

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, 2018
OR

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

For the transition period from _____ to _____

Commission file number 1-5684

W.W. Grainger, Inc.

(Exact name of registrant as specified in its charter)

Illinois

(State or other jurisdiction of incorporation or organization)

100 Grainger Parkway, Lake Forest, Illinois

(Address of principal executive offices)

36-1150280

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

60045-5201

(Zip Code)

(847) 535-1000

(Registrant's telephone number including area code)

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

Title of each class

Common Stock \$0.50 par value

Name of each exchange on which registered

New York Stock Exchange

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§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 No

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

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

Large accelerated filer Accelerated filer Non-accelerated filer company Emerging growth company

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

The aggregate market value of the voting common equity held by nonaffiliates of the registrant was \$16,101,319,439 as of the close of trading as reported on the New York Stock Exchange on June 30, 2018. The Company does not have nonvoting common equity.

The registrant had 55,679,223 shares of the Company's Common Stock outstanding as of January 31, 2019.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed in connection with the annual meeting of shareholders to be held on April 24, 2019, are incorporated by reference into Part III hereof of this Form 10-K where indicated the definitive 2018 proxy statement will be filed on or about March 15, 2019.

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PART I

Item 1: Business

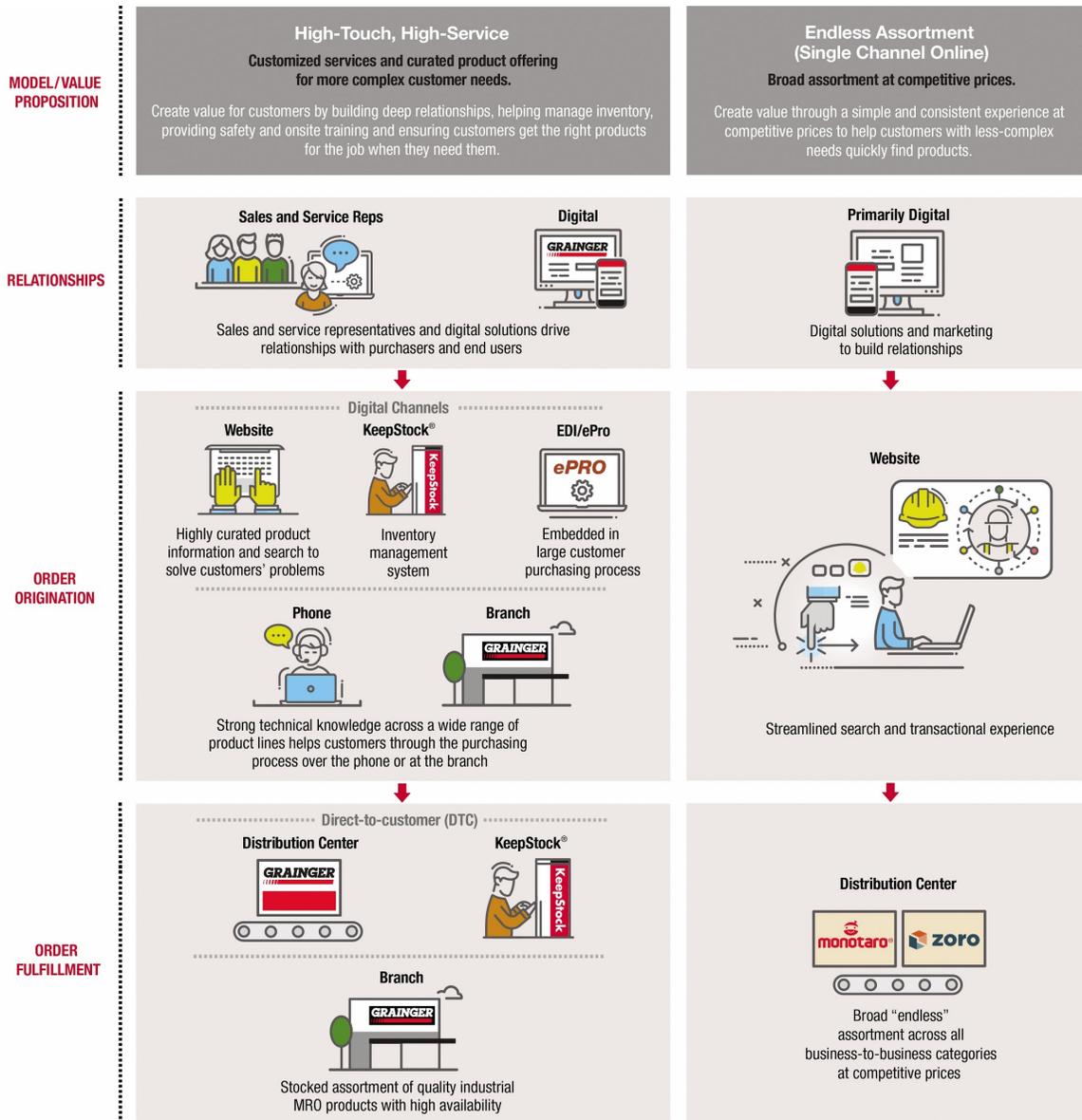
The Company

W.W. Grainger, Inc., incorporated in the State of Illinois in 1928, is a broad line, business-to-business distributor of maintenance, repair and operating (MRO) products and services. W.W. Grainger, Inc.'s operations are primarily in North America, Europe and Japan. In this report, the words "Grainger" or "Company" mean W.W. Grainger, Inc. and its subsidiaries, except where the context makes it clear that the reference is only to W.W. Grainger, Inc. itself and not its subsidiaries.

Strategy

In the large and fragmented MRO industry, Grainger holds an advantaged position with its supply chain infrastructure, broad in-stock product offering and deep customer relationships. Grainger's purpose is to help businesses keep their operations running and their people safe.

The Company competes with two models: the high-touch, high-service model and the endless assortment (single-channel) model. Competing with these two models allows Grainger to leverage its scale and advantaged supply chain to meet the changing needs of its customers. Grainger's high-touch, high-service model serves customers with complex needs in North America and Europe. The endless assortment model is focused on customers with less-complex needs and includes the Zoro Tools, Inc. (Zoro) brand in the U.S. and MonotaRO Co., Ltd. (MonotaRO) in Japan.



MRO Industry

The global MRO market is approximately \$608 billion, and the estimated market size where Grainger has operations is \$284 billion. The most attractive geographies for Grainger are those with high GDP per capita and a developed infrastructure. Grainger's strategy is concentrated in North America, Europe and Japan. Each of these core markets is large and the competition is highly fragmented. In total, Grainger has about 4 percent share within its addressable market with ample opportunity for growth.

Grainger's two reportable segments are the U.S. and Canada, and they are described further below. Other businesses include the endless assortment businesses, Zoro in the U.S. and MonotaRO in Japan, and smaller businesses in Europe, Asia and Mexico. For further segment and financial information, see "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 17 to the Consolidated Financial Statements (Financial Statements).

The table below shows Grainger's estimated share of the MRO market and the summary of its operations by reporting segments and other businesses as of December 31, 2018:

	Approximate MRO Market Size (billions) ¹	Approximate Market Share	Branches ²	Distribution Centers (DCs) ²	Approximate Number of Customers Served (thousands) ⁴
United States	\$93	7%	283	16	1,100
Canada	12	5%	54	5	50
Other businesses					
Endless assortment businesses	82	2%	—	4	2,200
High-touch, high-service businesses ³	97	1%	120	6	320
TOTAL	\$284	4%	457	31	3,700

¹Estimated MRO market size where Grainger has operations.

² See Item 2, "Properties" for more information.

³ Includes businesses in Europe, Asia and Mexico.

⁴ Customers served in the United States may include overlap with Zoro in Endless assortment business.

Customers and Products

Grainger serves more than 3.5 million customers worldwide through its DCs, eCommerce platform, contact centers, branches and sales and service representatives. These customers represent a broad collection of industries including government, manufacturing, transportation, commercial and contractors (see Note 2 to the Financial Statements).

Grainger offers a broad selection of products to its customers including material-handling equipment, safety and security supplies, lighting and electrical products, power and hand tools, pumps and plumbing supplies, cleaning and maintenance supplies and metalworking tools. Products are regularly added and deleted from Grainger's product lines on the basis of customer demand, market research, suppliers' recommendations, sales volumes and other factors. No one product category comprises more than 18% of global sales.

United States

The U.S. business offers a broad selection of MRO products and services through its eCommerce platform, catalogs, branches and sales and service representatives. A combination of product breadth, local availability, speed of delivery, detailed product information and competitively priced products and services is provided by this business.

The U.S. business purchases products for sale from approximately 3,000 suppliers, most of which are manufacturers. No single supplier comprised more than 5% of total purchases and no significant barriers thus far exist with respect to sources of supply. The majority of products sold by the U.S. business are nationally branded products. In addition, approximately 21% of 2018 sales were private label MRO items bearing Grainger's registered trademarks, including DAYTON®, SPEEDAIRE®, AIR HANDLER®, TOUGH GUY®, WESTWARD®, CONDOR® and LUMAPRO®. Grainger has taken steps to protect these trademarks against infringement and believes that they will remain available for future use in its business.

The U.S. business operates and fulfills orders nationally through a network of DCs, branches and contact centers. Customers range from small and mid-sized businesses to large corporations, government entities and other institutions within many industries (see Note 2 to the Financial Statements). Sales in 2018 were made to more than 1 million customers and no single end customer accounted for more than 1% of total sales. The U.S. business also exports to various countries.

Macro trends and technology drive the way Grainger's U.S. customers behave. Customers want highly tailored solutions with real-time access to information and just-in-time delivery of products and services. Demands for transparency are also increasing as access to information expands. These changes are reflected in how customers do business in the U.S. as demonstrated in the following tables for the 2018 line mix:

Order Origination		Order Fulfillment	
Website	31%	Ship to Customer	70%
EDI/ePro	23%	Pick up at Branch	13%
KeepStock®	17%	KeepStock®	17%
Counter	9%		100%
Phone	20%		
	100%		

U.S. customers continue to migrate to web and electronic platforms such as EDI, eProcurement and KeepStock®. Through Grainger.com and other branded websites, customers have access to more than 2.9 million products. Grainger.com provides real-time price and product availability, detailed product information and features such as product search and compare capabilities. For customers with sophisticated electronic purchasing platforms, the U.S. business utilizes technology that allows these systems to communicate directly with Grainger.com.

The U.S. business has an outside and inside sales force to help customers select the right products for their needs and reduce costs by utilizing Grainger as a consistent source of supply.

Inventory management is another area where the U.S. business helps customers be more productive. KeepStock® is a comprehensive program that includes vendor-managed inventory, customer-managed inventory and onsite vending machines.

DCs in the U.S. business range in size from approximately 45,000 square feet to 1.3 million square feet, the largest of which can accommodate more than 500,000 in-stock products. Automation in the DCs allows Grainger to ship most orders complete with next-day delivery and replenish branches that provide same-day availability.

Branches in the U.S. business serve the immediate needs of customers in their local markets by allowing them to directly pick up items. Branches also support local KeepStock® operations and allow customers to leverage branch staff for their technical product expertise and search-and-select support.

Grainger's contact center network in the U.S. business on average handles about 73,000 customer interactions per day including approximately 20,000 orders via phone, e-mail and chat.

Canada

Acklands – Grainger Inc. and its subsidiaries (the Canada business) provide a combination of product breadth, local availability, speed of delivery, detailed product information and competitively priced products and services. The Canada business serves customers through branches, DCs and sales and service representatives. Customers have access to more than 194,000 stocked products through a comprehensive catalog and website.

Other businesses

Other businesses is comprised of the endless assortment businesses, Zoro in the U.S. and MonotaRO in Japan, and smaller high-touch, high-service businesses in Europe, Asia and Mexico.

Zoro

Zoro is an online MRO distributor, primarily serving U.S. customers through its website, Zoro.com. Zoro, with sales of more than \$500 million in 2018, offers a broad selection of more than 2 million products to its customers. Zoro has no branches or sales force, and customer orders are fulfilled through the U.S. business supply chain and third parties.

MonotaRO

Grainger operates in Japan and other Asian countries primarily through its majority interest in MonotaRO. MonotaRO had nearly \$1 billion in revenue in 2018 and provides customers with access to approximately 20 million MRO products primarily through its websites and catalogs. A majority of orders are conducted through MonotaRO.com and fulfilled from its DCs and third parties.

Seasonality

Grainger's business in general is not seasonal, however, there are some products that typically sell more often during the winter or summer seasons. In any given month, unusual weather patterns, that is, unusually hot or cold weather, could positively or negatively impact the sales volumes of these products.

Competition

Grainger faces competition in each market from manufacturers (including some of its own suppliers) that sell directly to certain segments of the market, to wholesale distributors, catalog houses, retail enterprises and internet-based businesses. Grainger differentiates itself by providing local product availability, a broad product line, sales and service representatives, competitive pricing, catalogs (which include product descriptions and, in certain cases, extensive technical and application data) and electronic and eCommerce technology. Grainger also offers other services, such as inventory management. Grainger has several large competitors and continues to be highly competitive against the predominant number of small local and regional competitors.

Employees

As of December 31, 2018, Grainger had approximately 24,600 employees, of whom approximately 23,100 were full-time and 1,500 were part-time or temporary. Grainger has never had a major work stoppage and considers employee relations to be good.

Website Access to Company Reports

Grainger makes available free of charge, through its website, www.grainger.com/investor, its Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and amendments to those reports if any, as soon as reasonably practicable after these materials are electronically filed with, or furnished to, the U.S. Securities and Exchange Commission (SEC).

The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC and the address of that site is <http://www.sec.gov>.

Item 1A: Risk Factors

The following is a discussion of significant risk factors relevant to Grainger's business that could adversely affect its financial condition, results of operations and cash flows. The risk factors discussed in this section should be considered together with information included elsewhere in this Annual Report on Form 10-K and should not be considered the only risks to which the Company is exposed.

Weakness in the economy, market trends and other conditions affecting the profitability and financial stability of Grainger's customers could negatively impact Grainger's sales growth and results of operations.

Economic, political, and industry trends affect Grainger's business environments. Grainger serves several industries and markets in which the demand for its products and services is sensitive to the production activity, capital spending and demand for products and services of Grainger's customers. Many of these customers operate in markets that are subject to cyclical fluctuations resulting from market uncertainty, trade and tariff policies, costs of goods sold, currency exchange rates, central bank interest rate changes, foreign competition, offshoring of production, oil and natural gas prices, geopolitical developments, labor shortages, inflation, deflation, and a variety of other factors beyond Grainger's control. Any of these factors could cause customers to idle or close facilities, delay purchases, reduce production levels, or experience reductions in the demand for their own products or services.

Any of these events could also reduce the volume of products and services these customers purchase from Grainger or impair the ability of Grainger's customers to make full and timely payments, and could cause increased pressure on Grainger's selling prices and terms of sale. Accordingly, a significant or prolonged slowdown in activity in the U.S., Canada or any other major world economy, or a segment of any such economy, could negatively impact Grainger's sales growth and results of operations.

The facilities maintenance industry is highly competitive, and changes in competition could result in decreased demand for Grainger's products and services.

Grainger competes in a variety of ways, including product assortment and availability, services offered to customers, pricing, purchasing convenience, and the overall experience Grainger offers. This includes the ease of use of Grainger's high-touch high-service operations (branches and digital platforms) and delivery of products.

There are several large competitors in the industry, although most of the market is served by small local and regional competitors. Grainger faces competition in all markets it serves, from manufacturers (including some of its own suppliers) that sell directly to certain segments of the market, wholesale distributors, catalog houses, retail enterprises and online businesses that compete with price transparency.

To remain competitive, the Company must be willing and able to respond to market pressures. These pressures, and the implementation, timing and results of Grainger's strategic pricing and other responses, could have a material effect on Grainger's sales and profitability. If the Company is unable to grow sales or reduce costs, among other actions, to wholly or partially offset the effect on profitability of its pricing actions, the Company's results of operations and financial condition may be adversely affected.

Moreover, Grainger expects technological advancements and the increased use of eCommerce solutions within the industry to continue to evolve at a rapid pace. As a result, Grainger's ability to effectively compete requires Grainger to respond and adapt to new industry trends and developments, and implement new technology and innovations that may result in unexpected costs or may take longer than expected.

Volatility in commodity prices may adversely affect gross margins.

Some of Grainger's products contain significant amounts of commodity-priced materials, such as steel, copper, petroleum derivatives, or rare earth minerals, and are subject to price changes based upon fluctuations in the commodities market. Fluctuations in the price of fuel could affect transportation costs. Grainger's ability to pass on such increases in costs in a timely manner depends on market conditions. The inability to pass along cost increases could result in lower gross margins. In addition, higher prices could impact demand for these products, resulting in lower sales volumes.

Unexpected product shortages, tariffs, and risks associated with Grainger's suppliers could negatively impact customer relationships or result in an adverse impact on results of operations.

Grainger's competitive strengths include product selection and availability. Products are purchased from approximately 5,000 suppliers located in various countries around the world, not one of which accounted for more than 5% of total purchases.

Historically, no significant difficulty has been encountered with respect to sources of supply; however, disruptions could occur due to factors beyond Grainger's control, including economic downturns, geopolitical unrest, new tariffs or tariff increases, trade issues and policies, labor problems experienced by Grainger's suppliers, transportation availability and cost, inflation and other factors, any of which could adversely affect a supplier's ability to manufacture or deliver products or could result in an increase in Grainger's product costs.

Further, Grainger sources products from Asia and other areas of the world. This increases the risk of supply disruption due to the additional lead time required and distances involved.

If Grainger was to experience difficulty in obtaining products, there could be a short-term adverse effect on results of operations and a longer-term adverse effect on customer relationships and Grainger's reputation. In addition, Grainger has strategic relationships with a number of vendors. In the event Grainger was unable to maintain those relations, there might be a loss of competitive pricing advantages which could, in turn, adversely affect results of operations.

Changes in customer base or product mix could cause changes in Grainger's gross margin or affect Grainger's competitive position.

From time to time, Grainger experiences changes in customer base and product mix that affect gross margin. Changes in customer base and product mix result primarily from business acquisitions, changes in customer demand, customer acquisitions, selling and marketing activities and competition. There can be no assurance that Grainger will be able to maintain historical gross margins in the future.

Additionally, as customer base and product mix change over time, Grainger must identify new products, product lines and services that respond to industry trends and customer needs. The inability to introduce new products and effectively integrate them into Grainger's existing product mix could have a negative impact on future sales growth and Grainger's competitive position.

Disruptions in Grainger's supply chain could result in an adverse impact on results of operations.

The occurrence of one or more natural disasters such as earthquakes, storms, hurricanes, floods, fires, droughts, tornados and other extreme weather; geopolitical events, such as war, civil unrest or terrorist attacks in a country in which Grainger operates or in which its suppliers are located; and the imposition of measures that create barriers to or increase the costs associated with international trade could result in disruption of Grainger's logistics or supply chain network. Any such disruption could cause one or more of Grainger's distribution centers or branches to become non-operational, adversely affect Grainger's ability to obtain or deliver inventory in a timely manner, impair Grainger's ability to meet customer demand for products, result in lost sales, additional costs, or penalties, or damage Grainger's reputation. Grainger's ability to provide same-day shipping and next-day delivery is an integral component of Grainger's business strategy and any such disruption could adversely impact results of operations and financial performance.

Interruptions in the proper functioning of information systems could disrupt operations and cause unanticipated increases in costs and/or decreases in revenues.

The proper functioning of Grainger's information systems is critical to the successful operation of its business. Grainger continues to invest in software, hardware and network infrastructures in order to effectively manage its information systems. Although Grainger's information systems are protected with robust backup and security systems, including physical and software safeguards and remote processing capabilities, information systems are still vulnerable to damage or interruption from natural disasters, power losses, telecommunication failures, user error, third party actions such as malicious computer programs, denial-of-service attacks and cybersecurity breaches, and other problems.

If Grainger's systems are damaged, breached or cease to function properly Grainger may have to make a significant investment to repair or replace them and may suffer interruptions in its business operations in the interim. If critical information systems fail or otherwise become unavailable, among other things, Grainger's ability to process orders,

maintain proper levels of inventories, collect accounts receivable, and disburse funds could be adversely affected. Any such interruption of Grainger's information systems could have a material adverse effect on its business or results of operations.

Cybersecurity incidents, including breaches of information systems security, could damage Grainger's reputation, disrupt operations, increase costs and/or decrease revenues.

Through Grainger's sales and eCommerce channels, Grainger collects and stores personally identifiable, confidential, proprietary and other information from customers so that they may, among other things, purchase products or services, enroll in promotional programs, register on Grainger's websites or otherwise communicate or interact with the Company. Moreover, Grainger's operations routinely involve receiving, storing, processing and transmitting sensitive information pertaining to its business, customers, suppliers and employees, and other sensitive matters.

Cyber threats are rapidly evolving and those threats and the means for obtaining access to information in digital and other storage media are becoming increasingly sophisticated. Each year, cyber-attackers make numerous attempts to access the information stored in our information systems.

Moreover, from time to time, Grainger may share information with vendors and other third parties that assist with certain aspects of the business. While Grainger requires assurances that these vendors and other parties will protect confidential information, there is a risk that the confidentiality of data held or accessed by them may be compromised. If successful, those attempting to penetrate Grainger's or its vendors' information systems may misappropriate personally identifiable, credit card, confidential, proprietary or other sensitive customer, supplier, employee or business information, or cause systems disruption.

In addition, a Grainger employee, contractor or other third party with whom Grainger does business may attempt to circumvent security measures in order to obtain such information or inadvertently cause a breach involving such information. Further, Grainger's systems are integrated with customer systems in certain cases, and a breach of the Company's information systems could be used to gain illicit access to customer systems and information.

While Grainger has instituted safeguards for the protection of such information, because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until they are launched against a target, Grainger may be unable to anticipate these techniques or implement adequate preventative measures. Any breach of Grainger's security measures or any breach, error or malfeasance of those of its third party service providers could cause Grainger to incur significant costs to protect any customers, suppliers, employees, and other parties whose personal data is compromised and to make changes to its information systems and administrative processes to address security issues. Loss of customer, supplier, employee or other business information could disrupt operations, damage Grainger's reputation and expose Grainger to claims from customers, suppliers, financial institutions, regulators, payment card associations, employees and others, any of which could have a material adverse effect on Grainger, its financial condition and results of operations.

In the past, Grainger has experienced certain cybersecurity incidents. In each instance, Grainger provided notifications and adopted remedial measures. While these incidents have not been deemed to be material to Grainger, there can be no assurance that a future breach or incident would not be material to Grainger's operations and financial condition.

Grainger's ability to adequately protect its intellectual property or successfully defend against infringement claims by others may have an adverse impact on operations.

Grainger's business relies on the use, validity and continued protection of certain proprietary information and intellectual property, which includes current and future patents, trade secrets, trademarks, service marks, copyrights and confidentiality agreements as well as license and sublicense agreements to use intellectual property owned by affiliated entities or third parties. Unauthorized use of Grainger's intellectual property by others could result in harm to various aspects of the business and may result in costly and protracted litigation in order to protect its rights. In addition, Grainger may be subject to claims that it has infringed on the intellectual property rights of others, which could subject Grainger to liability, require Grainger to obtain licenses to use those rights at significant cost or otherwise cause Grainger to modify its operations.

Fluctuations in foreign currency could have an effect on reported results of operations.

Grainger's exposure to fluctuations in foreign currency rates results primarily from the translation exposure associated with the preparation of the Consolidated Financial Statements, as well as from transaction exposure associated with transactions in currencies other than an entity's functional currency. While the Consolidated Financial Statements are reported in U.S. dollars, the financial statements of Grainger's subsidiaries outside the U.S. are prepared using the local currency as the functional currency and translated into U.S. dollars. In addition, Grainger is exposed to foreign currency exchange rate risk with respect to the U.S. dollar relative to the local currencies of Grainger's international subsidiaries, primarily the Canadian dollar, euro, pound sterling, Mexican peso, renminbi and yen, arising from transactions in the normal course of business, such as sales and loans to wholly owned subsidiaries, sales to customers, purchases from suppliers, and bank loans and lines of credit denominated in foreign currencies. Grainger also has foreign currency exposure to the extent receipts and expenditures are not denominated in the subsidiary's functional currency and that could have an impact on sales, costs and cash flows. These fluctuations in foreign currency exchange rates could affect Grainger's results of operations and impact reported net sales and net earnings.

Acquisitions, partnerships, joint ventures and other business combination transactions involve a number of inherent risks, any of which could result in the benefits anticipated not being realized and could have an adverse effect on results of operations.

Acquisitions, partnerships, joint ventures and other business combination transactions, both foreign and domestic, involve various inherent risks, such as uncertainties in assessing value, strengths, weaknesses, liabilities and potential profitability. There is also risk relating to Grainger's ability to achieve identified operating and financial synergies anticipated to result from the transactions. Additionally, problems could arise from the integration of acquired businesses, including unanticipated changes in the business or industry or general economic or political conditions that affect the assumptions underlying the acquisition. Any one or more of these factors could cause Grainger to not realize the benefits anticipated or have a negative impact on the fair value of the reporting units. Accordingly, goodwill and intangible assets recorded as a result of acquisitions could, and have in the past, become impaired.

In order to compete, Grainger must attract, retain and motivate key employees, and the failure to do so could have an adverse effect on results of operations.

In order to compete and have continued growth, Grainger must attract, retain and motivate executives and other key employees, including those in managerial, technical, sales, marketing and support positions. Grainger competes to hire employees and then must train them and develop their skills and competencies. Grainger's results of operations could be adversely affected by increased costs due to increased competition for employees, higher employee turnover or increased employee benefit costs.

Grainger's continued success is substantially dependent on positive perceptions of Grainger's reputation.

One of the reasons why customers choose to do business with Grainger and why employees choose Grainger as a place of employment is the reputation that Grainger has built over many years. To be successful in the future, Grainger must continue to preserve, grow and leverage the value of Grainger's brand. Reputational value is based in large part on perceptions of subjective qualities. Even an isolated incident, or the aggregate effect of individually insignificant incidents, can erode trust and confidence, particularly if they result in adverse publicity, governmental investigations or litigation, and as a result, could tarnish Grainger's brand and lead to adverse effects on Grainger's business.

Grainger is subject to various domestic and foreign laws, regulations and standards. Failure to comply or unforeseen developments in related contingencies such as litigation could adversely affect Grainger's financial condition, results of operations and cash flows.

Grainger's business is subject to legislative, legal, and regulatory risks and conditions specific to the countries in which it operates. In addition to Grainger's U.S. operations, which in 2018 generated approximately 72% of its consolidated net sales, Grainger operates its business principally through wholly-owned subsidiaries in Canada, China, Germany, Mexico, the Netherlands, and the United Kingdom, and its majority-owned subsidiary in Japan.

The wide array of laws, regulations and standards in each domestic and foreign jurisdiction where Grainger operates, include, but are not limited to: advertising and marketing regulations, anti-bribery and corruption laws, anti-competition regulations, data protection (including, because Grainger accepts credit cards, the Payment Card Industry Data Security Standard), data privacy (including in the U.S. and the European Union, which has traditionally imposed strict obligations

under data privacy laws and regulations that vary from country to country) and cybersecurity requirements (including protection of information and incident responses), environmental protection laws, foreign exchange controls and cash repatriation restrictions, government business regulations applicable to Grainger as a government contractor selling to federal, state and local government entities, health and safety laws, import and export requirements, intellectual property laws, labor laws (including federal and state wage and hour laws), product compliance laws, supplier regulations regarding the sources of supplies or products, tax laws (including as to U.S. taxes on foreign subsidiaries), unclaimed property laws and laws, regulations and standards applicable to other commercial matters. Moreover, Grainger is also subject to audits and inquiries in the normal course of business.

Failure to comply with any of these laws, regulations and standards could result in civil, criminal, monetary and non-monetary penalties and/or loss of authorization to participate in, or exclusion from, government contracting, as well as potential damage to the Company's reputation. Changes in these laws, regulations and standards, or in their interpretation, could increase the cost of doing business, including, among other factors, as a result of increased investments in technology and the development of new operational processes. Furthermore, while Grainger has implemented policies and procedures designed to facilitate compliance with these laws, regulations and standards, there can be no assurance that employees, contractors, suppliers, vendors, or other third parties will not violate such laws, regulations and standards or Grainger's policies. Any such failure to comply or violation could individually or in the aggregate materially adversely affect Grainger's financial condition, results of operations and cash flows.

In addition, Grainger's business and results of operations in the UK may be negatively affected by changes in trade policies, or changes in labor, immigration, tax or other laws, resulting from the UK's anticipated exit from the European Union.

Grainger also is, and from time to time may become, party to a number of legal proceedings incidental to Grainger's business involving alleged damages or injuries arising out of the use of Grainger's products and services or violations of these laws, regulations or standards. The defense of these proceedings may require significant expenses and divert management's time and attention, and Grainger may be required to pay damages that could individually or in the aggregate materially adversely affect its financial condition, results of operations and cash flows. In addition, any insurance or indemnification rights that Grainger may have with respect to such matters may be insufficient or unavailable to protect the Company against potential loss exposures.

Tax changes could affect Grainger's effective tax rate and future profitability.

Grainger's future results could be adversely affected by changes in the effective tax rate as a result of changes in Grainger's overall profitability and changes in the mix of earnings in countries with differing statutory tax rates, changes in tax legislation, the results of the examination of previously filed tax returns and continuing assessment of the Company's tax exposures.

Grainger's common stock may be subject to volatility or price declines.

The trading price of Grainger's common stock is subject to broad and unpredictable fluctuation due to changes in economic, political and market conditions, the operating results of Grainger and its competitors, changes in expectations as to Grainger's future financial or operating performance, including estimates by securities analysts and investors, changes in capital structure, stock repurchase programs or dividend policies, and a number of other factors, including those discussed in this Item 1A. These factors, many which are outside of Grainger's control, could cause stock price volatility or Grainger's stock price to decline.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

As of December 31, 2018, Grainger's owned and leased facilities totaled approximately 27 million square feet. The U.S. and Canada businesses accounted for the majority of the total square footage. Grainger believes that its properties are generally in excellent condition, well maintained and suitable for the conduct of business.

A brief description of significant facilities follows:

Location	Facility and Use (7)	Size in Square Feet (in thousands)
U.S. (1)	283 branch locations	6,349
U.S. (2)	16 DCs	8,148
U.S. (3)	Other facilities	3,674
Canada (4)	92 branch locations	1,125
Canada (5)	5 DCs	968
Canada	Other facilities	541
Other businesses (6)	Other facilities	5,118
Chicago area (2)	Headquarters and general offices	1,103
	Total Square Feet	27,026

- (1) Consists of 249 stand-alone, 32 onsite and 2 will-call express locations, of which 202 are owned and 81 are leased. These branches range in size from approximately 500 to 109,000 square feet.
- (2) These facilities are primarily owned and range in size from approximately 45,000 to 1.3 million square feet.
- (3) These facilities include both owned and leased locations and primarily consist of storage facilities, office space and call centers.
- (4) Consists of 72 stand-alone and 20 onsite locations, of which 33 are owned and 59 are leased. These branches range in size from approximately 500 to 110,000 square feet. Of these 92 branch locations, 54 are operational.
- (5) These facilities are primarily owned and range in size from approximately 40,000 to 540,000 square feet.
- (6) These facilities include owned and leased locations in Europe, Asia and Mexico and other U.S. operations.
- (7) Owned facilities are not subject to any mortgages.

Item 3: Legal Proceedings

For a description of legal proceedings, see the disclosure contained in Note 18 to the Financial Statements included in "Part II, Item 8: Financial Statements and Supplementary Data" of this report, which is incorporated herein by reference.

Item 4: Mine Safety Disclosures

Not applicable.

Item 4A: Executive Officers of the Registrant

Following is information about the Executive Officers of Grainger including age as of January 31, 2019. Executive Officers of Grainger generally serve until the next annual election of officers, or until earlier resignation or removal.

Name and Age	Positions and Offices Held and Principal Occupation and Employment During the Past Five Years
Kathleen S. Carroll (50)	Senior Vice President and Chief Human Resources Officer, a position assumed in December 2018. Previously, Ms. Carroll served as Executive Vice President, Chief Human Resources Officer of First Midwest Bancorp, Inc., a diversified financial services company, from 2017 to 2018. Prior to that role, Ms. Carroll was employed at Aon Corporation, a global insurance brokerage and consulting company, between 2006 and 2017, in various Human Resources roles, culminating in her position as Vice President, Global Head of Talent Acquisition.
John L. Howard (61)	Senior Vice President and General Counsel, a position assumed in 2000. Previously, Mr. Howard served in several roles of increasing responsibility at Tenneco, Inc., a global conglomerate. Prior to that role, Mr. Howard held a variety of legal positions in the federal government, including Associate Deputy Attorney General in the U.S. Department of Justice and in The White House as Counsel to the Vice President.
D.G. Macpherson (51)	Chairman of the Board, a position assumed in October 2017, and Chief Executive Officer, a position assumed in October 2016 at which time he was also appointed to the Board of Directors. Previously, Mr. Macpherson served as Chief Operating Officer, a position assumed in 2015; Senior Vice President and Group President, Global Supply Chain and International, a position assumed in 2013; Senior Vice President and President, Global Supply Chain and Corporate Strategy, a position assumed in 2012, and Senior Vice President, Global Supply Chain, a position assumed in 2008. From 2002 to 2008, Mr. Macpherson was a partner and managing director at The Boston Consulting Group, a global management consulting firm.
Deidra C. Merriwether (50)	Senior Vice President, U.S. Direct Sales and Strategic Initiatives, a position assumed in September 2017. Previously, Ms. Merriwether served as Vice President, Pricing and Indirect Procurement, a position assumed in 2016, and as a Vice President in Finance from 2013 to 2016. Prior to joining Grainger in September 2013, Ms. Merriwether has held various positions as a Vice President, including positions of increasing responsibility at Sears Holdings Corporation, a broadline retailer, PriceWaterhouseCoopers, a global professional services firm, and Eli Lilly & Company, a global pharmaceutical company, across Finance, Procurement and Operations, lastly serving as Chief Operating Officer, Retail Formats, at Sears Holdings Corporation.
Thomas B. Okray (56)	Senior Vice President and Chief Financial Officer, a position assumed in May 2018. Prior to joining Grainger, Mr. Okray served as Executive Vice President, Chief Financial Officer of Advance Auto Parts, Inc., a leading automotive aftermarket parts provider in North America, a position assumed in 2016. Previously, Mr. Okray served as Vice President, Finance, Global Customer Fulfillment, of Amazon.com, Inc., an online retailer, from January 2016 to October 2016; as Vice President, Finance, North American Operations of Amazon, from June 2015 to January 2016; and was employed by General Motors Company, a global automotive company, from July 1989 to June 2015, in a variety of finance and supply chain related roles, culminating in his position as CFO, Global Product Development, Purchasing & Supply Chain, from January 2010 to June 2015.
Paige K. Robbins (50)	Senior Vice President and Chief Digital Officer, a position assumed in September 2017. Previously, Ms. Robbins served as Senior Vice President, Global Supply Chain, Branch Network, Contact Centers and Corporate Strategy, a position assumed in 2016. Since joining Grainger in September 2010, Ms. Robbins has held various positions as a Vice President, including in the areas of Global Supply Chain and Logistics.
Eric R. Tapia (42)	Vice President and Controller, a position assumed in 2016. Mr. Tapia served as Vice President, Internal Audit, from 2010 to 2016. Mr. Tapia is a Certified Public Accountant (CPA) and before joining Grainger in 2010 was an audit partner with KPMG, a global professional services firm.

PART II

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

Market Information and Dividends

Grainger's common stock is listed and traded on the New York Stock Exchange, under the symbol GWW.

Grainger expects that its practice of paying quarterly dividends on its common stock will continue, although the payment of future dividends is at the discretion of Grainger's Board of Directors and will depend upon Grainger's earnings, capital requirements, financial condition and other factors.

Holdings

The approximate number of shareholders of record of Grainger's common stock as of January 31, 2019, was 650 with approximately 191,921 additional shareholders holding stock through nominees.

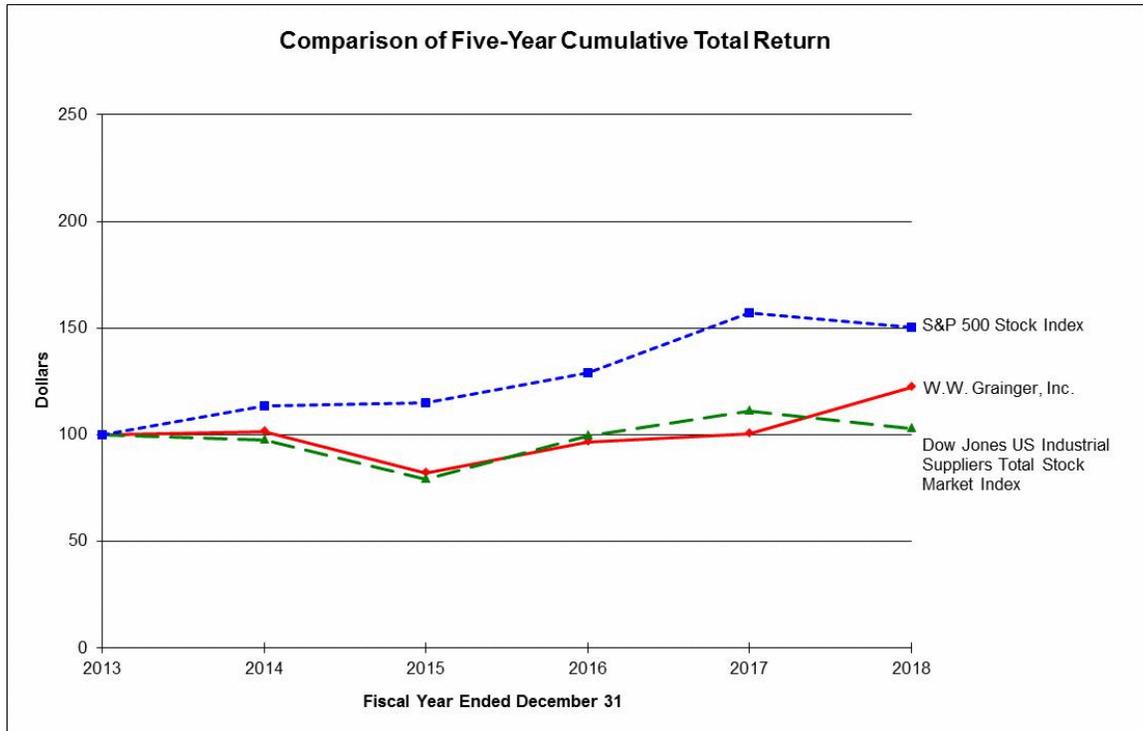
Issuer Purchases of Equity Securities - Fourth Quarter

Period	Total Number of Shares Purchased (A)	Average Price Paid Per Share (B)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (C)	Maximum Number of Shares That May Yet be Purchased Under the Plans or Programs
Oct. 1 – Oct. 31	230,018	\$295.99	230,018	1,619,794 shares
Nov. 1 – Nov. 30	122,422	\$295.33	122,422	1,497,372 shares
Dec. 1 – Dec. 31	118,627	\$289.72	118,627	1,378,745 shares
Total	471,067	\$294.24	471,067	

- (A) No shares were withheld to satisfy tax withholding obligations in connection with the vesting of employee restricted stock awards.
- (B) Average price paid per share includes any commissions paid and includes only those amounts related to purchases as part of publicly announced plans or programs.
- (C) Purchases were made pursuant to a share repurchase program approved by Grainger's Board of Directors. This plan was announced on April 16, 2015, for 15 million shares with no expiration date. Activity is reported on a trade date basis.

Company Performance

The following stock price performance graph compares the cumulative total return on an investment in Grainger common stock with the cumulative total return of an investment in each of the Dow Jones US Industrial Suppliers Total Stock Market Index and the S&P 500 Stock Index. It covers the period commencing December 31, 2013, and ending December 31, 2018. The graph assumes that the value for the investment in Grainger common stock and in each index was \$100 on December 31, 2013, and that all dividends were reinvested.



	December 31,					
	2013	2014	2015	2016	2017	2018
W.W. Grainger, Inc.	\$ 100	\$ 102	\$ 82	\$ 96	\$ 101	\$ 122
Dow Jones US Industrial Suppliers Total Stock Market Index	100	98	79	100	111	103
S&P 500 Stock Index	100	114	115	129	157	150

Item 6: Selected Financial Data

	2018	2017	2016	2015	2014
	(In millions of dollars, except for per share amounts)				
Net sales	\$ 11,221	\$ 10,425	\$ 10,137	\$ 9,973	\$ 9,965
Net earnings attributable to W.W. Grainger, Inc. (herein referred to as Net earnings)	782	586	606	769	802
Net earnings per basic share	13.82	10.07	9.94	11.69	11.59
Net earnings per diluted share	13.73	10.02	9.87	11.58	11.45
Total assets	5,873	5,804	5,694	5,858	5,283
Long-term debt (less current maturities) and other long-term liabilities	2,279	2,469	2,160	1,717	737
Total shareholders' equity	2,093	1,828	1,906	2,353	3,284
Cash dividends paid per share	\$ 5.36	\$ 5.06	\$ 4.83	\$ 4.59	\$ 4.17

The items discussed below are considered to materially affect the comparability of the information reflected in the selected financial data. For further information see "Part II, Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations" of this report, which is incorporated herein by reference.

Net earnings for 2018 included a net expense of \$170 million primarily consisting of a \$133 million net non-cash charge related to the Cromwell goodwill and trade name impairment in other businesses and a net charge of \$37 million related to restructuring primarily consisting of asset impairment charges in Canada and other related charges, net of gains from the sales of branches in the U.S., Canada and corporate offices.

Net earnings for 2017 included a net expense of \$84 million primarily consisting of a net charge of \$102 million related to restructuring and other charges primarily consisting of branch closures in the U.S. and Canada businesses, net of gains on sale of branch real estate in the U.S., the consolidation of the contact center network in the U.S. and the wind-down of operations in Colombia, which is part of other businesses. This was partially offset by the net benefit of \$15 million related to U.S. tax legislation and other discrete tax items.

Net earnings for 2016 included a net expense of \$105 million primarily related to restructuring actions in the U.S. and Canada, goodwill and intangible impairments, contingencies and a net tax benefit.

Net earnings for 2015 included a net charge of \$30 million primarily composed of a \$25 million net charge related to the reorganization in the U.S. and Canada businesses and a \$5 million charge for restructuring in other businesses.

Net earnings for 2014 included a net charge of \$56 million primarily composed of a \$28 million charge related to closing of the business in Brazil, a \$10 million charge due to a retirement plan transition in Europe, a \$10 million charge related to restructuring of the business in Europe and an \$8 million charge related to a goodwill impairment charge in other businesses.

Grainger completed several acquisitions in the years 2014 and 2015, all of which were immaterial individually and in the aggregate. Operating results have included the results of each business acquired since the respective acquisition dates.

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

General

W.W. Grainger, Inc. (Grainger) is a broad line, business-to-business distributor of maintenance, repair and operating (MRO) products and services with operations primarily in North America, Europe and Japan. More than 3.5 million customers worldwide rely on Grainger for products such as safety, gloves, ladders, motors and janitorial supplies, along with services like inventory management and technical support. These customers represent a broad collection of industries (see Note 2 to the Consolidated Financial Statements (Financial Statements)). They place orders online, on mobile devices, through sales representatives, over the phone and at local branches. Approximately 5,000 suppliers provide Grainger with about 1.7 million products stocked in Grainger's distribution centers (DCs) and branches worldwide.

Grainger's two reportable segments are the U.S. and Canada (Acklands - Grainger, Inc. and its subsidiaries). These reportable segments reflect the results of the Company's high-touch, high-service businesses in those geographies. Other businesses include the endless assortment businesses, (Zoro in the U.S. and MonotaRO in Japan), and smaller high-touch, high-service businesses in Europe, Asia and Mexico.

Business Environment

Given Grainger's large number of customers and the diverse industries it serves, several economic factors and industry trends tend to shape Grainger's business environment and provide general insight into projecting Grainger's growth. Grainger's sales in the U.S. and Canada tend to positively correlate with Business Investment, Business Inventory, Exports, Industrial Production and Gross Domestic Product (GDP). Sales in Canada also tend to positively correlate with oil prices. The table below provides these estimated indicators for 2018 and 2019:

	U.S.		Canada	
	Estimated 2018	Forecasted 2019	Estimated 2018	Forecasted 2019
Business Investment	7.3%	3.4%	2.8%	1.2%
Business Inventory	1.6%	2.7%	—	—
Exports	4.0%	4.1%	3.2%	2.2%
Industrial Production	3.9%	2.4%	2.6%	1.0%
GDP	2.9%	2.5%	2.1%	2.0%
Oil Prices	—	—	\$65/barrel	\$55/barrel

Source: Global Insight U.S. (January 2019), Global Insight Canada (January 2019)

In the U.S., Business Investment and Exports are two major indicators of MRO spending. Per the Global Insight January 2019 forecast, Business Inventory and Exports are forecast to improve while Business Investment, Industrial Production and GDP are forecast to slow, yet still remain stable during 2019 despite slowing global growth, financial market volatility and fading fiscal stimulus.

Per the Global Insight January 2019 forecast, Canada's Business Investment, Exports and Industrial Production are expected to slow due to a reduction in spending and oil production quotas and increasing interest rates.

Outlook

Each business in Grainger's portfolio has a specific set of strategic imperatives focused on creating unique value for customers.

In the U.S. business, Grainger is focused on growing market share through the three pillars of its strategy: (i) building advantaged MRO solutions, which means being able to get customers the exact product they need to solve a problem quickly; (ii) offering differentiated sales and services; Grainger has an advantage in serving complex businesses at their place of business through its direct customer relationships and onsite services and (iii) enabling flawless order to cash; Grainger is committed to providing the absolute best customer experience in the industry through its effort to deliver flawlessly on every customer transaction.

The Canada business is focused on stabilizing volume performance in 2019 after completing the majority of its cost structure reset.

In other businesses, the Company is focused on growing the endless assortment businesses profitably, investing in product assortment and innovating around customer acquisition by building marketing and analytics capabilities. The high-touch, high-service international businesses are focused on the same initiatives as the U.S. business, as mentioned above.

Matters Affecting Comparability

There were 255 sales days in the full years 2018 and 2016 versus 254 sales days in the full year 2017. Grainger completed one divestiture in 2017, which was immaterial.

Results of Operations

The following table is included as an aid to understanding changes in Grainger's Consolidated Statements of Earnings (in millions of dollars):

	For the Years Ended December 31,				
			Percent	As a Percent of Net Sales	
	2018	2017	Increase/(Decrease) from Prior Year	2018	2017
Net sales	\$ 11,221	\$ 10,425	8 %	100.0%	100.0%
Cost of goods sold	6,873	6,327	9 %	61.3	60.7
Gross profit	4,348	4,098	6 %	38.7	39.3
Selling, general and administrative expenses	3,190	3,063	4 %	28.4	29.4
Operating earnings	1,158	1,035	12 %	10.3	9.9
Other expense, net	77	99	(22)%	0.7	0.9
Income taxes	258	313	(18)%	2.3	3.0
Net earnings	823	623	32 %	7.3	6.0
Noncontrolling interest	41	37	11 %	0.4	0.4
Net earnings attributable to W.W. Grainger, Inc.	\$ 782	\$ 586	33 %	7.0%	5.6%

2018 Compared to 2017

Grainger's net sales of \$11,221 million for 2018 increased \$796 million, or 8%, compared to the same period in 2017. On a daily basis, net sales increased 7%. The increase in net sales was primarily driven by volume increases in the U.S. business due to market share gain and an improved demand environment and continued double digit growth in the endless assortment businesses, offset by lower sales in the Canada business. See Note 17 to the Financial Statements and refer to the *Segment Analysis* below for further details.

Gross profit of \$4,348 million for 2018 increased \$250 million, or 6% compared with the same period in 2017. The gross profit margin of 38.7% decreased 0.6 percentage points when compared to the same period in 2017. The lower gross profit margin reflects a 0.5 percentage point decline from the implementation of the Financial Accounting Standards Board (FASB) new revenue recognition standard that primarily reclassified certain costs related to KeepStock® services from Selling, general and administrative expenses (SG&A) to Cost of goods sold (COGS). Excluding this impact, gross profit margin would have decreased 0.1 percentage point compared to the prior year.

The tables below reconcile reported SG&A, operating earnings and net earnings attributable to W.W. Grainger, Inc., determined in accordance with Generally Accepted Accounting Principles (GAAP) in the United States of America to adjusted SG&A, operating earnings and net earnings attributable to W.W. Grainger, Inc., which are all considered non-GAAP measures. The Company believes that these non-GAAP measures provide meaningful information to assist shareholders in understanding financial results and assessing prospects for future performance as they provide a better baseline for analyzing the ongoing performance of its businesses by excluding items that may not be indicative of core operating results. Because non-GAAP financial measures are not standardized, it may not be possible to

compare these measures with other companies' non-GAAP measures having the same or similar names. All tables below are in millions of dollars:

	Twelve Months Ended		
	December 31,		
	2018	2017	%
SG&A reported	\$ 3,190	\$ 3,063	4%
Restructuring (U.S.)	19	43	
Branch gains (U.S.)	(10)	(33)	
Other (gains) charges (U.S.)	—	(4)	
Restructuring (Canada)	36	31	
Branch gains (Canada)	(1)	—	
Restructuring (Other businesses)	5	51	
Impairment charges (Other businesses)	139	—	
Restructuring (Unallocated expense)	(2)	11	
Subtotal	186	99	
SG&A adjusted	\$ 3,004	\$ 2,964	1%

	2018	2017	%
Operating Earnings reported	\$ 1,158	\$ 1,035	12%
Total restructuring and impairment charges, net of branch gains and other charges	186	112	
Operating earnings adjusted	\$ 1,344	\$ 1,147	17%

	2018	2017	%
Net earnings attributable to W.W. Grainger, Inc. reported	\$ 782	\$ 586	33%
Total restructuring and impairment charges, net of branch gains and other charges	186	112	
Tax effect (1)	(16)	(13)	
U.S. tax legislation (2)	—	(3)	
Discrete tax items	—	(12)	
Total restructuring and impairment charges, net of branch gains and other charges and tax	170	84	
Net earnings attributable to W.W. Grainger, Inc. adjusted	\$ 952	\$ 670	42%

(1) The tax impact of adjustments is calculated based on the income tax rate in each applicable jurisdiction, subject to deductibility and the Company's ability to realize the associated tax benefits.

(2) U.S. tax legislation reflects the 2017 impact of the benefit of remeasurement of deferred taxes, partially offset by one-time deemed repatriation tax.

SG&A of \$3,190 million for 2018 increased \$127 million, or 4% from \$3,063 million compared with the same period in 2017. In the third quarter of 2018 Grainger recorded \$139 million of impairment charges related to goodwill and tradename intangible asset at the Cromwell business. Excluding restructuring and impairment charges net of branch gains and other charges in both periods as noted in the table above, SG&A increased \$40 million or 1%, driven primarily by higher variable costs in connection with higher sales.

Operating earnings of \$1,158 million for 2018 increased \$123 million, or 12% from \$1,035 million for 2017. Excluding restructuring and impairment charges net of branch gains and other charges in both periods as noted in the table above, operating earnings increased \$197 million, or 17%, driven primarily by higher sales and improved SG&A leverage.

Other expense, net was \$77 million in 2018, a decrease of \$22 million, or 22% compared to the same period in 2017. The decrease in expense was primarily due to lower losses from the conclusion of the Company's clean energy investments during the second half of 2018.

Income taxes of \$258 million in 2018 decreased \$55 million, or 18% compared with \$313 million for the same period in 2017. Grainger's effective tax rates were 23.9% and 33.5% in 2018 and 2017, respectively. The lower effective tax rate in 2018 was primarily due to the impact of the Tax Cuts and Jobs Act (the Tax Act) and excess tax benefits from stock-based awards, partially offset by the impact of nondeductible goodwill impairment. The 2017 effective tax rate was impacted by the wind-down of the Colombia business and the inability to realize the associated tax benefit. In addition, Grainger recognized a net tax benefit of \$3.2 million for the year ended December 31, 2017, related to the impact of the Tax Act.

Net earnings attributable to W.W. Grainger, Inc. for 2018 increased \$196 million, or 33% to \$782 million from \$586 million in the same period in 2017. The increase in net earnings primarily resulted from higher operating earnings and lower income taxes. Excluding restructuring and impairment charges net of branch gains and other charges and income taxes net from both periods as noted in the table above, net earnings increased \$282 million, or 42%.

Diluted earnings per share of \$13.73 in 2018 increased 37% compared to \$10.02 for the same period in 2017, due to higher net earnings and lower average shares outstanding. Excluding restructuring and impairment charges net of branch gains and other charges net of income taxes from both periods in the table above, diluted earnings per share would have been \$16.70 compared to \$11.46 in 2017, an increase of 46%.

2017 Compared to 2016

The following table is included as an aid to understanding changes in Grainger's Consolidated Statements of Earnings (in millions of dollars):

	For the Years Ended December 31,				
			Percent	As a Percent of Net Sales	
	2017	2016	Increase/(Decrease) from Prior Year	2017	2016
Net sales	\$ 10,425	\$ 10,137	3 %	100.0%	100.0%
Cost of goods sold	6,327	6,022	5 %	60.7	59.4
Gross profit	4,098	4,115	— %	39.3	40.6
Selling, general and administrative expenses	3,063	3,002	2 %	29.4	29.6
Operating earnings	1,035	1,113	(7)%	9.9	11.0
Other expense, net	99	94	5 %	0.9	0.9
Income taxes	313	386	(19)%	3.0	3.8
Net earnings	623	633	(2)%	6.0	6.2
Noncontrolling interest	37	27	37 %	0.4	0.3
Net earnings attributable to W.W. Grainger, Inc.	\$ 586	\$ 606	(3)%	5.6%	6.0%

Grainger's net sales were \$10,425 million for 2017, an increase of 3% when compared with net sales of \$10,137 million for the comparable 2016 period. On a daily basis, the 3% increase for the year consisted of the following:

	Percent Increase/ (Decrease)
Volume	8
Divestiture	(1)
Price	(4)
Total	3%

The increase in net sales was primarily driven by the endless assortment businesses in the U.S. and Japan, as well as volume increases in the U.S. business as a result of the pricing actions. The U.S. business pricing actions were primarily implemented in the first and third quarters of 2017 and included adjusting list price and introducing new lower web prices on the entire business assortment, which drove faster growth in 2017 through share gains with existing customers and acquisition of new customers. Refer to the *Segment Analysis* below for further details

Gross profit of \$4,098 million for 2017 decreased by \$17 million compared with \$4,115 million for 2016. The gross profit margin for 2017 was 39.3%, a decrease of 1.3 percentage points compared with 2016, driven primarily by the pricing actions in the U.S. business.

The tables below reconcile reported SG&A, operating earnings and net earnings attributable to W.W. Grainger, Inc., determined in accordance with U.S. GAAP to adjusted SG&A, operating earnings and net earnings attributable to W.W. Grainger, Inc., which are all considered non-GAAP measures. The Company believes that these non-GAAP measures provide meaningful information to assist shareholders in understanding financial results and assessing prospects for future performance as they provide a better baseline for analyzing the ongoing performance of its businesses by excluding items that may not be indicative of core operating results. Because non-GAAP financial measures are not standardized, it may not be possible to compare these measures with other companies' non-GAAP measures having the same or similar names. All tables below are in millions of dollars:

	Twelve Months Ended December 31,		
	2017	2016	%
SG&A reported	\$ 3,063	\$ 3,002	2 %
Restructuring (U.S.)	43	31	
Branch gains (U.S.)	(33)	(18)	
Other (gains) charges (U.S.)	(4)	45	
Restructuring (Canada)	31	13	
Restructuring (Other businesses)	51	—	
Impairment charges (Other businesses)	—	52	
Restructuring (Unallocated expense)	11	9	
Subtotal	99	132	
SG&A adjusted	\$ 2,964	\$ 2,870	3 %
	2017	2016	%
Operating earnings reported	\$ 1,035	\$ 1,113	(7)%
Total restructuring and impairment charges, net of branch gains and other charges	112	147	
Operating earnings adjusted	\$ 1,147	\$ 1,260	(9)%
	2017	2016	%
Net earnings attributable to W.W. Grainger, Inc. reported	\$ 586	\$ 606	(3)%
Total restructuring and impairment charges, net of branch gains and other charges	112	147	
Tax effect (1)	(13)	(33)	
U.S. tax legislation (2)	(3)	—	
Discrete tax items	(12)	(9)	
Total restructuring and impairment charges, net of branch gains and other charges and tax	84	105	
Net earnings attributable to W.W. Grainger, Inc. adjusted	\$ 670	\$ 711	(6)%

(1) The tax impact of adjustments is calculated based on the income tax rate in each applicable jurisdiction, subject to deductibility and the Company's ability to realize the associated tax benefits.

(2) U.S. tax legislation reflects the 2017 impact of the benefit of remeasurement of deferred taxes, partially offset by one-time deemed repatriation tax.

SG&A of \$3,063 million for 2017 increased 2% from \$3,002 million for 2016. Excluding restructuring and impairment charges net of branch gains and other charges in both periods as noted in the table above, operating expenses increased 3%, driven primarily by higher employee-related costs.

Operating earnings of \$1,035 million for 2017 decreased 7% from \$1,113 million for 2016. Excluding restructuring and impairment charges net of branch gains and other charges in both periods as noted in the table above, operating earnings decreased 9% or \$113 million, driven primarily by lower gross profit and higher operating expenses.

Other expense, net was \$99 million in 2017 compared to \$94 million of expense in 2016. The increase in expense was primarily due to incremental interest expense on \$400 million in long-term debt issued in May 2016 and \$400 million in long-term debt issued in May 2017, as well as higher operating losses from the Company's clean energy investments partially offset by higher benefits related to the Company's postretirement plan. See Note 10 to the Financial Statements for additional information.

Income taxes of \$313 million in 2017 decreased 19% compared with \$386 million in 2016. Grainger's effective tax rates were 33.5% and 37.9% in 2017 and 2016, respectively. The lower rate versus the prior year is primarily due to discrete tax items and U.S. tax legislation.

On December 22, 2017, the Tax Act was signed into law, which significantly revised the U.S. corporate income tax system by lowering corporate income tax rates from 35% to 21% effective January 1, 2018, allowing accelerated expensing of qualified capital investments for a specific period, limiting net interest expense deductions and transitioning U.S. international taxation from a worldwide to a territorial tax system, among other changes. Grainger recognized a net provisional tax benefit of \$3.2 million for the year ended December 31, 2017, related to the estimated impact of the Tax Act. See Note 15 to the Financial Statements for additional information.

Net earnings attributable to W.W. Grainger, Inc. for 2017 decreased by 3% to \$586 million from \$606 million in 2016. The decrease in net earnings primarily resulted from lower operating earnings, partially offset by lower income taxes. Excluding restructuring and impairment charges net of branch gains and other charges net of income tax and discrete tax items from both years mentioned in the table above, net earnings decreased 6%.

Diluted earnings per share of \$10.02 in 2017 were 2% higher than \$9.87 for 2016, due to lower average shares outstanding partially offset by lower earnings. Excluding restructuring and impairment charges net of branch gains and other charges net of income taxes in the table above, diluted earnings per share would have been \$11.46 compared to \$11.58 in 2016, a decrease of 1%.

Segment Analysis - 2018 Compared to 2017

The following comments at the reportable segment and other business unit level include external and intersegment net sales and operating earnings. See Note 17 to the Financial Statements.

United States

Net sales were \$8,588 million for 2018, an increase of \$628 million, or 8% when compared with net sales of \$7,960 million for 2017. On a daily basis, the 7% increase consisted of the following:

	Percent Increase (Decrease)
Volume	8%
Divestiture	(1)%
Total	7%

Sales to customers in the government end market increased in the low teens and natural resources increased in the high single digits. Retail/wholesale, commercial and heavy manufacturing end markets increased in the mid-single digits. Contractors increased in the low single digits while the light manufacturing end segment was flat year over year. Overall, revenue increases were primarily driven by market share gains and improved demand in all industries, partially offset by the Company's pricing actions and the July 2017 divestiture of a specialty business. See Note 2 to the Financial Statements.

Gross profit margin decreased 0.7 percentage point compared to the same period in 2017. The decline was primarily driven by 0.5 percentage point due to the implementation of the FASB's new revenue recognition standard. Excluding the impact of the implementation of the new revenue recognition standard, gross profit margin would have been unfavorable by 0.2 percentage points.

SG&A for 2018 increased 3% compared to the same period in 2017. This increase was primarily driven by variable compensation to reflect stronger performance, partially offset by the implementation of the FASB's new revenue recognition standard.

Operating earnings of \$1,338 million increased \$138 million, or 12% from \$1,200 million in the same period of 2017. This increase was driven primarily by higher sales, higher gross profit dollars and improved SG&A leverage.

Canada

Net sales were \$653 million for 2018, a decrease of \$100 million, or 13% when compared with \$753 million for 2017. On a daily basis, the 14% decrease consisted of the following:

	Percent (Decrease)/Increase
Volume	(23)
Price	9
Total	(14)%

During 2018, volume decreased by 23 percentage points compared to the same period in 2017 due to branch closures and sales coverage optimization activities, partially offset by price increases and continued contract negotiations of 9 percentage points for 2018.

Gross profit margin increased 2.9 percentage points in 2018 compared to the same period in 2017, primarily due to 3.9 percentage points from price increases that began in late 2017 and improved customer mix, net of 1.0 percentage point from the implementation of the new revenue recognition standard.

SG&A decreased \$40 million, or 13% in 2018 compared to the same period in 2017. The decrease was primarily due to cost reduction actions and lower variable expense on lower sales volume.

Operating losses were \$49 million for 2018 compared to losses of \$77 million in the same period in 2017. Excluding restructuring and impairment charges net of branch gains and other charges in both periods (as noted in the table above and Note 7 to the Financial Statements), operating losses would have been \$14 million compared to \$37 million in the prior period primarily due to lower SG&A and lower sales volume.

Other businesses

Net sales for other businesses were \$2,441 million for 2018, an increase of \$321 million, or 15%, when compared to the same period in 2017. The net sales increase was primarily due to incremental sales at Zoro and MonotaRO. On a daily basis, the 15% increase consisted of the following:

	Percent Increase
Volume	13
Foreign exchange	2
Total	15%

The net sales increase was primarily due to growth in the endless assortment businesses as a result of increased customer acquisition and incremental sales in other international businesses. Foreign currencies strengthened in the countries where the Company operates. These currencies primarily include the euro, pound sterling and yen.

Operating earnings for other businesses were \$8 million for 2018, a decrease of \$48 million, or 86% compared to \$56 million for 2017. Other businesses included impairment charges in 2018 relating to the Cromwell business in the U.K. See Note 4 and Note 7 to the Financial Statements. Excluding restructuring and impairment charges net of branch gains and other charges in both periods, operating earnings increased \$42 million or 38%, primarily due to strong performance from the endless assortment businesses.

Segment Analysis - 2017 Compared to 2016

United States

Net sales were \$7,960 million for 2017, an increase of \$90 million, or 1% when compared with net sales of \$7,870 million for 2016. On a daily basis, the 2% increase consisted of the following:

	Percent Increase/(Decrease)
Volume	7
Intercompany sales to Zoro	1
Divestiture	(1)
Price	(5)
Total	2%

Sales to customers in natural resources, resellers and retail end markets increased mid-single digits, while heavy manufacturing and government increased low single digits. The sales growth was partially offset by declines in contractors and commercial services. Volume increased year over year, primarily driven by the pricing actions.

Gross profit margin decreased 1.7 percentage points in 2017 compared to 2016, driven by price deflation exceeding higher volume in response to pricing actions.

SG&A of \$2,007 decreased by 1% for 2017 compared to 2016. Excluding restructuring and impairment charges net of branch gains and other charges in both periods, operating expenses increased 1% or \$26 million, driven by higher employee related costs. See Note 7 to the Financial Statements.

Operating earnings of \$1,200 million for 2017 decreased 5% compared to \$1,269 million in 2016. Excluding restructuring and impairment charges net of branch gains and other charges in both periods, operating earnings decreased 9% or \$123 million, driven primarily by price deflation. See Note 7 to the Financial Statements.

Canada

Net sales were \$753 million for 2017, an increase of \$19 million, or 3%, when compared with \$734 million for 2016. On a daily basis, the 3% increase consisted of volume across all end segments.

Gross profit margin increased 1.0 percentage point in 2017 versus 2016, primarily due to a favorable comparison to an inventory adjustment in the second quarter of 2016 that did not repeat in 2017, partially offset by price deflation, cost inflation and higher freight costs from an increase in shipping directly to customers in 2017.

SG&A decreased 9% in 2017 versus 2016. Excluding restructuring and impairment charges net of branch gains and other charges in both periods as noted in the table above, operating expenses would have increased 3%, primarily related to higher professional service fees related to the business transformation.

Operating losses of \$77 million for 2017 increased versus operating losses of \$65 million in 2016. Excluding the restructuring and impairment charges net of branch gains and other charges and the inventory adjustment mentioned in the table above, operating losses would have been \$37 million compared to \$41 million in the prior year.

Other businesses

Net sales for other businesses were \$2,120 million for 2017, an increase of \$235 million, or 12%, when compared to \$1,885 million for 2016. The net sales increase was primarily due to incremental sales at Zoro and MonotaRO. On a daily basis, the 13% increase consisted of the following:

	Percent Increase/(Decrease)
Volume	15
Foreign exchange	(2)
Total	13%

Operating earnings for other businesses were \$56 million for 2017 compared to \$40 million for 2016. Excluding restructuring charges in 2017 and the goodwill and intangible impairment charges of \$52 million in the Fabory and Colombia businesses in the prior year, operating earnings increased \$18 million or 19%, due to strong performance from the endless assortment businesses.

Financial Condition

Grainger expects its strong working capital position, cash flows from operations and borrowing capacity to continue, allowing it to fund its operations, growth initiatives and capital expenditures as well as pay cash dividends, repurchase shares and repay its long-term debt obligations while maintaining an adequate credit rating.

Cash and Cash Equivalents

At December 31, 2018, 2017 and 2016, Grainger had cash and cash equivalents of \$538 million, \$327 million and \$274 million, respectively. Approximately 49%, 66% and 71% were outside the U.S. business as of December 31, 2018, 2017 and 2016, respectively. Grainger has no material limits or restrictions on its ability to use these foreign liquid assets.

Cash Flow

2018 Compared to 2017

Net cash provided by operating activities was \$1,057 million for the twelve months ended December 31, 2018 and 2017, as increased net earnings were offset by investment in inventory and timing of payables.

Net cash used in investing activities was \$166 million and \$146 million for the twelve months ended December 31, 2018 and 2017, respectively. The increase in net cash used in investing activities was driven by lower proceeds primarily from the sales of branch real estate assets in the U.S. and a U.S. business divestiture when compared to the prior year.

Net cash used in financing activities was \$670 million and \$867 million in the twelve months ended December 31, 2018 and 2017, respectively. The decrease in net cash used in financing activities was primarily driven by lower stock repurchases in 2018 compared to 2017 and higher proceeds from the exercise of stock options.

2017 Compared to 2016

Net cash provided by operating activities was \$1,057 million and \$1,024 million for the twelve months ended December 31, 2017 and 2016, respectively. The increase in cash provided by operating activities is primarily the result of higher accruals related to employee benefits, partially offset by lower earnings and higher working capital.

Net cash used in investing activities was \$146 million and \$262 million for the twelve months ended December 31, 2017 and 2016, respectively. The decrease in net cash used in investing activities was driven by lower additions to property, buildings and equipment compared to the prior year and higher proceeds primarily from the sales of branch real estate assets in the U.S. and a U.S. business divestiture when compared to the prior year.

Net cash used in financing activities was \$867 million and \$776 million in the twelve months ended December 31, 2017 and 2016, respectively. The increase in net cash used in financing activities was primarily driven by higher net payments of commercial paper, offset by lower stock repurchases in 2017 compared to 2016 and lower payments of long-term debt.

Working Capital

Internally generated funds are the primary source of working capital and funds used for growth initiatives and capital expenditures. Grainger's working capital is not impacted by significant seasonality trends throughout the year.

Working capital consists of current assets (less non-operating cash) and current liabilities (less short-term debt and current maturities of long-term debt). Working capital was \$1,898 million at December 31, 2018, compared with \$1,669 million at December 31, 2017, primarily due to an increase in accounts receivable and inventory and decreases in accounts payable. At these dates, the ratio of current assets to current liabilities was 2.4 and 2.2, respectively.

Capital Expenditures

In each of the past three years, a portion of the Company's net cash flows has been used for additions to property, buildings, equipment and capitalized software (presented in Intangibles - net on the Consolidated Balance Sheet) as summarized in the following table (in millions of dollars):

	For the Years Ended December 31,		
	2018	2017	2016
Land, buildings, structures and improvements	\$ 69	\$ 109	\$ 71
Furniture, fixtures, machinery and equipment	137	66	139
Subtotal	206	175	210
Capitalized software	33	62	74
Total	\$ 239	\$ 237	\$ 284

In 2018, the Company continued to invest in its North American distribution network (e.g. new or expanding existing facilities and technology). Other investments include the consolidation of facility and office locations and development of software solutions.

In 2017, the Company continued to invest in its worldwide distribution network (e.g. new or expanding existing facilities and technology), digital platforms (e.g. eCommerce websites and inventory management solutions), capital maintenance of its existing branch networks across the enterprise and other supporting information technology assets.

In 2016, the Company continued to invest in the North America distribution network, as well as the distribution network in other businesses and sales productivity initiatives. Other significant investments in 2016 included the eCommerce platform, sustaining capital investments in branches and distribution centers and other technology infrastructure.

In 2019, capital expenditures are expected to range from \$300 million to \$350 million. Projected spending includes continued investments in the supply chain, investment in a DC in Japan, software development and inventory management solutions. Grainger expects to fund 2019 capital spending primarily from operating cash flows.

Debt

Grainger maintains a debt ratio and liquidity position that provides flexibility in funding working capital needs and long-term cash requirements. In addition to internally generated funds, Grainger has various sources of financing available, including bank borrowings under lines of credit. Total debt, which is defined as total interest-bearing debt (short-term current and long-term) as a percent of total capitalization was 51.5% and 56.2%, as of December 31, 2018 and 2017, respectively.

In the years 2015-2017, Grainger issued \$1.8 billion in long-term debt to partially fund the repurchase of \$2.8 billion in shares of the total \$3 billion previously announced. The remaining share repurchases were funded from internally generated cash. Debt was issued as follows:

- In June 2015, \$1.0 billion payable in 30 years and carries a 4.60% interest rate, payable semiannually.
- In May 2016, \$400 million payable in 30 years and carries a 3.75% interest rate, payable semiannually.
- In May 2017, \$400 million payable in 30 years and carries a 4.20% interest rate, payable semiannually.

Refer to Note 9 to the Financial Statements included in Item 8.

Commitments and Other Contractual Obligations

At December 31, 2018 Grainger's contractual obligations, including estimated payments due by period, are as follows (in millions of dollars):

	Payments Due by Period				
	Total Amounts Committed	Less than 1 Year	1 - 3 Years	4 - 5 Years	More than 5 Years
Debt obligations	\$ 2,193	\$ 81	\$ 308	\$ 4	\$ 1,800
Interest on debt	2,115	82	158	156	1,719
Operating lease obligations	233	65	85	45	38
Purchase obligations:					
Uncompleted additions to property, buildings and equipment	67	67	—	—	—
Commitments to purchase inventory	574	574	—	—	—
Other goods and services	366	248	92	26	—
Other liabilities	159	130	8	5	16
Total	<u>\$ 5,707</u>	<u>\$ 1,247</u>	<u>\$ 651</u>	<u>\$ 236</u>	<u>\$ 3,573</u>

See Notes 8, 9 and 11 to the Financial Statements for further detail related to debt, interest on debt and operating lease obligations.

Purchase obligations are made in the normal course of business to meet operating needs. While purchase orders for both inventory purchases and non-inventory purchases are generally cancelable without penalty, certain vendor agreements provide for cancellation fees or penalties depending on the terms of the contract.

Other liabilities represent future payments for profit sharing and other employee benefit plans.

The Company's obligation for the postretirement healthcare benefits plan, as determined by actuarial projections, is \$190 million at December 31, 2018. The Company has established a Group Benefit Trust (Trust) to fund the plan obligations. The Trust assets available for benefits payments are \$176 million at December 31, 2018. The Company has no minimum funding requirements and the timing and amounts of the Company's additional contributions into the Trust have not been determined. Other employment-related benefits obligations of \$53 million have also not been included in this table as the timing of benefit payments is not predictable. See Note 10 to the Financial Statements for further detail.

Grainger has recorded a noncurrent liability of approximately \$41 million for tax uncertainties and interest at December 31, 2018. This amount is excluded from the table above, as Grainger cannot predict the timing of these cash payments by period. See Note 15 to the Financial Statements.

Off-Balance Sheet Arrangements

Grainger does not have any material exposures to off-balance sheet arrangements. All significant contractual obligations are recorded on the Company's Consolidated Balance Sheet or disclosed in the notes to Grainger's Consolidated Financial Statements.

Critical Accounting Estimates

Note 1 to the Financial Statements describes the significant accounting policies used in the preparation of the Consolidated Financial Statements. As discussed in Note 1, the preparation of financial statements, in conformity with U.S. GAAP, requires management to make judgments, estimates and assumptions about future events that affect the amounts reported in the financial statements and accompanying notes.

Accounting policies and estimates are considered critical when they require management to make subjective and complex judgments, estimates and assumptions about matters that have a material impact on Grainger's financial statements and accompanying notes.

The Company believes that the following discussion addresses Grainger's most critical accounting policies and estimates.

Inventory Reserves

Grainger establishes inventory reserves for excess and obsolete inventory. Grainger regularly reviews inventory to evaluate continued demand and identify any obsolete or excess quantities. Grainger records provisions for the difference between excess and obsolete inventory cost and its estimated realizable value. Estimated realizable value is based on anticipated future product demand, market conditions and liquidation values. As Grainger's inventory consists of approximately 1.7 million stocked products, it is not practical to quantify the actual disposition of excess and obsolete inventory against estimated amounts at a stock keeping unit (SKU) level and no individual SKU is material. There were no material differences noted between reserve levels compared to the level of write-offs historically.

Grainger's methodology for estimating reserves is continually evaluated based on current experience and provides for a materially accurate level of reserves at any reporting date. Actual results could differ materially from projections and require changes to reserves that could have a material effect on Grainger's results of operations, based on significant changes in product demand, market conditions or liquidation value. If business or economic conditions change, Grainger's estimates and assumptions may be revised as appropriate. For fiscal years 2018, 2017 and 2016, actual results did not vary materially from estimated amounts.

Goodwill and Indefinite-Lived Intangible Assets

Grainger's goodwill and indefinite-lived intangible assets are evaluated for impairment annually during the fourth quarter, or more frequently if an event occurs or circumstances change. The Company tests for impairment by first assessing qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit or indefinite-lived intangible asset is less than its carrying value. Some of the factors considered in the assessment include general macroeconomic, industry and market trends and significant events impacting reporting units' current and future performance. If the Company concludes that it is more likely than not that goodwill and intangible assets may be impaired, a quantitative impairment test is performed.

In the quantitative impairment tests, the Company uses the discounted cash flow, market approach and royalty relief methods, which require significant assumptions and judgments with respect to future volume, revenue and expense growth rates, capital investments, changes in working capital use, the selection of an appropriate discount rate and terminal growth rate, among other assumptions and estimates. The use of alternative estimates and assumptions could impact the Company's estimated fair values of reporting units and indefinite-lived intangible assets and potentially result in different impacts on the Company's results of operations. Actual results could differ from the Company's assumptions and estimates. See Note 4 to the Financial Statements for further information.

Income Taxes

The tax balances and income tax expense recognized by Grainger are based on management's interpretations of the tax laws of multiple jurisdictions. Income tax expense reflects Grainger's best estimates and assumptions regarding, among other items, the level of future taxable income, interpretation of tax laws and tax planning opportunities, plans for reinvestment of cash overseas and uncertain tax positions. On December 22, 2017, the Tax Cuts and Jobs Act was signed into law, which significantly revised the U.S. corporate income tax system including lowering the corporate income tax rates from 35% to 21% effective January 1, 2018. See Note 15 to the Financial Statements for additional information.

Future rulings by tax authorities and future changes in tax laws and their interpretation, changes in projected levels of taxable income, changes in planned need for cash overseas and future tax planning strategies could impact the actual effective tax rate and tax balances recorded by Grainger.

Contingent Liabilities

At any time, Grainger may be subject to investigations, legal proceedings or claims related to the ongoing operation of its business, including claims both by and against Grainger. Such proceedings typically involve claims related to product liability, general negligence, contract disputes, environmental issues, unclaimed property, wage and hour laws, intellectual property, employment practices, regulatory compliance or other matters and actions brought by employees, customers, competitors, suppliers or governmental entities. As a government contractor selling to federal, state and local governmental entities, the Company is also subject to governmental or regulatory inquiries or audits or other proceedings, including those related to contract administration or to pricing compliance. Grainger retains a significant portion of the risk of certain losses related to workers' compensation, auto liability, general liability and property losses

through the utilization of high deductibles and self-insured retentions. Grainger routinely assesses the likelihood of any adverse outcomes related to these matters on a case by case basis, as well as the potential ranges of losses and fees. Grainger establishes accruals for its potential exposures, as appropriate, for claims against Grainger when losses become probable and the financial impact of an adverse outcome is reasonably estimable. Legal fees are recognized as incurred and are not included in accruals for contingencies. Where Grainger is able to reasonably estimate a range of potential losses, Grainger records the amount within that range that constitutes Grainger's best estimate. Grainger also discloses the nature of and range of loss for claims against Grainger when losses are reasonably possible and the exposure is considered material to Grainger's Consolidated Financial Statements. These accruals and disclosures are determined based on the facts and circumstances related to the individual cases and require estimates and judgments regarding the interpretation of facts and laws, as well as the effectiveness of strategies or other factors beyond Grainger's control. If the assessment of any of these factors changes, the estimates may change. Predicting the outcome of claims and litigation and estimating related costs and exposure involves substantial uncertainties that could cause actual costs to vary materially from estimates and accruals.

Other

Other significant accounting policies, not involving the same level of measurement uncertainties as those discussed above, are nevertheless important to an understanding of the financial statements. Policies such as revenue recognition, depreciation, intangibles, long-lived assets, fair value measurements and valuations and warranties require judgments on complex matters that are often subject to multiple external sources of authoritative guidance such as the Financial Accounting Standards Board and the Securities and Exchange Commission. Possible changes in estimates or assumptions associated with these policies are not expected to have a material effect on the financial condition or results of operations of Grainger. More information on these additional accounting policies can be found in Note 1 to the Financial Statements.

Effects of Inflation and Changing Prices

Grainger is affected by inflation through increased product and operating costs, and the ability to pass on cost increases to customers over time is dependent upon market conditions. The ability to achieve sales growth through increased prices is also subject to inflation and normal competitive conditions. The predominant use of the last-in, first-out (LIFO) method of accounting for inventories and accelerated depreciation methods for financial reporting and income tax purposes result in a substantial recognition of the effects of inflation in the financial statements.

Some of Grainger's products contain significant amounts of commodity-priced materials, such as steel, copper, petroleum derivatives or rare earth minerals, and are subject to price changes based upon fluctuations in the commodities market.

Grainger believes the most positive means to combat inflation and advance the interests of investors lie in the continued application of basic business principles, which include improving productivity, maintaining working capital turnover and offering products and services that can command appropriate prices in the marketplace.

Forward-Looking Statements

From time to time, in this Annual Report on Form 10-K, as well as in other written reports, communications and verbal statements, Grainger makes forward-looking statements that are not historical in nature but concern forecasts of future results, business plans, analyses, prospects, strategies, objectives and other matters that may be deemed to be "forward-looking statements" under the federal securities laws. Forward-looking statements can generally be identified by their use of terms such as "anticipate," "estimate," "believe," "expect," "could," "forecast," "may," "intend," "plan," "predict," "project" "will" or "would" and similar terms and phrases, including references to assumptions.

Grainger cannot guarantee that any forward-looking statement will be realized and achievement of future results is subject to risks and uncertainties, many of which are beyond the Company's control, which could cause Grainger's results to differ materially from those that are presented.

Important factors that could cause actual results to differ materially from those presented or implied in the forward-looking statements include, without limitation: higher product costs or other expenses; a major loss of customers; loss or disruption of sources of supply; increased competitive pricing pressures; failure to develop or implement new technology initiatives or business strategies; failure to adequately protect intellectual property or successfully defend against infringement claims; the implementation, timing and results of the Company's strategic pricing initiatives and other responses to market pressures; the outcome of pending and future litigation or governmental or regulatory

proceedings, including with respect to wage and hour, anti-bribery and corruption, environmental, advertising, privacy and cybersecurity matters; investigations, inquiries, audits and changes in laws and regulations; disruption of information technology or data security systems; general industry, economic, market or political conditions; general global economic conditions; currency exchange rate fluctuations; market volatility, including volatility or price declines of the Company's common stock; commodity price volatility; labor shortages; facilities disruptions or shutdowns; higher fuel costs or disruptions in transportation services; natural and other catastrophes; unanticipated and/or extreme weather conditions; loss of key members of management; the Company's ability to operate, integrate and leverage acquired businesses; changes in effective tax rates and other factors identified under Item 1A: Risk Factors and elsewhere in this Form 10-K.

Caution should be taken not to place undue reliance on Grainger's forward-looking statements and Grainger undertakes no obligation to update or revise any of its forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Item 7A: Quantitative and Qualitative Disclosures About Market Risk

Grainger may use financial instruments to reduce its exposure to adverse fluctuations in foreign currency exchange rates and interest rates as part of its overall risk management strategy. The derivative positions reduce risk by hedging certain underlying economic exposures. Because of the high correlation between the hedging instrument and the underlying exposure, fluctuations in the value of the instruments are generally offset by reciprocal changes in the value of the underlying exposure. Grainger does not enter into derivative financial instruments for trading or speculative purposes.

Foreign Currency Exchange Rates

Grainger's financial results, including the value of assets and liabilities, are exposed to foreign currency exchange rate risk when the financial statements of the business units, as stated in their local currencies, are translated into U.S. dollars. While it is difficult to quantify any particular impact of changes in exchange rates, a uniform 10% strengthening in the U.S. dollar (whereby all other variables are held constant and unusual expense items described in "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations" are excluded) would have resulted in a decrease in net earnings of \$3 million for the year ended December 31, 2018, and an increase in net earnings of \$1 million for the year ended December 31, 2017. Comparatively, a 10% weakening of the U.S. dollar would have resulted in an increase in net earnings of \$3 million for the year ended December 31, 2018, and a decrease in net earnings of \$2 million for the year ended December 31, 2017. This sensitivity analysis of the effects of changes in foreign currency exchange rates does not factor in future potential changes in sales levels or local currency prices or costs.

Commodity Price Risk

Grainger has limited primary exposure to commodity price risk on certain products for resale, but does not purchase commodities directly.

Item 8: Financial Statements and Supplementary Data

The financial statements and supplementary data are included on pages 37 to 75. See the Index to Financial Statements and Supplementary Data on page 36.

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

None.

Item 9A: Controls and ProceduresDisclosure Controls and Procedures

Grainger carried out an evaluation, under the supervision and with the participation of its management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness of the design and operation of Grainger's disclosure controls and procedures pursuant to Exchange Act Rule 13a-15. Based upon that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that Grainger's disclosure controls and procedures were effective as of the end of the period covered by this report.

Internal Control Over Financial Reporting**(A) Management's Annual Report on Internal Control Over Financial Reporting**

Management's report on Grainger's internal control over financial reporting is included on page 37 of this Report under the heading Management's Annual Report on Internal Control Over Financial Reporting.

(B) Attestation Report of the Registered Public Accounting Firm

The report from Ernst & Young LLP on its audit of the effectiveness of Grainger's internal control over financial reporting as of December 31, 2018, is included on page 38 of this Report under the heading Report of Independent Registered Public Accounting Firm.

(C) Changes in Internal Control Over Financial Reporting

There have been no changes in Grainger's internal control over financial reporting during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, Grainger's internal control over financial reporting.

Item 9B: Other Information

None.

PART III

Item 10: Directors, Executive Officers and Corporate Governance

The information required by this item is incorporated by reference to Grainger's proxy statement relating to the annual meeting of shareholders to be held April 24, 2019, under the captions "Nominees and Director Experience and Qualifications," "Annual Election of Directors," "Candidates for Board Membership," "Board Affairs and Nominating Committee," "Audit Committee" and "Section 16(a) Beneficial Ownership Reporting Compliance." Information required by this item regarding executive officers of Grainger is set forth in Part I, Item 4A, under the caption "Executive Officers of the Registrant."

Grainger has adopted a code of ethics that applies to its principal executive officer, principal financial officer and principal accounting officer and controller. This code of ethics is part of Grainger's Business Conduct Guidelines for directors, officers and employees, which is available free of charge through Grainger's website at www.grainger.com/investor. A copy of the Business Conduct Guidelines is also available in print without charge to any person upon request to Grainger's Corporate Secretary. Grainger intends to disclose on its website any amendment to any provision of the Business Conduct Guidelines that relates to any element of the definition of "code of ethics" enumerated in Item 406(b) of Regulation S-K under the Exchange Act and any waiver from any such provision granted to Grainger's principal executive officer, principal financial officer, principal accounting officer and controller or persons performing similar functions. Grainger has also adopted Operating Principles for the Board of Directors, which are available on its website and are available in print to any person who requests them.

Item 11: Executive Compensation

The information required by this item is incorporated by reference to Grainger's proxy statement relating to the annual meeting of shareholders to be held April 24, 2019, under the captions "Director Compensation," "Compensation Discussion and Analysis," "Compensation Committee," "Report of the Compensation Committee of the Board" and "Fees for Independent Compensation Consultant."

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

The information required by this item is incorporated by reference to Grainger's proxy statement relating to the annual meeting of shareholders to be held April 24, 2019, under the captions "Ownership of Grainger Stock" and "Equity Compensation Plans."

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

The information required by this item is incorporated by reference to Grainger's proxy statement relating to the annual meeting of shareholders to be held April 24, 2019, under the captions "Director Independence," "Annual Election of Directors" and "Transactions with Related Persons."

Item 14: Principal Accountant Fees and Services

The information required by this item is incorporated by reference to Grainger's proxy statement relating to the annual meeting of shareholders to be held April 24, 2019, under the caption "Audit Fees and Audit Committee Pre-Approval Policies and Procedures."

PART IV

Item 15: Exhibits and Financial Statements Schedules

(a) Documents filed as part of the Form 10-K

- (1) Financial Statements: see "Item 8: Financial Statements and Supplementary Data," on page 36 hereof, for a list of financial statements. Management's Annual Report on Internal Control Over Financial Reporting.
- (2) Financial Statement Schedules: the schedules listed in Rule 5-04 of Regulation S-X have been omitted because they are either not applicable or the required information is shown in the consolidated financial statements or notes thereto.
- (3) Exhibits Required by Item 601 of Regulation S-K: the information required by this Item 15(a)(3) of Form 10-K is set forth on the Exhibit Index that follows the Signatures page 75 of the Form 10-K.

Item 16: Form 10-K Summary

None.

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MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of W.W. Grainger, Inc. (Grainger) is responsible for establishing and maintaining adequate internal control over financial reporting. Grainger's internal control system was designed to provide reasonable assurance to Grainger's management and Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements under all potential conditions. Therefore, effective internal control over financial reporting provides only reasonable, and not absolute, assurance with respect to the preparation and presentation of financial statements.

Grainger's management assessed the effectiveness of Grainger's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Based on its assessment under that framework and the criteria established therein, Grainger's management concluded that Grainger's internal control over financial reporting was effective as of December 31, 2018.

Ernst & Young LLP, an independent registered public accounting firm, has audited Grainger's internal control over financial reporting as of December 31, 2018, as stated in their report, which is included herein.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of
W.W. Grainger, Inc. and Subsidiaries

Opinion on the Financial Statements

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 28, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 2005.

Chicago, Illinois
February 28, 2019

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of
W.W. Grainger, Inc. and Subsidiaries

Opinion on Internal Control over Financial Reporting

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, and the related consolidated statements of earnings, comprehensive earnings, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018 and the related notes and our report dated February 28, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP
Chicago, Illinois
February 28, 2019

W.W. Grainger, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF EARNINGS
(In millions, except for per share amounts)

	For the Years Ended December 31,		
	2018	2017	2016
Net sales	\$ 11,221	\$ 10,425	\$ 10,137
Cost of goods sold	6,873	6,327	6,022
Gross profit	4,348	4,098	4,115
Selling, general and administrative expenses	3,190	3,063	3,002
Operating earnings	1,158	1,035	1,113
Other income (expense):			
Interest income	6	3	1
Interest expense	(88)	(89)	(76)
Loss from equity method investment	(19)	(37)	(31)
Other, net	24	24	12
Total other expense	(77)	(99)	(94)
Earnings before income taxes	1,081	936	1,019
Income taxes	258	313	386
Net earnings	823	623	633
Less: Net earnings attributable to noncontrolling interest	41	37	27
Net earnings attributable to W.W. Grainger, Inc.	\$ 782	\$ 586	\$ 606
Earnings per share:			
Basic	\$ 13.82	\$ 10.07	\$ 9.94
Diluted	\$ 13.73	\$ 10.02	\$ 9.87
Weighted average number of shares outstanding:			
Basic	56.1	57.7	60.4
Diluted	56.5	58.0	60.8

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

W.W. Grainger, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS
(In millions of dollars)

	For the Years Ended December 31,		
	2018	2017	2016
Net earnings	\$ 823	\$ 623	\$ 633
Other comprehensive (losses) earnings:			
Foreign currency translation adjustments, net of reclassification (see Note 7 and Note 14)	(41)	93	(39)
Postretirement benefit plan re-measurement, net of tax expense \$29 (see Note 10 and Note 14)	—	47	—
Postretirement benefit plan reclassification, net of tax benefit of \$3, \$1 and \$7	(7)	2	(12)
Total other comprehensive (losses) earnings	(48)	142	(51)
Comprehensive earnings, net of tax	775	765	582
Less: Comprehensive earnings attributable to noncontrolling interest			
Net earnings	41	37	27
Foreign currency translation adjustments	3	4	1
Comprehensive earnings attributable to noncontrolling interest	44	41	28
Comprehensive earnings attributable to W.W. Grainger, Inc.	\$ 731	\$ 724	\$ 554

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

W.W. Grainger, Inc. and Subsidiaries
CONSOLIDATED BALANCE SHEETS
(In millions of dollars, except for share and per share amounts)

	As of December 31,	
	2018	2017
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 538	\$ 327
Accounts receivable – net	1,385	1,325
Inventories – net	1,541	1,429
Prepaid expenses and other assets	83	87
Prepaid income taxes	10	38
Total current assets	3,557	3,206
PROPERTY, BUILDINGS AND EQUIPMENT – NET	1,352	1,392
DEFERRED INCOME TAXES	12	22
GOODWILL	424	544
INTANGIBLES – NET	460	569
OTHER ASSETS	68	71
TOTAL ASSETS	\$ 5,873	\$ 5,804
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Short-term debt	\$ 49	\$ 56
Current maturities of long-term debt	81	39
Trade accounts payable	678	731
Accrued compensation and benefits	262	254
Accrued contributions to employees' profit-sharing plans	133	93
Accrued expenses	269	314
Income taxes payable	29	20
Total current liabilities	1,501	1,507
LONG-TERM DEBT (less current maturities)	2,090	2,248
DEFERRED INCOME TAXES AND TAX UNCERTAINTIES	103	111
EMPLOYMENT-RELATED AND OTHER NON-CURRENT LIABILITIES	86	110
SHAREHOLDERS' EQUITY		
Cumulative preferred stock – \$5 par value – 12,000,000 shares authorized; none issued nor outstanding	—	—
Common stock – \$0.50 par value – 300,000,000 shares authorized; issued 109,659,219 shares	55	55
Additional contributed capital	1,134	1,041
Retained earnings	7,869	7,405
Accumulated other comprehensive losses	(171)	(135)
Treasury stock, at cost – 53,796,859 and 53,330,356 shares, respectively	(6,966)	(6,676)
Total W.W. Grainger, Inc. shareholders' equity	1,921	1,690
Noncontrolling interest	172	138
Total shareholders' equity	2,093	1,828
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 5,873	\$ 5,804

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

W.W. Grainger, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions of dollars)

	For the Years Ended December 31,		
	2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net earnings	\$ 823	\$ 623	\$ 633
Provision for losses on accounts receivable	7	16	16
Deferred income taxes and tax uncertainties	7	(5)	(6)
Depreciation and amortization	257	264	249
Impairment of goodwill, intangible and other assets	156	28	52
Net (gains) losses from sales of assets and business divestitures	(25)	(9)	(19)
Stock-based compensation	47	33	36
Losses from equity method investment	19	37	31
Change in assets and liabilities – net of business acquisitions and divestitures:			
Accounts receivable	(79)	(103)	(46)
Inventories	(129)	(5)	(4)
Prepaid expenses and other assets	(2)	(5)	19
Trade accounts payable	(51)	72	73
Accrued liabilities	18	113	(4)
Income taxes payable	36	4	(4)
Employment-related and other liabilities	(35)	(6)	8
Other – net	8	—	(10)
Net cash provided by operating activities	<u>1,057</u>	<u>1,057</u>	<u>1,024</u>
CASH FLOWS FROM INVESTING ACTIVITIES:			
Additions to property, buildings and equipment and intangibles	(239)	(237)	(284)
Proceeds from sales of assets and business divestitures	86	120	55
Equity method investment	(13)	(35)	(34)
Other – net	—	6	1
Net cash used in investing activities	<u>(166)</u>	<u>(146)</u>	<u>(262)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net (decrease) increase in commercial paper	—	(370)	40
Borrowings under lines of credit	26	74	36
Payments against lines of credit	(31)	(43)	(37)
Proceeds from issuance of long-term debt	—	401	516
Payments of long-term debt	(96)	(39)	(263)
Proceeds from stock options exercised	181	47	34
Payments for employee taxes withheld from stock awards	(12)	(28)	(21)
Excess tax benefits from stock-based compensation	—	—	12
Purchase of treasury stock	(425)	(605)	(790)
Cash dividends paid	(316)	(304)	(303)
Other – net	3	—	—
Net cash used in financing activities	<u>(670)</u>	<u>(867)</u>	<u>(776)</u>
Exchange rate effect on cash and cash equivalents	(10)	9	(2)
NET CHANGE IN CASH AND CASH EQUIVALENTS:	<u>211</u>	<u>53</u>	<u>(16)</u>
Cash and cash equivalents at beginning of year	327	274	290
Cash and cash equivalents at end of year	<u>\$ 538</u>	<u>\$ 327</u>	<u>\$ 274</u>
Supplemental cash flow information:			
Cash payments for interest (net of amounts capitalized)	\$ 86	\$ 78	\$ 63
Cash payments for income taxes	\$ 229	\$ 335	\$ 360

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

W.W. Grainger, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(In millions of dollars, except for per share amounts)

	Common Stock	Additional Contributed Capital	Retained Earnings	Accumulated Other Comprehensive Earnings (Losses)	Treasury Stock	Noncontrolling Interest
Balance at January 1, 2016	\$ 55	\$ 1,000	\$ 6,802	\$ (221)	\$ (5,370)	\$ 86
Stock based compensation	—	29	—	—	42	—
Purchase of treasury stock	—	—	—	—	(800)	—
Net earnings	—	—	606	—	—	27
Other comprehensive (losses) earnings	—	—	—	(52)	—	1
Capital contribution	—	—	—	—	—	3
Cash dividends paid (\$4.83 per share)	—	1	(295)	—	—	(9)
Balance at December 31, 2016	\$ 55	\$ 1,030	\$ 7,113	\$ (273)	\$ (6,128)	\$ 108
Stock based compensation	—	10	—	—	60	—
Purchase of treasury stock	—	—	—	—	(608)	—
Net earnings	—	—	586	—	—	37
Other comprehensive earnings	—	—	—	138	—	4
Cash dividends paid (\$5.06 per share)	—	1	(294)	—	—	(11)
Balance at December 31, 2017	\$ 55	\$ 1,041	\$ 7,405	\$ (135)	\$ (6,676)	\$ 138
Stock based compensation	—	92	—	—	122	—
Purchase of treasury stock	—	—	—	—	(412)	—
Net earnings	—	—	782	—	—	41
Other comprehensive (losses) earnings	—	—	—	(51)	—	3
Capital contribution	—	—	—	—	—	4
Reclassification due to the adoption of ASU 2018-02	—	—	(15)	15	—	—
Cash dividends paid (\$5.36 per share)	—	1	(303)	—	—	(14)
Balance at December 31, 2018	\$ 55	\$ 1,134	\$ 7,869	\$ (171)	\$ (6,966)	\$ 172

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

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

COMPANY BACKGROUND

W.W. Grainger, Inc. is a broad line, business-to-business distributor of maintenance, repair and operating (MRO) products and services. W.W. Grainger, Inc.'s operations are primarily in the United States (U.S.), Canada, Europe, Japan and Mexico. In this report, the words "Company" or "Grainger" mean W.W. Grainger, Inc. and its subsidiaries.

PRINCIPLES OF CONSOLIDATION

The Consolidated Financial Statements include the accounts of the Company and its subsidiaries over which the Company exercises control. All significant intercompany transactions are eliminated from the consolidated financial statements. The Company has a controlling ownership interest in MonotaRO Co., Ltd. (MonotaRO), the endless assortment (single channel) business in Japan, with the residual representing the noncontrolling interest.

USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses and the disclosure of contingent liabilities. Actual results could differ from those estimates.

FOREIGN CURRENCY TRANSLATION

The U.S. dollar is the reporting currency for all periods presented. The financial statements of the Company's foreign operating subsidiaries are measured using the local currency as the functional currency. Assets and liabilities of the Company's foreign operating subsidiaries are translated into U.S. dollars at the exchange rate in effect at the balance sheet date. Revenues and expenses are translated at average rates in effect during the period. Net exchange gains or losses resulting from the translation of financial statements of foreign operations are recorded as a separate component of other comprehensive earnings. See Note 14 to the Consolidated Financial Statements (Financial Statements). Foreign currency transaction gains and losses are included in the Consolidated Statement of Earnings.

RECLASSIFICATIONS

Certain amounts in the 2017 and 2016 financial statements, as previously reported, have been reclassified to conform to the 2018 presentation. In March 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standard Update (ASU) 2017-07, *Compensation Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* (ASU 2017-07), which became effective January 1, 2018.

See Note 10 to the Financial Statements.

REVENUE RECOGNITION

The Company recognizes revenue when a sales arrangement with a customer exists (e.g., contract, purchase orders, others), transaction price is fixed or determinable and the Company has satisfied its performance obligation per the sales arrangement. The Company's sales arrangements generally have standard payment terms that do not exceed a year.

The majority of Company revenue originates from contracts with a single performance obligation to deliver products, whereby the Company's performance obligations are satisfied when control of the product is transferred to the customer per the arranged shipping terms. Some Company contracts contain a combination of product sales and services, which are distinct and accounted for as separate performance obligations. The Company's performance obligations for services are satisfied when the services are rendered within the arranged service period. Total service revenue is not material and accounted for approximately 1% of total Company revenue for the twelve months ended December 31, 2018.

The Company records a contract asset when it has a right to payment from a customer that is conditioned on events other than the passage of time. The Company also records a contract liability when customers prepay but the Company has not yet satisfied its performance obligation. The Company did not have any material unsatisfied performance obligations, contract assets or liabilities as of December 31, 2018 and 2017.

The Company's revenue is reported as Net sales and is measured at the determinable transaction price, net of any variable considerations (e.g., rights to return product, sales incentives, others) and any taxes collected from customers and subsequently remitted to governmental authorities. The Company considers shipping and handling as activities to fulfill its performance obligation. Billings for freight are accounted for as Net sales and shipping and handling costs

are accounted for in Cost of goods sold.

The Company offers customers rights to return product and sales incentives, which primarily consist of volume rebates. The Company's terms for product returns and sales incentives generally do not exceed a year. The Company estimates sales returns and volume rebate accruals throughout the year based on various factors, including contract terms, historical experience and performance levels. Total accrued sales returns were approximately \$29 million and \$28 million as of December 31, 2018 and 2017, respectively, and are reported as a reduction of Accounts receivable, net. Total accrued sales incentives were approximately \$62 million and \$55 million as of December 31, 2018 and 2017, respectively, and are reported as part of Accrued expenses.

COST OF GOODS SOLD (COGS)

COGS includes products and product-related costs, vendor consideration, shipping and handling costs and service costs.

The Company receives rebates and allowances from its vendors to promote their products, which are recorded as a reduction to COGS unless the considerations are directly identifiable to specific costs incurred to promote vendor products.

Rebates earned from vendors that are based on product purchases are capitalized into inventory as part of product purchase price. These rebates are credited to COGS based on sales. Vendor rebates that are earned based on products sold are credited directly to COGS.

ADVERTISING

Advertising costs are generally expensed in the year the related advertisement is first presented. Catalog expense is amortized equally to expense over the life of the catalog, generally one year, beginning in the month of its distribution. Advertising expense, which includes digital marketing costs and catalog amortization, was \$241 million, \$187 million and \$180 million for 2018, 2017 and 2016, respectively.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (SG&A)

Included in this category are purchasing, supply chain and branch operations, information services and marketing and selling expenses, as well as other types of general and administrative costs.

STOCK INCENTIVE PLANS

The Company measures all share-based payments using fair-value-based methods and records compensation expense related to these payments over the vesting period net of estimated forfeitures. See Note 12 to the Financial Statements.

INCOME TAXES

Income taxes are recognized during the year in which transactions enter into the determination of financial statement income, with deferred taxes being provided for temporary differences between financial and tax reporting. The Company recognizes in the financial statements a provision for tax uncertainties, resulting from application of complex tax regulations in multiple tax jurisdictions. The Company evaluates deferred income taxes to determine if valuation allowances are required using a "more likely than not" standard. This assessment considers the nature, frequency and amount of book and taxable income and losses, the duration of statutory carryback and forward periods, future reversals of existing taxable temporary differences and tax planning strategies, among other matters. See Note 15 to the Financial Statements.

OTHER COMPREHENSIVE EARNINGS (LOSSES)

The Company's Other comprehensive earnings (losses) include foreign currency translation adjustments and unrecognized gains (losses) on postretirement and other employment-related benefit plans. Accumulated other comprehensive earnings (losses) (AOCE) are presented separately as part of shareholders' equity. See Note 14 to the Financial Statements.

CASH AND CASH EQUIVALENTS

The Company considers investments in highly liquid debt instruments, purchased with an original maturity of 90 days or less, to be cash equivalents.

CONCENTRATION OF CREDIT RISK

The Company places temporary cash investments with institutions of high credit quality and, by policy, limits the amount of credit exposure to any one institution.

The Company has a broad customer base representing many diverse industries doing business in North America, Europe and Asia. Consequently, no significant concentration of credit risk is considered to exist.

ACCOUNTS RECEIVABLE AND ALLOWANCE FOR DOUBTFUL ACCOUNTS

Accounts receivable are stated at their estimated net realizable value. The Company establishes reserves for customer accounts that are potentially uncollectible. The method used to estimate the allowances is based on several factors, including the age of the receivables and the historical ratio of actual write-offs to the age of the receivables. These analyses also take into consideration economic conditions that may have an impact on a specific industry, group of customers or a specific customer. When it is determined that customer accounts cannot be collected, the receivable balances are charged to the allowance for doubtful accounts. See Note 5 to the Financial Statements.

INVENTORIES

Inventories are valued at the lower of cost or net realizable value. Cost is determined primarily by the last-in, first-out (LIFO) method, which accounts for approximately 66% of total inventory. Grainger uses LIFO method to better match inventory cost and revenue. For the remaining inventory, cost is determined by the first-in, first-out (FIFO) method.

Grainger regularly reviews inventory to evaluate continued demand and identify any obsolete or excess quantities. Grainger records provisions for the difference between excess and obsolete inventory cost and its estimated realizable value. See Note 6 of the Financial Statements.

PROPERTY, BUILDINGS AND EQUIPMENT

Property, buildings and equipment are valued at cost. For financial statement purposes, depreciation and amortization are recorded in amounts sufficient to relate the cost of depreciable assets to operations over their estimated service lives, principally on the declining-balance and sum-of-the-years-digits depreciation methods. The Company's international businesses record depreciation expense primarily on a straight-line basis. The principal estimated useful lives for determining depreciation are as follows:

Buildings, structures and improvements	10 to 30 years
Furniture, fixtures, machinery and equipment	3 to 10 years

Depreciation expense was \$162 million, \$170 million and \$166 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Improvements to leased property are amortized over the initial terms of the respective leases or the estimated service lives of the improvements, whichever is shorter.

The Company capitalized interest costs of \$10 million, \$2 million and \$2 million for the years ended December 31, 2018, 2017 and 2016, respectively.

LONG-LIVED ASSETS

The carrying value of long-lived assets, primarily property, buildings and equipment and amortizable intangibles, is evaluated whenever events or changes in circumstances indicate that the carrying value of the asset may be impaired. An impairment loss is recognized when estimated undiscounted future cash flows resulting from use of the asset, including disposition, are less than the carrying value of the asset. Impairment is measured as the amount by which the asset's carrying amount exceeds the fair value.

GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill is recognized as the excess cost of an acquired entity over the net amount assigned to assets acquired and liabilities assumed. Goodwill is not amortized, but rather tested for impairment on an annual basis and more often if circumstances require. Impairment losses are recognized whenever the carrying value of a reporting unit exceeds its fair value. See Note 4 to the Financial Statements.

The Company recognizes an acquired intangible apart from goodwill whenever the intangible arises from contractual or other legal rights, or whenever it can be separated or divided from the acquired entity and sold, transferred, licensed,

rented or exchanged, either individually or in combination with a related contract, asset or liability. Such intangibles are amortized over their estimated useful lives (approximately 7 to 22 years) unless the estimated useful life is determined to be indefinite. The straight-line method of amortization is used as it has been determined to approximate the use pattern of the asset. The Company also maintains intangible assets with indefinite lives that are not amortized. These intangibles are tested for impairment on an annual basis and more often if circumstances require. An impairment loss is recognized whenever the estimated fair value of the asset is less than its carrying value. See Note 4 to the Financial Statements.

The Company capitalizes certain costs related to the purchase and development of internal-use software. Amortization of capitalized software is on a straight-line basis over three or five years.

FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying amounts of cash and cash equivalents, receivables and accounts payable approximate fair value due to the short-term nature of these financial instruments. See Note 9 to the Financial Statements for fair value of long-term debt.

CONTINGENCIES

The Company accrues for costs relating to litigation claims and other contingent matters, when it is probable that a liability has been incurred and the amount of the assessment can be reasonably estimated.

NEW ACCOUNTING STANDARDS

In February 2018, the FASB issued ASU 2018-02, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. This ASU allows a reclassification from AOCE to Retained earnings for stranded tax effects resulting from the 2017 Tax Cuts and Jobs Act. The effective date of this ASU is for fiscal years and interim periods beginning after December 15, 2018, and early adoption is permitted. The Company has evaluated the provisions of this standard and elected to early implement and reclassify \$15 million of income tax effects related to the change in the U.S. federal corporate income tax rate from AOCE to Retained earnings. See Note 14 to the Financial Statements.

In August 2018, the FASB issued ASU 2018-14, *Retirement Benefits - Defined Benefit Plans - Changes to the Disclosure Requirements for Defined Benefit Plans*. This ASU removes disclosures that are no longer considered cost-beneficial, clarifies specific requirements of the disclosure and adds disclosure requirements identified as relevant to improve the effectiveness of the disclosures. The effective date of this ASU is for fiscal years and interim periods beginning after December 15, 2020, and early adoption is permitted. The Company elected to early adopt this ASU and the related disclosure changes are reflected in Note 10 to the Financial Statements.

In September 2018, the FASB issued ASU 2018-15, *Intangibles - Goodwill and Other Internal Use Software (Subtopic 350-40) Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract*. This ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The effective date of this ASU is for fiscal years and interim periods beginning after December 15, 2019, and early adoption is permitted. The Company elected to early adopt during the fourth quarter of 2018 prospectively, with no material impact to the Company's Consolidated Financial Statements.

LEASE ACCOUNTING STANDARDS

In February 2016, the FASB issued ASU 2016-02, *Leases* as modified subsequently by ASUs 2018-01, 2018-10, 2018-11 and 2018-20 (Topic 842). The core principle of the ASU improves transparency and comparability related to the accounting and reporting of leasing arrangements, including balance sheet recognition for assets and liabilities associated with rights and obligations created by leases with terms greater than twelve months, among other changes.

The effective date of these ASUs is for fiscal years and interim periods beginning after December 15, 2018. The Company adopted the new guidance on January 1, 2019, utilizing the modified retrospective transition method that allows for a cumulative-effect adjustment in the period of adoption, and does not plan to restate prior periods. Additionally, the Company elected certain practical expedients permitted under the transition guidance.

Upon adoption, the Company's rights of use assets and corresponding lease liabilities are estimated at approximately \$210 million to \$230 million before considering deferred taxes. These amounts represent 4% and 6% of the Company's

Total assets and Total liabilities, respectively. Grainger does not expect a material impact to the Company's Consolidated Statements of Earnings, Comprehensive Earnings or Cash Flows.

NOTE 2 - REVENUE

Company revenue is primarily comprised of MRO product sales and related activities, such as freight and services.

Grainger serves a large number of customers in diverse industries, which are subject to different economic and market specific factors. The Company's presentation of revenue by industry most reasonably depicts how the nature, amount, timing and uncertainty of Company revenue and cash flows are affected by economic and market specific factors. The

following table presents the Company's percentage of revenue by reportable segment and by major customer industry:

	Twelve Months Ended December 31, 2018		
	U.S.	Canada	Total Company (2)
Government	18 %	6 %	14 %
Heavy Manufacturing	19 %	20 %	18 %
Light Manufacturing	13 %	6 %	11 %
Transportation	6 %	7 %	5 %
Commercial	16 %	10 %	13 %
Retail/Wholesale	8 %	4 %	7 %
Contractors	10 %	11 %	8 %
Natural Resources	3 %	32 %	4 %
Other (1)	7 %	4 %	20 %
Total net sales	100 %	100 %	100 %
Percent of Total Company Revenue	72 %	6 %	100 %

(1) Other category primarily includes revenue from individual customers not aligned to major industry segment, including small businesses and consumers and intersegment net sales.

(2) Total Company includes other businesses, which include the Company's endless assortment businesses and operations in Europe, Asia and Mexico and account for approximately 22% of revenue for the twelve months ended December 31, 2018.

NOTE 3 - PROPERTY, BUILDINGS AND EQUIPMENT

Property, buildings and equipment consisted of the following (in millions of dollars):

	As of	
	December 31, 2018	December 31, 2017
Land	\$ 318	\$ 349
Building, structures and improvements	1,338	1,343
Furniture, fixtures, machinery and equipment	1,785	1,753
Property, buildings and equipment	\$ 3,441	\$ 3,445
Less: Accumulated depreciation and amortization	2,089	2,053
Property, buildings and equipment, net	\$ 1,352	\$ 1,392

NOTE 4 - GOODWILL AND OTHER INTANGIBLE ASSETS

The balances and changes in the carrying amount of Goodwill by segment are as follows (in millions of dollars):

	United States	Canada	Other businesses	Total
Balance at January 1, 2017	\$ 202	\$ 122	\$ 203	\$ 527
Divestiture	(3)	—	—	(3)
Impairment	(7)	—	—	(7)
Translation	—	8	19	27
Balance at December 31, 2017	192	130	222	544
Impairment	—	—	(105)	(105)
Translation	—	(10)	(5)	(15)
Balance at December 31, 2018	\$ 192	\$ 120	\$ 112	\$ 424
Cumulative goodwill impairment charges, January 1, 2018	\$ 24	\$ 32	\$ 71	\$ 127
Impairment	—	—	105	105
Cumulative goodwill impairment charges, December 31, 2018	\$ 24	\$ 32	\$ 176	\$ 232

The balances and changes in Intangible assets - net are as follows (in millions of dollars):

	Weighted average life	As of December 31,					
		2018			2017		
		Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Customer lists and relationships	14.3 years	\$ 410	\$ 204	\$ 206	\$ 430	\$ 196	\$ 234
Trademarks, trade names and other	14.5 years	24	15	9	26	16	10
Non-amortized trade names and other		99	—	99	137	—	137
Capitalized software	4.2 years	657	511	146	633	445	188
Total intangible assets	8.2 years	\$ 1,190	\$ 730	\$ 460	\$ 1,226	\$ 657	\$ 569

Amortization expense recognized on intangible assets was \$92 million, \$89 million and \$82 million for the years ended December 31, 2018, 2017 and 2016, respectively, and is included in SG&A on the Consolidated Statement of Earnings. Estimated amortization expense for future periods is as follows (in millions of dollars):

Year	Expense
2019	\$ 84
2020	66
2021	50
2022	26
2023	20
Thereafter	115

Grainger tests reporting units' goodwill and intangible assets for impairment annually during the fourth quarter and more frequently if impairment indicators exist. Grainger periodically performs qualitative assessments of significant events and circumstances, such as reporting units' historical and current results, assumptions regarding future performance, strategic initiatives and overall economic factors to determine the existence of impairment indicators and assess if it is more likely than not that the fair value of the reporting unit or indefinite-lived intangible assets is less than its carrying value and if a quantitative impairment test is necessary. In the quantitative test, Grainger compares the carrying value of the reporting unit or an indefinite-lived intangible asset with its fair value. Any excess of the carrying value over fair value is recorded as an impairment charge.

The fair value of reporting units is calculated primarily using the discounted cash flow (DCF) method and utilizing value indicators from a market approach to evaluate the reasonableness of the resulting fair values. Estimates of market-participant risk-adjusted weighted average cost of capital are used as a basis for determining the discount rates to apply to the reporting units' future expected cash flows and terminal value.

Grainger's indefinite-lived intangibles are primarily trade names. The fair value of trade names is calculated primarily using the relief from royalty method, which estimates the expected royalty savings attributable to the ownership of the trade name asset. The key assumptions when valuing a trade name are the revenue base, the royalty rate and the discount rate.

During the quarter ended September 30, 2018, the Company identified impairment indicators at the Cromwell reporting unit. In the quantitative goodwill impairment test performed in 2017, the fair value of the Cromwell reporting unit exceeded its carrying value by 15%. However, its operating performance deteriorated during 2018 and the Company lowered its short-term forecasts and long-term outlook projections. These factors, combined with sustained economic uncertainty in the U.K. market and higher interest rates, led the Company to conclude that it was more likely than not that the carrying value of Cromwell's goodwill and intangible assets may not be recoverable. Accordingly, a quantitative test was performed during the quarter ended September 30, 2018.

The Company considered the impact of the prolonged softness and uncertainty in the U.K. market due to Brexit and other unfavorable structural economic conditions, as well as Cromwell's underperformance compared to expectations, prior year quantitative test assumptions and future performance projections. The revised outlook and uncertainty beyond 2018 were factored into lower revenues, earnings and cash flow projections which, combined with an increase in the discount rate, resulted in the calculated fair value of the Cromwell reporting unit below its carrying value. Accordingly, the Company recorded a full goodwill impairment charge of \$105 million with no tax benefit due to the nondeductibility of goodwill for tax purposes. The revised revenue and gross margin projections also resulted in the reduction of royalty rate and value attributable to the Cromwell trade name for which the Company recorded a \$34 million impairment charge during the same period.

The impairment charges related to Cromwell goodwill and trade name were recorded in other businesses in SG&A. The Company also performed an impairment test on Cromwell's intangible assets subject to amortization and long-lived assets using the undiscounted cash flows method and no impairment charge was required.

Grainger performed its annual impairment testing in the fourth quarter. The testing included a qualitative assessment of all other reporting units' goodwill and intangible assets. The Company concluded that it was not more likely than not that the fair value of the reporting unit of indefinite-lived intangible assets is less than its carrying value.

The risk of potential failure of future impairment tests is highly dependent upon a number of assumptions. Changes in assumptions regarding discount rate and future performance, as well as the ability to execute on growth initiatives and productivity improvements, may have a significant impact on future cash flows. Likewise, unfavorable economic environment and changes in market conditions or other factors may result in future impairments of the goodwill and intangible assets.

NOTE 5 - ALLOWANCE FOR DOUBTFUL ACCOUNTS

The following table shows the activity in the allowance for doubtful accounts (in millions of dollars):

	For the Years Ended December 31,	
	2018	2017
Balance at beginning of period	\$ (29)	\$ (27)
Provision for uncollectible accounts	(7)	(16)
Write-off of uncollectible accounts, net of recoveries	10	17
Foreign currency and other	1	(3)
Balance at end of period	\$ (25)	\$ (29)

NOTE 6 - INVENTORIES

Inventories primarily consist of merchandise purchased for resale. Inventories would have been \$394 million and \$382 million higher than reported at December 31, 2018 and December 31, 2017, respectively, if the FIFO method of inventory accounting had been used for all the Company inventories. Net earnings would have increased by \$8 million, and decreased by \$1 million and \$3 million for the years ended December 31, 2018, 2017 and 2016, respectively, using the FIFO method of accounting. Inventory values using the FIFO method of accounting approximate replacement cost.

The following table shows the activity in the reserves for excess and obsolete inventory (in millions of dollars):

	For the Years Ended December 31,	
	2018	2017
Balance at beginning of period	\$ (193)	\$ (191)
Provision for excess and obsolete inventory	(20)	(25)
Disposal of unsaleable inventory	55	29
Other	4	(6)
Balance at end of period	\$ (154)	\$ (193)

NOTE 7 - RESTRUCTURING RESERVES

During 2018, Grainger substantially completed initiatives to reduce costs in the U.S. business and at the Company level (unallocated expense) and streamline and focus on profitability in the Canada business and other businesses. Restructuring costs, net of gains, for the years ended December 31, 2018, 2017 and 2016 are as follows (in millions of dollars):

	For the Year Ended December 31, 2018			
	COGS	SG&A		Total
		Involuntary employee termination costs	Other charges (gains)	
United States	\$ (1)	\$ 15	\$ (6)	\$ 8
Canada	—	24	11	35
Other businesses	1	1	4	6
Unallocated expense	—	—	(2)	(2)
Total	\$ —	\$ 40	\$ 7	\$ 47

For the Year Ended December 31, 2017

	COGS	SG&A		Total
		Involuntary employee termination costs	Other charges (gains)	
United States	\$ 1	\$ 32	\$ (22)	\$ 11
Canada	8	15	16	39
Other businesses	4	12	39	55
Unallocated expense	—	—	11	11
Total	\$ 13	\$ 59	\$ 44	\$ 116

For the Year Ended December 31, 2016

	COGS	SG&A		Total
		Involuntary employee termination costs	Other charges (gains)	
United States	\$ 3	\$ 21	\$ (9)	\$ 15
Canada	2	13	1	16
Unallocated expense	—	—	9	9
Total	\$ 5	\$ 34	\$ 1	\$ 40

Other charges (gains) for all three years primarily include asset impairments, write-down losses and other exit-related costs. The charges in the U.S. and Canada businesses are partially offset by gains from the sales of assets in those segments. Included in other charges (gains) is also approximately \$18 million of accumulated foreign currency translations losses reclassified from Accumulated other comprehensive losses to earnings primarily related to the wind-down of Colombia during 2017.

Restructuring reserves are primarily recorded as part of Accrued compensation and benefits and Accrued expenses. The following summarizes the restructuring and related reserve activity for the years ended December 31, 2018 and 2017 (in millions of dollars):

	Current liabilities						Total
	Current assets write-downs	Property, buildings and equipment write-downs and disposals	Involuntary employee termination costs	Lease termination costs	Other costs		
Reserves as of January 1, 2017	\$ —	\$ —	\$ 24	\$ 3	\$ 1	\$ 28	
Restructuring costs, net of (gains)	14	—	59	6	37	116	
Cash (paid) received	(1)	24	(34)	(4)	(8)	(23)	
Non-cash, translation and others	\$ —	\$ (23)	\$ 1	\$ —	\$ (17)	\$ (39)	
Reserves as of December 31, 2017	\$ 13	\$ 1	\$ 50	\$ 5	\$ 13	\$ 82	
Restructuring costs, net of (gains)	4	(10)	40	12	1	47	
Cash (paid) received	(1)	44	(57)	(4)	(1)	(19)	
Non-cash, translation and others	(16)	(35)	(2)	(2)	(8)	(63)	
Reserves as of December 31, 2018	\$ —	\$ —	\$ 31	\$ 11	\$ 5	\$ 47	

The cumulative amounts incurred to date and expected (excluding results of sales of real estate) in connection with the Company's restructuring actions for active programs are as follows (in millions of dollars):

	Cumulative amount incurred to date	Additional amount expected
United States	\$ 70	\$ 3
Canada	93	—
Other businesses	67	—
Unallocated expense	18	—
Total	\$ 248	\$ 3

NOTE 8 - SHORT-TERM DEBT

Short-term debt consisted of the following (in millions of dollars):

	As of December 31,	
	2018	2017
<u>Lines of Credit</u>		
Outstanding at December 31	\$ 49	\$ 56
Maximum month-end balance during the year	\$ 138	\$ 56
Weighted average interest rate during the year	2.29%	2.41%
Weighted average interest rate at December 31	2.35%	2.01%
<u>Commercial Paper</u>		
Outstanding at December 31	\$ —	\$ —
Maximum month-end balance during the year	\$ 90	\$ 455
Weighted average interest rate during the year	1.80%	0.83%

Lines of Credit

The Company's U.S. business has a five-year \$750 million unsecured revolving line of credit, maturing in 2022. There were no borrowings outstanding under the line of credit as of December 31, 2018 and 2017. The primary purpose of this credit facility is to provide support to the Company's commercial paper program and for general corporate purposes.

Foreign subsidiaries utilize lines of credit for working capital purposes and other operating needs. These foreign lines of credit in aggregate were \$49 million and \$56 million as of December 31, 2018 and 2017, respectively.

Commercial Paper

The Company issues commercial paper from time to time for general working capital needs. At December 31, 2018, there was none outstanding.

The Company's short-term debt instruments include affirmative and negative covenants that are usual and customary for companies with similar credit ratings and do not contain any financial performance covenants. The Company was in compliance with all debt covenants as of December 31, 2018.

NOTE 9 - LONG-TERM DEBT

Long-term debt consisted of the following (in millions of dollars):

	As of December 31,			
	2018		2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
4.60% senior notes due 2045	\$ 1,000	1,026	\$ 1,000	\$ 1,089
3.75% senior notes due 2046	400	357	400	384
4.20% senior notes due 2047	400	383	400	411
British pound term loan	174	174	195	195
Euro term loan	126	126	132	132
Canadian dollar revolving credit facility	44	44	99	99
Other	49	49	84	84
Subtotal	2,193	2,159	2,310	2,394
Less current maturities	(81)	(81)	(39)	(39)
Debt issuance costs and discounts, net of amortization	(22)	(22)	(23)	(23)
Long-term debt (less current maturities)	\$ 2,090	\$ 2,056	\$ 2,248	\$ 2,332

Senior Notes

In May 2017, the Company issued \$400 million of unsecured 4.20% Senior Notes that mature on May 15, 2047. A portion of the proceeds from this bond issuance was used to pay outstanding commercial paper during 2017. The 4.20% Notes require no principal payments until the maturity date and interest is payable semi-annually on May 15 and November 15.

In May 2016, the Company issued \$400 million of unsecured 3.75% Senior Notes that mature on May 15, 2046. The 3.75% Notes require no principal payments until the maturity date and interest is payable semi-annually on May 15 and November 15.

In June 2015, the Company issued \$1 billion of unsecured 4.60% Senior Notes that mature on June 15, 2045. The 4.60% Notes require no principal payments until the maturity date and interest is payable semi-annually on June 15 and December 15.

The Company may redeem the Senior Notes in whole at any time or in part from time to time at a "make-whole" redemption price prior to their respective maturity dates. The redemption price is calculated by reference to the then-current yield on a U.S. treasury security with a maturity comparable to the remaining term of the Senior Notes plus 20-25 basis points, together with accrued and unpaid interest, if any, at the redemption date. Additionally, if the Company experiences specific kinds of changes in control, it will be required to make an offer to purchase the Senior Notes at 101% of their principal amount plus accrued and unpaid interest, if any, at the date of purchase. Within one year of the maturity date, the Company may redeem the Senior Notes in whole at any time or in part at 100% of their principal amount, together with accrued and unpaid interest, if any, to the redemption date.

Costs and discounts of approximately \$24 million associated with the issuance of the Senior Notes, representing underwriting fees and other expenses, have been recorded as a contra-liability within Long-term debt and are being amortized to interest expense over the term of the Notes.

British Pound Term Loan

In August 2015, the Company entered into an unsecured credit facilities agreement providing for a five-year term loan of £160 million and revolving credit facility of up to £20 million (see Note 8 to the Financial Statements). Under the agreement, the principal amount of the term loan will be repaid semiannually in installments of £4 million beginning February 2016 through February 2020 with the remaining outstanding amount due August 2020. At the election of the Company, the term loan bears interest at the LIBOR Rate plus a margin of 75 basis points, as defined within the term

loan agreement. At December 31, 2018, the Company had elected a one-month LIBOR interest period. The weighted average interest rate was 1.34% and 1.04% for the years ended December 31, 2018 and 2017, respectively.

Euro Term Loan

On August 31, 2016, the Company entered into an agreement for a five-year term loan of €110 million and a revolving credit facility of up to €20 million (see Note 8 to the Financial Statements). The proceeds from the term loan were used to pay in full €102.5 million of a term loan that matured in August 2016. Under the agreement, no principal amount of the loan will be required to be paid until the loan becomes due on August 31, 2021, at which time the loan will be required to be paid in full. The Company, at its option, may prepay this term loan in whole or in part at the end of any interest period without penalty. The loan bears interest at the EURIBOR plus a margin of 45 basis points, as defined within the term loan agreement. If EURIBOR is less than zero, then EURIBOR will be deemed to be zero. The interest rate at both December 31, 2018 and 2017 was 0.45%.

Canadian Dollar Revolving Credit Facility

In September 2014, the Company entered into an unsecured revolving credit facility with a maximum availability of C\$175 million. The loan bears interest at the Canadian Dollar Offered Rate (CDOR) plus a margin of 80 basis points, as defined within the loan agreement. The weighted average interest rate during the year on this outstanding amount was 2.50%. No principal payments are required on the credit facility until the maturity date. The facility matures in 2019 and accordingly, the amount outstanding is included in Current maturities of long-term debt as of December 31, 2018.

The estimated fair value of the Company's senior notes was based on available external pricing data and current market rates for similar debt instruments, among other factors, which are classified as level 2 inputs within the fair value hierarchy. The carrying value of other long-term debt approximates fair value due to their variable interest rates.

The scheduled aggregate principal payments related to long-term debt, excluding debt issuance costs, are due as follows (in millions of dollars):

Year	Payment Amount
2019	\$ 81
2020	182
2021	126
2022	4
2023	—
Thereafter	1,800
Total	<u>\$ 2,193</u>

The Company's long-term debt instruments include affirmative and negative covenants that are usual and customary for companies with similar credit ratings and do not contain any financial performance covenant. The Company was in compliance with all debt covenants as of December 31, 2018.

NOTE 10 - EMPLOYEE BENEFITS

The Company provides various retirement benefits to eligible employees, including contributions to defined contribution plans, pension benefits associated with defined benefit plans, postretirement medical benefits and other benefits. Eligibility requirements and benefit levels vary depending on employee location. Various foreign benefit plans cover employees in accordance with local legal requirements.

Defined Contribution Plans

A majority of the Company's U.S. employees are covered by a noncontributory profit-sharing plan. The plan aligns Company contributions to Company performance and includes two components, a variable annual contribution based on a rate of return on invested capital and an automatic contribution equal to 3% of total eligible compensation. In addition, employees covered by the plan are also able to make personal contributions. The total Company contribution will be maintained at a minimum of 8% and a maximum of 18% of total eligible compensation paid to eligible employees. The total profit-sharing plan expense was \$164 million, \$120 million and \$84 million for 2018, 2017 and 2016, respectively.

The Company sponsors additional defined contribution plans available to certain U.S. and foreign employees for which contributions are made by the Company and participating employees. The expense associated with these defined contribution plans totaled \$13 million, \$18 million, and \$12 million for 2018, 2017 and 2016, respectively.

Defined Benefit Plans and Other Retirement Plans

The Company sponsors defined benefit plans available to certain foreign employees. The cost of these programs is not significant to the Company. In certain countries, pension contributions are made to government-sponsored social security pension plans in accordance with local legal requirements. For these plans, the Company has no continuing obligations other than the payment of contributions.

Postretirement Healthcare Benefits Plans

The Company has a postretirement healthcare benefits plan that provides coverage for a majority of its U.S. employees hired prior to January 1, 2013, and their dependents should they elect to maintain such coverage upon retirement. Covered employees become eligible for participation when they qualify for retirement while working for the Company. Participation in the plan is voluntary and requires participants to make contributions toward the cost of the plan, as determined by the Company.

During the third quarter of 2017, the Company implemented plan design changes effective January 1, 2018, for the post-65 age group. This plan change moved all post-65 Medicare eligible retirees to healthcare exchanges and provided them a subsidy to purchase insurance. The amount of the subsidy is based on years of service. As a result of the plan change, the plan obligation was remeasured as of August 31, 2017. The remeasurement resulted in a decrease in the postretirement benefit obligation of \$76 million and a corresponding unrecognized gain recorded in Other comprehensive earnings net of tax of \$29 million.

The net periodic costs, as previously reported in the 2017 and 2016 Financial Statements, have been reclassified to conform to the 2018 presentation in accordance with ASU 2017-07. The net periodic benefits costs were valued with a measurement date of January 1 for each year and August 31, 2017 remeasurement date and consisted of the following components (in millions of dollars):

	For the Years Ended December 31,		
	2018	2017	2016
SG&A			
Service cost	\$ 6	\$ 7	\$ 8
Other income (expense)			
Interest cost	7	8	10
Expected return on assets	(13)	(12)	(10)
Amortization of prior service credit	(10)	(7)	(7)
Amortization of unrecognized gains	(3)	(2)	—
Net periodic (benefits) costs	<u>\$ (13)</u>	<u>\$ (6)</u>	<u>\$ 1</u>

Reconciliations of the beginning and ending balances of the postretirement benefit obligation, which is calculated as of December 31 measurement date, the fair value of plan assets available for benefits and the funded status of the benefit obligation follow (in millions of dollars):

	2018	2017
Benefit obligation at beginning of year	\$ 208	\$ 265
Service cost	6	7
Interest cost	7	8
Plan participants' contributions	3	3
Actuarial (gains)	(26)	(34)
Plan amendment	—	(34)
Benefits paid	(9)	(9)
Prescription drug rebates	1	2
Benefit obligation at end of year	<u>190</u>	<u>208</u>
Plan assets available for benefits at beginning of year	189	164
Actual (losses) returns on plan assets	(8)	29
Plan participants' contributions	3	3
Benefits paid	(9)	(8)
Prescription drug rebates	1	1
Plan assets available for benefits at end of year	<u>176</u>	<u>189</u>
Noncurrent postretirement benefit obligation	<u>\$ 14</u>	<u>\$ 19</u>

The amounts recognized in AOCE consisted of the following (in millions of dollars):

	As of December 31,	
	2018	2017
Prior service credit	\$ 71	\$ 80
Unrecognized gains	37	37
Deferred tax (liability)	(26)	(44)
Net accumulated gains	<u>\$ 82</u>	<u>\$ 73</u>

The Company has elected to amortize the amount of net unrecognized gains over a period equal to the average remaining service period for active plan participants expected to retire and receive benefits of approximately 12.9 years for 2018.

The postretirement benefit obligation was determined by applying the terms of the plan and actuarial models. These models include various actuarial assumptions, including discount rates, long-term rates of return on plan assets, healthcare cost trend rate and cost-sharing between the Company and the retirees. The Company evaluates its actuarial assumptions on an annual basis and considers changes in these long-term factors based upon market conditions and historical experience.

The following assumptions were used to determine net periodic benefit costs at January 1 of each year (excluding the August 31, 2017 remeasurement date):

	For the Years Ended December 31,		
	2018	2017	2016
Discount rate	3.44%	4.00%	4.20%
Long-term rate of return on plan assets, net of tax	7.13%	7.13%	6.65%
Initial healthcare cost trend rate			
Pre age 65	6.56%	6.81%	7.00%
Post age 65	NA	9.36%	7.00%
Catastrophic drug benefit	12.50%	NA	NA
Ultimate healthcare cost trend rate	4.50%	4.50%	4.50%
Year ultimate healthcare cost trend rate reached	2026	2026	2026
HRA credit inflation index for grandfathered retirees	2.50%	NA	NA

The following assumptions were used to determine benefit obligations at December 31:

	2018	2017	2016
Discount rate	4.08%	3.44%	4.00%
Expected long-term rate of return on plan assets, net of tax	7.13%	7.13%	7.13%
Initial healthcare cost trend rate			
Pre age 65	6.31%	6.56%	6.81%
Post age 65	N/A	NA	9.36%
Catastrophic drug benefit	11.50%	12.50%	N/A
Ultimate healthcare cost trend rate	4.50%	4.50%	4.50%
Year ultimate healthcare cost trend rate reached	2026	2026	2026
HRA credit inflation index for grandfathered retirees	2.50%	2.50%	N/A

The discount rate assumptions reflect the rates available on high-quality fixed income debt instruments as of December 31, the measurement date of each year. These rates have been selected due to their similarity to the duration of the projected cash flows of the postretirement healthcare benefit plan. As of December 31, 2018, the Company increased the discount rate from 3.44% to 4.08% to reflect the increase in the market interest rates at December 31, 2018.

As of December 31, 2018, the Company changed the mortality improvement table used to project mortality rates into the future from Mortality Table RPH-2014 with Mortality Improvement Scale MP 2016 to Mortality Table RPH-2014 with Mortality Improvement Scale MP 2018, which was published by the Society of Actuaries and reflects the most recent updates to life expectancies. RPH-2014 Table is a headcount weighted table, which is also more appropriate for a postretirement healthcare benefit plan.

The Company reviews external data and its own historical trends for healthcare costs to determine the healthcare cost trend rates. As of December 31, 2016, Grainger adopted a new healthcare trend rate to include a pre and post age 65 trend rates. Post age 65, prescription drug costs, primarily specialty drugs, are expected to increase the cost of healthcare more significantly than medical expenses. The alternative trend rates allow for a better estimate of expected costs for this plan. As of December 31, 2018, the initial healthcare cost trend rate was 6.31% for pre age 65. The healthcare costs trend rates decline each year until reaching the ultimate trend rate of 4.50%. The plan amendment adopted in 2017 moves all post age 65 Medicare eligible retirees to an exchange and provides a subsidy to those retirees to purchase insurance. The amount of the subsidy is based on years of service and is indexed at 2.50% for grandfathered employees.

The Company has established a Group Benefit Trust (Trust) to fund the plan obligations and process benefit payments. All assets of the Trust are invested in equity funds designed to track to either the Standard & Poor's 500 Index (S&P 500) or the Total International Composite Index. The Total International Composite Index tracks non-U.S. stocks within developed and emerging market economies. This investment strategy reflects the long-term nature of the plan obligation and seeks to take advantage of the earnings potential of equity securities in the global markets and intends to reach a balanced allocation between U.S. and non-U.S. equities. The plan's assets are stated at fair value, which represents

the net asset value of shares held by the plan in the registered investment companies at the quoted market prices (level 1 input). The plan assets available for benefits are net of Trust liabilities, primarily related to deferred income taxes and taxes payable at December 31 (in millions of dollars):

	2018	2017
Registered investment companies:		
Fidelity Spartan U.S. Equity Index Fund	\$ 80	\$ 83
Vanguard 500 Index Fund	93	104
Vanguard Total International Stock	26	30
Plan Assets	199	217
Trust liabilities	(23)	(28)
Plan assets available for benefits	<u>\$ 176</u>	<u>\$ 189</u>

The Company uses the long-term historical return on the plan assets and the historical performance of the S&P 500 and the Total International Composite Index to develop its expected return on plan assets. The after-tax expected long-term rates of return on plan assets of 7.13% at December 31, 2018 is based on the historical average of long-term rates of return and an estimated tax rate. The required use of an expected long-term rate of return on plan assets may result in recognition of income that is greater or lower than the actual return on plan assets in any given year. Over time, however, the expected long-term returns are designed to approximate the actual long-term returns and, therefore, result in a pattern of income recognition that more closely matches the pattern of the services provided by the employees.

The Company's investment policies include periodic reviews by management and trustees at least annually concerning: (1) the allocation of assets among various asset classes (e.g., domestic stocks, international stocks, short-term bonds, long-term bonds, etc.); (2) the investment performance of the assets, including performance comparisons with appropriate benchmarks; (3) investment guidelines and other matters of investment policy and (4) the hiring, dismissal or retention of investment managers.

The funding of the Trust is an estimated amount that is intended to allow the maximum deductible contribution under the Internal Revenue Code of 1986 (IRC), as amended. There are no minimum funding requirements and the Company intends to follow its practice of funding the maximum deductible contribution under the IRC.

The Company forecasts the following benefit payments related to postretirement (which include a projection for expected future employee service) for the next ten years (in millions of dollars):

Year	Estimated Gross Benefit Payments
2019	\$ 8
2020	9
2021	10
2022	11
2023	12
2024-2028	66

NOTE 11 - LEASES

The Company leases certain land, buildings, equipment and vehicles under noncancelable operating leases that expire at various dates through 2036. Many of the building leases obligate the Company to pay real estate taxes, insurance and certain maintenance costs and contain multiple renewal provisions, exercisable at the Company's option. Leases that contain predetermined fixed escalations of the minimum rentals are recognized in rental expense on a straight-line basis over the lease term. Cash or rent abatements received upon entering into certain operating leases are also recognized on a straight-line basis over the lease term.

At December 31, 2018 the approximate future minimum lease payments for operating leases were as follows (in millions of dollars):

Year	Future Minimum Lease Payments
2019	\$ 65
2020	49
2021	36
2022	27
2023	18
Thereafter	38
Total minimum payments required	233
Less amounts representing sublease income	(11)
	<u>\$ 222</u>

In the fourth quarter of 2018, Grainger consolidated three office locations into one main location in the Chicago area, which increased the future minimum lease payments by \$48 million and sublease income by \$6 million. The new lease has a 10-year term.

Rent expense was \$76 million, \$76 million and \$81 million for 2018, 2017 and 2016, respectively. These amounts are net of sublease income of \$3 million, \$2 million and \$2 million for 2018, 2017 and 2016.

Capital leases as of December 31, 2018 are not considered material. Capital lease obligations are reported in Long-term debt.

Effective January 1, 2019, the Company implemented ASU 2016-02, *Leases* and subsequent modifications ASUs 2018-01, 2018-10, 2018-11 and 2018-20. See Note 1 to the Financial Statements for more information.

NOTE 12 - STOCK INCENTIVE PLANS

The Company maintains stock incentive plans under which the Company may grant a variety of incentive awards to employees and executives, which include restricted stock units (RSUs), non-qualified stock options, performance shares and deferred stock units. As of December 31, 2018, there were 2.5 million shares available for grant under the plans. When awards are exercised or settled, shares of the Company's treasury stock are issued.

Pretax stock-based compensation expense, included in SG&A was \$47 million, \$33 million and \$36 million in 2018, 2017 and 2016, respectively and was primarily comprised of Restricted Stock Units (RSUs) and option grants. Related income tax benefits recognized in earnings were \$26 million, \$26 million and \$12 million in 2018, 2017 and 2016, respectively.

Restricted Stock Units

The Company awards RSUs to certain employees and executives. RSUs granted vest generally over periods from three to seven years from issuance, although accelerated vesting is provided in certain instances. Holders of RSUs are entitled to receive nonforfeitable cash payments equivalent to cash dividends and other distributions paid with respect to common stock. RSUs are settled by the issuance of the Company's common stock on a one-for-one basis. Compensation expense related to RSUs is based upon the closing market price on the last trading day preceding the date of award and is charged to earnings on a straight-line basis over the vesting period. The following table summarizes RSU activity (in millions, except for share and per share amounts):

	2018		2017		2016	
	Shares	Weighted Average Price Per Share	Shares	Weighted Average Price Per Share	Shares	Weighted Average Price Per Share
Beginning nonvested units	352,919	\$ 226.31	373,403	\$ 221.77	432,783	\$ 213.45
Issued	141,775	\$ 284.98	129,378	\$ 222.53	113,909	\$ 230.36
Canceled	(56,393)	\$ 245.08	(47,488)	\$ 229.36	(62,869)	\$ 229.70
Vested	(94,487)	\$ 233.75	(102,374)	\$ 203.51	(110,420)	\$ 193.51
Ending nonvested units	343,814	\$ 245.38	352,919	\$ 226.31	373,403	\$ 221.77
Fair value of shares vested	\$22		\$21		\$21	

At December 31, 2018 there was \$51 million of total unrecognized compensation expense related to nonvested RSUs that the Company expects to recognize over a weighted average period of 3.0 years.

Stock Options

The Company issues stock option grants to certain employees and executives. Option awards are granted with an exercise price equal to the closing market price of the Company's stock on the day of the grant. The options generally vest over three years, although accelerated vesting is provided in certain circumstances. Awards generally expire 10 years from the grant date. Transactions involving stock options are summarized as follows:

	Shares Subject to Option	Weighted Average Price Per Share	Options Exercisable
Outstanding at January 1, 2016	2,226,286	\$ 169.96	1,411,460
Granted	294,874	\$ 234.25	
Exercised	(317,110)	\$ 108.28	
Canceled or expired	(80,014)	\$ 210.01	
Outstanding at December 31, 2016	2,124,036	\$ 186.59	1,346,707
Granted	306,206	\$ 230.97	
Exercised	(409,269)	\$ 115.35	
Canceled or expired	(87,260)	\$ 222.00	
Outstanding at December 31, 2017	1,933,713	\$ 207.10	1,375,844
Granted	204,250	\$ 276.64	
Exercised	(931,929)	\$ 193.68	
Canceled or expired	(72,931)	\$ 226.48	
Outstanding at December 31, 2018	1,133,103	\$ 229.42	581,534

At December 31, 2018 there was \$9 million of total unrecognized compensation expense related to nonvested option awards, which the Company expects to recognize over a weighted average period of 1.9 years.

The following table summarizes information about stock options (in millions of dollars):

	For the years ended December 31,		
	2018	2017	2016
Fair value of options exercised	\$ 38	\$ 11	\$ 8
Total intrinsic value of options exercised	102	47	36
Fair value of options vested	8	24	15
Settlements of options exercised	180	47	35

Information about stock options outstanding and exercisable as of December 31, 2018, is as follows:

Range of Exercise Prices	Options Outstanding				Options Exercisable			
	Number	Weighted Average		Intrinsic Value (millions)	Number	Weighted Average		Intrinsic Value (millions)
		Remaining Contractual Life	Exercise Price			Remaining Contractual Life	Exercise Price	
\$72.14 - \$204.01	184,435	2.23 years	\$ 152.28	\$ 24	183,292	2.19 years	\$ 152.17	\$ 24
\$223.68 - \$276.64	948,668	7.37 years	\$ 244.42	36	398,242	6.10 years	\$ 238.88	17
	<u>1,133,103</u>	<u>6.54 years</u>	<u>\$ 229.42</u>	<u>\$ 60</u>	<u>581,534</u>	<u>4.87 years</u>	<u>\$ 211.55</u>	<u>\$ 41</u>

The Company uses a binomial lattice option pricing model for the valuation of stock options. The weighted average fair value of options granted in 2018, 2017 and 2016 was \$67.31, \$45.09 and \$44.94, respectively. The fair value of options granted in 2018, 2017 and 2016 used the following assumptions:

	For the years ended December 31,		
	2018	2017	2016
Risk-free interest rate	2.6%	2.0%	1.4%
Expected life	6 years	6 years	6 years
Expected volatility	27.5%	23.9%	24.5%
Expected dividend yield	1.9%	2.1%	2.0%

The risk-free interest rate is selected based on yields from U.S. Treasury zero-coupon issues with a remaining term approximately equal to the expected term of the options being valued. The expected life selected for options granted during each year presented represents the period of time that the options are expected to be outstanding based on historical data of option holder exercise and termination behavior. Expected volatility is based upon implied and historical volatility of the Company's closing stock price over a period equal to the expected life of each option grant. Historical Company information is the primary basis for selection of expected dividend yield assumptions.

NOTE 13 - CAPITAL STOCK

The Company had no shares of preferred stock outstanding as of December 31, 2018 and 2017. The activity related to outstanding common stock and common stock held in treasury was as follows:

	2018		2017		2016	
	Outstanding Common Stock	Treasury Stock	Outstanding Common Stock	Treasury Stock	Outstanding Common Stock	Treasury Stock
Balance at beginning of period	56,328,863	53,330,356	58,804,314	50,854,905	62,028,708	47,630,511
Exercise of stock options	930,258	(930,258)	407,542	(407,542)	315,171	(315,171)
Settlement of restricted stock units, net of 39,075, 36,585 and 41,128 shares retained, respectively	80,988	(80,988)	103,331	(103,331)	78,310	(78,310)
Settlement of performance share units, net of 1,027, 9,334 and 6,765 shares retained, respectively	1,911	(1,911)	13,978	(13,978)	11,806	(11,806)
Purchase of treasury shares	(1,479,660)	1,479,660	(3,000,302)	3,000,302	(3,629,681)	3,629,681
Balance at end of period	<u>55,862,360</u>	<u>53,796,859</u>	<u>56,328,863</u>	<u>53,330,356</u>	<u>58,804,314</u>	<u>50,854,905</u>

NOTE 14 - ACCUMULATED OTHER COMPREHENSIVE EARNINGS (LOSSES) (AOCE)

The components of AOCE consisted of the following (in millions of dollars):

	Foreign Currency Translation and Other	Defined Postretirement Benefit Plan	Other Employment- related Benefit Plans	Total	Foreign Currency Translation Attributable to Noncontrolling Interests	AOCE Attributable to W.W. Grainger, Inc.
Balance at January 1, 2016, net of tax	\$ (277)	\$ 35	\$ (3)	\$ (245)	(24)	\$ (221)
Other comprehensive earnings (loss) before reclassifications, net of tax	(39)	(6)	(2)	(47)	1	(48)
Amounts reclassified to Net earnings	—	(4)	—	(4)	—	(4)
Net current period activity	\$ (39)	\$ (10)	\$ (2)	\$ (51)	1	\$ (52)
Balance at December 31, 2016, net of tax	\$ (316)	\$ 25	\$ (5)	\$ (296)	(23)	\$ (273)
Other comprehensive earnings (loss) before reclassifications, net of tax	75	86	1	162	4	158
Amounts reclassified to Net earnings	18	(38)	—	(20)	—	(20)
Net current period activity	\$ 93	\$ 48	\$ 1	\$ 142	4	\$ 138
Balance at December 31, 2017, net of tax	\$ (223)	\$ 73	\$ (4)	\$ (154)	(19)	\$ (135)
Other comprehensive earnings (loss) before reclassifications, net of tax	(43)	4	(1)	(40)	3	(43)
Amounts reclassified to Net earnings	2	(10)	—	(8)	—	(8)
Amounts reclassified to Retained earnings	—	15	—	15	—	15
Net current period activity	(41)	9	(1)	(33)	3	(36)
Balance at December 31, 2018, net of tax	\$ (264)	\$ 82	\$ (5)	\$ (187)	(16)	\$ (171)

NOTE 15 - INCOME TAXES

Income tax expense consisted of the following (in millions of dollars):

	For the Years Ended December 31,		
	2018	2017	2016
Current income tax expense:			
U.S. Federal	\$ 166	\$ 248	\$ 311
U.S. State	32	29	38
Foreign	47	22	25
Total current	245	299	374
Deferred income tax expense	13	14	12
Total income tax expense	\$ 258	\$ 313	\$ 386

Earnings (losses) before income taxes by geographical area consisted of the following (in millions of dollars):

	For the Years Ended December 31,		
	2018	2017	2016
U.S.	\$ 1,163	\$ 971	\$ 1,074
Foreign	(82)	(35)	(55)
	\$ 1,081	\$ 936	\$ 1,019

The income tax effects of temporary differences that gave rise to the net deferred tax asset (liability) as of December 31, 2018 and 2017 were as follows (in millions of dollars):

	As of December 31,	
	2018	2017
Deferred tax assets:		
Inventory	\$ 4	\$ 14
Accrued expenses	35	44
Accrued employment-related benefits	49	63
Foreign operating loss carryforwards	64	72
Tax credit carryforward	22	20
Other	7	8
Deferred tax assets	181	221
Less valuation allowance	(72)	(84)
Deferred tax assets, net of valuation allowance	\$ 109	\$ 137
Deferred tax liabilities:		
Property, buildings and equipment	(29)	(33)
Intangibles	(105)	(119)
Software	(15)	(20)
Prepays	(6)	(6)
Other	(8)	(4)
Deferred tax liabilities	(163)	(182)
Net deferred tax liability	\$ (54)	\$ (45)

The net deferred tax asset (liability) is classified as follows:

Noncurrent assets	\$ 12	\$ 22
Noncurrent liabilities (foreign)	(66)	(67)
Net deferred tax liability	\$ (54)	\$ (45)

At December 31, 2018 the Company had \$269 million of net operating loss (NOLs) carryforwards related primarily to foreign operations. Some of the operating loss carryforwards may expire at various dates through 2038. The Company has recorded a valuation allowance, which represents a provision for uncertainty as to the realization of the tax benefits of these carryforwards and deferred tax assets that may not be realized. The Company's valuation allowance changed as follows (in millions of dollars):

	For the Years Ended December 31,	
	2018	2017
Balance at beginning of period	\$ (84)	\$ (73)
Increases primarily related to foreign NOLs	(3)	(13)
Releases related to foreign NOLs	16	8
Other changes, net	—	5
Increase related to U.S. foreign tax credits	(1)	(11)
Balance at end of period	<u>\$ (72)</u>	<u>\$ (84)</u>

A reconciliation of income tax expense with federal income taxes at the statutory rate follows (in millions of dollars):

	For the Years Ended December 31,		
	2018	2017	2016
Federal income tax	\$ 227	\$ 327	\$ 357
State income taxes, net of federal income tax benefit	32	20	26
Clean energy credit	(20)	(38)	(29)
Foreign rate difference	20	10	21
Goodwill impairment	20	—	—
U.S. tax legislation impact (see note below)	—	(3)	—
Excess tax benefits from stock-based compensation	(15)	(14)	—
Other - net	(6)	11	11
Income tax expense	<u>\$ 258</u>	<u>\$ 313</u>	<u>\$ 386</u>
Effective tax rate	<u>23.9%</u>	<u>33.5%</u>	<u>37.9%</u>

Clean Energy Credit

In 2015 and 2016, the Company acquired noncontrolling interests in limited liability companies established to produce refined coal. The production and sale of refined coal that results in required emission reductions is eligible for tax credits under Section 45 of the Internal Revenue Code. The Company received tax credits in proportion to its equity interest. During the second half of 2018, the Company concluded its investments and will not have future benefits from these interests.

U.S. Tax Legislation

On December 22, 2017, the Tax Cuts and Jobs Act (the Tax Act) was signed into law, which significantly revised the U.S. corporate income tax system by lowering federal corporate income tax rates from 35% to 21% effective January 1, 2018, allowing accelerated expensing of qualified capital investments for a specific period, limiting net interest expense deductions and transitioning U.S. international taxation from a worldwide to a territorial tax system that required a one-time transition tax on unremitted earnings of certain foreign subsidiaries that were previously tax deferred, among other changes.

During 2018, the Company completed the accounting for the impact from the Tax Act. The Company determined that there was no material change from its estimate recorded on December 31, 2017.

Accounting for Income Taxes on Global Intangible Low-Taxed Income (GILTI)

The Company recognizes the tax on GILTI as a period expense in the period the tax is incurred. Under this policy, the Company has not provided deferred taxes related to temporary differences that upon their reversal will affect the amount of income subject to GILTI in the period.

Foreign Undistributed Earnings

Estimated gross undistributed earnings of foreign subsidiaries at December 31, 2018, amounted to \$545 million. The Company considers these undistributed earnings permanently reinvested in its foreign operations and is not recording a deferred tax liability for any foreign withholding taxes on such amounts. The Company's permanent reinvestment assertion has not changed following the enactment of the Tax Act. If at some future date the Company ceases to be permanently reinvested in its foreign subsidiaries, the Company may be subject to foreign withholding and other taxes on these undistributed earnings and may need to record a deferred tax liability for any outside basis difference in its investments in its foreign subsidiaries.

Tax Uncertainties

The Company recognizes in the financial statements a provision for tax uncertainties, resulting from application of complex tax regulations in multiple tax jurisdictions. The changes in the liability for tax uncertainties, excluding interest, are as follows (in millions of dollars):

	For the Years Ended December 31,		
	2018	2017	2016
Balance at beginning of year	\$ 45	\$ 59	\$ 61
Additions for tax positions related to the current year	4	4	14
Additions for tax positions of prior years	3	5	13
Reductions for tax positions of prior years	(5)	(13)	(15)
Reductions due to statute lapse	(9)	(5)	(1)
Settlements, audit payments, refunds - net	(1)	(5)	(13)
Balance at end of year	<u>\$ 37</u>	<u>\$ 45</u>	<u>\$ 59</u>

The Company classifies the liability for tax uncertainties in deferred income taxes and tax uncertainties. Included in this amount are \$13 million and \$21 million at December 31, 2018 and 2017, respectively, of tax positions for which the ultimate deductibility is highly certain but for which there is uncertainty about the timing of such deductibility. Any changes in the timing of deductibility of these items would not affect the annual effective tax rate but would accelerate the payment of cash to the taxing authorities to an earlier period. Excluding the timing items, the remaining amounts would affect the annual tax rate. In 2018, the changes to tax positions related generally to the impact of expiring statutes, conclusion of audits and audit settlements.

The Company regularly undergoes examination of its federal income tax returns by the Internal Revenue Service. The statute of limitations expired for the Company's 2014 federal tax return. The tax years 2015 through 2018 are open. The Company is also subject to audit by state, local and foreign taxing authorities. Tax years 2009-2018 remain subject to state and local audits and 2007-2018 remain subject to foreign audits. The amount of liability associated with the Company's tax uncertainties may change within the next 12 months due to the pending audit activity, expiring statutes or tax payments. A reasonable estimate of such change cannot be made.

The Company recognizes interest expense and penalties related to its tax uncertainties in the provision for income taxes. For the years ended December 31, 2018, 2017 and 2016, the Company recognized an expense of approximately \$1 million for each year. Total accrued interest and penalties related to tax uncertainties as of December 31, 2018, 2017 and 2016, were approximately \$4 million, \$5 million and \$4 million, respectively.

NOTE 16 - EARNINGS PER SHARE

Certain stock incentive plans grant stock awards that contain nonforfeitable rights to dividends meet the criteria of a participating security. Under the two-class method, earnings are allocated between common stock and participating securities. The presentation of basic and diluted earnings per share is required only for each class of common stock and not for participating securities. As such, the Company presents basic and diluted earnings per share for its one class of common stock.

The two-class method includes an earnings allocation formula that determines earnings per share for each class of common stock according to dividends declared and undistributed earnings for the period. The Company's reported net earnings are reduced by the amount allocated to participating securities to arrive at the earnings allocated to common stock shareholders for purposes of calculating earnings per share.

The dilutive effect of participating securities is calculated using the more dilutive of the treasury stock or the two-class method. The Company has determined the two-class method to be the more dilutive. As such, the earnings allocated to common stock shareholders in the basic earnings per share calculation is adjusted for the reallocation of undistributed earnings to participating securities to arrive at the earnings allocated to common stock shareholders for calculating the diluted earnings per share.

The following table sets forth the computation of basic and diluted earnings per share under the two-class method (in millions of dollars, except for share and per share amounts):

	For the Years Ended December 31,		
	2018	2017	2016
Net earnings attributable to W.W. Grainger, Inc. as reported	\$ 782	\$ 586	\$ 606
Distributed earnings available to participating securities	(2)	(2)	(2)
Undistributed earnings available to participating securities	(4)	(3)	(3)
Numerator for basic earnings per share - Undistributed and distributed earnings available to common shareholders	776	581	601
Undistributed earnings allocated to participating securities	4	3	3
Undistributed earnings reallocated to participating securities	(4)	(3)	(3)
Numerator for diluted earnings per share - Undistributed and distributed earnings available to common shareholders	\$ 776	\$ 581	\$ 601
Denominator for basic earnings per share – weighted average shares	56,142,604	57,674,977	60,430,892
Effect of dilutive securities	391,581	308,190	409,038
Denominator for diluted earnings per share – weighted average shares adjusted for dilutive securities	56,534,185	57,983,167	60,839,930
Earnings per share two-class method			
Basic	\$ 13.82	\$ 10.07	\$ 9.94
Diluted	\$ 13.73	\$ 10.02	\$ 9.87

NOTE 17 - SEGMENT INFORMATION

Grainger's two reportable segments are the U.S. and Canada. The U.S. reportable segment reflects the results of Grainger's U.S. businesses. The Canada reportable segment reflects the results for Acklands-Grainger, Inc. and its subsidiaries. Other businesses include the endless assortment (single-channel online businesses), Zoro Tools, Inc. (Zoro) in the U.S. and MonotaRO Co. (MonotaRO) in Japan, and smaller high-tough, high-service businesses in Europe, Asia and Mexico. These businesses individually do not meet the criteria of a reportable segment. Operating segments generate revenue almost exclusively through the distribution of MRO supplies, as service revenues account for approximately 1% of total revenues for each operating segment.

The accounting policies of the segments are the same as those described in the summary of significant accounting policies. Intersegment transfer prices are established at external selling prices, less costs not incurred due to a related party sale. The segment results include certain centrally incurred costs for shared services that are charged to the segments based upon the relative level of service used by each operating segment.

Following is a summary of segment results (in millions of dollars):

	2018				
	United States	Canada	Total Reportable Segments	Other businesses	Total
Total net sales	\$ 8,588	\$ 653	\$ 9,241	\$ 2,441	\$ 11,682
Intersegment net sales	(457)	—	(457)	(4)	(461)
Net sales to external customers	8,131	653	8,784	2,437	11,221
Segment operating earnings	1,338	(49)	1,289	8	1,297
	2017				
	United States	Canada	Total Reportable Segments	Other businesses	Total
Total net sales	\$ 7,960	\$ 753	\$ 8,713	\$ 2,120	\$ 10,833
Intersegment net sales	(404)	—	(404)	(4)	(408)
Net sales to external customers	7,556	753	8,309	2,116	10,425
Segment operating earnings	1,200	(77)	1,123	56	1,179
	2016				
	United States	Canada	Total Reportable Segments	Other businesses	Total
Total net sales	\$ 7,870	\$ 734	\$ 8,604	\$ 1,885	\$ 10,489
Intersegment net sales	(348)	—	(348)	(4)	(352)
Net sales to external customers	7,522	734	8,256	1,881	10,137
Segment operating earnings	1,269	(65)	1,204	40	1,244

Following are reconciliations of the segment information with the consolidated totals per the Financial Statements (in millions of dollars):

	2018	2017	2016
Operating earnings:			
Total operating earnings for reportable segments	\$ 1,289	\$ 1,123	\$ 1,204
Other businesses	8	56	40
Unallocated expenses	(139)	(144)	(131)
Total consolidated operating earnings	<u>\$ 1,158</u>	<u>\$ 1,035</u>	<u>\$ 1,113</u>
Assets:			
United States	\$ 2,496	\$ 2,310	\$ 2,275
Canada	188	279	286
Assets for reportable segments	\$ 2,684	\$ 2,589	\$ 2,561
Other current and noncurrent assets	2,879	3,033	2,959
Unallocated assets	310	182	174
Total consolidated assets	<u>\$ 5,873</u>	<u>\$ 5,804</u>	<u>\$ 5,694</u>
Depreciation and amortization:			
United States	\$ 166	\$ 169	\$ 159
Canada	19	19	18
Depreciation and amortization for reportable segments	\$ 185	\$ 188	\$ 177
Other businesses and unallocated	49	53	46
Total consolidated depreciation and amortization	<u>\$ 234</u>	<u>\$ 241</u>	<u>\$ 223</u>
Additions to long-lived assets			
United States	\$ 200	\$ 187	\$ 154
Canada	7	8	12
Additions to long-lived assets for reportable segments	\$ 207	\$ 195	\$ 166
Other businesses and unallocated	39	67	106
Total consolidated additions to long-lived assets	<u>\$ 246</u>	<u>\$ 262</u>	<u>\$ 272</u>
Revenue by geographic location:			
United States	\$ 8,613	\$ 7,948	\$ 7,834
Canada	658	761	740
Other foreign countries	1,950	1,716	1,563
	<u>\$ 11,221</u>	<u>\$ 10,425</u>	<u>\$ 10,137</u>
Long-lived segment assets by geographic location:			
United States	\$ 1,140	\$ 1,098	\$ 1,135
Canada	136	199	211
Other foreign countries	202	247	210
	<u>\$ 1,478</u>	<u>\$ 1,544</u>	<u>\$ 1,556</u>

Revenues are attributed to countries based on the ship-to location of the customer.

Segment and total consolidated operating earnings for the twelve months ended December 31, 2017 were restated for the implementation of ASU 2017-07. See Note 1 to the Financial Statements.

Unallocated expenses and eliminations primarily relate to the Company's headquarters support services and intercompany eliminations, which are not part of any reportable segment. Unallocated expenses include supply chain, product management and procurement, finance, communications, human resources, information systems, legal and compliance, internal audit and real estate. These services are provided in varying degrees to all businesses.

The Company is a broad-line distributor of MRO products and services. Products are regularly added and deleted from the Company's inventory. Accordingly, it would be impractical to provide sales information by product category due to the way the business is managed.

Assets for reportable segments include net accounts receivable and first-in, first-out inventory which are reported to the Company's Chief Operating Decision Maker. Other current and non-current assets include all other assets of the reportable segments. Unallocated assets are primarily comprised of non-operating cash and cash equivalents, property, buildings and equipment, net, and certain prepaid expenses related to the Company's headquarters support services.

Depreciation and amortization presented above includes depreciation of long-lived assets and amortization of capitalized software.

NOTE 18 - CONTINGENCIES AND LEGAL MATTERS

From time to time the Company is involved in various legal and administrative proceedings that are incidental to its business, including claims related to product liability, general negligence, contract disputes, environmental issues, unclaimed property, wage and hour laws, intellectual property, employment practices, regulatory compliance or other matters and actions brought by employees, consumers, competitors, suppliers or governmental entities. As a government contractor selling to federal, state and local governmental entities, the Company is also subject to governmental or regulatory inquiries or audits or other proceedings, including those related to contract administration or to pricing compliance. It is not expected that the ultimate resolution of any of these matters will have, either individually or in the aggregate, a material adverse effect on the Company's consolidated financial position or results of operations.

From time to time, the Company has also been named, along with numerous other nonaffiliated companies, as a defendant in litigation in various states involving asbestos and/or silica. These lawsuits typically assert claims of personal injury arising from alleged exposure to asbestos and/or silica as a consequence of products manufactured by third parties purportedly distributed by the Company. While several lawsuits have been dismissed in the past based on the lack of product identification, if a specific product distributed by the Company is identified in any pending or future lawsuits, the Company will seek to exercise indemnification remedies against the product manufacturer to the extent available. In addition, the Company believes that a substantial number of these claims are covered by insurance. The Company has entered into agreements with its major insurance carriers relating to the scope and coverage and the costs of defense, of lawsuits involving claims of exposure to asbestos. The Company believes it has strong legal and factual defenses and intends to continue defending itself vigorously in these lawsuits. While the Company is unable to predict the outcome of these proceedings, it believes that the ultimate resolution will not have, either individually or in the aggregate, a material adverse effect on the Company's consolidated financial position or results of operations.

NOTE 19 - SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

A summary of selected quarterly information for 2018 and 2017 is as follows (in millions of dollars, except for per share amounts):

	2018 Quarter Ended				
	March 31	June 30	September 30	December 31	Total
Net sales	\$ 2,766	\$ 2,861	\$ 2,831	\$ 2,763	\$ 11,221
COGS	1,674	1,750	1,752	1,697	6,873
Gross profit	1,092	1,111	1,079	1,066	4,348
SG&A	757	767	890	776	3,190
Operating earnings	335	344	189	290	1,158
Net earnings attributable to W.W. Grainger, Inc.	232	237	104	209	782
Earnings per share - basic	4.09	4.19	1.84	3.71	13.82
Earnings per share - diluted	\$ 4.07	\$ 4.16	\$ 1.82	\$ 3.68	\$ 13.73

	2017 Quarter Ended				
	March 31	June 30	September 30	December 31	Total
Net sales	\$ 2,541	\$ 2,615	\$ 2,636	\$ 2,633	\$ 10,425
COGS	1,522	1,575	1,619	1,611	6,327
Gross profit	1,019	1,040	1,017	1,022	4,098
SG&A	726	811	740	786	3,063
Operating earnings	293	229	277	236	1,035
Net earnings attributable to W.W. Grainger, Inc.	175	98	162	151	586
Earnings per share - basic	2.95	1.68	2.80	2.64	10.07
Earnings per share - diluted	\$ 2.93	\$ 1.67	\$ 2.79	\$ 2.63	\$ 10.02

SIGNATURES

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

DATE: February 28, 2019

W.W. GRAINGER, INC.

By: /s/ D.G. Macpherson
D.G. Macpherson
Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Grainger on February 28, 2019, in the capacities indicated.

/s/ D.G. Macpherson

D.G. Macpherson
Chairman and Chief Executive Officer, Director
(Principal Executive Officer)

/s/ Thomas B. Okray

Thomas B. Okray
Senior Vice President
and Chief Financial Officer
(Principal Financial Officer)

/s/ Eric R. Tapia

Eric R. Tapia
Vice President and Controller
(Principal Accounting Officer)

/s/ Brian P. Anderson

Brian P. Anderson
Director

/s/ V. Ann Hailey

V. Ann Hailey
Director

/s/ Neil S. Novich

Neil S. Novich
Director

/s/ E. Scott Santi

E. Scott Santi
Director

/s/ Lucas E. Watson

Lucas E. Watson
Director

EXHIBIT INDEX (1)

EXHIBIT NO.	DESCRIPTION
1.1	Underwriting Agreement, dated as of May 15, 2017, among W.W. Grainger, Inc. and Morgan Stanley & Co. LLC, J.P. Morgan Securities LLC and U.S. Bancorp Investments, Inc., as representatives of the underwriters named therein, incorporated by reference to Exhibit 1.1 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated May 22, 2017.
2.1	Share Purchase Agreement, dated as of July 30, 2015, by and among Grainger, GWW UK Holdings Limited, Gregory Family Office Limited and Michael Gregory, incorporated by reference to Exhibit 2.1 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated July 31, 2015.
3.1	Restated Articles of Incorporation, incorporated by reference to Exhibit 3(i) to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 1998.
3.2	By-laws, as amended on March 9, 2017, incorporated by reference to Exhibit 3.1.1 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated March 9, 2017.
4.1	No instruments which define the rights of holders of W.W. Grainger, Inc.'s Industrial Development Revenue Bonds are filed herewith, pursuant to the exemption contained in Regulation S-K, Item 601(b)(4)(iii). W.W. Grainger, Inc. hereby agrees to furnish to the Securities and Exchange Commission, upon request, a copy of any such instrument.
4.2	Indenture, dated as of June 11, 2015, between W.W. Grainger, Inc. and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.1 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated June 11, 2015.
4.3	First Supplemental Indenture, dated as of June 11, 2015, between W.W. Grainger, Inc. and U.S. Bank National Association, as trustee, and Form of 4.60% Senior Notes due 2045, incorporated by reference to Exhibit 4.2 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated June 11, 2015.
4.4	Second Supplemental Indenture, dated as of May 16, 2016, between W.W. Grainger, Inc., and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.1 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated May 16, 2016.
4.5	Third Supplemental Indenture, dated as of May 22, 2017, between W.W. Grainger, Inc., and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.1 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated May 22, 2017.
4.6	Form of 3.75% Senior Notes due 2046 (included in Exhibit 4.4), incorporated by reference to Exhibit 4.2 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated May 16, 2016.
4.7	Form of 4.20% Senior Notes due 2047 (included in Exhibit 4.5), incorporated by reference to Exhibit 4.2 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated May 22, 2017.
10.1	1990 Long-Term Stock Incentive Plan, as amended, incorporated by reference to Exhibit 10(a) to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.*
10.2	Form of Indemnification Agreement between W.W. Grainger, Inc. and each of its directors and certain of its executive officers, incorporated by reference to Exhibit 10(b)(i) to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2009.*
10.3	Frozen Executive Death Benefit Plan, as amended, incorporated by reference to Exhibit 10(b)(v) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2007.*
10.4	First amendment to the Frozen Executive Death Benefit Plan, incorporated by reference to Exhibit 10(b)(v)(1) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008.*
10.5	Second amendment to the Frozen Executive Death Benefit Plan, incorporated by reference to Exhibit 10(b)(iv)(2) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009.*
10.6	Supplemental Profit Sharing Plan, as amended, incorporated by reference to Exhibit 10(viii) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2003.*
10.7	Supplemental Profit Sharing Plan II, as amended, incorporated by reference to Exhibit 10(b)(ix) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2007.*
10.8	Voluntary Salary and Incentive Deferral Plan, as amended, incorporated by reference to Exhibit 10(b)(xi) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2007.*
10.9	Summary Description of the 2018 Directors Compensation Program.*
10.10	2005 Incentive Plan, as amended, incorporated by reference to Exhibit 10(d) to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2006.*

- [10.11](#) 2010 Incentive Plan, incorporated by reference to Exhibit B of W.W. Grainger, Inc.'s Proxy Statement dated March 12, 2010.*
- [10.12](#) Form of Stock Option Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10(b)(xvi) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009.*
- [10.13](#) Form of Stock Option Award and Restricted Stock Unit Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10(b)(xvii) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009.*
- [10.14](#) Form of Restricted Stock Unit Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10(b)(xviii) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2010.*
- [10.15](#) Form of 2012 Performance Share Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10(b)(xix) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012.*
- [10.16](#) Summary Description of the 2019 Management Incentive Program.*
- [10.17](#) Incentive Program Recoupment Agreement, incorporated by reference to Exhibit 10(b)(xxv) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009.*
- [10.18](#) Form of Change in Control Employment Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10(b)(xxvii) to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2010.*
- [10.19](#) Form of 2013 Performance Share Award Agreement between Grainger and certain of its executive officers, incorporated by reference to Exhibit 10(b)(xxiii) to Grainger's Annual Report on Form 10-K for the year ended December 31, 2013.*
- [10.20](#) Form of 2014 Performance Share Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10(b)(xxiv) to Grainger's Annual Report on Form 10-K for the year ended December 31, 2014.*
- [10.21](#) Form of 2015 Performance Share Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.28 to W.W. Grainger, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2015.*
- [10.22](#) W.W. Grainger, Inc. 2015 Incentive Plan, incorporated by reference to Exhibit B of W.W. Grainger, Inc.'s Proxy Statement dated March 13, 2015.*
- [10.23](#) First Amendment to the W.W. Grainger, Inc. 2015 Incentive Plan, incorporated by reference to 10.1 of W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2017.*
- [10.24](#) W.W. Grainger, Inc. 2015 Incentive Plan as Amended and Restated Effective October 31, 2018, incorporated by reference to Exhibit 10.1 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2018.*
- [10.25](#) Separation Agreement and General Release by and between W.W. Grainger, Inc. and Court Carruthers dated July 22, 2015, incorporated by reference to Exhibit 10(b)(i) to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2015.*
- [10.26](#) £180,000,000 Facilities Agreement, dated as of August 26, 2015, by and among GWW UK Holdings Ltd, W.W. Grainger, Inc., the lender parties thereto, Lloyds Bank PLC and Lloyds Securities Inc., as Arrangers, and Lloyds Bank PLC, as Agent, incorporated by reference to W.W. Grainger, Inc.'s Current Report on Form 8-K dated September 1, 2015.
- [10.27](#) Form of Stock Option Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.1 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2016.*
- [10.28](#) Form of Restricted Stock Unit Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.2 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2016.*
- [10.29](#) Form of 2016 Performance Share Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.3 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2016.*
- [10.30](#) Form of Stock Option Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.2 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2017.*
- [10.31](#) Form of Restricted Stock Unit Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.3 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2017.*
- [10.32](#) Form of 2017 Performance Share Award Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.4 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2017.*

10.33	Credit Agreement dated as of October 6, 2017, by and among W.W. Grainger, Inc., the lenders parties thereto, and U.S. Bank National Association, as Administrative Agent, incorporated by reference to Exhibit 10.1 to W.W. Grainger, Inc.'s Current Report on Form 8-K dated October 6, 2017.
10.34	Separation Agreement and General Release by and between W.W. Grainger, Inc. and Ronald L. Jadin dated April 2, 2018, incorporated by reference to Exhibit 10.1 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2018.*
10.35	Form of Separation Agreement and General Release by and between W.W. Grainger, Inc. and Joseph C. High, incorporated by reference to Exhibit 10.2 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2018.*
10.36	Form of 2018 W.W. Grainger, Inc. 2015 Incentive Plan Stock Option Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.3 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2018.*
10.37	Form of 2018 W.W. Grainger, Inc. 2015 Incentive Plan Restricted Stock Unit Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.4 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2018.*
10.38	Form of 2018 W.W. Grainger, Inc. 2015 Incentive Plan Performance Restricted Stock Unit Agreement between W.W. Grainger, Inc. and certain of its executive officers, incorporated by reference to Exhibit 10.5 to W.W. Grainger, Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2018.*
21	Subsidiaries of Grainger.
23	Consent of Independent Registered Public Accounting Firm.
31.1	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32	Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to 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 Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

(*) Management contract or compensatory plan or arrangement.

(1) Certain instruments defining the rights of holders of long-term debt securities of the Registrant are omitted pursuant to Item 601(b)(4)(iii) of Regulation S-K. The Registrant hereby undertakes to furnish to the SEC, upon request, copies of any such instruments.

Summary Description of the 2018 Directors Compensation Program

Members of the Company's Board of Directors who are not Company employees receive an annual retainer of \$100,000, which is intended to cover all regularly scheduled meetings of the Board and its committees.

The Chairs of Board committees receive additional annual retainers. For the Chair of the Audit Committee, the retainer is \$20,000; for the Chair of the Board Affairs and Nominating Committee, the retainer is \$10,000; and for the Chair of the Compensation Committee, the retainer is \$15,000. The retainer for the Lead Director is \$25,000.

All independent directors also receive an annual deferred stock unit grant. The number of shares covered by each grant is equal to \$145,000 (based on the 200-day average stock price as of January 31, in the year of the grant, a methodology consistent with the calculation for other executive equity awards), rounded up to the next ten-share increment. The deferred stock units are settled upon termination of service as a director. Directors may also defer their annual retainers, committee chair retainers, and meeting fees in a deferred stock unit account.

A director who is an employee of Grainger or any Grainger subsidiary does not receive any retainer fees for Board or Board committee service, Board or Board committee meeting attendance fees, or stock options or stock units under the Director Stock Plan.

Stock ownership guidelines applicable to non-employees directors were established in 1998. These guidelines provide that within five years after election, a director must own Grainger common stock and common stock equivalents having a value of at least five times the annual retainer fee for serving on the Board.

**SUMMARY DESCRIPTION OF THE
2019 COMPANY MANAGEMENT INCENTIVE PROGRAM**

I. Introduction

The 2019 Company Management Incentive Program (CMIP) is designed to provide an incentive cash compensation opportunity to the CEO of W.W. Grainger, Inc. (Company) and the CEO's direct reports (individually, a participant, and collectively, the participants) based upon two key factors that drive improvements in shareholder value: Return on Invested Capital (ROIC) and Sales Growth.

II. Objectives

The CMIP is designed to:

- Encourage decision-making focused on growing the business profitably and efficiently, thus leading to improvements in shareholder value;
- Influence participants to make decisions consistent with shareholders' interests;
- Align participant actions with relevant Company objectives; and,
- Attract and retain the talent required to achieve the Company's objectives.

III. Eligibility

Eligibility for participation in the CMIP is limited to the Company's CEO and the CEO's direct reports. Criteria for selection as a participant are external market practice, impact of the role, and internal practice. Participation in the CMIP is subject to the eligibility provisions in Section B of the attached Terms and Conditions.

IV. Performance Measures

Shareholder value will improve most dramatically if the Company can achieve these goals simultaneously:

1. Produce a favorable rate of ROIC; and
2. Grow the business rapidly.

Incentive cash compensation earned by participants under the 2019 Company MIP will be based on the Company's achievement of ROIC and Sales Growth targets, as follows:

% Payout = ROIC Component + Sales Growth Component The maximum award is capped at 200% of target.

ROIC Component

ROIC is defined as the Company's operating earnings divided by the Company's net working assets:

$$\text{ROIC} = \frac{\text{Operating Earnings}}{\text{Net Working Assets}}$$

The ROIC component will range from 0% to 100% of a participant's total target incentive. Payouts will

occur as follows:

Company ROIC Performance %	ROIC Payout (as a % of Target)
< 11.3%	0%
24.6%	25%
30.5% to 30.7%	50%
36.5%	75%
49.8%	100%

Amounts will be interpolated as necessary.

Sales Growth Component

Sales Growth is defined as the Company's year-over-year performance:

$$\text{Sales Growth} = \frac{\text{Total Daily Sales, Current Year}}{\text{Total Daily Sales, Prior Year}} - 1$$

The Sales Growth component is added to the ROIC results and will be determined as follows:

Company Sales Growth Performance %	Sales Growth Payout (as a % of Target)
< -13.3%	0%
0.0%	25%
6.3% to 7.7%	50%
12.5%	75%
25.8%	100%

Amounts will be interpolated as necessary.

The calculation of ROIC and Sales Growth will exclude the effect of any mergers, acquisitions or divestitures with a closing date or acquisition/divestiture date that occurs during the same fiscal year. In other words, the impact of any merger, acquisition, or divestiture on sales growth, operating earnings and net working assets will be excluded when calculating the Company's achievement of the performance measures.

The Compensation Committee of the Board (CCOB) retains discretion to modify the payout formula based on windfalls and shortfalls.

V. Target Award

Also known as the target incentive, the target awards for each participant are stated as a percentage of the participant's Base Salary or a target value (expressed as fixed dollar amount). Target awards follow competitive market practice and internal considerations, and are determined in the sole discretion of the CCOB.

VI. Determination of Payment Amounts

The following process is used to determine the payment amount for each participant.

Step 1: Corporate Finance determines the performance results for the ROIC Component and the resultant performance to goal, and computes the appropriate percentage of Target Incentive earned.

Step 2: Corporate Finance determines the performance results for the Sales Growth Component and the resultant performance to goal, and computes the appropriate percentage of Target Incentive earned.

Step 3: Corporate Finance calculates the MIP Payout Amount.

$$\text{Total \% Payout} = \text{ROIC Component} + \text{Sales Growth Component}$$

Step 4: Corporate Compensation calculates each participant's incentive award earned as follows:

$$\text{Incentive Earned} = \text{Base Salary (as of December 31, 2019)} \times \text{Target Incentive \%} \times \text{Total \% Payout}$$

Participants holding incentive-eligible jobs for part of the year will earn an adjusted award based on the eligibility provisions of the Terms and Conditions.

Step 5: The Compensation Committee of Management (CCOM) and the CCOB review and approve final incentive amounts for each participant.

Step 6: Corporate Compensation is responsible for setting communication standards for the final incentive amounts earned by each participant and the payment dates.

TERMS AND CONDITIONS OF THE 2019 COMPANY MANAGEMENT INCENTIVE PROGRAM (CMIP)

A. Program Year

The CMIP covers the period from January 1, 2019 to December 31, 2019.

B. Eligibility Provisions

Specific eligibility provisions are developed and reviewed annually. Eligibility provisions for Participants on active payroll are as follows:

1. Full-Year Participation - Participants who were in incentive-eligible jobs for the full year will be eligible to receive a full award under the MIP, except as noted below.
 2. First-Year Participation (internal promotion or external hire) - Participants who are placed into an incentive eligible job on or before December 1 will be eligible to receive a pro-rata award based on the number of months in the eligible job. Participants placed in an eligible job after December 1 are not eligible to participate for that year.
 3. Changes in Target MIP Percentage - Participants whose target MIP percentage changes during the year due to promotion, demotion or reclassification of the current job will receive an award pro-rated based on the number of months at each MIP level.
 4. Transfer to Another Incentive Program - A Participant who changes jobs during the year such
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that the former and current jobs participate in different incentive programs will receive an award pro-rated based on the number of months in each eligible job.

5. Transfer to a Non-Incentive Eligible Job - A Participant in an incentive-eligible job who transfers to a non-incentive-eligible job will receive a pro-rata award for the number of months in an eligible job. Payment will be made on the next incentive payment date.

Job Elimination or Downgrade - In the sole discretion of the CCOM, if a Participant's job is eliminated for business reasons or is downgraded and the Participant's new job is non-incentive eligible, a pro-rata award for the current year will be made on the next incentive payment date, regardless of the effective date of the job elimination or downgrade. In the event the Participant does not continue Employment, any award for the current year will be made on the next incentive payment date. The salary used in the calculations will be the Participant's base salary as of the Participant's last day of Employment.

6. Voluntary Resignation - If a Participant's resignation date is before December 31, no award will be paid for the current year. Subject to paragraphs 8 and 10 below, if a Participant's resignation date is after December 31 and the Participant was in an eligible job on December 1 of that year, the Participant will be deemed to have earned that year's payment, if any. The Participant will receive a pro-rata payment based on the number of months in an incentive-eligible job that year on the next incentive payment date.
7. Death, Retirement or Long-term Disability - A pro-rata award will be made for the current year to the Participant or his/her estate on the next incentive payment date. The salary used in the calculations will be the base salary as of their last day worked.
8. Pro-rata Calculation - Participation in CMIP will be calculated in whole months with the 14th calendar day of the month as the cutoff. For example, if a Participant is in the job on the 14th day of the month, they will get credit for the whole month, if they are in the job on the 15th, they will get credit beginning the next month (e.g., transfer into an eligible job on January 15th - February 14th will get 11/12th MIP for the year, transfer into an eligible job on January 14th or earlier will get 12/12th MIP).
9. Eligible Employees must be in good standing, as determined in the sole discretion of the CCOM, to be eligible for participation in the CMIP. Good standing includes not currently being on a performance improvement program.

C. Termination of Employment; Engaging in Misconduct; Excess Payments; Restatement of Inaccurate Financial Results; Indemnification

1. If (a) the Participant's Employment is terminated by the Employer for whatever reason (other than by reason of job elimination), (b) the Employer does not renew an employment contract with a Participant, or (c) the Participant Engaged in Misconduct, or is believed to have Engaged in Misconduct, all awards will be forfeited.
 2. If a Participant Engaged in Misconduct or is believed to have Engaged in Misconduct, the Company shall be entitled to recover from the Participant, and Participant shall re-pay any cash sum received pursuant to the CMIP, in whole or in part, for any period of time, as the Company deems appropriate under the circumstances. Further, if the Participant (or former Participant) receives any amount in excess of what the Participant (or former Participant) should have received under the terms of the CMIP for any reason (including, without limitation, by reason of a mistake in calculations or administrative error), all as determined by the CCOM in its discretion, then the Company shall have the right to cancel the award, require the repayment of any excess cash distribution acquired pursuant to, or received in connection with, the CMIP or take any other action it deems appropriate under the circumstances with respect to recouping the excess payment.
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3. The Company shall have the discretion to recover awards that were paid or settled to the Participant at a time when she or he was an employee in the following instances:
 - a. If the payment or settlement of awards would have been lower had the achievement of applicable financial performance goals been calculated based on such restated financial results, if the Participant Engaged in Misconduct; and/or
 - b. In the case of materially inaccurate financial results, whether or not they result in a restatement, and whether or not the Participant has Engaged in Misconduct; and/or
 - c. For any reason (including, without limitation, by reason of a mistake in calculations or administrative error), all as determined by the CCOM in its discretion.

Except in circumstances where a Participant has Engaged in Misconduct, awards received or settled more than three years after the date of the initial filing with the U.S. Securities & Exchange Commission that contained the incorrect financial results shall not be subject to recovery under this Section C.3.

4. The rights and obligations of each Participant under the terms and conditions of his/her Employment shall be unaffected by his/her participation in the CMIP or any right he/she may have with the Company to participate in the CMIP. A Participant who participates in the CMIP waives any and all rights to compensation or damages in consequence of the termination of his/her Employment for any reason insofar as those rights arise or may arise from his/her forfeiture of an award under the CMIP as a result of such termination or from the loss or diminution in value of rights or entitlements he/she may have under the CMIP. If necessary, a Participant's terms of Employment shall be varied accordingly.
5. The exercise of the Company of its rights under this Section C shall not constitute the recovery of liquidated damages, nor shall the exercise of such rights be deemed its exclusive remedies, but shall be in addition to all other rights available at law or in equity. The Participant expressly agrees to indemnify and hold the Company and the Participant's Employer harmless from any loss, cost, damage, or expense (including attorneys' fees) that the Company or the Employer may incur as a result of the Participant's actions or in the Company's and/or the Employer's efforts to recover such previously made payments or value pursuant to this Section C.

D. Administration and Oversight of the CMIP

The governance of the CMIP is the responsibility of the CCOM subject to the review and approval of the CCOB. The CCOM shall have the sole and complete authority and discretion to interpret the CMIP, determine all questions relating to it, and to modify its provisions. All determinations, interpretations or other actions made or taken by the CCOM in connection with the CMIP shall be final and conclusive for all purposes and upon all persons.

The administration of the CMIP, including the calculation of payments, is the responsibility of the Company's Vice President, Controller, Treasurer and the Company's Vice President, Total Rewards.

E. Payment

Payment under the CMIP will be made annually on or before March 15 for the prior year's results unless country-specific regulations require otherwise. Payment will be made by the Employer in local currency or equivalent, less applicable withholding taxes and other amounts required to be withheld.

Notwithstanding anything herein to the contrary, payment of all or part of awards under this Program that are subject to or otherwise result in disallowance as deductions for employee remuneration under Section 162(m) of the Internal Revenue Code of 1986, as amended, shall be deferred as and to the extent provided by the Board of Directors or the CCOB.

F. **Right of Continued Employment**

Participation in the CMIP is not a guarantee of continuing Employment or of continued participation in the CMIP in any subsequent year.

G. **Amendment or Termination of CMIP**

The CCOB may from time to time recommend to the CCOM that the Company amend, change or terminate the CMIP at any time and may approve any material amendments to the CMIP. The Company also reserves the right to amend these Terms and Conditions or the CMIP at any time and from time to time, with or without prior notice; provided, that no amendment shall, without the consent of the Participant, operate to affect adversely any payment.

H. **Definitions**

Base Salary is defined as the locally relevant rate of pay used to determine a MIP award;

CCOB is the Compensation Committee of the Board, the body that has oversight responsibility for the CMIP;

CCOM is Compensation Committee of Management, the body that has authority to govern and administer the CMIP;

CMIP is the 2019 Company Management Incentive Program, as governed by these Terms and Conditions;

Company is W.W. Grainger, Inc.;

Eligible Employee is the Company's CEO and each employee of the Company or its subsidiaries that directly reports to the Company's CEO;

Employer is the Company or the local subsidiary of the Company that employs the Participant;

Employment is a Participant's employment with the Employer in accordance with the terms and conditions of their employment contract, if any, in business units where applicable;

Engaged in Misconduct means a Participant:

- (i) has breached any contract or agreement with the Employer;
 - (ii) has made any unauthorized disclosure of any of the trade secrets or confidential information of Employer;
 - (iii) has committed an act of embezzlement, fraud or theft with respect to the property of Employer;
 - (iv) has engaged in conduct which violates the company's Business Conduct Guidelines, employee handbook, or any anti-corruption or bribery law (whether involving government officials or otherwise);
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- (v) has deliberately disregarded the rules of the Employer in such a manner as to cause any loss, damage or injury to, or otherwise endanger the property, reputation or employees of the Employer;
- (vi) induced any employee, supplier, customer, agent or contractor of Employer or any other individual to take any action described in (i)-(v) above;
- (vii) intends to take any action described in (i)-(vi) above; or
- (viii) has taken any other action that the CCOM in its discretion determines to be detrimental;

Participant is each Eligible Employee who has been designated by the CCOB to participate in the CMIP;

Retirement is defined based on the payroll from which a Participant is paid. In the United States, the definition is the same as W.W. Grainger, Inc. Employees Profit Sharing Plan;

Target Award is the amount of the incentive before any performance criteria increase or decrease the award;

Termination Date is the date a Participant ceases Employment howsoever caused;

Terms and Conditions are these Terms and Conditions as amended from time to time .

W.W. GRAINGER, INC.

Subsidiaries and Affiliated Companies
(as of December 31, 2018)**Subsidiaries (over 50% ownership)**

Subsidiary	Jurisdiction
2020 Supplies Limited	England & Wales
2422626 Ontario Inc.	Ontario
971086 Ontario Inc.	Ontario
Acklands - Grainger Inc.	Canada
AJ Howard Industrial Supplies Limited	England & Wales
American Fabory Corporation	Delaware
Apex Industrial Limited	Scotland
Ashlink Software Limited	England & Wales
Blackrock Tools Inc.	Ontario
BMF Finance B.V.	Netherlands
BMF Fundco B.V.	Netherlands
BMF Management Services B.V.	Netherlands
BMFGH Holding B.V.	Netherlands
Bogle and Timms Limited	England & Wales
Borstlap International B.V.	Netherlands
Cambridge Tool Supplies Limited	England & Wales
CJ Bent & Son Limited	England & Wales
Comag PTY Limited	Australia
Combori N.V.	Belgium
Cromwell Bearings and Transmission Services Limited	England & Wales
Cromwell Czech Republic s.r.o.	Czech Republic
Cromwell Group (Holdings) Limited	England & Wales
Cromwell Group (International) Limited	England & Wales
Cromwell Industrial Supplies Private Limited	India
Cromwell Logistics Limited	England & Wales
Cromwell PTY Limited	Australia
Cromwell SAS	France
Cromwell Sp z.o.o.	Poland
Cromwell Tools (Norwich) Limited	England & Wales
Cromwell Tools (Rochester) Limited	England & Wales
Cromwell Tools (Shanghai) Co. Ltd.	People's Republic of China
Cromwell Tools (Thailand) Co. Ltd.	Thailand
Cromwell Tools Limited	England & Wales
Cromwell Tools SDN BHD	Malaysia
Cromwell Tools SRL	Romania
PT Cromwell Tools	Indonesia
Cromwell-Siddle (Grimsby) Limited	England & Wales
Dayton Electric Manufacturing Co.	Illinois
E & R Industrial Sales, Inc.	Michigan
E&R Tooling and Solutions de Mexico, S. de R.L. de C.V.	Mexico

East Midlands Property Developments Limited	England & Wales
Engineerstore Limited	England & Wales
Fabory Asia B.V.	Netherlands
Fabory Canada Inc.	Canada
Fabory Centres Belgium N.V.	Belgium
Fabory CZ Holding s.r.o.	Czech Republic
Fabory France S.A.	France
Fabory Kőtoelem Kereskedelmi KFT	Hungary
Fabory Masters in Fasteners Group B.V.	Netherlands
Fabory Nederland B.V.	Netherlands
Fabory Overseas Holding B.V.	Netherlands
Fabory Poland Sp. z.o.o.	Poland
Fabory Portugal Lda.	Portugal
Fabory Shanghai Co. Ltd.	People's Republic of China
Fabory Slovakia s.r.o.	Slovakia
Fabory Spain S.L.	Spain
Fabory SRL	Romania
Fabory U.S.A., Ltd.	Delaware
Fabory UK Holdings Limited	England & Wales
Fabory UK Limited	England & Wales
FEC Distribution Specialties Inc.	Ontario
FFSA S.A.	France
Fixbolt (Suhzou) Co., Ltd. Taicang	People's Republic of China
G.T.S.S. Engineers Supplies Limited	England & Wales
Gamut Supply LLC	Delaware
GHC Specialty Brands, LLC	Wisconsin
GMMI LLC	Delaware
Grainger Asia Pacific K.K.	Japan
Grainger Brasil Comércio e Distribuição Ltda.	Brazil
Grainger Brasil Participações Ltda.	Brazil
Grainger Canada Holdings ULC	Alberta
Grainger Caribe, Inc.	Illinois
Grainger China LLC	People's Republic of China
Grainger Colombia Holding Company, LLC	Delaware
Grainger Colombia S.A.S.	Colombia
Grainger Dominicana SRL	Dominican Republic
Grainger Energy Initiatives, LLC	Delaware
Grainger Global Holdings, Inc.	Delaware
Grainger Global Online Business Ltd	England and Wales
Grainger Global Trading (Shanghai) Company Limited	People's Republic of China
Grainger Guam L.L.C.	Guam
Grainger Industrial MRO de Costa Rica S.R.L.	Costa Rica
Grainger Industrial Supply India Private Limited	India
Grainger International Holdings B.V.	Netherlands
Grainger International, Inc.	Illinois
Grainger Japan Holdings, Inc.	Delaware
Grainger Japan, Inc.	Delaware
Grainger Latin America Holding Company, Inc.	Delaware

Grainger Management LLC	Illinois
Grainger Mexico LLC	Delaware
Grainger NRCI, LLC	Delaware
Grainger Panama S.A.	Panama
Grainger Panama Services S. de R.L.	Panama
Grainger Peru S.R.L.	Peru
Grainger Pleasant Prairie RC LLC	Delaware
Grainger Procurement Company LLC	Illinois
Grainger Registry Services, LLC	Delaware
Grainger Safety Services, Inc.	Delaware
Grainger Service Holding Company, Inc. (d/b/a Grainger Lighting Services)	Delaware
Grainger Services International Inc.	Illinois
Grainger Services Network, Inc.	Delaware
Grainger Singapore Pte. Ltd.	Singapore
Grainger, S.A. de C.V.	Mexico
GWW Investments C.V.	Netherlands
GWW UK Holdings Ltd.	England and Wales
Helivend Limited	Scotland
HF Supplies Scotland Limited	England & Wales
Imperial Supplies Holdings, Inc.	Delaware
Imperial Supplies LLC	Delaware
Inbema N.V.	Curaçao Netherlands Antilles
India Pacific Brands	Mauritius
Industrial Supply Alliance Limited	England & Wales
John Blee (Tools) Limited	England & Wales
John Smallman Limited	England & Wales
JSL Bearbreak Limited	England & Wales
Kennedy International (England) Limited	England & Wales
Krusters 2000 Inc.	Ontario
LN Participações Ltda.	Brazil
McSkimming Industrial Supplies Limited	Scotland
Merlin Business Software Limited	England & Wales
MFC I, Inc.	Delaware
MonotaRO Co., Ltd.	Japan
Mountain Ventures WWG IV, LLC	Delaware
Mountain Ventures WWG V, LLC	Delaware
Mountain Ventures WWG, LLC	Delaware
MRO Soluciones, S.A. de C.V.	Mexico
NAVIMRO Co., Ltd.	Republic of Korea (South Korea)
Newton RC, LLC	Delaware
Norwell Engineering Limited	England & Wales
Pimentel Fasteners B.V.	Netherlands
Pro Tool Point Supply, Inc.	Illinois
PT MonotaRO Indonesia	Indonesia
Red Twig LLC	Delaware
Safety Registry Services, LLC	Delaware
Safety Solutions, Inc.	Ohio

Technical Tooling Limited	England & Wales
The Kennedy Group Limited	England & Wales
Tooling & Engineering Distributors (TED) Limited	Ireland
Tumers (Ironmongers) Limited	England & Wales
Valentine Tools Limited	England & Wales
WFS (USA) Ltd.	South Carolina
WFS Enterprises Inc.	Ontario
WFS Holding Company, Inc.	Michigan
WFS Ltd.	Ontario
Windsor Factory Supply Inc.	Michigan
WWG de Mexico, S.A. de C.V.	Mexico
WWG International Finance C.V.	Netherlands
WWG Servicios, S.A. de C.V.	Mexico
WWGH LLC	Delaware
Zoro IP Holdings, LLC	Illinois
Zoro Tools Europe GmbH	Germany
Zoro Tools, Inc.	Delaware

Subsidiaries (50% and less ownership)

Subsidiary	Jurisdiction
Sterling Fabory India Private Ltd. (50%)	India

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

- (1) Registration Statement (Form S-3 No. 333-203444) of W. W. Grainger, Inc.
- (2) Registration Statement (Form S-4 No. 33-32091 and Post-Effective Amendment No.1) of W. W. Grainger, Inc.

- (3) Registration Statement (Form S-8 No. 33-43902) pertaining to the 1990 Long Term Stock Incentive Plan of W. W. Grainger, Inc.
- (4) Registration Statement (Form S-8 No. 333-24215) pertaining to the Director Stock Plan of W. W. Grainger, Inc.
- (5) Registration Statement (Form S-8 No. 333-61980) pertaining to the 2001 Long Term Stock Incentive Plan of W. W. Grainger, Inc.
- (6) Registration Statement (Form S-8 No. 333-105185) pertaining to the 2001 Long Term Stock Incentive Plan of W. W. Grainger, Inc.
- (7) Registration Statement (Form S-8 No. 333-124356) pertaining to the 2005 Incentive Plan of W. W. Grainger, Inc.
- (8) Registration Statement (Form S-8 No. 333-166345) pertaining to the 2010 Incentive Plan of W. W. Grainger, Inc.
- (9) Registration Statement (Form S-8 No. 333-203715) pertaining to the 2015 Incentive Plan of W. W. Grainger, Inc.

of our reports dated February 28, 2019, with respect to the consolidated financial statements of W. W. Grainger, Inc. and the effectiveness of internal control over financial reporting of W.W. Grainger, Inc. included in this Annual Report on Form 10-K of W. W. Grainger, Inc. for the year ended December 31, 2018.

/s/ Ernst & Young LLP

Chicago, Illinois

February 28, 2019

CERTIFICATION

Exhibit 31.1

I, D.G. Macpherson, certify that:

1. I have reviewed this Annual Report on Form 10-K of W.W. Grainger, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of 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.

Date: February 28, 2019

By: /s/ D.G. Macpherson
Name: D.G. Macpherson
Title: Chairman and Chief Executive Officer

CERTIFICATION

Exhibit 31.2

I, Thomas B. Okray, certify that:

1. I have reviewed this Annual Report on Form 10-K of W.W. Grainger, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of 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.

Date: February 28, 2019

By: /s/ Thomas B. Okray
Name: Thomas B. Okray
Title: Senior Vice President and Chief Financial Officer

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

In connection with the Annual Report on Form 10-K of W.W. Grainger, Inc. ("Grainger") for the annual period ended December 31, 2018, (the "Report"), D.G. Macpherson, as Chief Executive Officer of Grainger, and Thomas B. Okray, as Chief Financial Officer of Grainger, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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 Grainger.

/s/ D.G. Macpherson

D.G. Macpherson
Chairman and Chief Executive Officer
February 28, 2019

/s/ Thomas B. Okray

Thomas B. Okray
Senior Vice President and Chief
Financial Officer
February 28, 2019