	Other		Period
Year Ended December 31, 2019:					
Allowances deducted from assets:					
Trade receivable allowances	\$ 6.2	1.3	(2.6)	(A)	\$ 4.9
Inventory reserves	34.9	5.3	(6.0)	(B)	34.2
Tax valuation allowances	5.3	0.2	_		5.5
Year Ended December 31, 2018:					
Allowances deducted from assets:					
Trade receivable allowances	\$ 4.5	2.0	(0.3)	(A)	\$ 6.2
Inventory reserves	29.8	7.5	(2.4)	(B)	34.9
Tax valuation allowances	11.6	(6.3)	_		5.3
Year Ended December 31, 2017:					
Allowances deducted from assets:					
Trade receivable allowances	\$ 4.0	1.5	(1.0)	(A)	\$ 4.5
Inventory reserves	30.2	5.6	(6.0)	(B)	29.8
Tax valuation allowances	5.3	5.6	0.7	(C)	11.6

Note (A)- Uncollectable accounts written off, net of recoveries.

Note (B)- Amounts written off.

Note (C)- Amount related to 2017 acquisitions.

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

None

Item 9A. Controls and Procedures

Evaluation of disclosure controls and procedures

As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of our Chairman and Chief Executive Officer and our Vice President and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15(e) and Rule 15d-15(e) of the Securities Exchange Act of 1934, as amended ("Exchange Act"). Based upon this evaluation, our Chairman and Chief Executive Officer and Vice President and Chief Financial Officer concluded that, as of the end of the period covered by this Annual Report on Form 10-K, our disclosure controls and procedures were effective.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. As required by Rule 13a-15(c) under the Exchange Act, management carried out an evaluation, with participation of our Chairman and Chief Executive Officer and Vice President and Chief Financial Officer, of the effectiveness of our internal control over financial reporting as of December 31, 2019. The framework on which such evaluation was based is contained in the report entitled "Internal Control — Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework) (the "COSO Report"). Management's assessment and conclusion on the effectiveness of internal controls over financial reporting did not include the internal controls of EFCO, Inc. d/b/a Erie Press Systems ("EP"), which constituted one percent of the Company's total assets as of December 31, 2019 and less than one percent of the Company's total revenues for the year then ended. Based upon the evaluation described above under the framework contained in the COSO Report, our management has concluded that our internal control over financial reporting was effective as of December 31, 2019.

Ernst & Young LLP, our independent registered public accounting firm, who audited the consolidated financial statements of the Company for the year ended December 31, 2019, also audited the effectiveness of the Company's internal control over financial reporting, excluding EP. Their report is set forth on pages 35 - 36 of this Annual Report on Form 10-K and is incorporated by reference into this Item 9A.

Changes in internal control over financial reporting

There have been no changes in our internal control over financial reporting that occurred during the fourth quarter of 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information concerning directors, the identification of the audit committee and the audit committee financial expert and our code of ethics required under this item is incorporated herein by reference from the material contained under the captions "Election of Directors" and "Corporate Governance," as applicable, in our definitive proxy statement for the 2020 annual meeting of shareholders to be filed with the SEC pursuant to Regulation 14A not later than 120 days after the close of the fiscal year (the "Proxy Statement"). Information relating to executive officers is contained in Part I of this Annual Report on Form 10-K.

Item 11. Executive Compensation

The information relating to executive officer and director compensation and the compensation committee report contained under the heading "Executive Compensation" in the Proxy Statement is incorporated herein by reference. The information relating to compensation committee interlocks contained under the heading "Corporate Governance — Compensation Committee Interlocks and Insider Participation" in the Proxy Statement is incorporated herein by reference.

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

The information required under this item is incorporated herein by reference from the material contained under the caption "Principal Shareholders" in the Proxy Statement, except that information required by Item 201(d) of Regulation S-K can be found below.

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

The information required under this item is incorporated herein by reference to the material contained under the captions "Corporate Governance Director Independence" and "Transactions With Related Persons" in the Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information required under this item is incorporated herein by reference to the material contained under the caption "Audit Committee — Independent Auditor Fee Information" in the Proxy Statement.

Part IV

Item 15. Exhibits and Financial Statement Schedules

 $(a)(1)\ The\ following\ financial\ statements\ are\ included\ in\ Part\ II,\ Item\ 8\ of\ this\ annual\ report\ on\ Form\ 10-K:$

	Page
Report of Independent Registered Public Accounting Firm	<u>33</u>
Report of Independent Registered Public Accounting Firm	<u>34</u>
Consolidated Balance Sheets — December 31, 2019 and 2018	<u>36</u>
Consolidated Statements of Income — Years Ended December 31, 2019, 2018 and 2017	<u>37</u>
Consolidated Statements of Comprehensive Income — Years Ended December 31, 2019, 2018 and 2017	<u>38</u>
Consolidated Statements of Shareholders' Equity — Years Ended December 31, 2019, 2018 and 2017	<u>39</u>
Consolidated Statements of Cash Flows — Years Ended December 31, 2019, 2018 and 2017	<u>40</u>
Notes to Consolidated Financial Statements	<u>41</u>
Selected Quarterly Financial Data (Unaudited) — Years Ended December 31, 2019 and 2018	<u>66</u>
(2) Financial Statement Schedules	
The following consolidated financial statement schedule of Park-Ohio Holdings Corp. is included in Item 8:	
Schedule II — Valuation and Qualifying accounts	<u>67</u>

All other schedules for which provision is made in the applicable accounting regulations of the SEC are not required under the related instructions or are not applicable and, therefore, have been omitted.

(3) Exhibits:

Exhibit 3.1	Amended and Restated Articles of Incorporation of Park-Ohio Holdings Corp. (filed as Exhibit 3.1 to the Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 1998, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
3.2	Code of Regulations of Park-Ohio Holdings Corp. (filed as Exhibit 3.2 to the Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 1998, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
4.1	Indenture, dated April 17, 2017, among Park-Ohio Industries, Inc., the Guarantors (as defined therein) and Wells Fargo Bank, National Association, as trustee (including Form of Note) (filed as Exhibit 4.1 to the Form 8-K of Park-Ohio Holdings Corp. filed on April 17, 2017, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.2	Seventh Amended and Restated Credit Agreement, dated April 17, 2017, among Park-Ohio Industries, Inc., RB&W Corporation of Canada, the European Borrowers (as defined therein) party thereto, the other Loan Parties (as defined therein), the Lenders (as defined therein), JPMorgan Chase Bank, N.A., as administrative agent, JPMorgan Chase Bank, N.A., Toronto Branch, as Canadian agent, J.P. Morgan Europe Limited, as European agent and J.P. Morgan Securities Inc., as sole lead arranger and bookrunning manager (filed as Exhibit 4.3 to the Form 8-K of Park-Ohio Holdings Corp. filed on April 17, 2017, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof).
4.3	Description of Common Stock

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Exhibit 10.1	Form of Indemnification Agreement entered into between Park-Ohio Holdings Corp. and each of its directors and certain officers (filed as Exhibit 10.1 to the Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 1998, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.2*	2015 Equity and Incentive Compensation Plan (filed as Exhibit 4.4 to Form S-8 of Park-Ohio Holdings Corp., filed on June 4, 2015, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.3*	2018 Equity and Incentive Compensation Plan (filed as Exhibit 4.4 to Form S-8 of Park-Ohio Holdings Corp., filed on June 27, 2018, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.4*	Form of Restricted Share Agreement between the Company and each non-employee director (filed as Exhibit 10.1 to Form 8-K of Park-Ohio Holdings Corp., filed on January 25, 2005, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
10.5*	Form of Restricted Share Agreement for Employees (filed as Exhibit 10.1 to Form 10-Q for Park-Ohio Holdings Corp. for the quarter ended September 30, 2006, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
10.6*	Form of Incentive Stock Option Agreement (filed as Exhibit 10.5 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2004, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.7*	Form of Non-Statutory Stock Option Agreement (filed as Exhibit 10.6 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2004, SEC File No. 000-03134 and incorporated herein by reference and made a part hereof)
10.8*	Park-Ohio Industries, Inc. Annual Cash Bonus Plan (filed as Exhibit 10.2 to the Form 10-Q for Park-Ohio Holdings Corp, filed August 10, 2015, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.9*	Form of Performance Based Restricted Share Agreement (filed as Exhibit 10.1 to Form 10-Q of Park-Ohio Holdings Corp. filed August 10, 2015, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.10*	Supplemental Executive Retirement Plan for Edward F. Crawford, effective as of March 10, 2008 (filed as Exhibit 10.9 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2007, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.11*	Non-qualified Defined Contribution Retirement Benefit Letter Agreement for Edward F. Crawford, dated March 10, 2008 (filed as Exhibit 10.10 to Form 10-K of Park-Ohio Holdings Corp. for the year ended December 31, 2007, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
10.12*	2009 Director Supplemental Defined Contribution Plan of Park-Ohio Holdings Corp. (Filed as Exhibit 10 to Form 10-Q of Park-Ohio Holdings Corp. filed May 10, 2011, SEC File No. 000-03134 and incorporated by reference and made a part hereof)
21.1	List of Subsidiaries of Park-Ohio Holdings Corp.
23.1	Consent of Independent Registered Public Accounting Firm
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<u>Exhibit</u>	
24.1	Power of Attorney
31.1	Principal Executive Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Principal Financial Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification requirement under Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Label Linkbase Document
101.LAB	XBRL Taxonomy Extension Presentation Linkbase Document
101.PRE	XBRL Taxonomy Extension Definition Linkbase Document

^{*} Reflects management contract or other compensatory arrangement required to be filed as an exhibit pursuant to Item 15(c) of this Report.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

$P\Delta RK$	-OHIO	HOL	DINGS	CCORP

(Registrant)

By: /s/ Patrick W. Fogarty

Name: Patrick W. Fogarty

Title: Vice President and Chief Financial Officer

(Principal Financial and Accounting Officer)

Date: March 12, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons in the capacities and on the dates indicated.

* Matthew V. Crawford	Chairman, Chief Executive Officer and President (Principal Executive Officer)	
*	Vice President and Chief Financial Officer	
Patrick W. Fogarty	(Principal Financial and Accounting Officer)	
*		
Patrick V. Auletta	Director	
*		
John D. Grampa	Director	
*		N. 1.10.000
Howard W. Hanna	Director	March 12, 2020
*		
Dan T. Moore, III	Director	
*		
Ronna Romney	Director	
*		
Steven H. Rosen	Director	
*		
James W. Wert	Director	

The undersigned, pursuant to a Power of Attorney executed by each of the directors and officers identified above and filed with the Securities and Exchange Commission, by signing his name hereto, does hereby sign and execute this report on behalf of each of the persons noted above, in the capacities indicated.

March 12, 2020 By: /s/ ROBERT D. VILSACK

Robert D. Vilsack, Chief Legal Officer

DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

The following description is a general summary of the terms of the common shares, par value of \$1.00 per share, of Park-Ohio Holdings Corp., an Ohio corporation (the "Company"). The description below does not include all of the terms of the common shares and should be read together with the Company's articles of incorporation and code of regulations, copies of which have been filed previously with the Securities and Exchange Commission and are incorporated herein by reference, as well as applicable provisions of Ohio law.

The Company's authorized capital stock consists of 40,632,470 shares of stock, including:

- 40,000,000 common shares, par value of \$1.00 per share; and
- 632,470 preferred shares, par value of \$1.00 per share.

Voting Rights

Each holder of a common share is entitled to one vote on all matters submitted to a vote of shareholders. Except as otherwise provided in the Company's articles of incorporation and code of regulations, the holders of a majority of outstanding voting shares present in person or by proxy at any shareholders meeting are authorized to act on any matter which may properly come before such meeting. Pursuant to the Company's articles of incorporation, holders of common shares do not have the right to cumulative voting in the election of the board of directors; therefore, the holders of a majority of the common shares voting for the election of directors can elect all the directors standing for election, if they so choose. The Company's board of directors is divided into three classes. At each annual meeting of shareholders, directors to succeed those whose terms are expiring at such annual meeting shall be elected for a term continuing until the third succeeding annual meeting of shareholders and until the election of their respective successors.

When any other person, corporation or entity is a beneficial owner, directly or indirectly, of more than five percent (5%) of all the outstanding shares entitled to vote in elections of directors, the Company's articles of incorporation require, in addition to any affirmative vote required by law or the Company's articles of incorporation, an affirmative vote of at least eighty percent (80%) of all the outstanding shares entitled to vote in elections of directors to (1) adopt an agreement for the merger or consolidation of the Company with or into such other person, corporation or entity, (2) authorize the sale, lease, exchange, transfer or other disposition of all or substantially all of the Company's assets to such other person, corporation or entity and (3) to authorize the Company's purchase of any assets or securities of such other person, corporation or entity, in whole or in part, in exchange for voting shares of the Company.

Dividends

Subject to the rights of any holders of serial preferred shares, the holders of common shares are entitled to such dividends as may be declared from time to time by the Company's board of directors. There can be no assurance that funds will be legally available to pay dividends at any given time or that, if

funds are available, the board of directors will declare a dividend. Future dividends will depend on the Company's future earnings.

Liquidation Rights

In the event of liquidation, dissolution or winding up of the Company, holders of common shares are entitled to receive, on a pro rata basis, any assets remaining after provision for payment of creditors and any holders of preferred shares.

No Preemptive or Conversion Rights; No Redemption or Sinking Funds

No holder of common shares has any preemptive or preferential right to purchase or subscribe to any shares of any class, except to the extent provided by the board of directors. No redemption or sinking fund provisions apply to the Company's common shares.

Preferred Shares

The Company's articles of incorporation authorize the board of directors to issue preferred shares of any series and, in connection with the creation of such series, to fix by the resolution or resolutions providing for the issue of shares the voting powers and designations, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions of such series, to the fullest extent permitted by the laws of the State of Ohio. Any preferred shares that the board of directors issues would also rank senior to common shares as to rights contingent upon liquidation, dissolution, or winding up of the Company. The board of directors can issue convertible preferred shares that could have the effect of delaying, deferring or preventing a change in control of the Company.

Certain Anti-takeover Provisions of Ohio Law

Certain provisions of Ohio law may have the effect of discouraging or rendering more difficult an unsolicited acquisition of a corporation or its capital stock to the extent the corporation is subject to those provisions. The Company has opted out of one such provision under Section 1701.831 of the Ohio Revised Code, which requires approval for certain share acquisitions by holders of a majority of the voting power in the election of directors. The Company's articles of incorporation contain restrictions that are similar to those under Section 1701.831 of the Ohio Revised Code. Subject to certain exceptions in the articles of incorporation, no person or entity, without the prior authorization of the Company's shareholders, may acquire, indirectly or directly, any shares of the Company that would entitle such person or entity to exercise, or direct the exercise of, the voting power of the Company in the election of directors within any of the following ranges of such voting power:

- · one-fifth or more but less than one-third of such voting power;
- · one-third or more but less than a majority of such voting power; and
- a majority or more of such voting power.

We remain subject to the remaining provisions under Ohio law, which are described below.

Chapter 1704 of the Ohio Revised Code prohibits certain transactions, including mergers, sales of assets, issuances or purchases of securities, liquidation or dissolution, or reclassifications of the then-outstanding shares of an Ohio corporation with 50 or more shareholders involving, or for the benefit of.

certain holders of shares representing 10% or more of the voting power of the corporation (any such shareholder, a "10% Shareholder") unless:

- the transaction is approved by the directors before the 10% Shareholder becomes a 10% Shareholder;
- the acquisition of 10% of the voting power is approved by the directors before the 10% Shareholder becomes a 10% Shareholder, or
- the transaction involves a 10% Shareholder who has been a 10% Shareholder for at least three years and is approved by the directors before the 10% Shareholder becomes a 10% Shareholder, is approved by holders of two-thirds of the Company's voting power and the holders of a majority of the voting power not owned by the 10% Shareholder, or certain price and form of consideration requirements are met.

Chapter 1704 of the Ohio Revised Code may have the effect of deterring certain potential acquisitions of us that might be beneficial to shareholders.

Section 1707.041 of the Ohio Revised Code regulates certain "control bids" for corporations in Ohio with certain concentrations of Ohio shareholders and permits the Ohio Division of Securities to suspend a control bid if certain information is not provided to offerees.

List of Subsidiaries

Company Name	Jurisdiction Organized
Ajax Tocco de Mexico, S.A. de C.V.	Mexico
Ajax Tocco International Limited	England
Ajax Tocco Magnethermic Corporation (5)	Ohio
Ajax Tocco Magnethermic Corporation Canada Limited	Canada
Ajax Tocco Magnethermic GmbH	Germany
Ajax Tocco Magnethermic Holdco S.r.l.	Italy
Ajax Tocco Magnethermic Japan Co., Ltd.	Japan
Ajax Tocco Magnethermic Limited	Hong Kong
Ajax Tocco Magnethermic (Shanghai) Co., Ltd.	China
Ajax Tocco Transformadores do Brasil Ltda.	Brazil
Apollo Aerospace Components India Private Limited	India
Apollo Aerospace Components Limited	England
Apollo Aerospace Components LLC (8)	Ohio
Apollo Aerospace Components Sp.Z.o.o.	Poland
Apollo Group Limited	England
Autoform Tool & Manufacturing, LLC	Indiana
Bates Rubber, Inc.	Ohio
Canton Drop Forge, Inc.	Ohio
Chambersburg Acquisition Corp.	Pennsylvania
Control Transformer, Inc.	Ohio
DAX International Limited	England
EFCO, Inc. (9)	Pennsylvania
Elastomeros Tecnicos Moldeados, Inc.	Texas
Elastomeros Tecnicos Moldeados, S. de R. L. de C.V.	Mexico
Engineering Materials, Inc.	Delaware
Europower CR s.r.o.	Czech Republic
Feco, Inc.	Illinois
Fluid Routing Solutions, LLC	Delaware
Foundry Service GmbH	Germany
Gateway Industrial Supply LLC	Ohio
General Aluminum Mfg. Company	Ohio
GH Able City Company Limited	China
GH Electrotermia, S.A.	Spain
GH Electrothermie, S.A.S.	France
GH Inducao do Brasil Ltda.	Brazil
GH Induction Atmospheres, LLC	New York
GH Induction Deutschland Gmbh	Germany
GH Induction Equipment Shanghai Co. Ltd.	China
GH Induction India Pvt. Ltd.	India
GH Mexicana, S.A. de C.V.	Mexico
Heads & Allthreads Private Limited	India
Hydrapower Dynamics Limited	England
ILS Supply Technologies SA de CV	Mexico
Induction Equipment (India) Private Limited	India
Integrated Holding Company	Ohio
integrated flording company	Oillo

Company Name	Jurisdiction Organized
ntegrated Logistics Holding Company	Ohio
angstone Supplies Limited	England
A.P. Colinet S.P.R.L.U.	Belgium
ABS Supply Technologies S. De R.L. De C.V.	Mexico
arkOhio Automotive Components (Changshu) Co., Ltd.	China
ark-Ohio Forged & Machined Products LLC (4)	Ohio
arkOhio Hong Kong Treasury Limited	Hong Kong
arkOhio Industries (Qingdao) Co., Ltd.	China
ark-Ohio Industries (Shanghai) Co. Ltd.	China
ark-Ohio Industries Treasury Company, Inc.	New York
ark-Ohio Industries, Inc. (1)	Ohio
ark-Ohio Products, Inc.	Ohio
ark Ohio Spain Holding Company s.l.	Spain
ark-Ohio U.K. Ltd.	England
arkOhio Worldwide LLC	Ohio
narmacy Wholesale Logistics, Inc.	Ohio
recision Machining Connection LLC	Ohio
EF Global Holdings Limited	Ireland
EF (Global) Ireland Limited	Ireland
B&W Corporation of Canada	Canada
B&W Japan G.K.	Japan
B&W Ltd.	Ohio
B&W Manufacturing LLC (2)	Ohio
B&W (Shanghai) Cold Forming Technologies Co., Ltd.	China
net S.p.A.	Italy
aet Induction Equipment (Shanghai) Co. Ltd.	China
now Dragon LLC	Ohio
outhwest Steel Processing LLC	Ohio
ΓMX Gas, Inc. (fka Pharmaceutical Logistics, Inc.)	Ohio
upply Technologies (India) Private Limited	India
upply Technologies (IRLG) Limited	Ireland
upply Technologies (UKGRP) Limited	England
apply Technologies (Checker) Edmined apply Technologies Company of Canada (7)	Canada
apply Technologies CR s.r.o. (fka Heads & Allthreads CZ s.r.o.)	Czech Republic
apply Technologies Company of Puerto Rico, Inc.	Puerto Rico
upply Technologies International Trading (Shanghai) Co., Ltd.	China
apply Technologies International Trading (Shanghai) Co., Edd.	Hungary
apply Technologies Kit	Hong Kong
apply Technologies Limited (fka Heads & Allthreads Limited)	England
	Ohio
apply Technologies LLC (6)	Poland
apply Technologies PLN Sp zo.o. (fka Heads & Allthreads Sp Z.o.o.)	
apply Technologies Poland Sp.zo.o.	Poland
apply Technologies Procurement Company, Inc.	Delaware
upply Technologies Pte. Ltd.	Singapore
he Ajax Manufacturing Company (3)	Ohio
occo, Inc.	Alabama
rostel Mexico S. de R.L. de C.V.	Mexico
Vest Erie Short Line, Inc.	Pennsylvania
/ind Energy, Inc.	Ohio

Company Name Jurisdiction Organized

Wind Engery Technologies LLC Delaware

- Doing business as Park Drop Forge and Ohio Crankshaft
 Doing business as Delo Screw Products
 Doing business as Ajax Technologies and Forging Developments International
 Doing business as Kropp Forge and Ajax-Ceco
 Doing business as PMC-Colinet, PMC Industries, Pines Engineering, Pillar Induction and H&H Tooling
 Doing business as Sabina Mfg.
 Doing business as Direct Fasteners
 Doing business as Aero-Missile Components
 Doing business as Erie Press Systems

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-225915) pertaining to the Park-Ohio Holdings Corp. 2018 Equity and Incentive Compensation Plan,
- (2) Registration Statement (Form S-8 No. 333-204713) pertaining to the Park-Ohio Holdings Corp. 2015 Equity and Incentive Compensation Plan,
- (3) Registration Statement (Form S-3 No. 333-211906) pertaining to debt securities and common stock of Park-Ohio Holdings Corp., and
- (4) Registration Statement (Form S-8 No. 333-01047) pertaining to the Individual Account Retirement Plan;

as of our reports dated March 12, 2020, with respect to the consolidated financial statements and schedule of Park-Ohio Holdings Corp. and subsidiaries and the effectiveness of internal control over financial reporting of Park-Ohio Holdings Corp. and subsidiaries included in this Annual Report (Form 10-K) of Park-Ohio Holdings Corp. and subsidiaries for the year ended December 31, 2019 and the financial statement schedule of Park-Ohio Holdings Corp. and subsidiaries included herein.

/s/ Ernst & Young LLP

Cleveland, Ohio March 12, 2020

PARK-OHIO HOLDINGS CORP. FORM 10-K POWER OF ATTORNEY

Each of the undersigned officers and directors of Park-Ohio Holdings Corp., an Ohio corporation, hereby constitutes and appoints Patrick W. Fogarty and Robert D. Vilsack, and each of them, as his true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for each of the undersigned and in the name, place and stead of each of the undersigned, to sign on behalf of each of the undersigned an Annual Report on Form 10-K for the fiscal year ended December 31, 2019 pursuant to Section 13 of the Securities Exchange Act of 1934 and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith including, without limitation, a Form 12b-25 with the Securities and Exchange Commission, granting to said attorney or attorneys-in-fact, and each of them, full power and authority to do so and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of themor their substitute or substitutes may lawfully do or cause to be done by virtue thereof.

This power of attorney may be executed in multiple counterparts, each of which shall be deemed an original with respect to the person executing it.

EXECUTED as of March 5, 2020.

/s/ Matthew V. Crawford

Matthew V. Crawford

Chairman, Chief Executive Officer and Director

/s/ Patrick V. Auletta

Patrick V. Auletta, Director

/s/ John D Grampa

John D. Grampa, Director

/s/ Howard W. Hanna

Howard W. Hanna, Director

/s/ Patrick W. Fogarty

Patrick W. Fogarty, Vice President and Chief

Financial Officer

/s/ Dan T. Moore

Dan T. Moore, Director

/s/ Ronna Romney

Ronna Ronney, Director

/s/ Steven H. Rosen

Steven H. Rosen, Director

/s/ James W. Wert

James W. Wert, Director

PRINCIPAL EXECUTIVE OFFICER'S CERTIFICATIONS PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Matthew V. Crawford, certify that:

- 1. I have reviewed this annual report on Form 10-K of Park-Ohio Holdings Corp.;
- 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 the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Matthew V. Crawford

Name: Matthew V. Crawford

Title: Chairman and Chief Executive Officer

Dated: March 12, 2020

PRINCIPAL EXECUTIVE OFFICER'S CERTIFICATIONS PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Patrick W. Fogarty, certify that:

- 1. I have reviewed this annual report on Form 10-K of Park-Ohio Holdings Corp.;
- 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 the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Patrick W. Fogarty

Name: Patrick W. Fogarty

Title: Vice President and Chief Financial Officer

Dated: March 12, 2020

CERTIFICATION PURS UANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Park-Ohio Holdings Corp. (the "Company") on Form 10-K for the period ended December 31, 2019, 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.

By: /s/ Matthew V. Crawford

Name: Matthew V. Crawford

Title: Chairman and Chief Executive Officer

By: /s/ Patrick W. Fogarty

Name: Patrick W. Fogarty

Title: Vice President and Chief Financial Officer

Dated: March 12, 2020

The foregoing certification is being furnished solely pursuant to 18 U.S.C. \S 1350 and is not being filed as part of the Report or as a separate disclosure document.