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**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 October 28, 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 1-4121

DEERE & COMPANY

(Exact name of registrant as specified in its charter)

Delaware (State of incorporation)	36-2382580 (IRS Employer Identification No.)
One John Deere Place, Moline, Illinois (Address of principal executive offices)	61265 (Zip Code) (309) 765-8000 (Telephone Number)

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT

Title of each class	Name of each exchange on which registered
Common stock, \$1 par value	New York Stock Exchange
8 1/2% Debentures Due 2022	New York Stock Exchange
6.55% Debentures Due 2028	New York Stock Exchange

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: NONE

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (\$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 (§229.405 of this chapter) 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. ý

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. (Check one):

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

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

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

The aggregate quoted market price of voting stock of registrant held by non-affiliates at April 27, 2018 was \$44,528,411,767. At November 30, 2018, 318,570,788 shares of common stock, \$1 par value, of the registrant were outstanding. Documents Incorporated by Reference. Portions of the proxy statement for the annual meeting of stockholders to be held on February 27, 2019 are incorporated by reference into Part III of this Form 10-K.

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ITEM 1. BUSINESS.

This Annual Report on Form 10-K contains forward-looking statements that are subject to risks and uncertainties. All statements other than statements of historical fact included in this Annual Report on Form 10-K are forward-looking statements. Forward-looking statements give our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected. Important factors that could cause actual results to differ materially from our expectations, or cautionary statements, and other important information about forward-looking statements are disclosed under Item 1A, "Risk Factors" and Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations – Safe Harbor Statement" in this Annual Report on Form 10-K.

Products

Deere & Company (the Company) and its subsidiaries (collectively, John Deere) have operations that are categorized into three major business segments.

The *agriculture and turf* segment primarily manufactures and distributes a full line of agriculture and turf equipment and related service parts, including: large, medium, and utility tractors; tractor loaders; combines, cotton pickers, cotton strippers, and sugarcane harvesters; harvesting front-end equipment; sugarcane loaders and pull-behind scrapers; tillage, seeding and application equipment, including sprayers, nutrient management and soil preparation machinery; hay and forage equipment, including self-propelled forage harvesters and attachments, balers and mowers; turf and utility equipment, including riding lawn equipment and walk-behind mowers, golf course equipment, utility vehicles, and commercial mowing equipment, along with a broad line of associated implements; integrated agricultural management systems technology and solutions; and other outdoor power products.

The *construction and forestry* segment primarily manufactures and distributes a broad range of machines and service parts used in construction, earthmoving, road building, material handling and timber harvesting, including: backhoe loaders; crawler dozers and loaders; four-wheel-drive loaders; excavators; motor graders; articulated dump trucks; landscape loaders; skid-steer loaders; milling machines; recyclers; slipform pavers; surface miners; asphalt pavers; compactors; tandem and static rollers; mobile crushers and screens; mobile and stationary asphalt plants; log skidders; feller bunchers; log loaders; log forwarders; log harvesters and related logging attachments.

The products and services produced by the segments above are marketed primarily through independent retail dealer networks and major retail outlets.

The *financial services* segment primarily finances sales and leases by John Deere dealers of new and used agriculture and turf equipment and construction and forestry equipment. In addition, the financial services segment provides wholesale financing to dealers of the foregoing equipment, finances retail revolving charge accounts and offers extended equipment warranties.

John Deere's worldwide agriculture and turf operations and construction and forestry operations are sometimes collectively referred to as the "equipment operations." The financial services segment is sometimes referred to as the "financial services operations."

Additional information is presented in the discussion of business segment and geographic area results on page 21. The John Deere enterprise has manufactured agricultural machinery since 1837. The present Company was incorporated under the laws of Delaware in 1958.

The Company's internet address is <http://www.JohnDeere.com>. Through that address, the Company's Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports are available free of charge as soon as reasonably practicable after they are filed with the United States Securities and Exchange Commission (Securities and Exchange Commission or Commission). The information contained on the Company's website is not included in, nor incorporated by reference into, this annual report on Form 10-K.

Market Conditions and Outlook

The Company's equipment sales are projected to increase by about 7 percent for fiscal 2019 compared with 2018. Included will be a full year of Wirtgen sales in 2019 versus 10 months in 2018, adding about 2 percent to the company's sales in the year ahead. Foreign-currency rates are expected to have an unfavorable translation effect on equipment sales of about 2 percent for the year. Net sales and revenues are expected to increase by about 7 percent for fiscal 2019 with net income attributable to Deere & Company forecast to be about \$3.6 billion.

Agriculture & Turf. The Company's worldwide sales of agriculture and turf equipment are forecast to be up about 3 percent for fiscal year 2019, including a negative currency-translation effect of 2 percent. Industry sales of agricultural equipment in the U.S. and Canada are forecast to be about the same to up 5 percent, helped by replacement demand for large equipment and continued demand for small tractors. Full-year industry sales in the EU28 member nations are forecast to be about the same as a result of drought conditions in key markets. South American industry sales of tractors and combines are projected to be about the same to up 5 percent benefiting from strength in Brazil. Asian sales are forecast to be about the same to down slightly. Industry sales of turf and utility equipment in the U.S. and Canada are expected to be about the same to up 5 percent for 2019.

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Construction & Forestry. The Company's worldwide sales of construction and forestry equipment are anticipated to be up about 15 percent for 2019, with foreign-currency rates having an unfavorable translation effect of 2 percent. The forecast includes a full year of Wirtgen sales, versus 10 months in fiscal 2018, with the two additional months adding about 5 percent to division sales for the year. The outlook reflects continued growth in U.S. housing demand as well as transportation investment and economic growth worldwide. In forestry, global industry sales are expected to be up about 10 percent mainly as a result of improved demand throughout the world, led by the U.S.

Financial Services. Fiscal-year 2019 net income attributable to the Company for the financial services operations is projected to be approximately \$630 million. Excluding the 2018 benefit of tax reform, results are expected to benefit from a higher average portfolio, partially offset by higher selling and administrative expenses, a higher provision for credit losses, and less-favorable financing spreads. Financial services net income for 2018 of \$942 million included a tax benefit related to tax reform of \$341 million. Excluding the tax benefit, net income for 2018 would have been \$601 million.

2018 Consolidated Results Compared with 2017

For fiscal 2018, worldwide net income attributable to the Company was \$2.368 billion, or \$7.24 per share, compared with \$2.159 billion, or \$6.68 per share, in 2017. Affecting 2018 net income were increases to the provision for income taxes of \$704 million due to the enactment of U.S. tax reform legislation on December 22, 2017 (tax reform). Worldwide net sales and revenues increased 26 percent to \$37.358 billion in 2018, compared with \$29.738 billion in 2017. Net sales of worldwide equipment operations increased 29 percent in fiscal 2018 to \$33.351 billion, compared with \$25.885 billion last year. The Company's acquisition of the Wirtgen Group (see Note 4) in December 2017 added 12 percent to net sales for the year. Sales included price realization of 1 percent, while currency translation did not have a material effect for the year. Equipment net sales in the United States and Canada increased by 25 percent for fiscal 2018, with Wirtgen adding 4 percent. Outside of the U.S. and Canada, net sales rose 34 percent for the year, with Wirtgen adding 22 percent. Currency translation had no material effect for the year.

Worldwide equipment operations had an operating profit of \$3.684 billion in fiscal 2018, compared with \$2.859 billion in fiscal 2017. The Wirtgen Group, whose results are included in these amounts, had operating profit of \$116 million for fiscal 2018. Excluding the Wirtgen Group results, the increase was primarily driven by higher shipment volumes, price realization, and lower warranty costs, partially offset by higher production costs and research and development expenses. Additionally, fiscal 2017 included an impairment charge for international construction and forestry operations and a gain on the sale of SiteOne Landscapes Supply, Inc. (SiteOne).

Net income of the Company's equipment operations was \$1.404 billion for fiscal 2018, compared with \$1.707 billion in fiscal 2017. In addition to the operating factors mentioned above, income tax adjustments related to tax reform had an unfavorable impact of \$1.045 billion for fiscal 2018.

The financial services operations reported net income attributable to the Company of \$942.0 million for fiscal 2018 compared with \$476.9 million in fiscal 2017. The increase was largely due to a higher average portfolio, a lower provision for credit losses, and lower losses on lease residual values, partially offset by less-favorable financing spreads. Additionally, income tax adjustments related to tax reform had a favorable effect of \$341.2 million for fiscal 2018.

The cost of sales to net sales ratio for 2018 and 2017 was 76.7 percent. Price realization and lower warranty claims were offset by higher production costs.

Additional information on fiscal 2018 results is presented on pages 20–22.

EQUIPMENT OPERATIONS

Agriculture and Turf

The John Deere agriculture and turf segment manufactures and distributes a full line of agriculture and turf equipment and related service parts. The segment consolidates all markets into four geographical customer focus areas to facilitate deep customer understanding and deliver world-class customer service. The segment's operations are consolidated into five product platforms – crop harvesting (combines, cotton pickers, cotton strippers, and sugarcane harvesters, related harvesting front-end equipment, sugarcane loaders and pull-behind scrapers); turf and utility (utility vehicles, riding lawn equipment, walk-behind mowers, commercial mowing equipment, golf course equipment, implements for mowing, tilling, snow and debris handling, aerating and many other residential, commercial, golf and sports turf care applications and other outdoor power products); hay and forage (self-propelled forage harvesters and attachments, balers and mowers); crop care (tillage, seeding and application equipment, including sprayers, nutrient management and soil preparation machinery); and tractors (loaders and large, medium and utility tractors and related attachments). John Deere also purchases certain products from other manufacturers for resale.

The segment also provides integrated precision agriculture technologies across its portfolio of large equipment. John Deere has developed a leading approach to precision agriculture technology through advanced communications and telematics, on board sensors and computers, and precise global navigation satellite systems technology to enable farmers to better control input costs and yields, improve soil conservation, minimize chemical use, and to gather information. John Deere's advanced telematics systems remotely connect agricultural equipment owners, business managers and dealers to agricultural equipment in the field, providing real-time alerts and information about equipment location, utilization, performance and maintenance to improve productivity and efficiency.

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In addition to the John Deere brand, the agriculture and turf segment purchases and sells a variety of equipment attachments under the Frontier, Kemper and Green Systems brand names. The segment also manufactures and sells sprayers under the Hagie and Mazzotti brand names, planters and cultivators under the Monosem brand name, sprayers and planters under the PLA brand name, carbon fiber sprayer booms under the King Agro brand name, and walk-behind mowers and scarifiers in select European countries under the SABO brand name. John Deere manufactures its agriculture and turf equipment for sale primarily through independent retail dealer networks, and also builds turf products for sale by mass retailers, including The Home Depot and Lowe's.

Sales of agricultural equipment are affected by total farm cash receipts, which reflect levels of farm commodity prices, acreage planted, crop yields and government policies, including global trade policies and the amount and timing of government payments. Sales are also influenced by general economic conditions, farm land prices, farmers' debt levels and access to financing, interest and exchange rates, agricultural trends, including the production of and demand for renewable fuels, labor availability and costs, energy costs, tax policies and other input costs associated with farming. Other important factors affecting new agricultural equipment sales are the value and level of used equipment, including tractors, harvesting equipment, self-propelled sprayers, hay and forage equipment and seeding equipment. Weather and climatic conditions can also affect buying decisions of agricultural equipment purchasers.

Innovations in machinery and technology also influence agricultural equipment purchasing. For example, larger, more productive equipment is well accepted where farmers are striving for more efficiency in their operations. Large, cost-efficient, highly-mechanized agricultural operations account for an important share of worldwide farm output. The large-size agricultural equipment used on such farms has been particularly important to John Deere. A large proportion of the equipment operations' total agricultural equipment sales in the U.S. and Canada, and a significant proportion of sales in many countries outside the U.S. and Canada, are comprised of tractors over 100 horsepower, self-propelled combines, self-propelled cotton pickers, self-propelled forage harvesters, self-propelled sprayers and seeding equipment. However, small tractors are an increasingly important part of our global tractor business. Further, John Deere offers a number of harvesting solutions to support development of the mechanized harvesting of grain, oilseeds, cotton, sugar and biomass.

Retail sales of lawn and garden tractors, compact utility tractors, residential and commercial mowers, utility vehicles, and golf and turf equipment are influenced by weather conditions, consumer spending patterns and general economic conditions.

Seasonality. Seasonal patterns in retail demand for agricultural equipment result in substantial variations in the volume and mix of products sold to retail customers during the year. Seasonal demand must be estimated in advance, and equipment must be manufactured in anticipation of such demand in order to achieve efficient utilization of manpower and facilities throughout the year. For certain equipment, John Deere offers early order discounts to retail customers. Production schedules are based, in part, on these early order programs. The segment incurs substantial seasonal variation in cash flows to finance production and inventory of agricultural equipment. The segment also incurs costs to finance sales to dealers in advance of seasonal demand. New combine and cotton harvesting equipment has been sold under early order programs with waivers of retail finance charges available to customers who take delivery of machines during off-season periods. In Australia, Canada and the U.S., there are typically several used equipment trade-in transactions as part of most new agricultural equipment sales. To provide support to its dealers for these used equipment trade-ins, John Deere provides dealers in these countries with pools of funds, awarded to dealers as a percentage of the dealer cost for eligible new equipment sales. Dealers can use these funds to defray the costs of carrying or marketing used equipment inventory or to provide financing incentives to customers purchasing the used equipment.

Retail demand for turf and utility equipment is normally higher in the second and third fiscal quarters. John Deere has pursued a strategy of building and shipping such equipment as close to retail demand as possible. Consequently, to increase asset turnover and reduce the average level of field inventories through the year, production and shipment schedules of these product lines are normally proportionately higher in the second and third fiscal quarters of each year, corresponding closely to the seasonal pattern of retail sales.

Construction and Forestry

John Deere's construction and forestry equipment includes a broad range of backhoe loaders, crawler dozers and loaders, four-wheel-drive loaders, excavators, motor graders, articulated dump trucks, landscape loaders, skid-steer loaders, milling machines, pavers, compactors, rollers, crushers, screens, asphalt plants, log skidders, log feller bunchers, log loaders, log forwarders, log harvesters and a variety of attachments. John Deere provides a broad line of construction equipment and the most complete line of forestry machines and attachments available in the world. John Deere also manufactures and distributes road building equipment through its wholly-owned subsidiaries of the Wirtgen Group. The construction and forestry machines are distributed under the John Deere brand name, except for the Wirtgen Group products, which are manufactured and distributed under six brand names: Wirtgen, Vögele, Hamm, Kleeman, Benninghoven, and Ciber. Forestry attachments are distributed under the John Deere and Waratah brand names. In addition to the equipment manufactured by the construction and forestry segment, John Deere purchases certain products from other manufacturers for resale. The segment also provides comprehensive fleet management telematics solutions designed to improve customer productivity and efficiency through access to fleet location, utilization and maintenance information.

The prevailing levels of residential, commercial and public construction and the condition of the forestry products industry influence retail sales of John Deere construction, earthmoving, road building, material handling and forestry equipment. General economic conditions, the level of interest rates, the availability of credit and certain commodity prices such as those applicable to pulp, paper and saw logs also influence sales.

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John Deere licenses Bell Equipment Limited (Bell) to manufacture and sell certain John Deere-designed construction equipment in specified territories of Africa. Bell is also the distributor of certain John Deere-manufactured construction equipment under the Bell brand and forestry equipment under the John Deere brand in certain territories of Africa.

John Deere and Hitachi Construction Machinery Co. (Hitachi) have a joint venture for the manufacture of hydraulic excavators and tracked forestry equipment in the U.S., Canada and Brazil. John Deere distributes Hitachi brands of construction and mining equipment in North, Central and South America.

The segment has a number of initiatives in the rent-to-rent, or short-term rental, market for construction, earthmoving, road building and material handling equipment. These include specially designed rental programs for John Deere dealers and expanded cooperation with major, national equipment rental companies.

John Deere also owns Nortrax, Inc. which in turn owns Nortrax Canada Inc. which in turn owns Nortrax Quebec Inc. (collectively called Nortrax). Nortrax is an authorized John Deere dealer for construction, earthmoving, material handling and forestry equipment in a variety of markets in the U.S. and Canada. John Deere also owns retail forestry sales operations in Australia, Brazil, Finland, Ireland, New Zealand, Norway, Sweden and the United Kingdom. In addition, in many markets worldwide (most significantly in the EU, India and Australia), the Wirtgen Group sells its products primarily through company-owned sales and service subsidiaries.

Competition

The equipment operations sell products and services into a variety of highly competitive global and regional markets. The principal competitive factors in all markets include product performance, innovation and quality, distribution, customer service and price. In North America and many other parts of the world, John Deere's brand recognition is a competitive factor.

The competitive environment for the agriculture and turf segment includes some global competitors, including AGCO Corporation, CLAAS KGaA mbH, CNH Global N.V., Kubota Tractor Corporation, Mahindra, and The Toro Company and many regional and local competitors. These competitors have varying numbers of product lines competing with the segment's products and each has varying degrees of regional focus. An important part of the competition within the agricultural equipment industry during the past decade has come from a variety of short-line and specialty manufacturers, as well as indigenous regional competitors, with differing manufacturing and marketing methods. Because of industry conditions, including the merger of certain large integrated competitors and the emergence and expanding global capability of many competitors, particularly in emerging and high potential markets such as Brazil, China and India where John Deere seeks to increase market share, the agricultural equipment business continues to undergo significant change and is becoming even more competitive. The segment's turf equipment is sold primarily in the highly competitive North American and Western European markets.

Global competitors of the construction and forestry segment include Caterpillar Inc., CNH Global N.V., Doosan Infracore Co., Ltd. and its subsidiary Doosan Bobcat Inc., Fayat Group, Komatsu Ltd., Kubota Tractor Corporation, Ponsse Plc, Terex, Tigercat Industries Inc., Volvo Construction Equipment (part of Volvo Group AB) and XCMG. The construction business operates in highly competitive markets in North and South America and other global markets, including China and Russia. The forestry and road construction businesses operate globally. The segment manufactures over 90 percent of the types of construction equipment used in the U.S. and Canada, including construction, forestry, earthmoving, road building, and material handling equipment.

Manufacturing

Manufacturing Plants. In the U.S. and Canada, the equipment operations own and operate 21 factory locations and lease and operate another two locations, which contain approximately 29.1 million square feet of floor space. Of these 23 factories, 13 are devoted primarily to agriculture and turf equipment, four to construction and forestry equipment, one to engines, two to engine and component remanufacturing, two to hydraulic and power train components, and one to electronic components. Outside the U.S. and Canada, the equipment operations own or lease and operate: agriculture and turf equipment factories in Argentina, Brazil, China, France, Germany, India, Israel, Italy, Mexico, the Netherlands, Russia and Spain; construction equipment factories in Brazil, China and Germany; engine, engine/power train, hydraulic, or electronic component factories in Argentina, China, France, India and Mexico; road building equipment factories in Brazil, China, Germany and India; and forestry equipment factories in Finland and New Zealand. These factories and manufacturing operations outside the U.S. and Canada contain approximately 27 million square feet of floor space. The engine factories referred to above manufacture non-road, heavy duty diesel engines.

The equipment operations also have financial interests in other manufacturing organizations, which include agricultural equipment manufacturers in the U.S., Bell in South Africa, the Hitachi joint venture that builds hydraulic excavators and tracked forestry equipment in the U.S., Canada and Brazil, and ventures that manufacture transaxles and transmissions used in certain agriculture and turf segment products.

John Deere's facilities are well maintained, in good operating condition and suitable for their present purposes. These facilities, together with both short-term and long-term planned capital expenditures, are expected to meet John Deere's manufacturing needs in the foreseeable future.

Existing capacity is sufficient to satisfy John Deere's current expectations for retail market demand. The equipment operations' manufacturing strategy involves the implementation of appropriate levels of technology and automation to allow manufacturing processes to remain profitable at varying production levels. Operations are also designed to be flexible enough to accommodate the product design changes required to meet market conditions and changing customer requirements. Common manufacturing facilities

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and techniques are employed in the production of components for agriculture and turf equipment and construction and forestry equipment.

In order to utilize manufacturing facilities and technology more effectively, the equipment operations pursue continuous improvements in manufacturing processes. These include steps to streamline manufacturing processes and enhance responsiveness to customers. John Deere has implemented flexible assembly lines that can accommodate a wider product mix and deliver products in line with dealer and customer demand. Additionally, considerable effort is being directed to manufacturing cost reduction through process improvement and improvements in product design, advanced manufacturing technology, supply management and logistics, and environment, health, and safety management systems as well as compensation incentives related to productivity and organizational structure. John Deere has experienced volatility in the price of many raw materials. John Deere has responded to cost pressures by implementing the cost-reduction measures described above and by increasing prices. Significant cost increases, if they occur, could have an adverse effect on the Company's operating results. The equipment operations also pursue external sales of selected parts and components that can be manufactured and supplied to third parties on a competitive basis, including engines, power train components and electronic components.

Patents, Trademarks, and Trade Secrets

John Deere owns a significant number of patents, trade secrets, licenses and trademarks related to John Deere products and services, and expects the number to grow as John Deere continues to pursue technological innovations. John Deere's policy is to further its competitive position by filing patent applications in the U.S. and internationally to protect technology and improvements considered important to the business. John Deere believes that, in the aggregate, the rights under these patents and licenses are generally important to its operations and competitive position, but does not regard any of its businesses as being dependent upon any single patent or group of patents. However, certain John Deere trademarks, which contribute to John Deere's identity and the recognition of its products and services, including but not limited to the "John Deere" mark, the leaping deer logo, the "Nothing Runs Like a Deere" slogan, the prefix "JD" associated with many products, and the green and yellow equipment colors, are an integral part of John Deere's business, and their loss could have a material adverse effect on the Company. For additional information see Risk Factor – *The potential loss of John Deere intellectual property through trade secret theft, infringement of patents, trademark counterfeiting, or other loss of rights to exclusive use of John Deere intellectual property may have a material adverse effect on the Company. Infringement of the intellectual property rights of others by Deere may also have a material adverse effect on the Company.*

Marketing

In the U.S. and Canada, the equipment operations distribute equipment and service parts through the following facilities: two agriculture and turf equipment sales and administration offices located in Olathe, Kansas and Cary, North Carolina and one sales branch located in Grimsby, Ontario; one construction, earthmoving, material handling and forestry equipment sales and administration office located in Moline, Illinois; and one road building equipment sales, service and administration office located in Nashville, Tennessee. In addition, the equipment operations operate a centralized parts distribution warehouse in coordination with nine regional parts depots and distribution centers in the U.S. and Canada.

Through these U.S. and Canadian facilities, John Deere markets products to approximately 1,981 dealer locations, most of which are independently owned and operated. Of these, approximately 1,539 sell agricultural equipment, while approximately 430 sell construction, earthmoving, material handling and/or forestry equipment. Nortrax owns some of the 430 dealer locations. Turf equipment is sold at most John Deere agricultural equipment locations, a few construction, earthmoving, material handling and forestry equipment locations and about 392 turf-only locations, many of which also sell dissimilar lines of non-John Deere products. In addition, certain lawn and garden product lines are sold through The Home Depot and Lowe's.

Outside the U.S. and Canada, John Deere agriculture and turf equipment is sold to distributors and dealers for resale in over 100 countries. Sales and administrative offices are located in Argentina, Australia, Brazil, China, France, Germany, India, Italy, Mexico, the Netherlands, Poland, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine and the United Kingdom and administrative offices located in Ghana and Kenya. Associated companies doing business in China also sell agricultural equipment. Turf equipment sales outside the U.S. and Canada occur primarily in Europe and Australia. Construction, earthmoving, material handling and forestry equipment is sold to distributors and dealers primarily by sales offices located in Australia, Brazil, China, Finland, New Zealand, Russia, Singapore and the United States. Some of these dealers are independently owned while John Deere owns others. Road building equipment is sold both directly to end customers as well as to independent distributors and dealers for resale. The Wirtgen Group operates company-owned sales and service subsidiaries in Australia, Austria, Belgium, Brazil, Bulgaria, China, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, India, Ireland, Italy, Japan, Kazakhstan, Latvia, Lithuania, Malaysia, the Netherlands, Norway, the Philippines, Poland, Romania, Russia, Serbia, Singapore, South Africa, Sweden, Taiwan, Thailand, Turkey, Ukraine and the UK.

The equipment operations operate centralized parts distribution warehouses in Brazil, Germany, India and Russia in coordination with regional parts depots and distribution centers in Argentina, Australia, China, Mexico, South Africa, Sweden and the United Kingdom.

John Deere markets engines, power train and electronic components worldwide through select sales branches or directly to regional and global original equipment manufacturers and independently owned engine distributors.

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Raw Materials

John Deere purchases raw materials and some manufactured components and replacement parts for its equipment, engines and other products from leading suppliers both domestically and internationally. These materials and components include a variety of steel products, steel and iron castings, forgings, plastics, electronics and ready-to-assemble components made to certain specifications. John Deere also purchases various goods and services used in production, logistics, offices and research and development processes. John Deere maintains strategic sourcing models to meet its production needs and build upon long-term supplier relationships. John Deere uses a variety of agreements with suppliers intended to drive innovation, ensure availability and delivery of industry-leading quality raw materials and components, manage costs on a globally competitive basis, protect John Deere's intellectual property and minimize other supply-related risks. Supply chain risks monitored by John Deere to minimize the likelihood of the supply base causing business disruption include supplier financial viability, capacity, business continuity, quality, delivery and weather-related events including natural disasters. In fiscal 2018, no significant work stoppages occurred due to shortages of raw materials or other commodities, but John Deere experienced an increasing number of supply chain disruptions linked to supplier material and labor shortages.

Backlog Orders

The dollar amount of backlog orders for the agriculture and turf segment believed to be firm was approximately \$6.5 billion at October 28, 2018, compared with \$5.6 billion at October 29, 2017. The agriculture and turf backlog is generally highest in the second and third quarters due to seasonal buying trends in these industries. The dollar amount of backlog orders for the construction and forestry segment believed to be firm was approximately \$3.0 billion at October 28, 2018, compared with no significant amount of backlog orders at October 29, 2017.

Trade Accounts and Notes Receivable

Trade accounts and notes receivable arise primarily from sales of goods to independent dealers. Most trade receivables originated by the equipment operations are purchased by the financial services operations. The equipment operations compensate the financial services operations at approximate market rates of interest for these receivables. Additional information appears in Note 12 to the Consolidated Financial Statements.

FINANCIAL SERVICES

U.S. and Canada. The financial services segment primarily provides and administers financing for retail purchases from John Deere dealers of new equipment manufactured by John Deere's agriculture and turf and construction and forestry segments and used equipment taken in trade for this equipment.

The Company and John Deere Construction & Forestry Company (a wholly-owned subsidiary of the Company) are referred to as the "sales companies." John Deere Capital Corporation (Capital Corporation), a U.S. financial services subsidiary, generally purchases retail installment sales and loan contracts (retail notes) from the sales companies. These retail notes are acquired by the sales companies through John Deere retail dealers in the U.S. John Deere Financial Inc., a Canadian financial services subsidiary, purchases and finances retail notes acquired by John Deere Canada ULC, the Company's Canadian sales branch. The terms of retail notes and the basis on which the financial services operations acquire retail notes from the sales companies are governed by agreements with the sales companies. The financial services segment also finances and services revolving charge accounts, in most cases acquired from and offered through merchants in the agriculture and turf and construction and forestry markets (revolving charge accounts). Additionally, the financial services operations provide wholesale financing for inventories of John Deere agriculture and turf equipment and construction and forestry equipment owned by dealers of those products (wholesale notes). The various financing options offered by the financial services operations are designed to enhance sales of John Deere products and generate financing income for the financial services operations. In the U.S., certain subsidiaries included in the financial services segment offer extended equipment warranties.

Retail notes acquired by the sales companies are immediately sold to the financial services operations. The equipment operations are the financial services operations' major source of business, but many retail purchasers of John Deere products finance their purchases outside the John Deere organization through a variety of sources, including commercial banks and finance and leasing companies.

The financial services operations offer retail leases to equipment users in the U.S. A small number of leases are executed with units of local government. Leases are usually written for periods of four months to sixty months, and typically contain an option permitting the customer to purchase the equipment at the end of the lease term. Retail leases are also offered in a generally similar manner to customers in Canada through John Deere Financial Inc. and John Deere Canada ULC.

The financial services operations' terms for financing equipment retail sales (other than smaller items financed with unsecured revolving charge accounts) generally provide for retention of a security interest in the equipment financed. The financial services operations' guidelines for minimum down payments, which vary with the types of equipment and repayment provisions, are generally 10 percent to 30 percent of the purchase price. Finance charges are sometimes waived for specified periods or reduced on certain John Deere products sold or leased in advance of the season of use or in other sales promotions. The financial services operations generally receive compensation from the sales companies at approximate market interest rates for periods during which finance charges are waived or reduced on the retail notes or leases. The cost is accounted for as a deduction in arriving at net sales by the equipment operations.

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The Company has an agreement with Capital Corporation to make payments to Capital Corporation such that its ratio of earnings to fixed charges is not less than 1.05 to 1 for any fiscal quarter. For fiscal 2018 and 2017, Capital Corporation's ratios were 1.78 to 1 and 1.95 to 1, respectively, and never less than 1.69 to 1 and 1.79 to 1 for any fiscal quarter of 2018 and 2017, respectively. The Company has also committed to continue to own, directly or through one or more wholly-owned subsidiaries, at least 51 percent of the voting shares of capital stock of Capital Corporation and to maintain Capital Corporation's consolidated tangible net worth at not less than \$50 million. The Company's obligations to make payments to Capital Corporation under the agreement are independent of whether Capital Corporation is in default on its indebtedness, obligations or other liabilities. Further, the Company's obligations under the agreement are not measured by the amount of Capital Corporation's indebtedness, obligations or other liabilities. The Company's obligations to make payments under this agreement are expressly stated not to be a guaranty of any specific indebtedness, obligation or liability of Capital Corporation and are enforceable only by or in the name of Capital Corporation. No payments were required under this agreement in fiscal 2018 or 2017.

Outside the U.S. and Canada. The financial services operations also offer financing, primarily for John Deere products, in Australia, Brazil, China, India, New Zealand, Russia, Thailand and in several other countries in Africa, Asia, Europe and Latin America. In certain areas, financing is offered through cooperation agreements or joint ventures. The manner in which the financial services operations offer financing in these countries is affected by a variety of country-specific laws, regulations and customs, including those governing property rights and debtor obligations, that are subject to change and that may introduce greater risk to the financial services operations.

The financial services operations also offer to select customers and dealers credit enhanced international export financing for the purchase of John Deere products.

Additional information on the financial services operations appears on pages 20–22, 24, and 26–27.

ENVIRONMENTAL MATTERS

John Deere is subject to a wide variety of local, state and federal environmental laws and regulations in the U.S., as well as the environmental laws and regulations of other countries in which John Deere conducts business. John Deere strives to comply with applicable laws and regulations. However, failure to comply with these regulations could lead to fines and other penalties. John Deere is involved in the evaluation and clean-up of a limited number of sites but does not expect that these matters or other expenses or liabilities John Deere may incur in connection with any noncompliance with environmental laws or regulations or the cleanup of any additional properties, will have a material adverse effect on the consolidated financial position, results of operations, cash flows or competitive position of John Deere. With respect to acquired properties and businesses or properties and businesses acquired in the future, John Deere conducts due diligence into potential exposure to environmental liabilities, but cannot be certain that it has identified or will identify all adverse environmental conditions. Compliance with these laws and regulations has added, and will continue to add, to the cost of John Deere's products.

The European Union has issued its Stage V Regulation which comes into force in 2019 and 2020 for non-road diesel engines across various power categories for machines used in construction, agriculture, materials handling, industrial use and generator applications. These standards continue the reduction of particulate and NOx emissions. Governmental agencies throughout the world are similarly enacting more stringent laws to reduce off-road engine emissions. John Deere has achieved and plans to continue to achieve compliance with these regulations through significant investments in the development of new engine technologies and after-treatment systems. Compliance with emissions regulations has added and will continue to add to the cost of John Deere's products.

Governments are also implementing laws regulating products across their life cycle, including raw material sourcing and the storage, distribution, sale, use, and disposal of products at their end-of-life. These laws and regulations include green chemistry, right-to-know, restriction of hazardous substances, and product take-back laws.

EMPLOYEES

At October 28, 2018, John Deere had approximately 74,000 employees, including approximately 31,000 employees in the U.S. and Canada. John Deere also retains consultants, independent contractors, and temporary and part-time workers. Unions are certified as bargaining agents for approximately 85 percent of John Deere's U.S. production and maintenance employees. Approximately 9,600 of John Deere's active U.S. production and maintenance workers are covered by a collective bargaining agreement with the United Auto Workers (UAW), with an expiration date of October 1, 2021.

Unions also represent the majority of employees at John Deere manufacturing facilities outside the U.S.

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EXECUTIVE OFFICERS OF THE REGISTRANT

Following are the names and ages of the executive officers of the Company, their positions with the Company and summaries of their backgrounds and business experience. All executive officers are elected or appointed by the Board of Directors and hold office until the annual meeting of the Board of Directors following the annual meeting of stockholders in each year.

Name, age and office (at December 1, 2018), and year elected to office				Principal occupation during last five years other than office of the Company currently held
Samuel R. Allen	65	Chairman and Chief Executive Officer	2010	Has held this position for the last five years
James M. Field	55	President, Worldwide Construction & Forestry Division	2018	2012 – 2018 President, Agriculture & Turf Division-Global Harvesting & Turf Platforms, Americas and Australia
Jean H. Gilles	61	Senior Vice President, John Deere Power Systems, Worldwide Parts Services, Advanced Technology & Engineering and Global Supply Management and Logistics	2010	Has held this position for the last five years
Marc A. Howze	55	Senior Vice President and Chief Administrative Officer	2016	2012 – 2016 Vice President, Global Human Resources & Employee Communications
Mary K.W. Jones	50	Senior Vice President and General Counsel	2013	Has held this position for the last five years
Rajesh Kalathur	50	Senior Vice President, Chief Financial Officer and Chief Information Officer	2018	2012 – 2018 Senior Vice President and Chief Financial Officer
John C. May	49	President, Worldwide Agriculture & Turf Division, Global Harvesting and Turf Platforms, Ag Solutions Americas and Australia	2018	2012 – 2018 President, Agricultural Solutions & Chief Information Officer
Cory J. Reed	48	President, John Deere Financial	2016	2013 – 2016 Senior Vice President, Intelligent Solutions Group; 2012 – 2013 Senior Vice President, Global Marketing Services
Markwart von Pentz	55	President, Worldwide Agriculture & Turf Division Global Tractor and Hay & Forage Platforms, Europe, CIS, Asia, Africa	2018	2012 – 2018 President, Agriculture & Turf Division-Europe, Asia, Africa, and Global Tractor Platform

ITEM 1A. RISK FACTORS.

The following risks are considered the most significant to John Deere's business based upon current knowledge, information and assumptions. This discussion of risk factors should be considered closely in conjunction with Management's Discussion and Analysis beginning on page 20, including the risks and uncertainties described in the Safe Harbor Statement on pages 22 and 23, and the Notes to Consolidated Financial Statements beginning on page 36. These risk factors and other forward-looking statements that relate to future events, expectations, trends and operating periods involve certain factors that are subject to change, and important risks and uncertainties that could cause actual results to differ materially. Some of these risks and uncertainties could affect particular lines of business, while others could affect all of the Company's businesses. Although each risk is discussed separately, many are interrelated. The Company, except as required by law, undertakes no obligation to update or revise this risk factors discussion, whether as a result of new developments or otherwise. The risks described in this Annual Report on Form 10-K and the "Safe Harbor Statement" in this report are not the only risks faced by the Company.

International, national and regional trade laws, regulations and policies (particularly those related to or restricting global trade) and government farm programs and policies could significantly impair John Deere's profitability and growth prospects.

International, national and regional laws, regulations and policies directly or indirectly related to or restricting the import and export of John Deere's products, services and technology, including protectionist policies in particular jurisdictions or for the benefit of favored industries or sectors, could harm John Deere's multinational business and subject John Deere to civil and criminal sanctions for violations. John Deere's profitability and growth prospects are tied directly to the global marketplace. Restricted access to global markets impairs John Deere's ability to export goods and services from its various manufacturing locations around the world, and limits the ability to access raw materials and high quality parts and components at competitive prices on a timely basis. Trade restrictions, including withdrawal from or modification of existing trade agreements, negotiation of new trade agreements, and imposition of new (and retaliatory) tariffs against certain countries or covering certain products, could limit John Deere's ability to capitalize on current and future growth opportunities in international markets and impair John Deere's ability to expand the business

by offering new technologies, products and services. These trade restrictions, and changes in – or uncertainty surrounding – global trade policies may affect John Deere's competitive position. Furthermore, the ability to export agricultural and forestry commodities is critical to John Deere's agricultural and forestry customers. Policies impacting exchange rates and commodity prices or those limiting

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the export or import of commodities could have a material adverse effect on the international flow of agricultural and other commodities that may result in a corresponding negative effect on the demand for agricultural and forestry equipment in many areas of the world. John Deere's agricultural equipment sales could be especially harmed by such policies because farm income strongly influences sales of agricultural equipment around the world, including sales made pursuant to the United States-Mexico-Canada Agreement, which was agreed on September 30, 2018 and which is designed to replace the North American Free Trade Agreement. Furthermore, trade restrictions could impede those in developing countries from achieving a higher standard of living, which could negatively impact John Deere's future growth opportunities arising from increasing global demand for food, fuel and infrastructure. Additionally, changes in government farm programs and policies, including direct payment and other subsidies, can significantly influence demand for agricultural equipment. Furthermore, sanctions and export controls imposed by the U.S. and other governments restricting or prohibiting transactions with certain persons, including financial institutions, to certain countries, or involving certain products expose John Deere to potential criminal and civil sanctions. Embargoes and sanctions laws are changing rapidly for certain geographies, including with respect to Russia, Iran, and Venezuela. Although John Deere has a compliance program in place designed to reduce the likelihood of potential violations of import and export laws and sanctions, violations of these laws or sanctions could have an adverse effect on John Deere's reputation, business, results of operations and financial condition.

Changes in government banking, monetary and fiscal policies could have a negative effect on John Deere.

Policies of the U.S. and other governments regarding banking, monetary and fiscal policies intended to promote or maintain liquidity, stabilize financial markets and/or address local deficit or structural economic issues may not be effective and could have a material impact on John Deere's customers and markets. John Deere's operations and results could also be impacted by financial regulatory reform that could have an adverse effect on the financial services segment and on John Deere's customers by limiting their ability to enter into hedging transactions or to finance purchases of John Deere products. Government policies on spending can also affect John Deere, especially the construction and forestry segment due to the impact of government spending on infrastructure development. The Dodd-Frank Wall Street Reform and Consumer Protection Act and its regulations impose, or may impose, additional reporting, stress testing, leverage, liquidity, capital requirements and other supervisory and financial standards and restrictions that increase regulatory compliance costs for John Deere and John Deere's financial services operations and could adversely affect John Deere and its financial services segment's funding activities, liquidity, structure (including relationships with affiliates), operations and performance. Moreover, John Deere's operations, including those outside of the United States, may also be impacted by non-U.S. regulatory reforms being implemented to further regulate non-U.S. financial institutions and markets.

Changes in tax rates, tax legislation, or exposure to additional tax liabilities could have a negative effect on John Deere.

John Deere is subject to income taxes in the U.S. and numerous foreign jurisdictions. The Company's domestic and international tax liabilities are dependent upon the location of earnings among these different jurisdictions. Tax rates in various jurisdictions may be subject to significant change. John Deere's effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, or changes in tax laws or their interpretation. If the Company's effective tax rates were to increase, or if the ultimate determination of our taxes owed is for an amount in excess of amounts previously accrued, John Deere's operating results, cash flows and financial condition could be adversely affected.

Changing worldwide demand for food and different forms of bio-energy could have an effect on the price of farm commodities and consequently the demand for certain John Deere equipment and could also result in higher research and development costs related to changing machine fuel requirements.

Changing worldwide demand for farm outputs to meet the world's growing food and bio-energy demands, driven in part by government policies and a growing world population, are likely to result in fluctuating agricultural commodity prices, which directly affect sales of agricultural equipment. Lower farm commodity prices directly affect farm incomes, which could negatively affect sales of agricultural equipment. While higher commodity prices benefit John Deere's crop-producing agricultural equipment customers, higher commodity prices also could result in greater feed costs for livestock and poultry producers which in turn may result in lower levels of equipment purchased by these customers. Furthermore, changing bio-fuel demands may cause farmers to change the types or quantities of the crops they raise, with corresponding changes in equipment demands. Finally, changes in governmental policies regulating bio-fuel utilization could affect demand for John Deere's diesel-fueled equipment and result in higher research and development costs related to equipment fuel standards.

As John Deere seeks to expand its business globally, growth opportunities may be impacted by greater political, economic and social uncertainty and the continuing and accelerating globalization of businesses could significantly change the dynamics of John Deere's competition, customer base and product offerings.

John Deere's efforts to grow its businesses depend to a large extent upon access to additional geographic markets, including, but not limited to, Brazil, China, India and Russia, and its success in developing market share and operating profitably in such markets. In some cases, these countries have greater political and economic volatility, greater vulnerability to infrastructure and labor disruptions and differing local customer product preferences and requirements than John Deere's other markets. Operating and seeking to expand business in a number of different regions and countries exposes John Deere to multiple and potentially conflicting cultural practices, business practices and legal and regulatory requirements that are subject to change, including those related to tariffs and trade barriers, investments, property ownership rights, taxation, sanctions requirements, repatriation of earnings and advanced technologies. Expanding business operations globally also increases exposure to currency fluctuations which can materially affect the

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Company's financial results. As these emerging geographic markets become more important to John Deere, its competitors are also seeking to expand their production capacities and sales in these same markets. While John Deere maintains a positive corporate image and its brands are widely recognized and valued in its traditional markets, the brands are less well known in some emerging markets which could impede John Deere's efforts to successfully compete in these markets. Although John Deere is taking measures to adapt to these changing circumstances, John Deere's reputation and/or business results could be negatively affected should these efforts prove unsuccessful.

John Deere operates in highly competitive markets.

John Deere operates in a variety of highly competitive global and regional markets. John Deere competes worldwide with a number of other manufacturers and distributors that produce and sell similar products. John Deere competes on the basis of product performance, innovation and quality, distribution, customer service and price. Aggressive pricing or other strategies pursued by competitors, unanticipated product or manufacturing delays or John Deere's failure to price its products competitively could adversely affect John Deere's business, results of operations and financial condition.

John Deere's business results depend largely on its ability to understand its customers' specific preferences and requirements, and to develop, manufacture and market products that meet customer demand.

John Deere's ability to match new product offerings to diverse global customers' anticipated preferences for different types and sizes of equipment and various equipment features and functionality, at affordable prices, is critical to its success. This requires a thorough understanding of John Deere's existing and potential customers on a global basis, particularly in potentially high-growth and emerging markets, including Brazil, China, India and Russia. Failure to deliver quality products that meet customer needs at competitive prices ahead of competitors could have a significant adverse effect on John Deere's business.

Negative economic conditions and outlook can materially weaken demand for John Deere's equipment and services, limit access to funding and result in higher funding costs.

The demand for John Deere's products and services can be significantly reduced in an economic environment characterized by high unemployment, cautious consumer spending, lower corporate earnings, U.S. budget issues and lower business investment. Negative or uncertain economic conditions causing John Deere's customers to lack confidence in the general economic outlook can significantly reduce their likelihood of purchasing John Deere's equipment. Sustained negative economic conditions and outlook affect housing starts and other construction which dampens demand for certain construction equipment. John Deere's turf operations and its construction and forestry business are dependent on construction activity and general economic conditions. Decreases in construction activity and housing starts could have a material adverse effect on John Deere's results of operations. If negative economic conditions affect the overall farm economy, there could be a similar effect on John Deere's agricultural equipment sales. In addition, uncertain or negative outlook with respect to ongoing U.S. budget issues as well as general economic conditions and outlook can cause significant changes in market liquidity conditions. Such changes could impact access to funding and associated funding costs, which could reduce the Company's earnings and cash flows. Additionally, the Company's investment management activities could be adversely affected by changes in the equity and bond markets, which would negatively affect earnings.

In addition, demand for John Deere's products and services can be significantly reduced by concerns regarding the diverse economic and political circumstances of the individual countries in the eurozone, the debt burden of certain eurozone countries and their ability to meet future financial obligations, uncertainty related to the anticipated withdrawal of the United Kingdom from the European Union, the risk that one or more other European Union countries could come under increasing pressure to leave the European Union, or the long term stability of the euro as a single common currency. Persistent disparity with respect to the widely varying economic conditions within the individual countries in the eurozone, and its implications for the euro as well as market perceptions concerning these and related issues, could adversely affect the value of the Company's euro-denominated assets and obligations, have an adverse effect on demand for John Deere's products and services in the eurozone and have an adverse effect on financial markets in Europe and globally. More specifically, it could affect the ability of John Deere's customers, suppliers and lenders to finance their respective businesses, to access liquidity at acceptable financing costs, if at all, and the availability of supplies and materials and on the demand for John Deere's products.

The Company's consolidated financial results are reported in U.S. dollars while certain assets and other reported items are denominated in the currencies of other countries, creating currency exchange and translation risk.

John Deere operates in many areas of the world, involving transactions denominated in a variety of currencies. John Deere is subject to currency exchange risk to the extent that its costs are denominated in currencies other than those in which John Deere earns revenues.

Additionally, the reporting currency for the Company's consolidated financial statements is the U.S. dollar. Certain of John Deere's assets, liabilities, expenses and revenues are denominated in other countries' currencies. Those assets, liabilities, expenses and revenues are translated into U.S. dollars at the applicable exchange rates to prepare the Company's consolidated financial statements. Therefore, increases or decreases in exchange rates between the U.S. dollar and those other currencies affect the value of those items as reflected in the Company's consolidated financial statements, even if their value remains unchanged in their original currency. Substantial fluctuations in the value of the U.S. dollar could have a significant impact on John Deere's results.

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Because the financial services segment provides financing for a significant portion of John Deere's sales worldwide, John Deere's operations and financial results could be impacted materially should negative economic conditions affect the financial industry.

Negative economic conditions can have an adverse effect on the financial industry in which the financial services segment operates. The financial services segment provides financing for a significant portion of John Deere's sales worldwide. The financial services segment is exposed to the risk that customers and others will default on contractual obligations. The financial services segment may experience credit losses that exceed its expectations and adversely affect its financial condition and results of operations. The financial services segment's inability to access funds at cost-effective rates to support its financing activities could have a material adverse effect on John Deere's business. The financial services segment's liquidity and ongoing profitability depend largely on timely access to capital in order to meet future cash flow requirements and to fund operations and costs associated with engaging in diversified funding activities. Additionally, negative market conditions could reduce customer confidence levels, resulting in declines in credit applications and increases in delinquencies and default rates, which could materially impact the financial services segment's write-offs and provision for credit losses. The financial services segment may also experience residual value losses that exceed its expectations caused by lower pricing for used equipment and higher than expected equipment returns at lease maturity.

John Deere's equipment operations and financial services segments are subject to interest rate risks. Changes in interest rates can reduce demand for equipment, adversely affect interest margins and limit the ability to access capital markets while increasing borrowing costs.

Rising interest rates could have a dampening effect on overall economic activity and/or the financial condition of John Deere's customers, either or both of which could negatively affect customer demand for John Deere equipment and customers' ability to repay obligations to John Deere. In addition, credit market dislocations could have an impact on funding costs which are very important to John Deere's financial services segment because such costs affect the segment's ability to offer customers competitive financing rates. While the Company strives to match the interest rate characteristics of our financial assets and liabilities, changing interest rates could have an adverse effect on the Company's net interest rate margin – the difference between the yield the Company earns on its assets and the interest rates the Company pays for funding, which could in turn affect the Company's net interest income and earnings. Actions by credit rating agencies, such as downgrades or negative changes to ratings outlooks, can affect the availability and cost of funding for the Company and can increase the Company's cost of capital and hurt its competitive position.

The potential loss of John Deere intellectual property through trade secret theft, infringement of patents, trademark counterfeiting, or other loss of rights to exclusive use of John Deere intellectual property may have a material adverse effect on the Company. Infringement of the intellectual property rights of others by Deere may also have a material adverse effect on the Company.

John Deere relies on a combination of patents, trademarks, trade secret laws, and confidentiality agreements to protect our intellectual property rights. In particular, we heavily rely on certain John Deere trademarks, which contribute to John Deere's identity and the recognition of its products and services, including but not limited to the "John Deere" mark, the leaping deer logo, the "Nothing Runs Like a Deere" slogan, the prefix "JD" associated with many products, and the green and yellow equipment colors. These trademarks, as well as the many patents used in our products, are integral to the John Deere business, and their loss could have a material adverse effect on the Company.

Additionally, third parties may initiate litigation to challenge the validity of our patents or allege that we infringe their patents. We may incur substantial costs if our competitors or other third parties initiate such litigation, or if we initiate any proceedings to protect our proprietary rights. If the outcome of any such litigation is unfavorable to us, our business could be adversely affected. Similarly, disputes may arise regarding whether our products or technologies infringe the proprietary rights of others. Any such infringement could cause third parties, including our competitors, to bring claims against us, resulting in significant costs, possible damages and substantial uncertainty.

John Deere is subject to extensive anti-corruption laws and regulations.

John Deere's global operations must comply with all applicable anti-corruption laws, including the U.S. Foreign Corrupt Practices Act and the UK Bribery Act. These anti-corruption laws generally prohibit companies and their intermediaries from making improper payments or providing anything of value to improperly influence government officials or private individuals for the purpose of obtaining or retaining a business advantage regardless of whether those practices are legal or culturally expected in a particular jurisdiction. Although John Deere has a compliance program in place designed to reduce the likelihood of potential violations of such laws, violations of these laws could result in criminal or civil sanctions and have an adverse effect on John Deere's reputation, business and results of operations and financial condition.

John Deere's business may be directly and indirectly affected by unfavorable weather conditions or natural disasters that reduce agricultural production and demand for agriculture and turf equipment.

Poor or unusual weather conditions, particularly during the planting and early growing season, can significantly affect the purchasing decisions of John Deere's customers, particularly the purchasers of agriculture and turf equipment. The timing and quantity of rainfall are two of the most important factors in agricultural production. Insufficient levels of rain prevent farmers from planting new crops and may cause growing crops to die or result in lower yields. Excessive rain or flooding can prevent planting from occurring at optimal times, and may cause crop loss through increased disease or mold growth. Temperatures outside normal ranges can also cause crop failure or decreased yields, and may also affect disease incidence. Temperature affects the rate of growth, crop maturity and crop quality. Natural calamities such as regional floods, hurricanes or other storms, and droughts can have significant negative effects on

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agricultural and livestock production. The resulting negative impact on farm income can strongly affect demand for agricultural equipment. Sales of turf equipment, particularly during the important spring selling season, can be dramatically impacted by weather. Adverse weather conditions in a particular geographic region may adversely affect sales of some turf equipment. Drought conditions can adversely affect sales of certain mowing equipment and unusually rainy weather can similarly cause lower sales volumes.

Changes in the availability and price of certain raw materials, components and whole goods could result in production disruptions or increased costs and lower profits on sales of John Deere products.

John Deere requires access to various raw materials, components and whole goods at competitive prices to manufacture and distribute its products. Changes in the availability and price of these raw materials, components and whole goods, which have fluctuated significantly in the past and are more likely to fluctuate during times of economic volatility, regulatory instability or change in custom tariffs, can significantly increase the costs of production which could have a material negative effect on the profitability of the business, particularly if John Deere, due to pricing considerations or other factors, is unable to recover the increased costs from its customers. John Deere relies on suppliers to acquire raw materials, components and whole goods required to manufacture its products. Certain components and parts used in John Deere's products are available from a single supplier and cannot be alternatively sourced quickly. Supply chain disruptions due to supplier financial distress, capacity constraints, labor shortages, business continuity, quality, delivery or disruptions due to weather-related or natural disaster events could affect John Deere's operations and profitability.

John Deere's operations, suppliers and customers are subject to and affected by increasingly rigorous environmental, health and safety laws and regulations of federal, state and local authorities in the U.S. and various regulatory authorities with jurisdiction over John Deere's international operations. In addition, private civil litigation on these subjects has increased, primarily in the U.S.

Enforcement actions arising from violations of environmental, health and safety laws or regulations can lead to investigation and defense costs, and result in significant fines or penalties. In addition, new or more stringent requirements of governmental authorities could prevent or restrict John Deere's operations, or those of our suppliers and customers, require significant expenditures to achieve compliance and/or give rise to civil or criminal liability. There can be no assurance that violations of such legislation and/or regulations, or private civil claims for damages to property or personal injury arising from the environmental, health or safety impacts of John Deere's operations, or those of our suppliers and customers, would not have consequences that result in a material adverse effect on John Deere's business, financial condition or results of operations.

Increasingly stringent engine emission regulations could impact John Deere's ability to manufacture and distribute certain engines or equipment, which could negatively affect business results.

John Deere's equipment operations must meet increasingly stringent engine emission reduction regulations throughout the world, including the European Union's Stage V standard. In addition, governmental agencies throughout the world are enacting more stringent laws and regulations to reduce off-road engine emissions. These laws and regulations are applicable to engines manufactured by John Deere, including those used in John Deere agriculture and construction and forestry equipment. John Deere has incurred and continues to incur substantial research and development costs related to the implementation of these more rigorous laws and regulations. While John Deere has developed and is executing comprehensive plans to meet these requirements, these plans are subject to many variables that could delay or otherwise affect John Deere's ability to manufacture and distribute certain equipment or engines, which could negatively impact business results.

John Deere may incur increased costs due to new or more stringent greenhouse gas emission standards designed to address climate change and could be further impacted by physical effects attributed to climate change on its facilities, suppliers and customers.

There is global scientific consensus that emissions of greenhouse gases (GHG) continue to alter the composition of Earth's atmosphere in ways that are affecting and are expected to continue to affect the global climate. These considerations may lead to international, national, regional or local legislative or regulatory responses in the future. Various stakeholders, including legislators and regulators, shareholders and non-governmental organizations, as well as companies in many business sectors, including John Deere, are considering ways to reduce GHG emissions. The regulation of GHG emissions from certain stationary or mobile sources could result in additional costs to John Deere in the form of taxes or emission allowances, facilities improvements and energy costs, which would increase John Deere's operating costs through higher utility, transportation and materials costs. Increased input costs, such as fuel and fertilizer, and compliance-related costs could also impact customer operations and demand for John Deere equipment. Because the impact of any future GHG legislative, regulatory or product standard requirements on John Deere's global businesses and products is dependent on the timing and design of mandates or standards, John Deere is unable to predict its potential impact at this time.

Furthermore, the potential physical impacts of climate change on John Deere's facilities, suppliers and customers and therefore on John Deere's operations are highly uncertain and will be particular to the circumstances developing in various geographical regions. These may include long-term changes in temperature levels and water availability. These potential physical effects may adversely impact the demand for John Deere's products and the cost, production, sales and financial performance of John Deere's operations.

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Security breaches and other disruptions to John Deere's information technology infrastructure could interfere with John Deere's operations and could compromise John Deere's and its customers' and suppliers' information, exposing John Deere to liability that would cause John Deere's business and reputation to suffer.

In the ordinary course of business, John Deere relies upon information technology networks and systems, some of which are managed by third parties, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities, including supply chain, manufacturing, distribution, invoicing and collection of payments from dealers or other purchasers of John Deere equipment and from customers of John Deere's financial services operations. John Deere uses information technology systems to record, process and summarize financial information and results of operations for internal reporting purposes and to comply with regulatory financial reporting, legal and tax requirements. Additionally, John Deere collects and stores sensitive data, including intellectual property, proprietary business information and the proprietary business information of John Deere's customers and suppliers, as well as personally identifiable information of John Deere's customers and employees, in data centers and on information technology networks. The secure operation of these information technology networks and the processing and maintenance of this information is critical to John Deere's business operations and strategy. Despite security measures and business continuity plans, John Deere's information technology networks and infrastructure may be vulnerable to damage, disruptions or shutdowns due to attacks by cyber criminals or breaches due to employee error or malfeasance or other disruptions during the process of upgrading or replacing computer software or hardware, power outages, computer viruses, telecommunication or utility failures, terrorist acts, natural disasters or other catastrophic events. The occurrence of any of these events could compromise John Deere's networks, and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability or regulatory penalties under laws protecting the privacy of personal information, disrupt operations, and damage John Deere's reputation, which could adversely affect John Deere's business, results of operations and financial condition. In addition, as security threats continue to evolve and increase in frequency and sophistication, we may need to invest additional resources to protect the security of our systems.

John Deere is subject to governmental laws, regulations and other legal obligations related to privacy and data protection.

The legislative and regulatory framework for privacy and data protection issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. John Deere collects personally identifiable information (PII) and other data as integral parts of its business processes and activities. This data is subject to a variety of U.S. and international laws and regulations, including oversight by various regulatory or other governmental bodies. Many foreign countries and governmental bodies, including the European Union, Canada, and other relevant jurisdictions where we conduct business, have laws and regulations concerning the collection and use of PII and other data obtained from their residents or by businesses operating within their jurisdiction that are more restrictive than those in the U.S. Additionally, in May 2016, the European Union adopted the General Data Protection Regulation that imposes more stringent data protection requirements and provides for greater penalties for noncompliance. Any inability, or perceived inability, to adequately address privacy and data protection concerns, even if unfounded, or comply with applicable laws, regulations, policies, industry standards, contractual obligations, or other legal obligations (including at newly acquired companies) could result in additional cost and liability to us or company officials, damage our reputation, inhibit sales, and otherwise adversely affect our business.

John Deere's ability to execute its strategy is dependent upon the ability to attract, train and retain qualified personnel.

John Deere's continued success depends, in part, on its ability to identify, attract, motivate, train and retain qualified personnel in key functions. In particular, John Deere is dependent on its ability to identify, attract, motivate, train and retain qualified personnel with the requisite education, background and industry experience. Failure to attract, train and retain qualified personnel, whether as a result of an insufficient number of qualified applicants, difficulty in recruiting new personnel, or the allocation of inadequate resources to training, integration and retention of qualified personnel, could impair John Deere's ability to execute its business strategy and could adversely affect John Deere's business. In addition, while John Deere strives to reduce the impact of the departure of employees, John Deere's operations or ability to execute its business strategy may be impacted by the loss of personnel.

Sustained increases in funding obligations under the Company's pension plans may impair the Company's liquidity or financial condition.

The Company maintains certain defined benefit pension plans for certain employees, which impose funding obligations. The Company uses many assumptions in calculating its future payment obligations under the plans. Significant adverse changes in credit or market conditions could result in actual rates of returns on pension investments being lower than expected. The Company may be required to make significant contributions to its pension plans in the future. These factors could significantly increase the Company's payment obligations under the plans and adversely affect its business, results of operations and financial condition.

John Deere may not realize all of the anticipated benefits of our acquisitions, joint ventures or divestitures, or these benefits may take longer to realize than expected.

From time to time, the Company makes strategic acquisitions and divestitures – such as its acquisition of the Wirtgen Group – or participates in joint ventures. Transactions that the Company has entered into, or may enter into in the future, may involve significant challenges and risks, including that the transactions do not advance our business strategy, or fail to produce satisfactory returns on our investment. The Company may encounter difficulties in integrating acquisitions with its operations, in applying internal control processes to these acquisitions, in managing strategic investments, and in assimilating new capabilities to meet the future needs of the Company's business. Integrating acquisitions is often costly and may require significant attention from management. Furthermore,

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John Deere may not realize all of the anticipated benefits of these transactions, or the realized benefits may be significantly delayed. While our evaluation of any potential transaction includes business, legal, and financial due diligence with the goal of identifying and evaluating the material risks involved, our due diligence reviews may not identify all of the issues necessary to accurately estimate the cost and potential risks of a particular transaction, including potential exposure to regulatory sanctions resulting from an acquisition target's previous activities or costs associated with any quality issues with an acquisition target's products or services.

The reallocation of radio frequency (RF) spectrums could disrupt or degrade the reliability of John Deere's high precision augmented Global Positioning System (GPS) technology, which could impair John Deere's ability to develop and market GPS-based technology solutions as well as significantly reduce agricultural and construction customers' profitability.

John Deere's current and planned integrated agricultural business and equipment management systems, as well as its fleet management telematics solutions for construction equipment, depend upon the use of RF signals. These signals include, but are not limited to, GPS signals, other GPS-like satellite signals, augmented GPS services and other RF equipment which link equipment, operations, owners, dealers and technicians. These radio services depend on frequency allocations governed by international and national agencies. Any international or national reallocation of frequency bands, including frequency bands segmentation and band spectrum sharing, or other modifications concerning the regulation of frequency bands, could significantly disrupt or degrade the utility and reliability of John Deere's GPS-based products, which could negatively affect John Deere's ability to develop and market GPS-based technology solutions. For John Deere's agricultural customers, the inability to use high-precision augmented GPS signals or other RF signals could result in lower crop yields and higher equipment maintenance, seed, fertilizer, fuel and wage costs. For construction customers, disrupting GPS or RF applications could result in higher fuel and equipment maintenance costs, as well as lower construction design and project management efficiencies. These cost increases could significantly reduce customers' profitability and demand for John Deere products.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

See "Manufacturing" in Item 1.

The equipment operations own or lease eleven facilities comprised of two locations supporting centralized parts distribution and nine regional parts depots and distribution centers throughout the U.S. and Canada. These facilities contain approximately 5.4 million square feet of floor space. Outside the U.S. and Canada, the equipment operations also own or lease and occupy centralized parts distribution centers in Brazil, Germany, India and Russia and regional parts depots and distribution centers in Argentina, Australia, China, Mexico, South Africa, Sweden and the United Kingdom. These facilities contain approximately 3.1 million square feet of floor space. John Deere also owns and leases facilities for the manufacture and distribution of other brands of replacement parts containing approximately 1.3 million square feet.

The Company's administrative offices and research facilities, some of which are owned and some of which are leased by John Deere, contain about 4.3 million square feet of floor space globally and miscellaneous other facilities total 7.1 million square feet globally.

Overall, John Deere owns approximately 68.3 million square feet of facilities and leases approximately 9.1 million additional square feet in various locations.

ITEM 3. LEGAL PROCEEDINGS.

John Deere is subject to various unresolved legal actions which arise in the normal course of its business, the most prevalent of which relate to product liability (including asbestos-related liability), retail credit, employment, patent, and trademark matters. Item 103 of the SEC's Regulation S-K requires disclosure of certain environmental matters when a governmental authority is a party to the proceedings and the proceedings involve potential monetary sanctions that John Deere reasonably believes could exceed \$100,000. The following matters are disclosed solely pursuant to that requirement: (a) on July 6, 2017, after self-reporting to the Iowa Department of Natural Resources, the Company received a Notice of Violation alleging that one Iowa facility location exceeded permitted emission limits; the Company responded and is actively cooperating with the Iowa Department of Natural Resources to revise the permits and resolve the notice; (b) on March 19, 2018, the Secretaria de Estado de Meio Ambiente e Desenvolvimento Sustentável in Minas Gerais, Brazil issued a fine of approximately \$105,000 at current exchange rates against John Deere Equipamentos do Brasil in connection with an oil spill that occurred after an April 2016 roadway accident involving a Company truck; an administrative defense has been filed to cancel the fine; and (c) on October 3, 2018, the Provincia Santa Fe Ministerio de Medio Ambiente issued a Notice of Violation to Industrias John Deere Argentina in connection with alleged groundwater contamination at the site; the Company continues to work with the appropriate authorities to implement corrective actions to remediate the site. The Company believes the reasonably possible range of losses for these and other unresolved legal actions would not have a material effect on its financial statements.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

[Table of Contents](#)**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.**

- (a) The Company's common stock is listed on the New York Stock Exchange under the symbol "DE". See the information concerning the number of stockholders and the data on dividends declared and paid per share in Notes 29 and 30 to the Consolidated Financial Statements.
- (b) Not applicable.
- (c) The Company's purchases of its common stock during the fourth quarter of 2018 were as follows:

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares Purchased (2) (thousands)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1) (thousands)	Maximum Number of Shares that May Yet Be Purchased under the Plans or Programs (1) (millions)
Jul 30 to Aug 26	350	\$ 142.55	350	20.8
Aug 27 to Sept 23	1,575	148.46	1,575	19.0
Sept 24 to Oct 28	1,455	151.27	1,455	17.4
Total	<u>3,380</u>		<u>3,380</u>	

- (1) During the fourth quarter of 2018, the Company had a share repurchase plan that was announced in December 2013 to purchase up to \$8,000 million of shares of the Company's common stock. The maximum number of shares above that may yet be purchased under the \$8,000 million plan was based on the end of the fourth quarter closing share price of \$133.00 per share. At the end of the fourth quarter of 2018, \$2,312 million of common stock remains to be purchased under this plan.
- (2) In the fourth quarter of 2018, approximately 1 thousand shares were purchased from plan participants to pay payroll taxes on certain restricted stock awards. The shares were valued at a weighted-average market price of \$151.27.

ITEM 6. SELECTED FINANCIAL DATA.

Financial Summary

(Millions of dollars except per share amounts)	October 28 2018	October 29 2017	October 30 2016	November 1 2015	November 2 2014
For the Years Ended:					
Total net sales and revenues	\$ 37,358	\$ 29,738	\$ 26,644	\$ 28,863	\$ 36,067
Net income attributable to Deere & Company	\$ 2,368	\$ 2,159	\$ 1,524	\$ 1,940	\$ 3,162
Net income per share – basic	\$ 7.34	\$ 6.76	\$ 4.83	\$ 5.81	\$ 8.71
Net income per share – diluted	\$ 7.24	\$ 6.68	\$ 4.81	\$ 5.77	\$ 8.63
Dividends declared per share	\$ 2.58	\$ 2.40	\$ 2.40	\$ 2.40	\$ 2.22
At Year End:					
Total assets	\$ 70,108	\$ 65,786	\$ 57,918	\$ 57,883	\$ 61,267
Long-term borrowings	\$ 27,237	\$ 25,891	\$ 23,703	\$ 23,775	\$ 24,318

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

See the information under the caption "Management's Discussion and Analysis" on pages 20–30.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

The Company is exposed to a variety of market risks, including interest rates and currency exchange rates. The Company attempts to actively manage these risks. See the information under "Management's Discussion and Analysis" beginning on page 20 and in Note 27 to the Consolidated Financial Statements.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

See the Consolidated Financial Statements and notes thereto and supplementary data on pages 31–73.

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ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES.

Disclosure Controls and Procedures

The Company's principal executive officer and its principal financial officer have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the Exchange Act)) were effective as of October 28, 2018, based on the evaluation of these controls and procedures required by Rule 13a-15(b) or 15d-15(b) of the Exchange Act.

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control system was designed to provide reasonable assurance regarding the preparation and fair presentation of published financial statements in accordance with generally accepted accounting principles.

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

U.S. Securities and Exchange Commission guidance allows companies to exclude acquisitions from management's report on internal control over financial reporting for the first year after the acquisition when it is not possible to conduct an assessment. In December 2017, the Company acquired the stock and certain assets of substantially all of the business of Wirtgen Group Holding GmbH (Wirtgen) (see Note 4). Due to Wirtgen's global operations, management has excluded Wirtgen from the annual assessment of the effectiveness of internal control over financial reporting as of October 28, 2018. Wirtgen represents 9 percent of both the consolidated total assets and consolidated net sales and revenues of Deere & Company as of and for the year ended October 28, 2018.

Management assessed the effectiveness of the Company's internal control over financial reporting as of October 28, 2018, using the criteria set forth in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that assessment, management believes that, as of October 28, 2018, the Company's internal control over financial reporting was effective.

The Company's independent registered public accounting firm has issued an audit report on the effectiveness of the Company's internal control over financial reporting. That report is included herein.

ITEM 9B. OTHER INFORMATION.

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The information regarding directors in the definitive proxy statement expected to be filed no later than January 11, 2019 (proxy statement), under the captions "Item 1—Election of Directors" is incorporated herein by reference. The information in the proxy statement required by Items 405, 407(d)(4) and 407(d)(5) of Regulation S-K under the captions "Section 16(a) Beneficial Ownership Reporting Compliance" and "Corporate Governance—Board Committees—Audit Review Committee" is incorporated herein by reference. Information regarding executive officers is presented in Item 1 of this report under the caption "Executive Officers of the Registrant."

The Company has adopted a code of ethics that applies to its executives, including its principal executive officer, principal financial officer and principal accounting officer. This code of ethics and the Company's corporate governance policies are posted on the Company's website at <http://www.JohnDeere.com/Governance>. The Company intends to satisfy disclosure requirements regarding amendments to or waivers from its code of ethics by posting such information on this website. The charters of the Audit Review, Corporate Governance, Compensation and Finance committees of the Company's Board of Directors are available on the Company's website as well. This information is also available in print free of charge to any person who requests it.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by Item 402 and 407(e)(4) and (e)(5) of Regulation S-K in the proxy statement under the captions "Compensation of Directors," "Compensation Discussion & Analysis," "Compensation Committee Report" and "Executive Compensation Tables" is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required by Item 201(d) of Regulation S-K in the proxy statement under the caption "Equity Compensation Plan Information" is incorporated herein by reference. The information required by Item 403 of Regulation S-K in the proxy statement under the caption "Security Ownership of Certain Beneficial Owners and Management" is incorporated herein by reference.

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ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

The information required by Item 404 of Regulation S-K in the proxy statement under the caption "Review and Approval of Related Person Transactions" is incorporated herein by reference. The information required by Item 407(a) of Regulation S-K in the proxy statement under the caption "Corporate Governance—Director Independence" is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The information required by this Item 14 is set forth in the proxy statement under the captions "Ratification of Independent Registered Public Accounting Firm—Fees Paid to the Independent Registered Public Accounting Firm" and "Pre-approval of Services by the Independent Registered Public Accounting Firm" and incorporated herein by reference.

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PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

	<u>Page</u>
(1) <i>Financial Statements</i>	
<u>Statement of Consolidated Income for the years ended October 28, 2018, October 29, 2017, and October 30, 2016</u>	<u>31</u>
<u>Statement of Consolidated Comprehensive Income for the years ended October 28, 2018, October 29, 2017, and October 30, 2016</u>	<u>32</u>
<u>Consolidated Balance Sheet as of October 28, 2018 and October 29, 2017</u>	<u>33</u>
<u>Statement of Consolidated Cash Flows for the years ended October 28, 2018, October 29, 2017, and October 30, 2016</u>	<u>34</u>
<u>Statement of Changes in Consolidated Stockholders' Equity for the years ended October 30, 2016, October 29, 2017, and October 28, 2018</u>	<u>35</u>
<u>Notes to Consolidated Financial Statements</u>	<u>36</u>
(3) <i>Exhibits</i>	

See the "Index to Exhibits" on pages 76–78 of this report

Certain instruments relating to long-term borrowings, constituting less than 10 percent of registrant's total assets, are not filed as exhibits herewith pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K. Registrant agrees to file copies of such instruments upon request of the Commission.

Financial Statement Schedules Omitted

The following schedules for the Company and consolidated subsidiaries are omitted because of the absence of the conditions under which they are required: I, II, III, IV and V.

MANAGEMENT'S DISCUSSION AND ANALYSIS

RESULTS OF OPERATIONS FOR THE YEARS ENDED OCTOBER 28, 2018, OCTOBER 29, 2017, AND OCTOBER 30, 2016

OVERVIEW

Organization

The company's equipment operations generate revenues and cash primarily from the sale of equipment to John Deere dealers and distributors. The equipment operations manufacture and distribute a full line of agricultural equipment; a variety of commercial and consumer equipment; and a broad range of equipment for construction, road building, and forestry. The company's financial services primarily provide credit services, which mainly finance sales and leases of equipment by John Deere dealers and trade receivables purchased from the equipment operations. In addition, financial services offers extended equipment warranties. The information in the following discussion is presented in a format that includes information grouped as consolidated, equipment operations, and financial services. The company also views its operations as consisting of two geographic areas, the U.S. and Canada, and outside the U.S. and Canada. The company's operating segments consist of agriculture and turf, construction and forestry, and financial services.

Trends and Economic Conditions

The company's agriculture and turf equipment sales increased 15 percent in 2018 and are forecast to increase about 3 percent for 2019. Industry agricultural machinery sales in the U.S. and Canada for 2019 are forecast to be about the same to 5 percent higher, compared to 2018. Industry sales in the European Union (EU)28 member nations are forecast to be about the same in 2019, while South American industry sales are projected to be about the same to 5 percent higher from 2018 levels. Asian sales are forecast to be about the same or decrease slightly in 2019. Industry sales of turf and utility equipment in the U.S. and Canada are expected to be about the same to 5 percent higher for 2019. The company's construction and forestry sales increased 78 percent in 2018, with Wirtgen (see Note 4) adding 53 percent for the year. The segment's sales are forecast to increase about 15 percent in 2019. The forecast includes a full year of Wirtgen sales compared to 10 months in 2018. Global forestry industry sales are expected to increase about 10 percent in 2019 compared to 2018. Net income of the company's financial services operations attributable to Deere & Company in 2019 is expected to be approximately \$630 million.

Items of concern include the uncertainty of the effectiveness of governmental actions in respect to monetary and fiscal policies, the impact of sovereign debt, eurozone and Argentine issues, capital market disruptions, trade agreements, changes in demand and pricing for used equipment, and geopolitical events. Significant fluctuations in foreign currency exchange rates and volatility in the price of many commodities could also impact the company's results.

The company concluded another successful year in which the performance benefited from a further improvement in market conditions and a favorable customer response to its products. At the same time, the company has continued to face cost pressures for raw materials, which are being addressed

through pricing and cost management. The company's performance has allowed for significant investments in new products and services, especially those focused on precision technologies, and for providing shareholder returns through dividend payments and share repurchases. The company believes it remains well positioned to capitalize on the growth in the world's agricultural and construction equipment markets. In addition, the company is confident in the present direction and believes it is positioned to deliver improved operating performance and value to its customers and investors in the future.

2018 COMPARED WITH 2017

CONSOLIDATED RESULTS

Worldwide net income attributable to Deere & Company in 2018 was \$2,368 million, or \$7.24 per share diluted (\$7.34 basic), compared with \$2,159 million, or \$6.68 per share diluted (\$6.76 basic), in 2017. Affecting 2018 net income were increases to the provision for income taxes of \$704 million due to the enactment of U.S. tax reform legislation on December 22, 2017 (tax reform) (see Note 8). Worldwide net sales and revenues increased 26 percent to \$37,358 million in 2018, compared with \$29,738 million in 2017. Net sales of the worldwide equipment operations rose 29 percent in 2018 to \$33,351 million from \$25,885 million last year. The company's acquisition of the Wirtgen Group Holding GmbH (Wirtgen) (see Note 4) in December 2017 added 12 percent to net sales for the year. Sales included price realization of 1 percent with no significant currency translation effect. Equipment net sales in the United States and Canada increased 25 percent for 2018, with Wirtgen adding 4 percent. Outside the U.S. and Canada, net sales increased 34 percent for the year, with Wirtgen adding 22 percent. Currency translation had no material effect.

Worldwide equipment operations reported operating profit of \$3,684 million in 2018, compared with \$2,859 million in 2017. Wirtgen, whose results are included in 2018 amounts, had operating profit of \$116 million in 2018. Excluding Wirtgen results, the operating profit improvement was primarily driven by higher shipment volumes, price realization, and lower warranty costs, partially offset by higher production costs and research and development expenses. Additionally, results in 2017 included an impairment charge for international construction and forestry operations and a gain on the sale of SiteOne Landscapes Supply, Inc. (SiteOne) (see Note 5).

Net income of the company's equipment operations was \$1,404 million for 2018, compared with \$1,707 million in 2017. In addition to the operating factors mentioned above, income tax adjustments related to tax reform had an unfavorable impact of \$1,045 million for 2018 (see Note 8).

The financial services operations reported net income attributable to Deere & Company in 2018 of \$942 million, compared with \$477 million in 2017. Net income benefited from a higher average portfolio, a lower provision for credit losses, and lower losses on lease residual values, partially offset by less favorable financing spreads. Income tax adjustments related to tax reform had a favorable effect of \$341 million for 2018. Additional information is presented in the following discussion of the "Worldwide Financial Services Operations."

The cost of sales to net sales ratio for 2018 and 2017 was 76.7 percent. Price realization and lower warranty claims were offset by higher production costs.

Finance and interest income increased in 2018 due to a larger average credit portfolio and higher average interest rates. Other income decreased in 2018 primarily due to the 2017 gains on the sale of the remaining interest in SiteOne (see Note 5), partially offset by higher service income largely from Wirtgen (see Note 4). Research and development expenses increased as a result of new product and improvement initiatives, and acquisitions. Selling, administrative and general expenses increased primarily due to the Wirtgen acquisition and acquisition related costs, partially offset by voluntary employee-separation program expenses in 2017 and a lower provision for credit losses. Interest expense increased in 2018 due to higher average borrowing rates and higher average borrowings. Other operating expenses increased in 2018 primarily due to higher depreciation of equipment on operating leases, increased cost of services, mainly from Wirtgen, and acquisition related costs, partially offset by the favorable effect of currency translation and lower losses on lease residual values.

The company has several defined benefit pension plans and other postretirement benefit (OPEB) plans, primarily health care and life insurance plans. The company's costs for these plans in 2018 were \$353 million, compared with \$347 million in 2017. The long-term expected return on plan assets, which is reflected in these costs, was an expected gain of 6.8 percent in 2018 and 7.2 percent in 2017, or \$797 million and \$807 million, respectively. The actual return was a gain of \$322 million in 2018 and \$1,563 million in 2017. In 2019, the expected return will be approximately 6.5 percent. The company's costs under these plans in 2019 are expected to decrease approximately \$125 million. The company makes any required contributions to the plan assets under applicable regulations and voluntary contributions from time to time based on the company's liquidity and ability to make tax-deductible contributions. Total company contributions to the plans were \$1,426 million in 2018 and \$428 million in 2017, which include voluntary contributions and direct benefit payments. The voluntary contributions to plan assets were \$1,305 million in 2018, which included \$1,300 million contributions to the U.S. pension and OPEB plans, and \$301 million in 2017. Total company contributions in 2019 are expected to be approximately \$210 million, which are primarily direct benefit payments. The company has no significant required contributions to U.S. pension plan assets in 2019 under applicable funding regulations. See the discussion in "Critical Accounting Policies" for more information about pension and OPEB benefit obligations.

BUSINESS SEGMENT AND GEOGRAPHIC AREA RESULTS

The following discussion relates to operating results by reportable segment and geographic area. Operating profit is income before certain external interest expense, certain foreign exchange gains or losses, income taxes, and corporate expenses. However, operating profit of the financial services segment includes the effect of interest expense and foreign currency exchange gains or losses.

Worldwide Agriculture and Turf Operations

The agriculture and turf segment had an operating profit of \$2,816 million for the year, compared with \$2,513 million in 2017. Net sales increased 15 percent in 2018 due to higher shipment volumes, price realization, and lower warranty claims. Currency translation did not have a significant effect on net sales. The operating profit improvement was driven by higher shipment volumes, price realization, and lower warranty related expenses, partially offset by higher production costs and research and development expenses. Operating profit in 2017 included gains on the SiteOne sale (see Note 5).

Worldwide Construction and Forestry Operations

The construction and forestry segment operating profit was \$868 million in 2018, compared with \$346 million in 2017. Wirtgen contributed \$116 million to operating profit in 2018. Net sales increased 78 percent in 2018, with Wirtgen adding 53 percent for the year. Net sales were also affected by higher shipment volumes and lower warranty related claims. Currency translation did not have a material effect on net sales. Excluding Wirtgen, the operating profit improvements were primarily driven by higher shipment volumes and lower warranty expenses, partially offset by higher production costs. Additionally, 2017 included an impairment charge for international operations (see Note 5).

Worldwide Financial Services Operations

The operating profit of the financial services segment was \$792 million in 2018, compared with \$715 million in 2017. Operating profit benefited from a higher average portfolio, a lower provision for credit losses, and lower losses on lease residual values, partially offset by less favorable financing spreads. Total revenues of the financial services operations, including intercompany revenues, increased 12 percent in 2018. The average balance of receivables and leases financed was 7 percent higher in 2018, compared with 2017. Interest expense increased 40 percent in 2018 as a result of higher average borrowing rates and higher average borrowings. The financial services operations' ratio of earnings to fixed charges was 1.87 to 1 in 2018, compared with 2.12 to 1 in 2017.

Equipment Operations in U.S. and Canada

The equipment operations in the U.S. and Canada had an operating profit of \$2,356 million in 2018, compared with \$1,754 million in 2017. Wirtgen, whose results are included in 2018, had operating profit of \$19 million. The increase was due primarily to higher shipment volumes, price realization, and lower warranty expenses, partially offset by higher production costs and research and development expenses. Net sales increased 25 percent in 2018 due primarily to higher shipment volumes, with Wirtgen adding 4 percent. The physical volume of sales, excluding the effect of acquisitions, increased 20 percent, compared with 2017.

Equipment Operations outside U.S. and Canada

The equipment operations outside the U.S. and Canada operating profit was \$1,328 million in 2018, compared with \$1,105 million in 2017. Wirtgen's operating profit outside the U.S. and Canada was \$97 million in 2018. The increase was due primarily to higher shipment volumes, partially offset by higher production costs and research and development expenses. Net sales increased 34 percent in 2018, with Wirtgen adding 22 percent, compared to 2017. The increase

was primarily the result of higher shipment volumes. The physical volume of sales, excluding the effect of acquisitions, increased 11 percent, compared with 2017.

MARKET CONDITIONS AND OUTLOOK

Company equipment sales are projected to increase by about 7 percent for fiscal 2019 compared with 2018. Included will be a full year of Wirtgen sales in 2019 versus 10 months in 2018, adding about 2 percent to the company's sales in 2019. Foreign currency rates are expected to have an unfavorable translation effect on equipment sales of about 2 percent for the year. Net sales and revenues are projected to increase by about 7 percent for fiscal 2019 with net income attributable to Deere & Company forecast to be about \$3.6 billion.

Agriculture and Turf. The company's worldwide sales of agriculture and turf equipment are forecast to increase about 3 percent for fiscal year 2019, including a negative currency translation effect of 2 percent. Industry sales of agricultural equipment in the U.S. and Canada are forecast to be about the same to 5 percent higher, helped by replacement demand for large equipment and continued demand for small tractors. Full year industry sales in the EU28 member nations are forecast to be about the same as a result of drought conditions in key markets. South American industry sales of tractors and combines are projected to be about the same to 5 percent higher benefiting from strength in Brazil. Asian sales are forecast to be about the same to down slightly. Industry sales of turf and utility equipment in the U.S. and Canada are expected to be about the same to 5 percent higher for 2019.

Construction and Forestry. The company's worldwide sales of construction and forestry equipment are anticipated to increase about 15 percent for 2019, with foreign currency rates having an unfavorable translation effect of 2 percent. The forecast includes a full year of Wirtgen sales, versus 10 months in fiscal 2018, with the two additional months adding about 5 percent to division sales for the year. The outlook reflects continued growth in U.S. housing demand as well as transportation investment and economic growth worldwide. In forestry, global industry sales are expected to increase about 10 percent mainly as a result of improved demand throughout the world, led by the U.S.

Financial Services. Fiscal year 2019 net income attributable to Deere & Company for the financial services operations is expected to be approximately \$630 million. Excluding the 2018 benefit from tax reform, net income is expected to benefit from a higher average portfolio, partially offset by higher selling and administrative expenses, a higher provision for credit losses, and less favorable financing spreads.

SAFE HARBOR STATEMENT

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995: Statements under "Overview," "Market Conditions and Outlook," and other forward-looking statements herein that relate to future events, expectations, and trends involve factors that are subject to change, and risks and uncertainties that could cause actual results to differ materially. Some of these risks and uncertainties could affect particular lines of business, while others could affect all of the company's businesses.

The company's agricultural equipment business is subject to a number of uncertainties including the factors that affect

farmers' confidence and financial condition. These factors include demand for agricultural products, world grain stocks, weather conditions, soil conditions, harvest yields, prices for commodities and livestock, crop and livestock production expenses, availability of transport for crops, trade restrictions and tariffs, global trade agreements (e.g., the North American Free Trade Agreement), the level of farm product exports (including concerns about genetically modified organisms), the growth and sustainability of non-food uses for some crops (including ethanol and biodiesel production), real estate values, available acreage for farming, the land ownership policies of governments, changes in government farm programs and policies, international reaction to such programs, changes in and effects of crop insurance programs, changes in environmental regulations and their impact on farming practices, animal diseases and their effects on poultry, beef and pork consumption and prices, and crop pests and diseases.

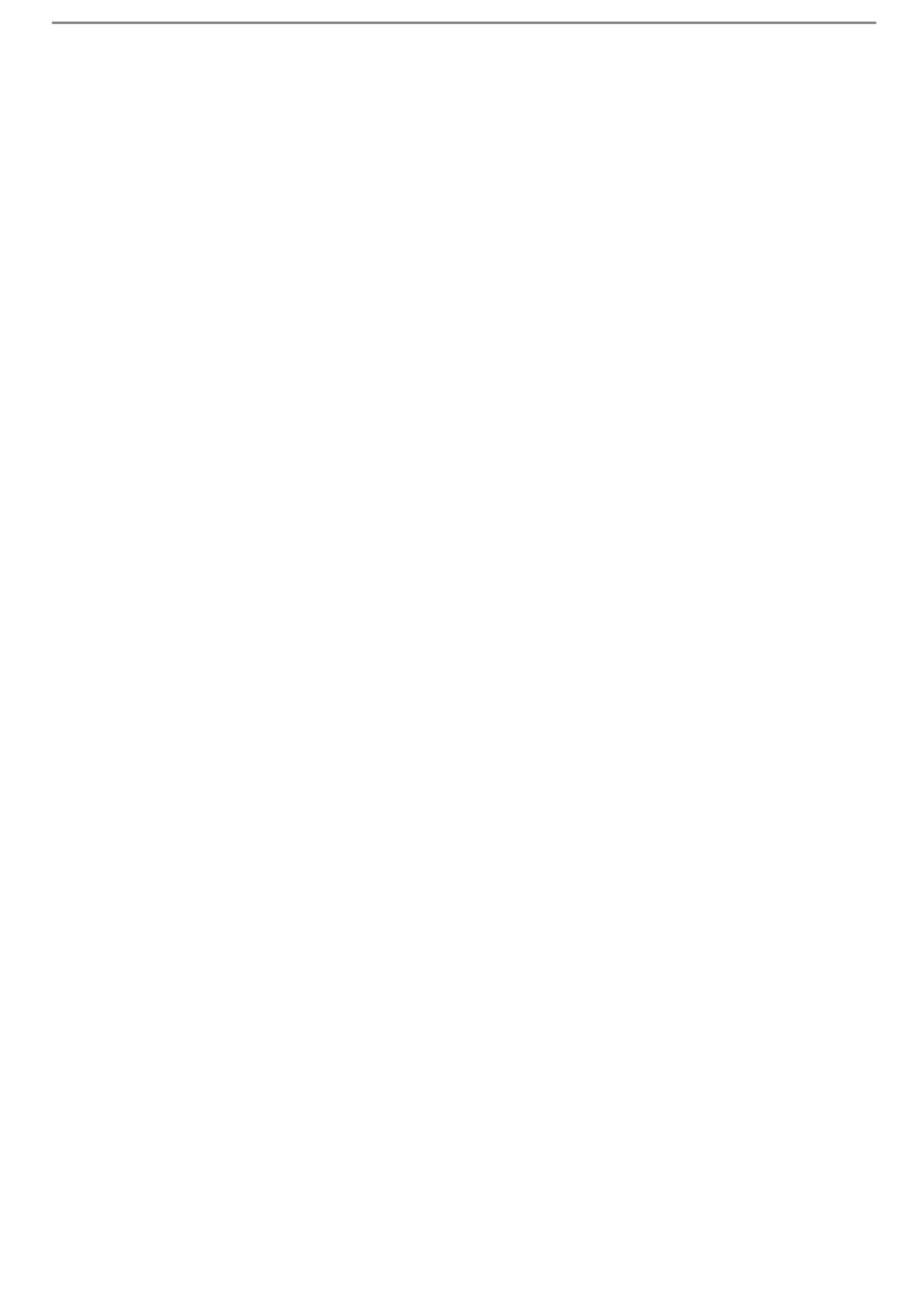
Factors affecting the outlook for the company's turf and utility equipment include consumer confidence, weather conditions, customer profitability, labor supply, consumer borrowing patterns, consumer purchasing preferences, housing starts and supply, infrastructure investment, spending by municipalities and golf courses, and consumable input costs.

Consumer spending patterns, real estate and housing prices, the number of housing starts, interest rates and the levels of public and non-residential construction are important to sales and results of the company's construction and forestry equipment. Prices for pulp, paper, lumber and structural panels are important to sales of forestry equipment.

All of the company's businesses and its results are affected by general economic conditions in the global markets and industries in which the company operates; customer confidence in general economic conditions; government spending and taxing; foreign currency exchange rates and their volatility, especially fluctuations in the value of the U.S. dollar; interest rates; inflation and deflation rates; changes in weather patterns; the political and social stability of the global markets in which the company operates; the effects of, or response to, terrorism and security threats; wars and other conflicts; natural disasters; and the spread of major epidemics.

Significant changes in market liquidity conditions, changes in the company's credit ratings and any failure to comply with financial covenants in credit agreements could impact access to funding and funding costs, which could reduce the company's earnings and cash flows. Financial market conditions could also negatively impact customer access to capital for purchases of the company's products and customer confidence and purchase decisions, borrowing and repayment practices, and the number and size of customer loan delinquencies and defaults. A debt crisis, in Europe or elsewhere, could negatively impact currencies, global financial markets, social and political stability, funding sources and costs, asset and obligation values, customers, suppliers, demand for equipment, and company operations and results. The company's investment management activities could be impaired by changes in the equity, bond and other financial markets, which would negatively affect earnings.

The anticipated withdrawal of the United Kingdom from the European Union and the perceptions as to the impact of the



withdrawal may adversely affect business activity, political stability and economic conditions in the United Kingdom, the European Union and elsewhere. The economic conditions and outlook could be further adversely affected by (i) the uncertainty concerning the timing and terms of the exit, (ii) new or modified trading arrangements between the United Kingdom and other countries, (iii) the risk that one or more other European Union countries could come under increasing pressure to leave the European Union, or (iv) the risk that the euro as the single currency of the Eurozone could cease to exist. Any of these developments, or the perception that any of these developments are likely to occur, could affect economic growth or business activity in the United Kingdom or the European Union, and could result in the relocation of businesses, cause business interruptions, lead to economic recession or depression, and impact the stability of the financial markets, availability of credit, currency exchange rates, interest rates, financial institutions, and political, financial and monetary systems. Any of these developments could affect our businesses, liquidity, results of operations and financial position.

Additional factors that could materially affect the company's operations, access to capital, expenses and results include changes in, uncertainty surrounding and the impact of governmental trade, banking, monetary and fiscal policies, including financial regulatory reform and its effects on the consumer finance industry, derivatives, funding costs and other areas, and governmental programs, policies, tariffs and sanctions in particular jurisdictions or for the benefit of certain industries or sectors; retaliatory actions to such changes in trade, banking, monetary and fiscal policies; actions by central banks; actions by financial and securities regulators; actions by environmental, health and safety regulatory agencies, including those related to engine emissions, carbon and other greenhouse gas emissions, noise and the effects of climate change; changes to GPS radio frequency bands or their permitted uses; changes in labor and immigration regulations; changes to accounting standards; changes in tax rates, estimates, laws and regulations and company actions related thereto; changes to and compliance with privacy regulations; compliance with U.S. and foreign laws when expanding to new markets and otherwise; and actions by other regulatory bodies.

Other factors that could materially affect results include production, design and technological innovations and difficulties, including capacity and supply constraints and prices; the loss of or challenges to intellectual property rights whether through theft, infringement, counterfeiting or otherwise; the availability and prices of strategically sourced materials, components and whole goods; delays or disruptions in the company's supply chain or the loss of liquidity by suppliers; disruptions of infrastructures that support communications, operations or distribution; the failure of suppliers or the company to comply with laws, regulations and company policy pertaining to employment, human rights, health, safety, the environment, anti-corruption, privacy and data protection and other ethical business practices; events that damage the company's reputation or brand; significant investigations, claims, lawsuits or other legal proceedings; start-up of new plants and products; the success of new

product initiatives; changes in customer product preferences and sales mix; gaps or limitations in rural broadband coverage, capacity and speed needed to support technology solutions; oil and energy prices, supplies and volatility; the availability and cost of freight; actions of competitors in the various industries in which the company competes, particularly price discounting; dealer practices especially as to levels of new and used field inventories; changes in demand and pricing for used equipment and resulting impacts on lease residual values; labor relations and contracts; changes in the ability to attract, train and retain qualified personnel; acquisitions and divestitures of businesses; greater than anticipated transaction costs; the integration of new businesses; the failure or delay in closing or realizing anticipated benefits of acquisitions, joint ventures or divestitures; the implementation of organizational changes; the failure to realize anticipated savings or benefits of cost reduction, productivity, or efficiency efforts; difficulties related to the conversion and implementation of enterprise resource planning systems; security breaches, cybersecurity attacks, technology failures and other disruptions to the company's and suppliers' information technology infrastructure; changes in company declared dividends and common stock issuances and repurchases; changes in the level and funding of employee retirement benefits; changes in market values of investment assets, compensation, retirement, discount and mortality rates which impact retirement benefit costs; and significant changes in health care costs.

The liquidity and ongoing profitability of John Deere Capital Corporation and other credit subsidiaries depend largely on timely access to capital in order to meet future cash flow requirements, and to fund operations, costs, and purchases of the company's products. If general economic conditions deteriorate or capital markets become more volatile, funding could be unavailable or insufficient. Additionally, customer confidence levels may result in declines in credit applications and increases in delinquencies and default rates, which could materially impact write-offs and provisions for credit losses.

The company's outlook is based upon assumptions relating to the factors described above, which are sometimes based upon estimates and data prepared by government agencies. Such estimates and data are often revised. The company, except as required by law, undertakes no obligation to update or revise its outlook, whether as a result of new developments or otherwise. Further information concerning the company and its businesses, including factors that could materially affect the company's financial results, is included in the company's other filings with the SEC.

2017 COMPARED WITH 2016

CONSOLIDATED RESULTS

Worldwide net income attributable to Deere & Company in 2017 was \$2,159 million, or \$6.68 per share diluted (\$6.76 basic), compared with \$1,524 million, or \$4.81 per share diluted (\$4.83 basic), in 2016. Worldwide net sales and revenues increased 12 percent to \$29,738 million in 2017, compared with \$26,644 million in 2016. Net sales of the worldwide equipment operations rose 11 percent in 2017 to \$25,885 million from \$23,387 million in 2016. Sales included price realization of 1 percent and a favorable currency translation effect of 1 percent. Equipment net sales in the

United States and Canada increased 5 percent for 2017. Outside the U.S. and Canada, net sales increased 20 percent for the year, with a favorable currency translation effect of 1 percent for 2017.

Worldwide equipment operations had an operating profit of \$2,859 million in 2017, compared with \$1,908 million in 2016. The operating profit increase was primarily due to higher shipment volumes, a gain on the sale of the remaining interest in SiteOne (see Note 5), price realization, and a favorable product mix, partially offset by increases in production costs, selling, administrative and general expenses, and warranty related expenses.

Net income of the company's equipment operations was \$1,707 million for 2017, compared with \$1,058 million in 2016. The operating factors mentioned above affected the results.

The financial services operations reported net income attributable to Deere & Company in 2017 of \$477 million, compared with \$468 million in 2016. The increase was largely due to lower losses on lease residual values, partially offset by less favorable financing spreads and higher selling, administrative and general expenses. Additional information is presented in the following discussion of the "Worldwide Financial Services Operations."

The cost of sales to net sales ratio for 2017 was 76.7 percent, compared with 77.8 percent in 2016. The improvement was due primarily to price realization and a favorable product mix, partially offset by increases in production costs and warranty related expenses.

Finance and interest income increased in 2017 due to a larger average credit portfolio and higher average interest rates. Other income increased due primarily to the gain on the sale of the remaining interest in SiteOne (see Note 5). Selling, administrative and general expenses increased due primarily to higher incentive compensation expense, higher commissions paid to dealers on direct sales, and expenses related to voluntary employee-separation programs. Interest expense increased due to higher average borrowing rates and higher average borrowings. Other operating expenses increased primarily due to higher depreciation of equipment on operating leases, partially offset by lower losses on lease residual values.

The company has several defined benefit pension plans and OPEB plans. The company's costs for these plans in 2017 were \$347 million, compared with \$312 million in 2016. The long-term expected return on plan assets, which is reflected in these costs, was an expected gain of 7.2 percent in 2017 and 7.3 percent in 2016, or \$807 million in 2017 and \$810 million in 2016. The actual return was a gain of \$1,563 million in 2017 and \$645 million in 2016. Total company contributions to the plans were \$428 million in 2017 and \$127 million in 2016, which include direct benefit payments for unfunded plans and voluntary contributions to plan assets of \$301 million in 2017 and \$3 million in 2016.

BUSINESS SEGMENT AND GEOGRAPHIC AREA RESULTS

Worldwide Agriculture and Turf Operations

The agriculture and turf segment had an operating profit of \$2,513 million for the year, compared with \$1,719 million in

2016. Net sales increased 9 percent in 2017 due to higher shipment volumes, price realization, and the favorable effects of currency translation. Operating profit was higher due primarily to increased shipment volumes, a gain on the sale of the remaining interest in SiteOne (see Note 5), price realization, and a favorable sales mix, partially offset by increases in production costs, selling, administrative and general expenses, and warranty related expenses.

Worldwide Construction and Forestry Operations

The construction and forestry segment had an operating profit of \$346 million in 2017, compared with \$189 million in 2016. Net sales increased 17 percent for the year on account of higher shipment volumes, price realization, and the favorable effects of currency translation. Operating profit increased mainly attributable to improved shipment volumes and price realization, partially offset by higher warranty expenses, increased selling, administrative and general expenses, and higher production costs.

Worldwide Financial Services Operations

The operating profit of the financial services segment was \$715 million in 2017, compared with \$701 million in 2016. The increase was largely due to lower losses on lease residual values, partially offset by less favorable financing spreads and higher selling, administrative and general expenses. Total revenues of the financial services operations, including intercompany revenues, increased 9 percent in 2017. The average balance of receivables and leases financed was 1 percent higher in 2017, compared with 2016. Interest expense increased 25 percent in 2017 as a result of higher average borrowing rates. The financial services operations' ratio of earnings to fixed charges was 2.12 to 1 in 2017, compared with 2.35 to 1 in 2016.

Equipment Operations in U.S. and Canada

The equipment operations in the U.S. and Canada had an operating profit of \$1,754 million in 2017, compared with \$1,328 million in 2016. The increase was due primarily to higher shipment volumes, a gain on the sale of the remaining interest in SiteOne (see Note 5), a favorable sales mix, and price realization, partially offset by increases in production costs, selling, administrative and general expenses, and warranty related expenses. Net sales increased 5 percent due primarily to higher shipment volumes. The physical volume of sales increased 5 percent, compared with 2016.

Equipment Operations outside U.S. and Canada

The equipment operations outside the U.S. and Canada had an operating profit of \$1,105 million in 2017, compared with \$580 million in 2016. The increase was due primarily to higher shipment volumes and price realization, partially offset by higher production costs and increased selling, administrative and general expenses. Net sales increased 20 percent in 2017 compared to 2016. The increase was primarily the result of higher shipment volumes, price realization, and the favorable effects of foreign currency translation. The physical volume of sales increased 16 percent, compared with 2016.



CAPITAL RESOURCES AND LIQUIDITY

The discussion of capital resources and liquidity has been organized to review separately, where appropriate, the company's consolidated totals, equipment operations, and financial services operations.

CONSOLIDATED

Positive cash flows from consolidated operating activities in 2018 were \$1,820 million. This resulted primarily from net income adjusted for non-cash provisions and an increase in accounts payable and accrued expenses, which were partially offset by an increase in inventories, an increase in receivables related to sales, a change in net retirement benefits (see Note 7), and a change in accrued income taxes payable/receivable. Cash outflows from investing activities were \$8,154 million in 2018, due primarily to acquisitions of businesses, net of cash acquired, of \$5,245 million (see Note 4), the cost of receivables (excluding receivables related to sales) and cost of equipment on operating leases acquired exceeding the collections of receivables and the proceeds from sales of equipment on operating leases by \$1,995 million, purchases of property and equipment of \$896 million, and purchases of marketable securities exceeding proceeds from maturities and sales by \$56 million, partially offset by proceeds from sales of businesses and unconsolidated affiliates, net of cash sold, of \$156 million (see Note 4). Cash inflows from financing activities were \$876 million in 2018, due primarily to an increase in borrowings of \$2,516 million and proceeds from issuance of common stock (resulting from the exercise of stock options) of \$217 million, partially offset by repurchases of common stock of \$958 million and dividends paid of \$806 million. Cash and cash equivalents decreased \$5,431 million during 2018. The decrease in cash primarily related to the Wirtgen acquisition (see Note 4).

In 2018, the company made voluntary contributions of \$1,000 million to the U.S. pension and OPEB plans that resulted in a tax deduction applicable to the 2017 tax year. The company also made a voluntary contribution of \$300 million in the fourth quarter of 2018 to its U.S. OPEB plans that resulted in a tax deduction in the 2018 tax year.

Over the last three years, operating activities have provided an aggregate of \$7,790 million in cash. In addition, increases in borrowings were \$5,721 million, proceeds from issuance of common stock (resulting from the exercise of stock options) were \$782 million, proceeds from sales of businesses and unconsolidated affiliates were \$351 million, and proceeds from maturities and sales exceeded purchases of marketable securities by \$228 million. The aggregate amount of these cash flows was used mainly to acquire businesses of \$5,728 million, acquire receivables (excluding receivables related to sales) and equipment on operating leases that exceeded collections of receivables and the proceeds from sales of equipment on operating leases by \$3,500 million, pay dividends of \$2,331 million, purchase property and equipment of \$2,136 million, and repurchase common stock of \$1,170 million. Cash and cash equivalents decreased \$258 million over the three-year period.

The company has access to most global capital markets at reasonable costs and expects to have sufficient sources of

global funding and liquidity to meet its funding needs. Sources of liquidity for the company include cash and cash equivalents, marketable securities, funds from operations, the issuance of commercial paper and term debt, the securitization of retail notes (both public and private markets), and committed and uncommitted bank lines of credit. The company's commercial paper outstanding at October 28, 2018 and October 29, 2017 was \$3,857 million and \$3,439 million, respectively, while the total cash and cash equivalents and marketable securities position was \$4,394 million and \$9,787 million, respectively. The amount of the total cash and cash equivalents and marketable securities held by foreign subsidiaries was \$2,433 million and \$3,386 million at October 28, 2018 and October 29, 2017, respectively.

Lines of Credit. The company also has access to bank lines of credit with various banks throughout the world. Worldwide lines of credit totaled \$8,389 million at October 28, 2018, \$3,724 million of which were unused. For the purpose of computing unused credit lines, commercial paper and short-term bank borrowings, excluding secured borrowings and the current portion of long-term borrowings, were primarily considered to constitute utilization. Included in the total credit lines at October 28, 2018 were 364-day credit facility agreements of \$1,750 million, expiring in April 2019, and \$750 million, expiring in October 2019. In addition, total credit lines included long-term credit facility agreements of \$2,500 million, expiring in April 2021, and \$2,500 million, expiring in April 2022. These credit agreements require John Deere Capital Corporation (Capital Corporation) to maintain its consolidated ratio of earnings to fixed charges at not less than 1.05 to 1 for each fiscal quarter and the ratio of senior debt, excluding securitization indebtedness, to capital base (total subordinated debt and stockholder's equity excluding accumulated other comprehensive income (loss)) at not more than 11 to 1 at the end of any fiscal quarter. The credit agreements also require the equipment operations to maintain a ratio of total debt to total capital (total debt and stockholders' equity excluding accumulated other comprehensive income (loss)) of 65 percent or less at the end of each fiscal quarter. Under this provision, the company's excess equity capacity and retained earnings balance free of restriction at October 28, 2018 was \$12,368 million. Alternatively under this provision, the equipment operations had the capacity to incur additional debt of \$22,969 million at October 28, 2018. All of these requirements of the credit agreements have been met during the periods included in the consolidated financial statements.

Debt Ratings. To access public debt capital markets, the company relies on credit rating agencies to assign short-term and long-term credit ratings to the company's securities as an indicator of credit quality for fixed income investors. A security rating is not a recommendation by the rating agency to buy, sell, or hold company securities. A credit rating agency may change or withdraw company ratings based on its assessment of the company's current and future ability to meet interest and principal repayment obligations. Each agency's rating should be evaluated independently of any other rating. Lower credit ratings generally result in higher borrowing costs, including costs of derivative transactions, and reduced access to debt capital markets.

The senior long-term and short-term debt ratings and outlook currently assigned to unsecured company securities by the rating agencies engaged by the company are as follows:

	Senior Long- Term	Short- Term	Outlook
Fitch Ratings	A	F1	Stable
Moody's Investors Service, Inc.	A2	Prime-1	Stable
Standard & Poor's	A	A-1	Stable

Trade accounts and notes receivable primarily arise from sales of goods to independent dealers. Trade receivables increased by \$1,079 million in 2018 due primarily to higher shipment volumes and the Wirtgen acquisition. The ratio of trade accounts and notes receivable at October 28, 2018 and October 29, 2017 to fiscal year net sales was 15 percent in both 2018 and 2017. Total worldwide agriculture and turf receivables increased \$219 million and construction and forestry receivables increased \$860 million. The collection period for trade receivables averages less than 12 months. The percentage of trade receivables outstanding for a period exceeding 12 months was 2 percent at October 28, 2018 and 1 percent at October 29, 2017.

Deere & Company's stockholders' equity was \$11,288 million at October 28, 2018, compared with \$9,557 million at October 29, 2017. The increase of \$1,731 million resulted from net income attributable to Deere & Company of \$2,368 million, a change in the retirement benefits adjustment of \$1,052 million, and an increase in common stock of \$194 million, which were partially offset by an increase in treasury stock of \$851 million, dividends declared of \$834 million, and a change in the cumulative translation adjustment of \$195 million.

EQUIPMENT OPERATIONS

The company's equipment businesses are capital intensive and are subject to seasonal variations in financing requirements for inventories and certain receivables from dealers. The equipment operations sell a significant portion of their trade receivables to financial services. To the extent necessary, funds provided from operations are supplemented by external financing sources.

Cash provided by operating activities of the equipment operations during 2018, including intercompany cash flows, was \$3,279 million due primarily to net income adjusted for non-cash provisions, an increase in accounts payable and accrued expenses, and a change in accrued income taxes payable/receivable, partially offset by a change in net retirement benefits (see Note 7), an increase in inventories, and an increase in trade receivables and Equipment Operations' financing receivables.

Over the last three years, these operating activities, including intercompany cash flows, have provided an aggregate of \$8,629 million in cash.

Trade receivables held by the equipment operations increased by \$497 million during 2018. The equipment operations sell a significant portion of their trade receivables to financial services (see previous consolidated discussion).

Inventories increased by \$2,245 million in 2018 due primarily to the Wirtgen acquisition and higher production volumes, partially offset by the effect of foreign currency translation. Most of these inventories are valued on the last-in, first-out

(LIFO) method. The ratios of inventories on a first-in, first-out (FIFO) basis (see Note 15), which approximates current cost, to fiscal year cost of sales were 30 percent and 27 percent at October 28, 2018 and October 29, 2017, respectively.

Total interest-bearing debt of the equipment operations was \$6,224 million at the end of 2018, compared with \$5,866 million at the end of 2017 and \$4,814 million at the end of 2016. The ratio of total debt to total capital (total interest-bearing debt and stockholders' equity) at the end of 2018, 2017, and 2016 was 36 percent, 38 percent, and 42 percent, respectively.

Property and equipment cash expenditures for the equipment operations in 2018 were \$893 million, compared with \$591 million in 2017. Capital expenditures in 2019 are estimated to be \$1,150 million.

In December 2017, the company acquired Wirtgen for a cash purchase price of \$5,136 million, excluding cash acquired. The acquisition and transaction expenses were financed from a combination of cash and new debt financing, which consisted of medium-term notes, including €850 million issued in September 2017 (see Note 4).

FINANCIAL SERVICES

The financial services operations rely on their ability to raise substantial amounts of funds to finance their receivable and lease portfolios. Their primary sources of funds for this purpose are a combination of commercial paper, term debt, securitization of retail notes, equity capital, and borrowings from Deere & Company.

The cash provided by operating and financing activities was used for investing activities. Cash flows from the financial services' operating activities, including intercompany cash flows, were \$1,643 million in 2018. Cash used by investing activities totaled \$4,839 million in 2018 due primarily to the cost of receivables (excluding trade and wholesale) and cost of equipment on operating leases acquired exceeding collections of these receivables and the proceeds from sales of equipment on operating leases by \$3,472 million, an increase in trade receivables and wholesale notes of \$1,222 million, and purchases of marketable securities exceeding proceeds from maturities and sales by \$68 million. Cash provided by financing activities totaled \$2,767 million in 2018, representing primarily an increase in external borrowings of \$2,515 million and an increase in borrowings from Deere & Company of \$748 million, partially offset by dividends paid to Deere & Company of \$464 million. Cash and cash equivalents decreased \$457 million.

Over the last three years, the operating activities, including intercompany cash flows, have provided \$5,380 million in cash. In addition, an increase in total borrowings of \$4,083 million and a capital investment from Deere & Company of \$49 million provided cash inflows. These amounts have been used mainly to fund receivables (excluding trade and wholesale) and equipment on operating lease acquisitions, which exceeded collections and the proceeds from sales of equipment on operating leases, by \$7,264 million, pay dividends to Deere & Company of \$1,391 million, fund an increase in trade receivables and wholesale notes of \$1,110 million, and purchase \$104 million of marketable securities in excess of maturities and sales. Cash and cash equivalents decreased \$553 million over the three-year period.

Receivables and equipment on operating leases increased by \$2,987 million in 2018, compared with 2017. Total acquisition volumes of receivables (excluding trade and wholesale notes) and cost of equipment on operating leases increased 11 percent in 2018, compared with 2017. The volumes of financing leases, retail notes, revolving charge accounts, and operating leases increased approximately 29 percent, 14 percent, 4 percent, and 4 percent, respectively. During 2018, the amount of trade receivables and wholesale notes increased 17 percent and 12 percent, respectively. At October 28, 2018 and October 29, 2017, net receivables and leases administered, which include receivables administered but not owned, were \$42,985 million and \$40,001 million, respectively.

Total external interest-bearing debt of the financial services operations was \$36,033 million at the end of 2018, compared with \$34,179 million at the end of 2017 and \$30,797 million at the end of 2016. Total external borrowings have changed generally corresponding with the level of the receivable and lease portfolio, the level of cash and cash equivalents, the change in payables owed to Deere & Company, and the change in investment from Deere & Company. The financial services operations' ratio of total interest-bearing debt to total stockholder's equity was 7.5 to 1 at the end of 2018, and 7.6 to 1 at the end of 2017 and 2016.

The Capital Corporation has a revolving credit agreement to utilize bank conduit facilities to securitize retail notes (see Note 13). At October 28, 2018, the facility had a total capacity, or "financing limit," of up to \$3,500 million of secured financings at any time. The facility was renewed in November 2018 with a capacity of \$3,500 million. After a two-year revolving period, unless the banks and Capital Corporation agree to renew, Capital Corporation would liquidate the secured borrowings over time as payments on the retail notes are collected. At October 28, 2018, \$1,364 million of short-term securitization borrowings was outstanding under the agreement.

During 2018, the financial services operations issued \$2,601 million and retired \$2,838 million of retail note securitization borrowings. During 2018, the financial services operations also issued \$8,139 million and retired \$6,082 million of long-term borrowings, which were primarily medium-term notes.

OFF-BALANCE-SHEET ARRANGEMENTS

At October 28, 2018, the company had approximately \$357 million of guarantees issued primarily to banks outside the U.S. and Canada related to third-party receivables for the retail financing of John Deere and Wirtgen equipment. The increase from October 29, 2017 primarily relates to the Wirtgen acquisition. The company may recover a portion of any required payments incurred under these agreements from repossession of the equipment collateralizing the receivables. The maximum remaining term of the receivables guaranteed at October 28, 2018 was approximately seven years.

AGGREGATE CONTRACTUAL OBLIGATIONS

The payment schedule for the company's contractual obligations at October 28, 2018 in millions of dollars is as follows:

	Total	Less than 1 year	2&3 years	4&5 years	More than 5 years
On-balance-sheet					
Debt*					
Equipment operations**	\$ 6,252	\$ 1,470	\$ 594	\$ 1,687	\$ 2,501
Financial services**	36,462	11,756	13,473	7,392	3,841
Total	42,714	13,226	14,067	9,079	6,342
Interest relating to debt***	5,328	1,059	1,592	898	1,779
Accounts payable	3,360	3,243	85	29	3
Capital leases	30	11	15	3	1
Off-balance-sheet					
Purchase obligations	2,937	2,889	21	22	5
Operating leases	383	110	143	84	46
Total	\$54,752	\$20,538	\$15,923	\$10,115	\$ 8,176

* Principal payments.

** Payments related to securitization borrowings of \$3,963 million classified as short-term on the balance sheet related to the securitization of retail notes are included in this table based on the expected payment schedule (see Note 18).

*** Includes projected payments related to interest rate swaps.

The previous table does not include unrecognized tax benefit liabilities of approximately \$279 million at October 28, 2018, since the timing of future payments is not reasonably estimable at this time (see Note 8). For additional information regarding pension and OPEB obligations, short-term borrowings, long-term borrowings, and lease obligations, see Notes 7, 18, 20, and 21, respectively.

CRITICAL ACCOUNTING POLICIES

The preparation of the company's consolidated financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect reported amounts of assets, liabilities, revenues, and expenses. Changes in these estimates and assumptions could have a significant effect on the financial statements. The accounting policies below are those management believes are the most critical to the preparation of the company's financial statements and require the most difficult, subjective, or complex judgments. The company's other accounting policies are described in the Notes to the Consolidated Financial Statements.

Sales Incentives

At the time a sale to a dealer is recognized, the company records an estimate of the future sales incentive costs for allowances and financing programs that will be due when the dealer sells the equipment to a retail customer. The estimate is based on historical data, announced incentive programs, field inventory levels, and retail sales volumes. The final cost of these programs and the amount of accrual required for a specific sale are fully determined when the dealer sells the

equipment to the retail customer. This is due to numerous programs available at any particular time and new programs

that may be announced after the company records the sale. Changes in the mix and types of programs affect these estimates, which are reviewed quarterly.

The sales incentive accruals at October 28, 2018, October 29, 2017, and October 30, 2016 were \$1,850 million, \$1,581 million, and \$1,391 million, respectively. The increases in 2018 and 2017 were related primarily to higher sales volumes.

The estimation of the sales incentive accrual is impacted by many assumptions. One of the key assumptions is the historical percent of sales incentive costs to retail sales from dealers. Over the last five fiscal years, this percent has varied by an average of approximately plus or minus 1.1 percent, compared to the average sales incentive costs to retail sales percent during that period. Holding other assumptions constant, if this estimated cost experience percent were to increase or decrease 1.1 percent, the sales incentive accrual at October 28, 2018 would increase or decrease by approximately \$90 million.

Product Warranties

At the time a sale is recognized, the company records the estimated future warranty costs. The company generally determines its total warranty liability by applying historical claims rate experience to the estimated amount of equipment that has been sold and is still under warranty based on dealer inventories and retail sales. The historical claims rate is primarily determined by a review of five-year claims costs and consideration of current quality developments. Variances in claims experience and the type of warranty programs affect these estimates, which are reviewed quarterly.

The product warranty accruals, excluding extended warranty unamortized premiums, at October 28, 2018, October 29, 2017, and October 30, 2016 were \$1,146 million, \$1,007 million, and \$779 million, respectively. The increases in 2018 and 2017 were due primarily to higher sales volumes.

Estimates used to determine the product warranty accruals are significantly affected by the historical percent of warranty claims costs to sales. Over the last five fiscal years, this percent has varied by an average of approximately plus or minus .13 percent, compared to the average warranty costs to sales percent during that period. Holding other assumptions constant, if this estimated cost experience percent were to increase or decrease .13 percent, the warranty accrual at October 28, 2018 would increase or decrease by approximately \$50 million.

Postretirement Benefit Obligations

Pension and other postretirement benefit (OPEB), primarily health care and life insurance plans, obligations are based on various assumptions used by the company's actuaries in calculating these amounts. These assumptions include discount rates, health care cost trend rates, expected return on plan assets, compensation increases, retirement rates, mortality rates, and other factors. Actual results that differ from the assumptions and changes in assumptions affect future expenses and obligations.

The pension assets, net of pension liabilities, recognized on the balance sheet at October 28, 2018 were \$494 million. The pension liabilities, net of pension assets, recognized on the balance sheet at October 29, 2017 and October 30, 2016 were \$1,073 million, and \$1,949 million, respectively. The increase in

pension net assets in 2018 was due primarily to increases in discount rates and contributions to a U.S. pension plan (see Note 7), partially offset by interest on the liabilities. The decrease in pension net liabilities in 2017 was due primarily to the return on plan assets, partially offset by interest on the liabilities and service cost. The OPEB liabilities, net of OPEB assets, at October 28, 2018, October 29, 2017, and October 30, 2016 were \$4,753 million, \$5,623 million, and \$6,065 million, respectively. The decrease in OPEB net liabilities in 2018 was due primarily to increases in discount rates and contributions to the U.S. OPEB plans (see Note 7). The decrease in OPEB net liabilities in 2017 was due primarily to a contribution to a U.S. OPEB plan.

The effect of hypothetical changes to selected assumptions on the company's major U.S. retirement benefit plans would be as follows in millions of dollars:

Assumptions	Percentage Change	October 28, 2018		2019
		Increase (Decrease)	PBO/APBO*	Increase (Decrease) Expense
Pension				
Discount rate**	+/- .5	\$ (608)/691	\$ (38)/44	
Expected return on assets	+/- .5		(55)/55	
OPEB				
Discount rate**	+/- .5	(289)/319	(7)/14	
Expected return on assets	+/- .5		(3)/3	
Health care cost trend rate**	+/-1.0	625/(495)	84/(44)	

* Projected benefit obligation (PBO) for pension plans and accumulated postretirement benefit obligation (APBO) for OPEB plans.

** Pretax impact on service cost, interest cost, and amortization of gains or losses.

Goodwill

Goodwill is not amortized and is tested for impairment annually and when events or circumstances change such that it is more likely than not that the fair value of a reporting unit is reduced below its carrying amount. The end of the fiscal third quarter is the annual measurement date. To test for goodwill impairment, the carrying value of each reporting unit is compared with its fair value. If the carrying value of the goodwill is considered impaired, a loss is measured as the excess of the reporting unit's carrying value over the fair value, with a limit of the goodwill allocated to that reporting unit.

An estimate of the fair value of the reporting unit is determined through a combination of comparable market values for similar businesses and discounted cash flows. These estimates can change significantly based on such factors as the reporting unit's financial performance, economic conditions, interest rates, growth rates, pricing, changes in business strategies, and competition.

Based on this testing, the company has not identified a reporting unit for which the goodwill was impaired in 2018, 2017, or 2016. For all reporting units, except for the recently acquired Wirtgen reporting unit (see Note 4), a 10 percent decrease in the estimated fair value would have had no effect on the carrying value of goodwill at the annual measurement date in 2018. The Wirtgen reporting unit exceeded acquisition projections in 2018 and expects to meet future projections.

Allowance for Credit Losses

The allowance for credit losses represents an estimate of the losses inherent in the company's receivable portfolio. The level of the allowance is based on many quantitative and qualitative factors, including historical net loss experience by product category, portfolio duration, delinquency trends, economic conditions in the company's major markets and geographies, and credit risk quality. The company has an established process to calculate a range of possible outcomes and determine the adequacy of the allowance. The adequacy of the allowance is assessed quarterly. Different assumptions or changes in economic conditions would result in changes to the allowance for credit losses and the provision for credit losses.

The total allowance for credit losses at October 28, 2018, October 29, 2017, and October 30, 2016 was \$248 million, \$243 million, and \$226 million, respectively. The allowance increases in 2018 and 2017 were due primarily to growth in the receivable portfolio.

The assumptions used in evaluating the company's exposure to credit losses involve estimates and significant judgment. The historical loss experience on the receivable portfolio represents one factor used in determining the allowance for credit losses. Compared to the average loss experience over the last five fiscal years, this percent has varied by an average of approximately plus or minus .06 percent, compared to the average loss experience percent during that period. Holding other factors constant, if this estimated loss experience on the receivable portfolio were to increase or decrease .06 percent, the allowance for credit losses at October 28, 2018 would increase or decrease by approximately \$21 million.

Operating Lease Residual Values

The carrying value of equipment on operating leases is affected by the estimated fair values of the equipment at the end of the lease (residual values). Upon termination of the lease, the equipment is either purchased by the lessee or sold to a third party, in which case the company may record a gain or a loss for the difference between the estimated residual value and the sale price. The residual values are dependent on current economic conditions and are reviewed when events or circumstances necessitate an evaluation. Changes in residual value assumptions would affect the amount of depreciation expense and the amount of investment in equipment on operating leases.

The total operating lease residual values at October 28, 2018, October 29, 2017, and October 30, 2016 were \$5,089 million, \$4,679 million, and \$4,347 million, respectively. The changes in 2018 and 2017 were due primarily to the increasing levels of operating leases.

Estimates used in determining end of lease market values for equipment on operating leases significantly impact the amount and timing of depreciation expense. Hypothetically, if future market values for this equipment were to decrease 10 percent from the company's present estimates, the total effect would be to increase the company's annual depreciation for equipment on operating leases by approximately \$185 million.

Income Taxes

The company's income tax provision, deferred income tax assets and liabilities, and liabilities for uncertain tax benefits represent the company's best estimate of current and future income taxes to be paid. The annual tax rate is based on income tax laws, statutory tax rates, taxable income levels, and tax planning opportunities available in various jurisdictions where the company operates. These tax laws are complex, and require significant judgment to determine the consolidated provision for income taxes. Changes in tax laws, regulations, statutory tax rates, and estimates of the company's future taxable income levels could result in actual realization of deferred taxes being materially different from amounts provided for in the consolidated financial statements.

Deferred income taxes represent temporary differences between the tax and the financial reporting basis of assets and liabilities, which will result in taxable or deductible amounts in the future. Deferred tax assets also include loss carryforwards and tax credits. These assets are regularly assessed for the likelihood of recoverability from estimated future taxable income, reversal of deferred tax liabilities, and tax planning strategies. To the extent the company determines that it is more likely than not a deferred income tax asset will not be realized, a valuation allowance is established. The recoverability analysis of the deferred income tax assets and the related valuation allowances requires significant judgment and relies on estimates.

Uncertain tax positions are determined based on whether it is more likely than not the tax positions will be sustained based on the technical merits of the position. For those positions that meet the more likely than not criteria, an estimate of the largest amount of tax benefit that is greater than 50 percent likely to be realized upon ultimate settlement with the related tax authority is recognized. The ultimate resolution of the tax position could take many years and result in a payment that is significantly different from the original estimate.

Tax reform included additional requirements effective for the company in 2019. Those provisions include a tax on global intangible low-taxed income (GILTI), a tax determined by base erosion and anti-abuse tax benefits (BEAT) from certain payments between a U.S. corporation and foreign subsidiaries, a limitation of certain executive compensation, a deduction for foreign derived intangible income (FDII), and interest expense limitations. These new provisions require interpretation and will use estimates to determine the liability and benefits. The company's accounting policy election is to treat the taxes due on future U.S. inclusions in taxable income under GILTI as a period cost when incurred.

A provision for foreign withholding taxes has not been recorded on undistributed profits of the company's non-U.S. subsidiaries that are determined to be indefinitely reinvested outside the U.S. If management intentions change in the future, there may be a significant impact on the provision for income taxes in the period the change occurs. For further information on income taxes, see Note 8 to the consolidated financial statements.

FINANCIAL INSTRUMENT MARKET RISK INFORMATION

The company is naturally exposed to various interest rate and foreign currency risks. As a result, the company enters into derivative transactions to manage certain of these exposures that arise in the normal course of business and not for the purpose of creating speculative positions or trading. The company's financial services operations manage the relationship of the types and amounts of their funding sources to their receivable and lease portfolio in an effort to diminish risk due to interest rate and foreign currency fluctuations while responding to favorable financing opportunities. In addition, the company has interest rate exposure at certain equipment operations units for below market retail financing programs that are used as sales incentives and are offered for extended periods. Accordingly, from time to time, these operations enter into interest rate swap agreements to manage their interest rate exposure. The company also has foreign currency exposures at some of its foreign and domestic operations related to buying, selling, and financing in currencies other than the functional currencies. The company has entered into agreements related to the management of these foreign currency transaction risks.

Interest Rate Risk

Quarterly, the company uses a combination of cash flow models to assess the sensitivity of its financial instruments with interest rate exposure to changes in market interest rates. The models calculate the effect of adjusting interest rates as follows: cash flows for financing receivables are discounted at the current prevailing rate for each receivable portfolio, cash flows for marketable securities are primarily discounted at the applicable benchmark yield curve plus market credit spreads, cash flows for unsecured borrowings are discounted at the applicable benchmark yield curve plus

market credit spreads for similarly rated borrowers, cash flows for securitized borrowings are discounted at the swap yield curve plus a market credit spread for similarly rated borrowers, and cash flows for interest rate swaps are projected and discounted using forward rates from the swap yield curve at the repricing dates. The net loss in these financial instruments' fair values which would be caused by decreasing the interest rates by 10 percent from the market rates at October 28, 2018 would have been approximately \$21 million. The net loss from increasing the interest rates by 10 percent at October 29, 2017 would have been approximately \$4 million.

Foreign Currency Risk

In the equipment operations, the company's practice is to hedge significant currency exposures. Worldwide foreign currency exposures are reviewed quarterly. Based on the equipment operations' anticipated and committed foreign currency cash inflows, outflows, and hedging policy for the next twelve months, the company estimates that a hypothetical 10 percent strengthening of the U.S. dollar relative to other currencies through 2019 would decrease the 2019 expected net cash inflows by approximately \$55 million. At October 29, 2017, a hypothetical 10 percent strengthening of the U.S. dollar under similar assumptions and calculations indicated a potential \$78 million adverse effect on the 2018 net cash inflows.

In the financial services operations, the company's policy is to hedge the foreign currency risk if the currency of the borrowings does not match the currency of the receivable portfolio. As a result, a hypothetical 10 percent adverse change in the value of the U.S. dollar relative to all other foreign currencies would not have a material effect on the financial services cash flows.

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DEERE & COMPANY
STATEMENT OF CONSOLIDATED INCOME
For the Years Ended October 28, 2018, October 29, 2017, and October 30, 2016
(In millions of dollars)

	2018	2017	2016
Net Sales and Revenues			
Net sales	\$ 33,350.7	\$ 25,885.1	\$ 23,387.3
Finance and interest income	3,106.6	2,731.5	2,511.2
Other income	900.4	1,121.1	745.5
Total	<u>37,357.7</u>	<u>29,737.7</u>	<u>26,644.0</u>
Costs and Expenses			
Cost of sales	25,571.2	19,866.2	18,196.1
Research and development expenses	1,657.6	1,372.5	1,393.7
Selling, administrative and general expenses	3,455.5	3,097.8	2,791.2
Interest expense	1,203.6	899.5	763.7
Other operating expenses	<u>1,399.1</u>	<u>1,347.9</u>	<u>1,275.3</u>
Total	<u>33,287.0</u>	<u>26,583.9</u>	<u>24,420.0</u>
Income of Consolidated Group before Income Taxes	4,070.7	3,153.8	2,224.0
Provision for income taxes	<u>1,726.9</u>	<u>971.1</u>	<u>700.1</u>
Income of Consolidated Group	2,343.8	2,182.7	1,523.9
Equity in income (loss) of unconsolidated affiliates	<u>26.8</u>	<u>(23.5)</u>	<u>(2.4)</u>
Net Income	2,370.6	2,159.2	1,521.5
Less: Net income (loss) attributable to noncontrolling interests	2.2	.1	(2.4)
Net Income Attributable to Deere & Company	<u>\$ 2,368.4</u>	<u>\$ 2,159.1</u>	<u>\$ 1,523.9</u>
Per Share Data			
Basic	\$ 7.34	\$ 6.76	\$ 4.83
Diluted	\$ 7.24	\$ 6.68	\$ 4.81
Dividends declared	\$ 2.58	\$ 2.40	\$ 2.40
Average Shares Outstanding			
Basic	322.6	319.5	315.2
Diluted	327.3	323.3	316.6

The notes to consolidated financial statements are an integral part of this statement.

DEERE & COMPANY
STATEMENT OF CONSOLIDATED COMPREHENSIVE INCOME
For the Years Ended October 28, 2018, October 29, 2017, and October 30, 2016
(In millions of dollars)

	2018	2017	2016
Net Income	\$ 2,370.6	\$ 2,159.2	\$ 1,521.5
Other Comprehensive Income (Loss), Net of Income Taxes			
Retirement benefits adjustment	1,052.4	828.8	(907.6)
Cumulative translation adjustment	(195.4)	230.6	9.0
Unrealized gain on derivatives	9.1	3.7	2.9
Unrealized loss on investments	(13.3)	(.6)	(.9)
Other Comprehensive Income (Loss), Net of Income Taxes	<u>852.8</u>	<u>1,062.5</u>	<u>(896.6)</u>
Comprehensive Income of Consolidated Group	<u>3,223.4</u>	<u>3,221.7</u>	<u>624.9</u>
Less: Comprehensive income (loss) attributable to noncontrolling interests	2.1	.3	(2.4)
Comprehensive Income Attributable to Deere & Company	<u>\$ 3,221.3</u>	<u>\$ 3,221.4</u>	<u>\$ 627.3</u>

The notes to consolidated financial statements are an integral part of this statement.

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DEERE & COMPANY
CONSOLIDATED BALANCE SHEET
As of October 28, 2018 and October 29, 2017
(In millions of dollars except per share amounts)

	2018	2017
ASSETS		
Cash and cash equivalents	\$ 3,904.0	\$ 9,334.9
Marketable securities	490.1	451.6
Receivables from unconsolidated affiliates	21.7	35.9
Trade accounts and notes receivable – net	5,004.3	3,924.9
Financing receivables – net	27,054.1	25,104.1
Financing receivables securitized – net	4,021.4	4,158.8
Other receivables	1,735.5	1,200.0
Equipment on operating leases – net	7,165.4	6,593.7
Inventories	6,148.9	3,904.1
Property and equipment – net	5,867.5	5,067.7
Investments in unconsolidated affiliates	207.3	182.5
Goodwill	3,100.7	1,033.3
Other intangible assets – net	1,562.4	218.0
Retirement benefits	1,298.3	538.2
Deferred income taxes	808.0	2,415.0
Other assets	1,718.4	1,623.6
Total Assets	\$ 70,108.0	\$ 65,786.3
LIABILITIES AND STOCKHOLDERS' EQUITY		
LIABILITIES		
Short-term borrowings	\$ 11,061.4	\$ 10,035.3
Short-term securitization borrowings	3,957.3	4,118.7
Payables to unconsolidated affiliates	128.9	121.9
Accounts payable and accrued expenses	10,111.0	8,417.0
Deferred income taxes	555.8	209.7
Long-term borrowings	27,237.4	25,891.3
Retirement benefits and other liabilities	5,751.0	7,417.9
Total liabilities	58,802.8	56,211.8
Commitments and contingencies (Note 22)		
Redeemable noncontrolling interest (Note 4)	14.0	14.0
STOCKHOLDERS' EQUITY		
Common stock, \$1 par value (authorized – 1,200,000,000 shares; issued – 536,431,204 shares in 2018 and 2017), at paid-in amount	4,474.2	4,280.5
Common stock in treasury, 217,975,806 shares in 2018 and 214,589,902 shares in 2017, at cost	(16,311.8)	(15,460.8)
Retained earnings	27,553.0	25,301.3
Accumulated other comprehensive income (loss)	(4,427.6)	(4,563.7)
Total Deere & Company stockholders' equity	11,287.8	9,557.3
Noncontrolling interests	3.4	3.2
Total stockholders' equity	11,291.2	9,560.5
Total Liabilities and Stockholders' Equity	\$ 70,108.0	\$ 65,786.3

The notes to consolidated financial statements are an integral part of this statement.

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DEERE & COMPANY
STATEMENT OF CONSOLIDATED CASH FLOWS
For the Years Ended October 28, 2018, October 29, 2017, and October 30, 2016
(In millions of dollars)

	2018	2017	2016
Cash Flows from Operating Activities			
Net income	\$ 2,370.6	\$ 2,159.2	\$ 1,521.5
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	90.8	98.3	94.3
Provision for depreciation and amortization	1,927.1	1,715.5	1,559.8
Impairment charges	—	39.8	85.1
Share-based compensation expense	83.8	68.1	70.6
Gain on sale of affiliates and investments	(25.1)	(375.1)	(74.5)
Undistributed earnings of unconsolidated affiliates	(26.3)	(14.4)	(1.9)
Provision for deferred income taxes	1,479.9	100.1	282.7
Changes in assets and liabilities:			
Trade, notes and financing receivables related to sales	(1,531.1)	(838.9)	335.2
Inventories	(1,772.3)	(1,305.3)	(106.1)
Accounts payable and accrued expenses	722.3	968.0	(155.2)
Accrued income taxes payable/receivable	(466.2)	(84.2)	7.0
Retirement benefits	(1,026.1)	(31.9)	238.6
Other	(7.1)	(299.4)	(87.4)
Net cash provided by operating activities	<u>1,820.3</u>	<u>2,199.8</u>	<u>3,769.7</u>
Cash Flows from Investing Activities			
Collections of receivables (excluding receivables related to sales)	15,589.3	14,671.1	14,611.4
Proceeds from maturities and sales of marketable securities	76.6	404.2	169.4
Proceeds from sales of equipment on operating leases	1,482.7	1,440.8	1,256.2
Proceeds from sales of businesses and unconsolidated affiliates, net of cash sold	155.6	113.9	81.1
Cost of receivables acquired (excluding receivables related to sales)	(17,013.3)	(15,221.8)	(13,954.5)
Acquisitions of businesses, net of cash acquired	(5,245.0)	(284.2)	(198.5)
Purchases of marketable securities	(132.8)	(118.0)	(171.2)
Purchases of property and equipment	(896.4)	(594.9)	(644.4)
Cost of equipment on operating leases acquired	(2,053.7)	(1,997.4)	(2,310.7)
Other	(117.4)	(58.0)	(16.0)
Net cash used for investing activities	<u>(8,154.4)</u>	<u>(1,644.3)</u>	<u>(1,177.2)</u>
Cash Flows from Financing Activities			
Increase (decrease) in total short-term borrowings	473.2	1,310.6	(1,213.6)
Proceeds from long-term borrowings	8,287.8	8,702.2	5,070.7
Payments of long-term borrowings	(6,245.3)	(5,397.0)	(5,267.6)
Proceeds from issuance of common stock	216.9	528.7	36.0
Repurchases of common stock	(957.9)	(6.2)	(205.4)
Dividends paid	(805.8)	(764.0)	(761.3)
Other	(92.5)	(87.8)	(64.7)
Net cash provided by (used for) financing activities	<u>876.4</u>	<u>4,286.5</u>	<u>(2,405.9)</u>
Effect of Exchange Rate Changes on Cash and Cash Equivalents			
Net Increase (Decrease) in Cash and Cash Equivalents	26.8	157.1	(13.0)
Cash and Cash Equivalents at Beginning of Year	(5,430.9)	4,999.1	173.6
Cash and Cash Equivalents at End of Year	<u>\$ 3,904.0</u>	<u>\$ 9,334.9</u>	<u>\$ 4,335.8</u>

The notes to consolidated financial statements are an integral part of this statement.

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DEERE & COMPANY
STATEMENT OF CHANGES IN CONSOLIDATED STOCKHOLDERS' EQUITY
For the Years Ended October 30, 2016, October 29, 2017, and October 28, 2018
(In millions of dollars)

	Total Stockholders' Equity							Redeemable Noncontrolling Interest	
	Deere & Company Stockholders								
	Total Stockholders' Equity	Common Stock	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interests			
Balance									
November 1, 2015	\$ 6,757.6	\$ 3,825.6	\$ (15,497.6)	\$ 23,144.8	\$ (4,729.4)	\$ 14.2			
Net income (loss)	1,521.5			1,523.9		(2.4)			
Other comprehensive loss	(896.6)				(896.6)				
Repurchases of common stock	(205.4)		(205.4)						
Treasury shares reissued	25.9		25.9						
Dividends declared	(758.0)			(757.1)		(.9)			
Acquisition (Note 4)							\$ 14.0		
Stock options and other	85.8	86.2		(.3)		(.1)			
Balance									
October 30, 2016	6,530.8	3,911.8	(15,677.1)	23,911.3	(5,626.0)	10.8		14.0	
Net income	2,159.2			2,159.1		.1			
Other comprehensive income	1,062.5				1,062.3	.2			
Repurchases of common stock	(6.2)		(6.2)						
Treasury shares reissued	222.5		222.5						
Dividends declared	(770.4)			(769.2)		(1.2)			
Stock options and other	362.1	368.7		.1		(6.7)			
Balance									
October 29, 2017	9,560.5	4,280.5	(15,460.8)	25,301.3	(4,563.7)	3.2		14.0	
Net income	2,369.4			2,368.4		1.0		1.2	
Other comprehensive income (loss)	852.8				852.9	(.1)			
Repurchases of common stock	(957.9)		(957.9)						
Treasury shares reissued	106.9		106.9						
Dividends declared	(835.8)			(833.8)		(2.0)		(1.2)	
Acquisition (Note 4)	1.1						1.1		
Stock options and other	194.2	193.7		.3		.2			
ASU No. 2018-02 adoption*				716.8	(716.8)				
Balance									
October 28, 2018	\$ 11,291.2	\$ 4,474.2	\$ (16,311.8)	\$ 27,553.0	\$ (4,427.6)	\$ 3.4		\$ 14.0	

* See Note 3.

The notes to consolidated financial statements are an integral part of this statement.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**1. ORGANIZATION AND CONSOLIDATION****Structure of Operations**

The information in the notes and related commentary are presented in a format that includes data grouped as follows:

Equipment Operations – Includes the company's agriculture and turf operations and construction and forestry operations with financial services reflected on the equity basis.

Financial Services – Includes primarily the company's financing operations.

Consolidated – Represents the consolidation of the equipment operations and financial services. References to "Deere & Company" or "the company" refer to the entire enterprise.

Principles of Consolidation

The consolidated financial statements represent primarily the consolidation of all companies in which Deere & Company has a controlling interest. Certain variable interest entities (VIEs) are consolidated since the company is the primary beneficiary. The primary beneficiary has both the power to direct the activities that most significantly impact the VIEs' economic performance and the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIEs. Deere & Company records its investment in each unconsolidated affiliated company (generally 20 to 50 percent ownership) at its related equity in the net assets of such affiliate (see Note 10). Other investments (less than 20 percent ownership) are recorded at cost.

Fiscal Year

The company uses a 52/53 week fiscal year ending on the last Sunday in the reporting period. The fiscal year ends for 2018, 2017, and 2016 were October 28, 2018, October 29, 2017, and October 30, 2016, respectively. All fiscal years contained 52 weeks.

Variable Interest Entities

The company consolidates certain VIEs related to retail note securitizations (see Note 13).

The company also has an interest in a joint venture that manufactures construction equipment in Brazil for local and overseas markets. The joint venture is a VIE, but the company is not the primary beneficiary. Therefore, the entity's financial results are not fully consolidated in the company's consolidated financial statements, but are included on the equity basis. The maximum exposure to losses at October 28, 2018 in millions of dollars follows:

	October 2018
Receivables from unconsolidated affiliates	\$ 2
Loan guarantee	25
Total	\$ 27

Sales Incentives

At the time a sale is recognized, the company records an estimate of the future sales incentive costs for allowances and financing programs that will be due when a dealer sells the equipment to a retail customer. The estimate is based on historical data, announced incentive programs, field inventory levels, and retail sales volumes.

Product Warranties

At the time a sale is recognized, the company records the estimated future warranty costs. These costs are usually estimated based on historical warranty claims and consideration of current quality developments (see Note 22).

Sales Taxes

The company collects and remits taxes assessed by different governmental authorities that are both imposed on and concurrent with revenue producing transactions between the company and its customers. These taxes may include sales, use, value-added, and some excise taxes. The company reports the collection of these taxes on a net basis (excluded from revenues).

Shipping and Handling Costs

Shipping and handling costs related to the sales of the company's equipment are included in cost of sales.

Advertising Costs

Advertising costs are charged to expense as incurred. This expense was \$188 million in 2018, \$169 million in 2017, and \$169 million in 2016.

Depreciation and Amortization

Property and equipment, capitalized software, and other intangible assets are generally stated at cost less accumulated depreciation or amortization. These assets are depreciated over their estimated useful lives generally using the straight-line method. Equipment on operating leases is depreciated over the terms of the leases using the straight-line method. Property and equipment expenditures for new and revised products, increased capacity, and the replacement or major renewal of significant items are capitalized. Expenditures for maintenance, repairs, and minor renewals are generally charged to expense as incurred.

Securitization of Receivables

Certain financing receivables are periodically transferred to special purpose entities (SPEs) in securitization transactions (see Note 13). These securitizations qualify as collateral for secured borrowings and no gains or losses are recognized at the time of securitization. The receivables remain on the balance sheet and are classified as "Financing receivables securitized – net." The company recognizes finance income over the lives of these receivables using the interest method.

Receivables and Allowances

All financing and trade receivables are reported on the balance sheet at outstanding principal adjusted for any charge-offs, the allowance for credit losses, and any deferred fees or costs on originated financing receivables. Allowances for credit losses are maintained in amounts considered to be appropriate in relation to the receivables outstanding based

are written-off to the allowance when the account is considered uncollectible (see Note 12).

Impairment of Long-Lived Assets, Goodwill, and Other Intangible Assets

The company evaluates the carrying value of long-lived assets (including equipment on operating leases, property and equipment, goodwill, and other intangible assets) when events or circumstances warrant such a review. Goodwill and intangible assets with indefinite lives are tested for impairment annually at the end of the third quarter of each fiscal year, and more often if events or circumstances indicate a reduction in the fair value below the carrying value. Goodwill is allocated and reviewed for impairment by reporting units, which consist primarily of the operating segments and certain other reporting units. Goodwill is allocated to the reporting unit in which the business that created the goodwill resides. To test for goodwill impairment, the carrying value of each reporting unit is compared with its fair value. If the carrying value of the goodwill is considered impaired, the impairment is measured as the excess of the reporting unit's carrying value over the fair value, with a limit of the goodwill allocated to that reporting unit. If the carrying value of the long-lived asset is considered impaired, a loss is recognized based on the amount by which the carrying value exceeds the fair value of the asset (see Notes 5 and 26).

Derivative Financial Instruments

It is the company's policy that derivative transactions are executed only to manage exposures arising in the normal course of business and not for the purpose of creating speculative positions or trading. The company's financial services operations manage the relationship of the types and amounts of their funding sources to their receivable and lease portfolio in an effort to diminish risk due to interest rate and foreign currency fluctuations, while responding to favorable financing opportunities. The company also has foreign currency exposures at some of its foreign and domestic operations related to buying, selling, and financing in currencies other than the functional currencies. In addition, the company has interest rate exposure at certain equipment operations units for below market retail financing programs that are used as sales incentives and are offered for extended periods.

All derivatives are recorded at fair value on the balance sheet. Cash collateral received or paid is not offset against the derivative fair values on the balance sheet. Each derivative is designated as either a cash flow hedge or a fair value hedge or remains undesignated. Changes in the fair value of derivatives that are designated and effective as cash flow hedges are recorded in other comprehensive income (OCI) and reclassified to the income statement when the effects of the item being hedged are recognized in the income statement. Changes in the fair value of derivatives that are designated and effective as fair value hedges are recognized currently in net income. These changes are offset in net income to the extent the hedge was effective by fair value changes related to the risk being hedged on the hedged item. Changes in the fair value of undesignated hedges are recognized currently in the income statement. All ineffective changes in derivative fair values are recognized currently in net income.

on collection experience, economic conditions in the company's major markets and geographies, and credit risk quality. Receivables

All designated hedges are formally documented as to the relationship with the hedged item as well as the risk-management strategy. Both at inception and on an ongoing basis the hedging instrument is assessed as to its effectiveness. If and when a derivative is determined not to be highly effective as a hedge, the underlying hedged transaction is no longer likely to occur, the hedge designation is removed, or the derivative is terminated, the hedge accounting discussed above is discontinued (see Note 27).

Foreign Currency Translation

The functional currencies for most of the company's foreign operations are their respective local currencies. The assets and liabilities of these operations are translated into U.S. dollars at the end of the period exchange rates. The revenues and expenses are translated at weighted-average rates for the period. The gains or losses from these translations are recorded in OCI. Gains or losses from transactions denominated in a currency other than the functional currency of the subsidiary involved and foreign exchange forward contracts are included in net income. The pretax net loss for foreign exchange in 2018, 2017, and 2016 was \$8 million, \$62 million, and \$38 million, respectively.

3. NEW ACCOUNTING STANDARDS

New Accounting Standards Adopted

In the first quarter of 2018, the company early adopted Financial Accounting Standards Board (FASB) Accounting Standard Update (ASU) No. 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, which amends Accounting Standards Codification (ASC) 715, Compensation – Retirement Benefits. This ASU required that employers report only the service cost component of the total defined benefit pension and OPEB cost in the same income statement lines as compensation for the participating employees. The other components of these benefit costs are reported outside of operating profit in the income statement line other operating expenses. The ASU was adopted on a retrospective basis that increased operating profit in fiscal years 2018, 2017, and 2016 by \$15 million, \$31 million, and \$20 million, respectively. The income statement line changes for fiscal years 2017 and 2016 were cost of sales decreased \$67 million and \$53 million, research and development expenses increased \$5 million and \$5 million, selling, administrative and general expenses increased \$31 million and \$28 million, and other operating expenses increased \$31 million and \$20 million, respectively. In addition, only the service cost component of the benefit costs is eligible for capitalization, which was adopted beginning the first quarter of 2018.

In the first quarter of 2018, the company adopted ASU No. 2016-07, Simplifying the Transition to the Equity Method of Accounting, which amends ASC 323, Investments – Equity Method and Joint Ventures, which did not have a material effect on the company's consolidated financial statements.

In March 2018, the FASB issued ASU No. 2018-05, Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118, which amends ASC 740, Income Taxes. This ASU incorporates SEC Staff Accounting Bulletin No. 118, which was also issued in December 2017, into the ASC. The ASU provides guidance on when to record and

disclose provisional amounts related to tax reform. In addition, the ASU allows for a measurement period up to one year after the enactment date of tax reform to complete the related accounting requirements and was effective when issued. The company will complete the adjustments related to tax reform within the allowed period. The effects of tax reform on the company's consolidated financial statements are outlined in Note 8.

In February 2018, the FASB issued ASU No. 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which amends ASC 220, Income Statement – Reporting Comprehensive Income. Included in the provisions of tax reform is a reduction of the corporate income tax rate from 35 percent to 21 percent. Accounting principles generally accepted in the U.S. require that deferred taxes are remeasured to the new corporate tax rate in the period legislation is enacted. The deferred tax adjustment is recorded in the provision for income taxes, including items for which the tax effects were originally recorded in OCI. This treatment results in the items in OCI not reflecting the appropriate tax rate, which are referred to as stranded tax effects. This ASU allows a reclassification from accumulated OCI to retained earnings for stranded tax effects resulting from tax reform. The company early adopted this ASU in the fourth quarter of 2018. The stranded tax effects reclassified from OCI to retained earnings were \$717 million.

New Accounting Standards to be Adopted

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes the revenue recognition requirements in ASC 605, Revenue Recognition. This ASU is based on the principle that revenue is recognized to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The ASU also requires additional disclosure about the nature, amount, timing, and uncertainty of revenue. The FASB issued several amendments clarifying various aspects of the ASU, including revenue transactions that involve a third party, goods or services that are immaterial in the context of the contract, and licensing arrangements. The company will adopt the ASU effective the first quarter of fiscal year 2019 using a modified-retrospective approach. The ASU requires that a gross asset and liability rather than a net liability be recorded for the value of estimated service parts returns and the related refund liability. The gross asset will be recorded in other assets for the inventory value of estimated parts returns and the gross liability will be recorded in accounts payable and accrued expenses for the estimated dealer refund. The estimated increase in other assets and accounts payable and accrued expenses will be approximately \$110 million. In addition, certain revenue disclosures will be expanded to include contract liabilities and disaggregated revenue by geographic regions and major product and services lines. The adoption will not have other material effects on the company's consolidated financial statements.

In January 2016, the FASB issued ASU No. 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities, which amends ASC 825-10, Financial Instruments – Overall. This ASU changes the treatment for available-for-sale equity investments by recognizing unrealized

fair value changes directly in net income and no longer in other comprehensive income. The effective date will be the first quarter of fiscal year 2019. The ASU will be adopted with a cumulative-effect adjustment to the balance sheet. The available-for-sale equities balance at October 28, 2018 is \$46 million with an unrealized gain of \$10 million. As a result, the adoption will not have a material effect on the company's consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), which supersedes ASC 840, Leases. The ASU's primary change is the requirement for lessee entities to recognize a lease liability for payments and a right of use asset during the term of operating lease arrangements. The ASU does not significantly change the lessee's recognition, measurement, and presentation of expenses and cash flows from the previous accounting standard. Lessors' accounting under the ASC is largely unchanged from the previous accounting standard. In July 2018, the FASB issued ASU No. 2018-10, Codification Improvements to Topic 842, Leases and ASU No. 2018-11, Leases: Targeted Improvements. Both ASUs amend ASC 842, Leases. The provisions impacting the company in these ASUs are an option that will not require prior periods to be restated at the adoption date and an option for lessors, if certain criteria are met, to avoid separating the lease and nonlease components (such as preventative maintenance services) in an agreement. In December 2018, the FASB issued ASU No. 2018-20, Narrow-Scope Improvements for Lessors. This ASU provides an election for lessors to exclude sales and related taxes from consideration in the contract, requires lessors to exclude from revenue and expense lessor costs paid directly to a third party by lessees, and clarifies lessors' accounting for variable payments related to both lease and nonlease components. The effective date will be the first quarter of fiscal year 2020, with early adoption permitted. The company is evaluating the potential effects on the consolidated financial statements and plans to adopt the ASU using the modified-retrospective approach that will not require prior periods to be restated.

In June 2016, the FASB issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments, which establishes ASC 326, Financial Instruments – Credit Losses. The ASU revises the measurement of credit losses for financial assets measured at amortized cost from an incurred loss methodology to an expected loss methodology. The ASU affects trade receivables, debt securities, net investment in leases, and most other financial assets that represent a right to receive cash. Additional disclosures about significant estimates and credit quality are also required. In November 2018, the FASB issued ASU No. 2018-19, Codification Improvements to Topic 326, Financial Instruments – Credit Losses. This ASU clarifies that receivables from operating leases are accounted for using the lease guidance and not as financial instruments. The effective date will be the first quarter of fiscal year 2021, with early adoption permitted beginning in fiscal year 2020. The ASU will be adopted using a modified-retrospective approach. The company is evaluating the potential effects on the consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Classification of Certain Cash Receipts and Cash Payments, which amends ASC 230, Statement of Cash Flows. This ASU

provides guidance on the statement of cash flows presentation of certain transactions where diversity in practice exists. The effective date will be the first quarter of fiscal year 2019 and will be adopted using a retrospective transition approach. The adoption will not have a material effect on the company's consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, Intra-Entity Transfers of Assets Other Than Inventory, which amends ASC 740, Income Taxes. This ASU requires that the income tax consequences of an intra-entity asset transfer other than inventory are recognized at the time of the transfer. The effective date will be the first quarter of fiscal year 2019. The ASU will be adopted using a modified-retrospective transition approach. The adoption will not have a material effect on the company's consolidated financial statements.

In November 2016, the FASB issued ASU No. 2016-18, Restricted Cash, which amends ASC 230, Statement of Cash Flows. This ASU requires that a statement of cash flows explain the change during the reporting period in the total of cash, cash equivalents, and restricted cash or restricted cash equivalents. The effective date will be the first quarter of fiscal year 2019 and will be adopted using a retrospective transition approach. The adoption will not have a material effect on the company's consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-01, Clarifying the Definition of a Business, which amends ASC 805, Business Combinations. This ASU provides further guidance on the definition of a business to determine whether transactions should be accounted for as acquisitions of assets or businesses. The effective date will be the first quarter of fiscal year 2019. The ASU will be adopted on a prospective basis and will not have a material effect on the company's consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-08, Premium Amortization on Purchased Callable Debt Securities, which amends ASC 310-20, Receivables – Nonrefundable Fees and Other Costs. This ASU reduces the amortization period for certain callable debt securities held at a premium to the earliest call date. The treatment of securities held at a discount is unchanged. The effective date is the first quarter of fiscal year 2020, with early adoption permitted. The adoption will not have a material effect on the company's consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, Scope of Modification Accounting, which amends ASC 718, Compensation – Stock Compensation. This ASU provides guidance about which changes to the terms of a share-based payment award should be accounted for as a modification. A change to an award should be accounted for as a modification unless the fair value of the modified award is the same as the original award, the vesting conditions do not change, and the classification as an equity or liability instrument does not change. The ASU will be adopted on a prospective basis. The effective date is the first quarter of fiscal year 2019. The adoption will not have a material effect on the company's consolidated financial statements.

In August 2017, the FASB issued ASU No. 2017-12, Targeted Improvements to Accounting for Hedging Activities, which amends ASC 815, Derivatives and Hedging. The purpose of

this ASU is to better align a company's risk management activities and financial reporting for hedging relationships, simplify the hedge accounting requirements, and improve the disclosures of hedging arrangements. The effective date is fiscal year 2020, with early adoption permitted. The company will adopt the ASU in the first quarter of fiscal year 2019 and the adoption will not have a material effect on the company's consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, Improvements to Nonemployee Share-Based Payment Accounting, which amends ASC 718, Compensation – Stock Compensation. This ASU requires that most of the guidance related to stock compensation granted to employees be followed for non-employees, including the measurement date, valuation approach, and performance conditions. The expense is recognized in the same period as though cash were paid for the good or service. The effective date is the first quarter of fiscal year 2020, with early adoption permitted, including in interim periods. The ASU will be adopted using a modified-retrospective transition approach. The adoption will not have a material effect on the consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement, which amends ASC 820, Fair Value Measurement. This ASU modifies the disclosure requirements for fair value measurements by removing, modifying, or adding certain disclosures. The effective date is the first quarter of fiscal year 2021, with early adoption permitted for the removed disclosures and delayed adoption until fiscal year 2021 permitted for the new disclosures. The removed and modified disclosures will be adopted on a retrospective basis and the new disclosures will be adopted on a prospective basis. The company will early adopt the ASU in the first quarter of fiscal year 2019. The adoption will not have a material effect on the company's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-14, Disclosure Framework – Changes to the Disclosure Requirements for Defined Benefit Plans, which amends ASC 715-20, Compensation – Retirement Benefits – Defined Benefit Plans – General. This ASU modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans by removing and adding certain disclosures for these plans. The eliminated disclosures include (a) the amounts in accumulated OCI expected to be recognized in net periodic benefit costs over the next fiscal year and (b) the effects of a one-percentage-point change in assumed health care cost trend rates on the net periodic benefit costs and the benefit obligation for postretirement health care benefits. The new disclosures include the interest crediting rates for cash balance plans, and an explanation of significant gains and losses related to changes in benefit obligations. The effective date is fiscal year 2021, with early adoption permitted. The company will early adopt the ASU in fiscal year 2019. The adoption will not have a material effect on the company's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, Customer's Accounting for Implementation Costs Incurred in a Cloud

Computing Arrangement That Is a Service Contract, which amends ASC 350-40, Intangibles – Goodwill and Other – Internal-Use Software. This ASU requires customers in a hosting arrangement that is a service contract to evaluate the implementation costs of the hosting arrangement using the guidance to develop internal-use software. The project development stage determines the implementation costs that are capitalized or expensed. Capitalized implementation costs are amortized over the term of the service arrangement and are presented in the same income statement line item as the service contract costs. The effective date will be the first quarter of fiscal year 2021, with early adoption permitted. The company will adopt the ASU on a prospective basis. The company is evaluating the potential effects on the company's consolidated financial statements.

In October 2018, the FASB issued ASU No. 2018-16, Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes, which amends ASC 815, Derivatives and Hedging. This ASU adds the OIS rate based on SOFR to the list of permissible benchmark rates for hedge accounting purposes. The company will early adopt the ASU in the first quarter of fiscal year 2019. The adoption will not have a material effect on the company's consolidated financial statements.

4. ACQUISITIONS AND DISPOSITIONS

Acquisitions

PLA

On September 26, 2018, the company acquired PLA, a privately-held manufacturer of sprayers, planters, and specialty products for agriculture. PLA is based in Argentina, with manufacturing facilities in Las Rosas, Argentina and Canoas, Brazil. The total cash purchase price before the final adjustment, net of cash acquired of \$1 million, was \$74 million with \$4 million retained by the company as escrow to secure indemnity obligations. In addition to the cash purchase price, the company assumed \$30 million of liabilities. The preliminary asset and liability fair values at the acquisition date in millions of dollars follow:

	September 2018
Trade accounts and notes receivable	\$ 6
Other receivables	14
Inventories	19
Property and equipment	1
Goodwill	43
Other intangible assets	21
Total assets	<u>\$ 104</u>
Short-term borrowings	\$ 8
Accounts payable and accrued expenses	17
Deferred income taxes	5
Total liabilities	<u>\$ 30</u>

The identified intangible assets were primarily related to technology, trademarks, and customer relationships. The goodwill is not expected to be deductible for tax purposes.

King Agro

In March 2018, the company acquired King Agro, a privately held manufacturer of carbon fiber technology products with headquarters in Valencia, Spain and a production facility in Campana, Argentina. The total cash purchase price, net of cash acquired of \$3 million, was \$40 million, excluding a loan to King Agro of \$4 million that was forgiven on the acquisition date. In addition to the cash purchase price, the company assumed \$11 million of liabilities. The asset and liability fair values at the acquisition date in millions of dollars follow:

March 2018		
Trade accounts and notes receivable	\$ 2	
Other receivables	2	
Inventories	5	
Property and equipment	5	
Goodwill	28	
Other intangible assets	13	
Total assets	\$ 55	
Short-term borrowings	\$ 2	
Accounts payable and accrued expenses	4	
Deferred income taxes	4	
Long-term borrowings	1	
Total liabilities	\$ 11	

The identifiable intangibles were primarily related to trade name and technology, which have a weighted-average amortization period of ten years. The goodwill is not expected to be deductible for tax purposes.

Wirtgen

In December 2017, the company acquired Wirtgen, which was a privately-held international company and is the leading manufacturer worldwide of road construction equipment. Headquartered in Germany, Wirtgen has six brands across the road construction sector spanning processing, mixing, paving, compaction, and rehabilitation. Wirtgen sells products in more than 100 countries and had approximately 8,200 employees at the acquisition date.

The total cash purchase price, net of cash acquired of \$191 million, was \$5,136 million, a portion of which is held in escrow to secure certain indemnity obligations of Wirtgen. In addition to the cash purchase price, the company assumed \$1,641 million in liabilities, which represented substantially all of Wirtgen's liabilities. The company financed the acquisition and associated transaction expenses from a combination of cash and new debt financing, which consisted of medium-term notes, including €850 million issued in September 2017. The

asset and liability fair values at the acquisition date in millions of dollars follow:

	December 2017
Receivables from unconsolidated affiliates	\$ 5
Trade accounts and notes receivable	449
Financing receivables	43
Financing receivables securitized	125
Other receivables	98
Inventories	1,536
Property and equipment	752
Investments in unconsolidated affiliates	19
Goodwill	2,068
Other intangible assets	1,442
Deferred income taxes	26
Other assets	215
Total assets	\$ 6,778
Short-term borrowings	\$ 285
Short-term securitization borrowings	127
Accounts payable and accrued expenses	719
Deferred income taxes	430
Long-term borrowings	50
Retirement benefits and other liabilities	30
Total liabilities	\$ 1,641
Noncontrolling interests	\$ 1

The identifiable intangible assets' fair values in millions of dollars and weighted-average useful lives in years follows:

	Weighted-Average Useful Lives	Fair Values
Customer lists and relationships	16	\$ 519
Technology, patents, trademarks, and other	19	\$ 923

The goodwill is not deductible for tax purposes.

Wirtgen's results are incorporated in the company's consolidated financial statements using a one-month lag period and are included in the construction and forestry segment. The net sales and revenues and operating profit included in the company's statement of consolidated income in 2018 was \$3,181 million and \$116 million, respectively. During 2018, the company recognized \$56 million of acquisition related costs, which were recorded \$30 million in selling, administrative and general expenses and \$26 million in other operating expenses.

The unaudited pro forma consolidated net sales and revenues and net income are prepared as if the acquisition closed at the beginning of fiscal year 2017 and follow in millions of dollars:

	2018	2017
Net sales and revenues	\$ 37,822	\$ 32,946
Net income attributable to Deere & Company	\$ 2,637	\$ 2,272

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The pro forma amounts have been calculated using policies consistent with the company's accounting policies and include the additional expense from the amortization from the allocated purchase price adjustments. The pro forma results exclude acquisition related costs incurred in both years and assume the medium-term notes used to fund the acquisition were issued in fiscal year 2016 at the interest rate of the actual notes. In addition, the pro forma results for the year ended October 29, 2017 include nonrecurring pretax expenses of \$291 million for the higher cost basis from the inventory fair value adjustment and \$84 million for the amortization of identifiable intangible assets. Anticipated synergies or other expected benefits of the acquisition are not included in the pro forma results. As a result, the unaudited pro forma financial information may not be indicative of the results for future operations or the results if the acquisition closed at the beginning of fiscal year 2017.

Blue River

In September 2017, the company acquired Blue River Technology (Blue River), which is based in Sunnyvale, California for an acquisition cost of approximately \$284 million, net of cash acquired of \$4 million and \$21 million funded to escrow for post-acquisition expenses. Blue River has designed and integrated computer vision and machine learning technology to optimize the use of farm inputs. Machine learning technologies could eventually be applied to a wide range of the company's products. The asset and liability fair values at the acquisition date in millions of dollars follow:

September 2017	
Trade accounts and notes receivable	\$ 1
Property and equipment	2
Goodwill	193
Other intangible assets	125
Total assets	\$ 321
Accounts payable and accrued expenses	\$ 1
Deferred income taxes	36
Total liabilities	\$ 37

The identifiable intangibles were primarily related to in-process research and development, which will not be amortized until the research and development efforts are complete or end.

The goodwill is not deductible for tax purposes. Blue River is included in the company's agriculture and turf operating segment.

Hagie

In March 2016, the company acquired an 80 percent interest in Hagie Manufacturing Company, LLC, the U.S. market leader in high-clearance sprayers located in Clarion, Iowa, for a cost of approximately \$53 million, net of cash acquired of

\$3 million. The asset and liability fair values at the acquisition date in millions of dollars follow:

	March 2016
Trade accounts and notes receivable	\$ 2
Inventories	33
Property and equipment	17
Goodwill	33
Other intangible assets	22
Other assets	3
Total assets	\$ 110
Accounts payable and accrued expenses, and Total liabilities	\$ 43
Redeemable noncontrolling interest	\$ 14

The identifiable intangibles were primarily related to technology, trade name and customer relationships, which have a weighted average amortization period of eight years. The goodwill is deductible for tax purposes. If certain events occur, the minority interest holder has the right to exercise a put option that would require the company to purchase the holder's membership interest. The company also has a call option exercisable after a certain period of time. The put and call options cannot be separated from the noncontrolling interest. Due to the redemption features, the minority interest holder's value is classified as a redeemable noncontrolling interest in the company's consolidated balance sheet.

Monosem

In February 2016, the company acquired Monosem for a cost of approximately \$146 million, net of cash acquired of \$20 million. Monosem, with four facilities in France and two in the U.S., is the European market leader in precision planters. The asset and liability fair values at the acquisition date in millions of dollars follow:

February 2016	
Trade accounts and notes receivable	\$ 5
Other receivables	2
Inventories	29
Property and equipment	24
Goodwill	62
Other intangible assets	42
Other assets	23
Total assets	\$ 187
Accounts payable and accrued expenses	\$ 22
Deferred income taxes	19
Total liabilities	\$ 41

The identifiable intangibles were primarily related to trade name, customer relationships and technology, which have a weighted average amortization period of nine years. The goodwill is not deductible for tax purposes.

For the acquisitions, the goodwill was the result of future cash flows and related fair value exceeding the fair value of the identified assets and liabilities. For the acquisitions other than Wirtgen, the results of these operations have been included in the company's consolidated financial statements in the agriculture and turf operating segment and the pro forma results of operations as if these acquisitions had occurred at the beginning of the current or comparative fiscal year would not differ significantly from the reported results.

Dispositions

In May 2018, the company sold construction and forestry retail locations in Michigan, Minnesota, and Wisconsin. At the time of the sale, total assets were \$74 million and liabilities were approximately \$2 million. The assets consisted of trade accounts and notes receivable – net of \$3 million, inventory of \$52 million, property and equipment – net of \$11 million, and goodwill of \$8 million. The liabilities consisted of \$2 million of accounts payable and accrued expenses. The total proceeds from the sale will be approximately \$84 million, with \$67 million received in 2018. The remaining sales price is due based on standard payment terms of new equipment sales to independent dealers or refinanced wholesale terms. A pretax gain of \$12 million was recorded in other income in the construction and forestry segment.

In November 2017, the company sold its construction and forestry retail locations in Florida. At the time of the sale, total assets were \$93 million and liabilities were \$1 million. The assets consisted of inventory of \$61 million, property and equipment – net of \$21 million, goodwill of \$10 million, and \$1 million of other assets. The liabilities consisted of \$1 million of accounts payable and accrued expenses. The total proceeds from the sale will be approximately \$105 million, with \$89 million received in 2018. The remaining sales price is due based on standard payment terms of new equipment sales to independent dealers or refinanced wholesale terms. A pretax gain of \$13 million was recorded in other income in the construction and forestry segment.

For the retail location dispositions, the company sells equipment, service parts, and provides other services to the purchasers as independent dealers.

5. SPECIAL ITEMS

Impairments

In the fourth quarter of 2017, the company recorded a non-cash charge of \$40 million pretax in equity in loss of unconsolidated affiliates for an other than temporary decline in value of an investment in an international construction equipment manufacturer with a \$14 million income tax benefit recorded in the provision for income taxes (see Note 26).

In the fourth quarter of 2016, the company recorded a non-cash charge in cost of sales for the impairment of long-lived assets of \$13 million pretax and after-tax. The assets are part of the company's construction and forestry operations in China. The impairment is the result of a decline in forecasted financial performance that indicated it was probable the future cash flows would not cover the carrying amount of assets used to manufacture construction equipment in that country. In addition, the company recorded a non-cash charge of \$12 million, pretax and after-tax, in equity in loss of unconsolidated affiliates for an other than temporary decline in value of an investment in a construction equipment joint venture in Brazil (see Note 26).

In 2016, the company recorded non-cash charges in other operating expenses of approximately \$31 million pretax for the impairment of equipment on operating leases and approximately \$29 million pretax on matured operating lease inventory recorded in other assets. The impairment was the result of lower estimated values of used agriculture and construction equipment than originally estimated with the probable effect that the future cash flows would not cover

the carrying amount of the net assets. The assets are part of the financial services operations (see Note 26).

Voluntary Employee-Separation Programs

During the fourth quarter of 2016, the company announced voluntary employee-separation programs as part of its effort to reduce operating costs. The programs provided for cash payments based on previous years of service. The expense was recorded in the period the employees accepted the separation offer. The programs' total pretax expenses were \$113 million, of which \$11 million was recorded in the fourth quarter of 2016 and \$102 million in 2017. The total 2017 expenses were allocated approximately 30 percent cost of sales, 16 percent research and development, and 54 percent selling, administrative and general. In addition, the expenses were allocated 75 percent to agriculture and turf operations, 17 percent to the construction and forestry operations, and 8 percent to the financial services operations. Savings from these programs were estimated to be approximately \$70 million in 2017.

Sale of Investment in Unconsolidated Affiliate

In December 2016, the company sold approximately 38 percent of its interest in SiteOne Landscape Supply, Inc. (SiteOne) resulting in gross proceeds of \$114 million and a gain of \$105 million pretax or \$66 million after-tax. In April 2017, the company sold an additional 68 percent of its then remaining interest in SiteOne resulting in gross proceeds of \$184 million and a gain of \$176 million pretax or \$111 million after-tax. In July 2017, the company sold its remaining interest in SiteOne resulting in gross proceeds of \$98 million and a gain of \$94 million pretax or \$59 million after-tax. The gains were recorded in other income in the agriculture and turf operating segment.

After the December 2016 sale, the company retained approximately a 15 percent ownership interest in SiteOne and approximately a 5 percent ownership interest after the April sale. Prior to April 2017, the company's representation on the SiteOne board of directors allowed the company to exercise significant influence, and therefore, the investment in SiteOne was accounted for using the equity method. In March 2017, the company reduced its representation on the SiteOne board of directors. As a result, beginning April 2017 the investment in SiteOne was recorded as an available-for-sale security and presented in marketable securities.

In May 2016, the company received a distribution of \$60 million from SiteOne that reduced the company's investment in unconsolidated affiliates. The distribution included \$4 million of a return on investment, which is shown in the statement of consolidated cash flows in undistributed earnings of unconsolidated affiliates in net cash provided by operating activities and \$56 million of a return of investment shown in other cash flows from investing activities. In May 2016, the company also sold approximately 30 percent of its interest in SiteOne in an initial public offering and terminated a service agreement resulting in gross proceeds of approximately \$81 million with a total gain of \$75 million pretax or \$47 million after-tax. The gain was recorded in other income in the agriculture and turf operating segment. The company retained approximately a 24 percent ownership interest in SiteOne after the May 2016 sale.

6. CASH FLOW INFORMATION

For purposes of the statement of consolidated cash flows, the company considers investments with purchased maturities of three months or less to be cash equivalents. Substantially all of the company's short-term borrowings, excluding the current maturities of long-term borrowings, mature or may require payment within three months or less.

The equipment operations sell a significant portion of their trade receivables to financial services. These intercompany cash flows are eliminated in the consolidated cash flows.

All cash flows from the changes in trade accounts and notes receivable (see Note 12) are classified as operating activities in the statement of consolidated cash flows as these receivables arise from sales to the company's customers. Cash flows from financing receivables that are related to sales to the company's customers (see Note 12) are also included in operating activities. The remaining financing receivables are related to the financing of equipment sold by independent dealers and are included in investing activities.

The company had the following non-cash operating and investing activities that were not included in the statement of consolidated cash flows. The company transferred inventory to equipment on operating leases of \$855 million, \$801 million, and \$685 million in 2018, 2017, and 2016, respectively. The company also had accounts payable related to purchases of property and equipment of \$183 million, \$108 million, and \$114 million at October 28, 2018, October 29, 2017, and October 30, 2016, respectively.

Cash payments for interest and income taxes consisted of the following in millions of dollars:

	2018	2017	2016
Interest:			
Equipment operations	\$ 581	\$ 506	\$ 442
Financial services	926	665	524
Intercompany eliminations	(331)	(268)	(240)
Consolidated	\$ 1,176	\$ 903	\$ 726
Income taxes:			
Equipment operations	\$ 625	\$ 898	\$ 314
Financial services	387	92	(26)
Intercompany eliminations	(300)	(9)	104
Consolidated	\$ 712	\$ 981	\$ 392

7. PENSION AND OTHER POSTRETIREMENT BENEFITS

The company has several defined benefit pension plans and other postretirement benefit (OPEB) plans, primarily health care and life insurance plans, covering its U.S. employees and employees in certain foreign countries. The company uses an October 31 measurement date for these plans.

The components of net periodic pension cost and the assumptions related to the cost consisted of the following in millions of dollars and in percents:

	2018	2017	2016
Pensions			
Service cost	\$ 293	\$ 274	\$ 254
Interest cost	390	361	391
Expected return on plan assets	(775)	(790)	(775)
Amortization of actuarial loss	226	247	211
Amortization of prior service cost	12	12	16
Other postemployment benefits			2
Settlements/curtailments	8	2	11
Net cost	\$ 154	\$ 106	\$ 110
Weighted-average assumptions			
Discount rates – service cost	3.5%	3.5%	4.3%
Discount rates – interest cost	3.2%	3.0%	3.4%
Rate of compensation increase	3.8%	3.8%	3.8%
Expected long-term rates of return	6.9%	7.3%	7.3%

The components of net periodic OPEB cost and the assumptions related to the cost consisted of the following in millions of dollars and in percents:

	2018	2017	2016
OPEB			
Service cost	\$ 45	\$ 42	\$ 38
Interest cost	191	194	204
Expected return on plan assets	(22)	(17)	(35)
Amortization of actuarial loss	62	99	73
Amortization of prior service credit	(77)	(77)	(78)
Net cost	\$ 199	\$ 241	\$ 202
Weighted-average assumptions			
Discount rates – service cost	4.3%	4.7%	5.0%
Discount rates – interest cost	3.3%	3.2%	3.5%
Expected long-term rates of return	5.7%	6.3%	6.6%

The spot yield curve approach is used to estimate the service and interest cost components of the net periodic pension and OPEB costs by applying the specific spot rates along the yield curve used to determine the benefit plan obligations to relevant projected cash outflows. The components of net periodic pension and OPEB cost excluding the service component are included in the line item other operating expenses in the Statement of Consolidated Income.

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The previous pension cost in net income and other changes in plan assets and benefit obligations in other comprehensive income in millions of dollars were as follows:

	2018	2017	2016
Pensions			
Net cost	\$ 154	\$ 106	\$ 110
Retirement benefit adjustments included in other comprehensive (income) loss:			
Net actuarial (gain) loss	(553)	(702)	1,140
Prior service cost	1		
Amortization of actuarial loss	(226)	(247)	(211)
Amortization of prior service cost	(12)	(12)	(16)
Settlements/curtailments	(8)	(2)	(14)
Total (gain) loss recognized in other comprehensive (income) loss	(799)	(963)	900
Total recognized in comprehensive (income) loss	<u>\$ (645)</u>	<u>\$ (857)</u>	<u>\$ 1,010</u>

The previous OPEB cost in net income and other changes in plan assets and benefit obligations in other comprehensive income in millions of dollars were as follows:

	2018	2017	2016
OPEB			
Net cost	\$ 199	\$ 241	\$ 202
Retirement benefit adjustments included in other comprehensive (income) loss:			
Net actuarial (gain) loss	(608)	(309)	496
Prior service cost (credit)	5	(3)	
Amortization of actuarial loss	(62)	(99)	(73)
Amortization of prior service credit	77	77	78
Total (gain) loss recognized in other comprehensive (income) loss	(588)	(331)	498
Total recognized in comprehensive (income) loss	<u>\$ (389)</u>	<u>\$ (90)</u>	<u>\$ 700</u>

The benefit plan obligations, funded status, and the assumptions related to the obligations at October 28, 2018 and October 29, 2017, respectively, in millions of dollars follow:

	Pensions	OPEB		
	2018	2017	2018	2017
Change in benefit obligations				
Beginning of year balance	\$(13,166)	\$(13,086)	\$(6,162)	\$(6,500)
Service cost	(293)	(274)	(45)	(42)
Interest cost	(390)	(361)	(191)	(194)
Actuarial gain (loss)	1,012	(35)	624	280
Amendments			(5)	
Benefits paid	711	704	317	312
Health care subsidies			(12)	(9)
Settlements/curtailments			2	
Acquisition*	(29)			
Foreign exchange and other	47	(116)	2	(9)
End of year balance	<u>(12,108)</u>	<u>(13,166)</u>	<u>(5,472)</u>	<u>(6,162)</u>
Change in plan assets (fair value)				
Beginning of year balance	12,093	11,137	539	435
Actual return on plan assets	316	1,517	6	46
Employer contribution	938	62	488	366
Benefits paid	(711)	(704)	(317)	(312)
Settlements			(2)	
Foreign exchange and other	(34)	83	3	4
End of year balance	<u>12,602</u>	<u>12,093</u>	<u>719</u>	<u>539</u>
Funded status				
	<u>\$ 494</u>	<u>\$ (1,073)</u>	<u>\$ (4,753)</u>	<u>\$ (5,623)</u>

Weighted-average assumptions

Discount rates	4.1%	3.6%	4.5%	3.7%
Rate of compensation increase	3.8%	3.8%		

* See Note 4.

In 2018, the company made voluntary contributions of \$870 million to a U.S. pension plan and \$430 million to its U.S. OPEB plans.

The mortality assumptions for the 2018 and 2017 benefit plan obligations reflect the most recent tables issued by the Society of Actuaries at that time.

The amounts recognized at October 28, 2018 and October 29, 2017, respectively, in millions of dollars consist of the following:

	Pensions	OPEB		
	2018	2017	2018	2017
Amounts recognized in balance sheet				
Noncurrent asset	\$ 1,298	\$ 538		
Current liability	(36)	(40)	\$ (34)	\$ (63)
Noncurrent liability	(768)	(1,571)	(4,719)	(5,560)
Total	<u>\$ 494</u>	<u>\$ (1,073)</u>	<u>\$ (4,753)</u>	<u>\$ (5,623)</u>
Amounts recognized in accumulated other comprehensive income – pretax				

Net actuarial loss	\$3,571	\$ 4,358	\$ 787	\$ 1,457
Prior service cost (credit)	43	55	(100)	(182)
Total	<u>\$3,614</u>	<u>\$ 4,413</u>	<u>\$ 687</u>	<u>\$ 1,275</u>

The total accumulated benefit obligations for all pension plans at October 28, 2018 and October 29, 2017, were \$11,485 million and \$12,416 million, respectively.

The accumulated benefit obligations and fair value of plan assets for pension plans with accumulated benefit obligations in excess of plan assets were \$1,710 million and \$1,015 million, respectively, at October 28, 2018 and \$8,234 million and \$7,345 million, respectively, at October 29, 2017. The projected benefit obligations and fair value of plan assets for pension plans with projected benefit obligations in excess of plan assets were \$1,833 million and \$1,029 million, respectively, at October 28, 2018 and \$9,059 million and \$7,448 million, respectively, at October 29, 2017.

The amounts in accumulated other comprehensive income that are expected to be amortized as net expense (income) and reported outside of income from operations during fiscal 2019 in millions of dollars follow:

	Pensions	OPEB
Net actuarial loss	\$ 141	\$ 20
Prior service cost (credit)	12	(72)
Total	\$ 153	\$ (52)

Actuarial gains and losses are recorded in accumulated other comprehensive income (loss). To the extent unamortized gains and losses exceed 10% of the higher of the market-related value of assets or the benefit obligation, the excess is amortized as a component of net periodic cost over the remaining service period of the active participants. For plans in which all or almost all of the plan's participants are inactive, the amortization period is the remaining life expectancy of the inactive participants.

The company expects to contribute approximately \$70 million to its pension plans and approximately \$140 million to its OPEB plans in 2019, which are primarily direct benefit payments.

The benefits expected to be paid from the benefit plans, which reflect expected future years of service, are as follows in millions of dollars:

	Pensions	OPEB*
2019	\$ 712	\$ 320
2020	743	334
2021	703	339
2022	699	345
2023	693	345
2024 to 2028	3,465	1,729

* Net of prescription drug group benefit subsidy under Medicare Part D.

The annual rates of increase in the per capita cost of covered health care benefits (the health care cost trend rates) used to determine accumulated postretirement benefit obligations were based on the trends for medical and prescription drug claims for pre- and post-65 age groups due to the effects of Medicare. For the 2018 actuarial valuation, the weighted-average composite trend rates for these obligations were assumed to be an 8.9 percent increase from 2018 to

2019, gradually decreasing to 4.8 percent from 2024 to 2025 and all future years. The 2017 obligations and the cost in 2018 assumed an 8.9 percent increase from 2017 to 2018, gradually decreasing to 4.8 percent from 2024 to 2025 and all future years. An increase of one percentage point in the assumed health care cost trend rate would increase the accumulated postretirement benefit obligations by \$644 million and the aggregate of service and interest cost component of net periodic OPEB cost for the year by \$33 million. A decrease of one percentage point would decrease the obligations by \$511 million and the cost by \$26 million.

The discount rate assumptions used to determine the pension and OPEB obligations for all periods presented were based on hypothetical AA yield curves represented by a series of annualized individual discount rates. These discount rates represent the rates at which the company's benefit obligations could effectively be settled at the October 31 measurement dates.

Fair value measurement levels in the following tables are defined in Note 26.

The fair values of the pension plan assets at October 28, 2018 follow in millions of dollars:

	Total	Level 1	Level 2
Cash and short-term investments	\$ 868	\$ 377	\$ 491
Equity:			
U.S. equity securities	1,495	1,466	29
International equity securities	1,143	1,136	7
Fixed Income:			
Government and agency securities	764	500	264
Corporate debt securities	1,626		1,626
Mortgage-backed securities	53		53
Real estate	76	72	4
Derivative contracts – assets*	102	3	99
Derivative contracts – liabilities**	(115)	(40)	(75)
Receivables, payables, and other	(9)	(10)	1
Securities lending collateral	561		561
Securities lending liability	(561)		(561)
Securities sold short	(333)	(330)	(3)
Total of Level 1 and Level 2 assets	5,670	\$ 3,174	\$ 2,496
Investments at net asset value:			
Short-term investments	219		
U.S. equity funds	1,526		
International equity funds	802		
Corporate debt funds	28		
Fixed income funds	1,262		
Real estate	654		
Hedge funds	724		
Private equity/venture capital	1,680		
Other investments	37		
Total net assets	\$12,602		

* Includes contracts for interest rates of \$48 million, foreign currency of \$47 million, and other of \$7 million.

** Includes contracts for interest rates of \$49 million, foreign currency of \$28 million, equity of \$29 million, and other of \$9 million.

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The fair values of the health care assets at October 28, 2018 follow in millions of dollars:

	Total	Level 1	Level 2
Cash and short-term investments			
U.S. equity securities and funds	\$ 78	\$ 73	\$ 5
Equity:			
U.S. equity securities and funds	54	54	
International equity securities	10	10	
Fixed Income:			
Government and agency securities	57	53	4
Corporate debt securities	29	29	
Mortgage-backed securities	11	11	
Real estate	1	1	
Foreign currency derivative contracts – assets			
	1	1	
Equity derivative contracts – liabilities			
	(1)	(1)	
Securities lending collateral	24	24	
Securities lending liability	(24)	(24)	
Securities sold short	(3)	(3)	
Total of Level 1 and Level 2 assets	237	\$ 187	\$ 50
Investments at net asset value:			
Short-term investments	2		
U.S. equity funds	220		
International equity funds	146		
Fixed income funds	83		
Real estate funds	7		
Hedge funds	7		
Private equity/venture capital	17		
Total net assets	\$ 719		

The fair values of the pension plan assets at October 29, 2017 follow in millions of dollars:

	Total	Level 1	Level 2
Cash and short-term investments	\$ 618	\$ 349	\$ 269
Equity:			
U.S. equity securities	1,871	1,850	21
International equity securities	1,551	1,541	10
Fixed Income:			
Government and agency securities	483	241	242
Corporate debt securities	1,285		1,285
Mortgage-backed securities	42		42
Real estate	103	101	2
Derivative contracts – assets*	159	28	131
Derivative contracts – liabilities**	(76)	(2)	(74)
Receivables, payables, and other	1	1	
Securities lending collateral	420		420
Securities lending liability	(420)		(420)
Securities sold short	(379)	(375)	(4)
Total of Level 1 and Level 2 assets	\$5,658	\$3,734	\$1,924

(continued)

	Total	Level 1	Level 2
Investments at net asset value:			
Short-term investments	\$ 203		
U.S. equity funds	1,704		
International equity funds	921		
Corporate debt funds	28		
Fixed income funds	772		
Real estate	567		
Hedge funds	651		
Private equity/venture capital	1,560		
Other investments	29		
Total net assets	\$12,093		

* Includes contracts for interest rates of \$79 million, foreign currency of \$49 million, equity of \$27 million, and other of \$4 million.

** Includes contracts for interest rates of \$48 million, foreign currency of \$26 million, and other of \$2 million.

The fair values of the health care assets at October 29, 2017 follow in millions of dollars:

	Total	Level 1	Level 2
Cash and short-term investments	\$ 30	\$ 28	\$ 2
Equity:			
U.S. equity securities and funds	42	42	
International equity securities	9	9	
Fixed Income:			
Government and agency securities	40	37	3
Corporate debt securities	21		21
Mortgage-backed securities	10		10
Real estate	1	1	
Interest rate derivative contracts – assets	1		1
Securities lending collateral	25		25
Securities lending liability	(25)		(25)
Securities sold short	(2)	(2)	
Total of Level 1 and Level 2 assets	152	\$ 115	\$ 37

Investments at net asset value:

Short-term investments	1
U.S. equity funds	164
International equity funds	117
Fixed income funds	87
Real estate funds	4
Hedge funds	4
Private equity/venture capital	10
Total net assets	\$ 539

Investments at net asset value in the preceding tables are measured at fair value using the net asset value per share practical expedient, and therefore, are not classified in the fair value hierarchy.

Fair values are determined as follows:

Cash and Short-Term Investments – Includes accounts that are valued based on the account value, which approximates fair value, and investment funds that are valued based on a constant fund net asset value (NAV) or on the fund's NAV based on the fair value of the underlying securities. Also included are securities that are valued using a market approach (matrix pricing model) in which all significant inputs are observable or can be derived from or corroborated by observable market data.

Equity Securities and Funds – The values are determined primarily by closing prices in the active market in which the equity investment trades, or the fund's NAV, based on the fair value of the underlying securities.

Fixed Income Securities and Funds – The securities are valued using either a market approach (matrix pricing model) in which all significant inputs are observable or can be derived from or corroborated by observable market data such as interest rates, yield curves, volatilities, credit risk, and prepayment speeds, or they are valued using the closing prices in the active market in which the fixed income investment trades. Fixed income funds are valued using the fund's NAV, based on the fair value of the underlying securities.

Real Estate, Venture Capital, Private Equity, Hedge Funds, and Other – The investments that are structured as limited partnerships are valued at estimated fair value based on their proportionate share of the limited partnership's fair value that is determined by the respective general partner. These investments are valued using a combination of NAV, an income approach (primarily estimated cash flows discounted over the expected holding period), or market approach (primarily the valuation of similar securities and properties). Real estate investment trusts are primarily valued at the closing prices in the active markets in which the investment trades. Real estate funds and other investments are primarily valued at NAV, based on the fair value of the underlying securities.

Interest Rate, Foreign Currency, and Other Derivative Instruments – The derivatives are valued using either an income approach (discounted cash flow) using market observable inputs, including swap curves and both forward and spot exchange rates, or a market approach (closing prices in the active market in which the derivative instrument trades).

The primary investment objective for the pension and health care plans assets is to maximize the growth of these assets to support the projected obligations to the beneficiaries over a long period of time, and to do so in a manner that is consistent with the company's risk tolerance. The asset allocation policy is the most important decision in managing the assets and it is reviewed regularly. The asset allocation policy considers the company's long-term asset class risk/return expectations since the obligations are long-term in nature. The current target allocations for pension assets are approximately 42 percent for equity securities, 34 percent for debt securities, 6 percent for real estate, and 18 percent for other investments. The target allocations for health care assets are approximately 57 percent for equity securities, 30 percent for debt securities, 1 percent for real estate, and 12 percent for other investments. The allocation percentages above include the effects of combining derivatives with other investments to manage asset allocations and exposures to interest rates and foreign currency exchange. The assets are well diversified and are managed by professional investment firms as well as by investment professionals who are company employees. As a result of the company's diversified investment policy, there were no significant concentrations of risk.

The expected long-term rate of return on plan assets reflects management's expectations of long-term average rates of

return on funds invested to provide for benefits included in the projected benefit obligations. A market related value of plan assets is used to calculate the expected return on assets. The market related value recognizes changes in the fair value of pension plan assets systematically over a five-year period. The market related value of the health care plan assets equals fair value. The expected return is based on the outlook for inflation and for returns in multiple asset classes, while also considering historical returns, asset allocation, and investment strategy. The company's approach has emphasized the long-term nature of the return estimate such that the return assumption is not changed significantly unless there are fundamental changes in capital markets that affect the company's expectations for returns over an extended period of time (i.e., 10 to 20 years). The average annual return of the company's U.S. pension fund was approximately 9.2 percent during the past ten years and approximately 8.2 percent during the past 20 years. Since return premiums over inflation and total returns for major asset classes vary widely even over ten-year periods, recent history is not necessarily indicative of long-term future expected returns. The company's systematic methodology for determining the long-term rate of return for the company's investment strategies supports its long-term expected return assumptions.

The company has created certain Voluntary Employees' Beneficiary Association trusts (VEBAs) for the funding of postretirement health care benefits. The future expected asset returns for these VEBAs are lower than the expected return on the other pension and health care plan assets due to investment in a higher proportion of liquid securities. These assets are in addition to the other postretirement health care plan assets that have been funded under Section 401(h) of the U.S. Internal Revenue Code and maintained in a separate account in the company's pension plan trust.

The company has defined contribution plans related to employee investment and savings plans primarily in the U.S. The company's contributions and costs under these plans were \$206 million in 2018, \$188 million in 2017, and \$193 million in 2016. The contribution rate varies primarily based on the company's performance in the prior year and employee participation in the plans.

8. INCOME TAXES

On December 22, 2017, the U.S. government enacted tax reform. The primary provisions of tax reform affecting the company in 2018 were a reduction to the corporate income tax rate from 35 percent to 21 percent and a transition from a worldwide corporate tax system to a primarily territorial tax system. The reduction in the corporate income tax rate required the company to remeasure its U.S. net deferred tax assets to the new corporate tax rate and the transition to a territorial tax system requires payment of a one-time tax on the deemed repatriation of undistributed and previously untaxed non-U.S. earnings. Under current tax law, the company plans to pay the deemed earnings repatriation tax (repatriation tax) in 2019 with an expected U.S. income tax overpayment.

The income tax expense (benefit) for the net deferred tax asset remeasurement and the repatriation tax in 2018 in millions of dollars follow:

	Equipment	Financial Operations	Services	Total
Net deferred tax asset remeasurement	\$ 768	\$ (354)	\$ 414	
Deemed earnings repatriation tax	277	13	290	
Total discrete tax expense (benefit)	\$ 1,045	\$ (341)	\$ 704	

Included in the Equipment Operations' repatriation tax amount is an accrual of approximately \$63 million for foreign withholding taxes on earnings of subsidiaries outside the U.S. that were previously expected to be indefinitely reinvested outside the U.S. The provision for income taxes was also affected primarily by the lower corporate income tax rate on current year income.

The 21 percent corporate income tax rate was effective January 1, 2018. Based on the company's October fiscal year end, the U.S. statutory income tax rate for fiscal year 2018 was approximately 23.3 percent.

The 2018 repatriation tax expense is based on interpretations of existing laws, regulations, and certain assumptions. Further regulatory guidance is expected, which could affect the recorded expense. The company continues to analyze the repatriation tax provisions, and monitor legislative and regulatory developments.

The provision for income taxes by taxing jurisdiction and by significant component consisted of the following in millions of dollars:

	2018	2017	2016
Current:			
U.S.:			
Federal	\$ (268)	\$ 360	\$ 51
State	123	48	26
Foreign	392	463	340
Total current	247	871	417
Deferred:			
U.S.:			
Federal	1,233	59	297
State	(40)	7	11
Foreign	287	34	(25)
Total deferred	1,480	100	283
Provision for income taxes	\$ 1,727	\$ 971	\$ 700

Based upon the location of the company's operations, the consolidated income before income taxes in the U.S. in 2018, 2017, and 2016 was \$2,275 million, \$1,607 million, and \$967 million, respectively, and in foreign countries was \$1,796 million, \$1,547 million, and \$1,257 million, respectively. Certain foreign operations are branches or partnerships of Deere & Company and are subject to U.S. as well as foreign income tax regulations. The pretax income by location and the preceding analysis of the income tax provision by taxing jurisdiction are not directly related.

A comparison of the statutory and effective income tax provision and reasons for related differences in millions of dollars follow:

	2018	2017	2016
U.S. federal income tax provision at the U.S. statutory rate (2018 – 23.3 percent, 2017 and 2016 – 35 percent)	\$ 950	\$ 1,104	\$ 778
Increase (decrease) resulting from:			
Net deferred tax asset remeasurement	414		
Deemed earnings repatriation tax	290		
Other effects of tax reform	42		
Differences in taxability of foreign earnings	(92)	(83)	(107)
Valuation allowance on deferred taxes	50	89	79
Research and business tax credits	(43)	(63)	(57)
State and local income taxes, net of federal income tax benefit	59	37	26
Excess tax benefits on equity compensation	(49)	(30)	
Tax rates on foreign earnings	44	(84)	(27)
Unrecognized tax benefits	30	9	11
Nondeductible impairment charges			4
Other - net	32	(8)	(7)
Provision for income taxes	\$ 1,727	\$ 971	\$ 700

At October 28, 2018, accumulated earnings in certain subsidiaries outside the U.S. totaled \$2,559 million, which were subject to the repatriation tax. No provision for foreign withholding taxes has been made because it is expected that these earnings will remain indefinitely reinvested outside the U.S. Determination of the amount of a foreign withholding tax liability on these unremitted earnings is not practicable.

An additional \$4,270 million of earnings in subsidiaries outside the U.S., which were previously expected to be reinvested outside the U.S., were also subject to the repatriation tax. In the fourth quarter of 2018, the company reviewed its global funding requirements and determined those earnings would no longer be indefinitely reinvested. Although the earnings will not be subject to U.S. income tax when repatriated to the U.S., in the fourth quarter of 2018 an accrual of \$63 million was recorded for foreign withholding taxes.

Deferred income taxes arise because there are certain items that are treated differently for financial accounting than for income tax reporting purposes. An analysis of the deferred

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income tax assets and liabilities at October 28, 2018 and October 29, 2017 in millions of dollars follows:

	2018	2017		
	Deferred Tax Assets	Deferred Tax Liabilities	Deferred Tax Assets	Deferred Tax Liabilities
OPEB liabilities	\$ 984		\$ 2,011	
Lease transactions		\$ 850		\$ 933
Tax loss and tax credit carryforwards	713		677	
Accrual for sales allowances	464		680	
Tax over book depreciation		357		569
Goodwill and other intangible assets		458		130
Pension liability – net	45		420	
Allowance for credit losses	115		107	
Accrual for employee benefits	72		141	
Share-based compensation	58		116	
Deferred compensation	35		59	
Undistributed foreign earnings		6		21
Foreign unrealized losses	10		7	
Other items	346	261	432	172
Less valuation allowances	(658)		(620)	
Deferred income tax assets and liabilities	\$ 2,184	\$ 1,932	\$ 4,030	\$ 1,825

Deere & Company files a consolidated federal income tax return in the U.S., which includes the wholly-owned financial services subsidiaries. These subsidiaries account for income taxes generally as if they filed separate income tax returns, with a modification for realizability of certain tax benefits.

At October 28, 2018, tax loss and tax credit carryforwards of \$713 million were available with \$289 million expiring from 2019 through 2038 and \$424 million with an indefinite carryforward period.

A reconciliation of the total amounts of unrecognized tax benefits at October 28, 2018, October 29, 2017, and October 30, 2016 in millions of dollars follows:

	2018	2017	2016
Beginning of year balance	\$ 221	\$ 198	\$ 229
Increases to tax positions taken during the current year	36	35	14
Increases to tax positions taken during prior years	62	13	11
Decreases to tax positions taken during prior years	(39)	(17)	(36)
Decreases due to lapse of statute of limitations	(15)	(11)	(7)
Acquisitions*	31		
Settlements	(5)	(1)	(5)
Foreign exchange	(12)	4	(8)
End of year balance	\$ 279	\$ 221	\$ 198

The amount of unrecognized tax benefits at October 28, 2018 and October 29, 2017 that would affect the effective tax rate if the tax benefits were recognized was \$128 million and \$86 million, respectively. The remaining liability was related to tax positions for which there are offsetting tax receivables, or the uncertainty was only related to timing. The company expects that any reasonably possible change in the amounts of unrecognized tax benefits in the next twelve months would not be significant.

The company files its tax returns according to the tax laws of the jurisdictions in which it operates, which includes the U.S. federal jurisdiction and various state and foreign jurisdictions. The U.S. Internal Revenue Service (IRS) has completed the examination of the company's federal income tax returns for periods prior to 2015. The years 2008 through 2014 returns are subject to final approval on limited issues, of which the tax effects are recorded. The years 2015, 2016, and 2017 federal income tax return are currently under examination. Various state and foreign income tax returns, including major tax jurisdictions in Argentina, Australia, Brazil, Canada, China, Finland, France, Germany, India, Mexico, Russia, Singapore, and Spain also remain subject to examination by taxing authorities.

The company's policy is to recognize interest related to income taxes in interest expense and interest income and recognize penalties in selling, administrative and general expenses. During 2018, 2017, and 2016, the total amount of expense from interest and penalties was \$23 million, \$6 million, and none and the interest income was \$12 million, \$6 million, and none, respectively. At October 28, 2018 and October 29, 2017, the liability for accrued interest and penalties totaled \$90 million and \$66 million, respectively, and there was no receivable for interest at either year-end.

The company will be subject to additional requirements of tax reform beginning in 2019. Those provisions include a tax on global intangible low-taxed income (GILTI), a tax determined by base erosion and anti-abuse tax benefits (BEAT) from certain payments between a U.S. corporation and foreign subsidiaries, a limitation of certain executive compensation, a deduction for foreign derived intangible income (FDII), and interest expense limitations. Through the preliminary review of these provisions, the company does not expect the net effect to be significant for the 2019 provision for income taxes.

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9. OTHER INCOME AND OTHER OPERATING EXPENSES

The major components of other income and other operating expenses consisted of the following in millions of dollars:

	2018	2017	2016
Other income			
Revenues from services	\$ 347	\$ 288	\$ 270
Insurance premiums and fees earned**	217	211	195
SiteOne investment gains*		375	75
Investment income	14	17	16
Other	322	230	190
Total	\$ 900	\$ 1,121	\$ 746
Other operating expenses			
Depreciation of equipment on operating leases	\$ 928	\$ 853	\$ 742
Insurance claims and expenses**	175	187	188
Cost of services	211	168	162
Other	85	140	183
Total	\$ 1,399	\$ 1,348	\$ 1,275

* See Note 5.

** Primarily related to extended warranties (see Note 22).

10. UNCONSOLIDATED AFFILIATED COMPANIES

Unconsolidated affiliated companies are companies in which Deere & Company generally owns 20 percent to 50 percent of the outstanding voting shares. Deere & Company does not control these companies and accounts for its investments in them on the equity basis. The investments in these companies primarily consist of Bell Equipment Limited (31 percent ownership), Deere-Hitachi Construction Machinery Corporation (50 percent ownership), and Deere-Hitachi Maquinas de Construcao do Brasil S.A. (50 percent ownership). In 2017, the company sold its interest in SiteOne (see Note 5). The unconsolidated affiliated companies primarily manufacture or market equipment. Deere & Company's share of the income or loss of these companies is reported in the consolidated income statement under "Equity in income (loss) of unconsolidated affiliates." The investment in these companies is reported in the consolidated balance sheet under "Investments in unconsolidated affiliates."

Combined financial information of the unconsolidated affiliated companies in millions of dollars follows:

Operations	2018	2017	2016
Sales	\$ 2,313	\$ 2,638	\$ 3,206
Net income	91	7	30
Deere & Company's equity in net income (loss)	27	(24)	(2)

Financial Position	2018	2017
Total assets	\$ 1,648	\$ 1,488
Total external borrowings	453	451
Total net assets	620	542
Deere & Company's share of the net assets	207	182

Consolidated retained earnings at October 28, 2018 include undistributed earnings of the unconsolidated affiliates of \$152 million. Dividends from unconsolidated affiliates were \$12 million in 2018, \$4 million in 2017, and \$64 million in 2016 (see Note 5).

In the ordinary course of business, the company purchases and sells components and finished goods to the unconsolidated affiliated companies. Transactions with unconsolidated affiliated companies reported in the statement of consolidated income in millions of dollars follow:

	2018	2017	2016
Net sales	\$ 161	\$ 84	\$ 45
Purchases	1,682	1,331	1,016

11. MARKETABLE SECURITIES

All marketable securities are classified as available-for-sale, with unrealized gains and losses shown as a component of stockholders' equity. Realized gains or losses from the sales of marketable securities are based on the specific identification method.

The amortized cost and fair value of marketable securities at October 28, 2018 and October 29, 2017 in millions of dollars follow:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
2018				
Equity fund	\$ 36	\$ 10		\$ 46
U.S.				
government debt securities	113	\$ 1	\$ 3	111
Municipal debt securities	49		3	46
Corporate debt securities	143	1	4	140
International debt securities	11		1	10
Mortgage-backed securities*	144	7	137	
Marketable securities	\$ 496	\$ 12	\$ 18	\$ 490
2017				
Equity fund	\$ 37	\$ 11		\$ 48
Fixed income fund	15		15	
U.S.				
government debt securities	76	\$ 1	\$ 77	
Municipal debt securities	39	1	1	39
Corporate debt securities	133	3	1	135
International debt securities	22	2	20	

Mortgage-backed securities*	119	1	2	118
Marketable securities	\$ 441	\$ 17	\$ 6	\$ 452

* Primarily issued by U.S. government sponsored enterprises.

The contractual maturities of debt securities at October 28, 2018 in millions of dollars follow:

	Amortized Cost	Fair Value
Due in one year or less	\$ 24	\$ 23
Due after one through five years	117	115
Due after five through 10 years	99	96
Due after 10 years	76	73
Mortgage-backed securities	144	137
Debt securities	\$ 460	\$ 444

Actual maturities may differ from contractual maturities because some securities may be called or prepaid. Because of the potential for prepayment on mortgage-backed securities, they are not categorized by contractual maturity. Proceeds from the sales of available-for-sale securities were \$40 million in 2018, \$403 million in 2017, and \$62 million in 2016. Realized gains were not significant in 2018 and 2016 and were \$275 million in 2017 (see Note 5). Realized losses, the increase (decrease) in net unrealized gains or losses, and unrealized losses that have been continuous for over twelve months were not significant in 2018, 2017, and 2016. Unrealized losses at October 28, 2018 and October 29, 2017 were primarily the result of an increase in interest rates and were not recognized in income due to the ability and intent to hold to maturity. There were no significant impairment write-downs in the periods reported.

12. RECEIVABLES

Trade Accounts and Notes Receivable

Trade accounts and notes receivable at October 28, 2018 and October 29, 2017 in millions of dollars follows:

	2018	2017
Trade accounts and notes:		
Agriculture and turf	\$ 3,210	\$ 2,991
Construction and forestry	1,794	934
Trade accounts and notes receivable – net	\$ 5,004	\$ 3,925

The allowance for credit losses on trade accounts and notes receivable was \$70 million, \$56 million, and \$50 million, respectively, with a provision for credit loss of \$37 million, \$11 million, and \$11 million in fiscal years 2018, 2017, and 2016,

respectively. The net write-offs were \$16 million, \$3 million, and \$7 million in fiscal years 2018, 2017, and 2016, respectively. Currency translation impacted the allowance for credit losses by \$7 million, \$2 million, and \$(5) million in fiscal years 2018, 2017, and 2016, respectively.

The equipment operations sell a significant portion of their trade receivables to financial services and provide compensation to these operations at approximate market rates of interest.

Trade accounts and notes receivable primarily arise from sales of goods to independent dealers. Under the terms of the sales to dealers, interest is primarily charged to dealers on outstanding balances, from the earlier of the date when goods are sold to retail customers by the dealer or the expiration of certain interest-free periods granted at the time of the sale to the dealer, until payment is received by the company. Dealers cannot cancel purchases after the equipment is shipped and are responsible for payment even if the equipment is not sold to retail customers. The interest-free periods are determined based on the type of equipment sold and the time of year of the sale. These periods range from one to twelve months for most equipment. Interest-free periods may not be extended. Interest charged may not be forgiven and the past due interest rates exceed market rates. The company evaluates and assesses dealers on an ongoing basis as to their creditworthiness and generally retains a security interest in the goods associated with the trade receivables. In certain jurisdictions, the company is obligated to repurchase goods sold to a dealer upon cancellation or termination of the dealer's contract for such causes as change in ownership and closeout of the business.

Trade accounts and notes receivable include receivables from sales to certain retail customers with payment terms less than twelve months. The customer cannot cancel purchases or return the equipment after delivery. The company evaluates and assesses retail customers at the time of purchase as to their creditworthiness and generally retains a security interest in the goods associated with the receivables.

Trade accounts and notes receivable have significant concentrations of credit risk in the agriculture and turf sector and construction and forestry sector as shown in the previous table. On a geographic basis, there is not a disproportionate concentration of credit risk in any area.

Financing Receivables

Financing receivables at October 28, 2018 and October 29, 2017 in millions of dollars follow:

	2018		2017	
	Unrestricted/Securitized	Unrestricted/Securitized	Unrestricted/Securitized	Unrestricted/Securitized
Retail notes:				
Agriculture and turf	\$ 15,885	\$ 3,441	\$ 15,200	\$ 3,651
Construction and forestry	2,776	675	2,297	599
Total	18,661	4,116	17,497	4,250
Wholesale notes	4,009		3,665	
Revolving charge accounts	3,907		3,676	
Financing leases (direct and sales-type)	1,948		1,613	
Total financing receivables	28,525	4,116	26,451	4,250
Less:				
Unearned finance income:				
Retail notes	1,069	84	972	78
Wholesale notes	10		12	
Revolving charge accounts	45		47	
Financing leases	179		142	
Total	1,303	84	1,173	78
Allowance for credit losses	168	10	174	13
Financing receivables – net	\$ 27,054	\$ 4,022	\$ 25,104	\$ 4,159

The 2017 amounts in the table above for wholesale notes and revolving charge accounts were adjusted to be comparable with 2018 by separately presenting the unearned finance income. In the prior year, these balances were shown net of unearned finance income. The total financing receivables – net balance did not change. The residual values for investments in financing leases at October 28, 2018 and October 29, 2017 totaled \$294 million and \$244 million, respectively.

Financing receivables have significant concentrations of credit risk in the agriculture and turf sector and construction and forestry sector as shown in the previous table. On a geographic basis, there is not a disproportionate concentration of credit risk in any area. The company generally retains as collateral a security interest in the equipment associated with retail notes, wholesale notes, and financing leases.

Financing receivables at October 28, 2018 and October 29, 2017 related to the company's sales of equipment that were

included in the table above consisted of the following in millions of dollars:

	2018		2017	
	Unrestricted/Securitized	Unrestricted	Unrestricted/Securitized	Unrestricted
Retail notes*:				
Agriculture and turf	\$ 2,312		\$ 2,099	
Construction and forestry	441	\$ 77	368	
Total	2,753	77	2,467	
Wholesale notes	4,009		3,665	
Sales-type leases	878		763	
Total	7,640	77	6,895	
Less:				
Unearned finance income:				
Retail notes	261	1	231	
Wholesale notes	10		12	
Sales-type leases	68		53	
Total	339	1	296	
Financing receivables related to the company's sales of equipment	\$ 7,301	\$ 76	\$ 6,599	

* These retail notes generally arise from sales of equipment by company-owned dealers or through direct sales.

Financing receivable installments, including unearned finance income, at October 28, 2018 and October 29, 2017 are scheduled as follows in millions of dollars:

	2018		2017	
	Unrestricted/Securitized	Unrestricted/Securitized	Unrestricted/Securitized	Unrestricted/Securitized
Due in months:				
0 – 12	\$ 14,658	\$ 1,922	\$ 13,293	\$ 2,027
13 – 24	5,355	1,160	5,059	1,256
25 – 36	3,911	652	3,708	672
37 – 48	2,663	315	2,518	243
49 – 60	1,480	65	1,398	50
Thereafter	458	2	475	2
Total	\$ 28,525	\$ 4,116	\$ 26,451	\$ 4,250

The maximum terms for retail notes are generally seven years for agriculture and turf equipment and five years for construction and forestry equipment. The maximum term for financing leases is generally six years, while the average term for wholesale notes is less than twelve months.

At October 28, 2018 and October 29, 2017, worldwide financing receivables administered, which include financing receivables administered but not owned, totaled \$31,082 million and \$29,273 million, respectively.

Past due balances of financing receivables still accruing finance income represent the total balance held (principal plus accrued interest) with any payment amounts 30 days or more past the contractual payment due date. Non-performing financing receivables represent loans for which the company has ceased accruing finance income. These receivables are generally 120 days delinquent and the estimated uncollectible amount, after charging the dealer's withholding account, has been written off to the allowance for credit losses. Finance income for non-performing receivables is recognized on a cash basis. Accrual of finance income is generally resumed

when the receivable becomes contractually current and collections are reasonably assured.

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An age analysis of past due financing receivables that are still accruing interest and non-performing financing receivables at October 28, 2018 and October 29, 2017 follows in millions of dollars:

	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater Past Due	Total Past Due
2018				
Retail Notes:				
Agriculture and turf	\$ 133	\$ 74	\$ 63	\$ 270
Construction and forestry	79	45	52	176
Other:				
Agriculture and turf	36	16	8	60
Construction and forestry	18	5	3	26
Total	\$ 266	\$ 140	\$ 126	\$ 532

	Total Past Due	Total Non- Performing	Total Current	Total Financing Receivables
Retail Notes:				
Agriculture and turf	\$ 270	\$ 201	\$ 17,836	\$ 18,307
Construction and forestry	176	40	3,101	3,317
Other:				
Agriculture and turf	60	15	8,274	8,349
Construction and forestry	26	3	1,252	1,281
Total	\$ 532	\$ 259	\$ 30,463	\$ 31,254
Less allowance for credit losses				178
Total financing receivables – net				\$ 31,076

	30-59 Days Past Due	60-89 Days Past Due	90 Days or Greater Past Due	Total Past Due
2017				
Retail Notes:				
Agriculture and turf	\$ 118	\$ 54	\$ 49	\$ 221
Construction and forestry	75	33	39	147
Other:				
Agriculture and turf	27	14	7	48
Construction and forestry	11	6	2	19
Total	\$ 231	\$ 107	\$ 97	\$ 435

(continued)

	Total Past Due	Total Non- Performing	Total Current	Total Financing Receivables
Retail Notes:				
Agriculture and turf	\$ 221	\$ 173	\$ 17,508	\$ 17,902
Construction and forestry	147	30	2,618	2,795
Other:				
Agriculture and turf	48	12	7,610	7,670
Construction and forestry	19	5	1,059	1,083
Total	\$ 435	\$ 220	\$ 28,795	\$ 29,450
Less allowance for credit losses				187
Total financing receivables – net				\$ 29,263

An analysis of the allowance for credit losses and investment in financing receivables follows in millions of dollars:

	Retail Notes	Revolving Charge Accounts	Other	Total
2018				
Allowance:				
Beginning of year balance	\$ 121	\$ 40	\$ 26	\$ 187
Provision	14	38	2	54
Write-offs	(33)	(55)	(6)	(94)
Recoveries	17	20	1	38
Translation adjustments	(6)		(1)	(7)
End of year balance*	\$ 113	\$ 43	\$ 22	\$ 178
Financing receivables:				
End of year balance	\$ 21,624	\$ 3,862	\$ 5,768	\$ 31,254
Balance individually evaluated	\$ 122	\$ 2	\$ 12	\$ 136
2017				
Allowance:				
Beginning of year balance	\$ 113	\$ 40	\$ 23	\$ 176
Provision	46	33	9	88
Write-offs	(56)	(53)	(7)	(116)
Recoveries	20	20	1	41
Translation adjustments	(2)		(2)	(2)
End of year balance*	\$ 121	\$ 40	\$ 26	\$ 187
Financing receivables:				
End of year balance	\$ 20,697	\$ 3,629	\$ 5,124	\$ 29,450
Balance individually evaluated	\$ 86	\$ 3	\$ 20	\$ 109
2016				
Allowance:				
Beginning of year balance	\$ 95	\$ 40	\$ 22	\$ 157
Provision	43	36	5	84
Write-offs	(43)	(55)	(5)	(103)
Recoveries	11	19	1	31
Translation adjustments	7		7	7
End of year balance*	\$ 113	\$ 40	\$ 23	\$ 176
Financing receivables:				
End of year balance	\$ 20,682	\$ 3,135	\$ 5,188	\$ 29,005
Balance individually evaluated	\$ 108	\$ 8	\$ 20	\$ 136

* Individual allowances were not significant.

Past-due amounts over 30 days represented 1.70 percent and
1.48 percent of the receivables financed at October 28, 2018

and October 29, 2017, respectively. The allowance for credit losses represented .57 percent and .64 percent of financing receivables outstanding at October 28, 2018 and October 29, 2017, respectively. In addition, at October 28, 2018 and October 29, 2017, the company's financial services operations had \$156 million and \$155 million, respectively, of deposits primarily withheld from dealers and merchants available for potential credit losses.

Financing receivables are considered impaired when it is probable the company will be unable to collect all amounts due according to the contractual terms. Receivables reviewed for impairment generally include those that are past due, have provided bankruptcy notification, or require significant collection efforts. Receivables that are impaired are generally classified as non-performing.

An analysis of the impaired financing receivables at October 28, 2018 and October 29, 2017 follows in millions of dollars:

	Unpaid Recorded Investment	Principal Balance	Average Specific Allowance	Recorded Investment
2018*				
Receivables with specific allowance**	\$ 28	\$ 27	\$ 10	\$ 30
Receivables without a specific allowance**	37	35		41
Total	\$ 65	\$ 62	\$ 10	\$ 71
Agriculture and turf	\$ 50	\$ 48	\$ 9	\$ 54
Construction and forestry	\$ 15	\$ 14	\$ 1	\$ 17
2017*				
Receivables with specific allowance**	\$ 36	\$ 33	\$ 10	\$ 30
Receivables without a specific allowance***	28	27		24
Total	\$ 64	\$ 60	\$ 10	\$ 54
Agriculture and turf	\$ 49	\$ 46	\$ 10	\$ 38
Construction and forestry	\$ 15	\$ 14		\$ 16

* Finance income recognized was not material.

** Primarily retail notes.

*** Primarily retail notes and wholesale receivables.

that subsequently defaulted and were written off. At October 28, 2018, the company had commitments to lend approximately \$10 million to borrowers whose accounts were modified in troubled debt restructurings.

Other Receivables

Other receivables at October 28, 2018 and October 29, 2017 consisted of the following in millions of dollars:

	2018	2017
Taxes receivable	\$1,370	\$ 876
Other	366	324
Other receivables	\$1,736	\$1,200

13. SECURITIZATION OF FINANCING RECEIVABLES

The company, as a part of its overall funding strategy, periodically transfers certain financing receivables (retail notes) into VIEs that are SPEs, or non-VIE banking operations, as part of its asset-backed securities programs (securitizations). The structure of these transactions is such that the transfer of the retail notes did not meet the accounting criteria for sales of receivables, and is, therefore, accounted for as a secured borrowing. SPEs utilized in securitizations of retail notes differ from other entities included in the company's consolidated statements because the assets they hold are legally isolated. Use of the assets held by the SPEs or the non-VIEs is restricted by terms of the documents governing the securitization transactions.

In these securitizations, the retail notes are transferred to certain SPEs or to non-VIE banking operations, which in turn issue debt to investors. The debt securities issued to the third party investors result in secured borrowings, which are recorded as "Short-term securitization borrowings" on the consolidated balance sheet. The securitized retail notes are recorded as "Financing receivables securitized – net" on the balance sheet. The total restricted assets on the balance sheet related to these securitizations include the financing receivables securitized less an allowance for credit losses, and other assets primarily representing restricted cash. For those securitizations in which retail notes are transferred into SPEs, the SPEs supporting the secured borrowings are consolidated unless the company does not have both the power to direct the activities that most significantly impact the SPEs' economic performance and the obligation to absorb losses or the right to receive benefits that could potentially be significant to the SPEs. No additional support to these SPEs beyond what was previously contractually required has been provided during the reporting periods.

In certain securitizations, the company consolidates the SPEs since it has both the power to direct the activities that most significantly impact the SPEs' economic performance through its role as servicer of all the receivables held by the SPEs, and the obligation through variable interests in the SPEs to absorb losses or receive benefits that could potentially be significant to the SPEs. The restricted assets (retail notes securitized, allowance for credit losses, and other assets) of the consolidated SPEs totaled \$2,593 million and \$2,631 million at October 28, 2018 and October 29, 2017, respectively. The liabilities (short-term securitization borrowings and accrued

A troubled debt restructuring is generally the modification of debt in which a creditor grants a concession it would not otherwise consider to a debtor that is experiencing financial difficulties. These modifications may include a reduction of the stated interest rate, an extension of the maturity dates, a reduction of the face amount or maturity amount of the debt, or a reduction of accrued interest. During 2018, 2017, and 2016, the company identified 587, 474, and 167 financing receivable contracts, primarily retail notes, as troubled debt restructurings with aggregate balances of \$34 million, \$16 million, and \$19 million pre-modification and \$34 million,

\$15 million, and \$18 million post-modification, respectively. In 2017, there were \$3 million of troubled debt restructurings that subsequently defaulted and were written off. In 2018 and 2016, there were no significant troubled debt restructurings

interest) of these SPEs totaled \$2,520 million and \$2,571 million at October 28, 2018 and October 29, 2017, respectively. The credit holders of these SPEs do not have legal recourse to the company's general credit.

In certain securitizations, the company transfers retail notes to non-VIE banking operations, which are not consolidated since the company does not have a controlling interest in the entities. The company's carrying values and interests related to the securitizations with the unconsolidated non-VIEs were restricted assets (retail notes securitized, allowance for credit losses and other assets) of \$504 million and \$478 million at October 28, 2018 and October 29, 2017, respectively. The liabilities (short-term securitization borrowings and accrued interest) were \$475 million and \$454 million at October 28, 2018 and October 29, 2017, respectively.

In certain securitizations, the company transfers retail notes into bank-sponsored, multi-seller, commercial paper conduits, which are SPEs that are not consolidated. The company does not service a significant portion of the conduits' receivables, and therefore, does not have the power to direct the activities that most significantly impact the conduits' economic performance. These conduits provide a funding source to the company (as well as other transferors into the conduit) as they fund the retail notes through the issuance of commercial paper. The company's carrying values and variable interest related to these conduits were restricted assets (retail notes securitized, allowance for credit losses, and other assets) of \$1,033 million and \$1,155 million at October 28, 2018 and October 29, 2017, respectively. The liabilities (short-term securitization borrowings and accrued interest) related to these conduits were \$965 million and \$1,096 million at October 28, 2018 and October 29, 2017, respectively.

The company's carrying amount of the liabilities to the unconsolidated conduits, compared to the maximum exposure to loss related to these conduits, which would only be incurred in the event of a complete loss on the restricted assets, was as follows at October 28 in millions of dollars:

	2018	2017
Carrying value of liabilities	\$ 965	
Maximum exposure to loss	1,033	

The total assets of unconsolidated VIEs related to securitizations were approximately \$35 billion at October 28, 2018.

The components of consolidated restricted assets related to secured borrowings in securitization transactions at October 28, 2018 and October 29, 2017 were as follows in millions of dollars:

	2018	2017
Financing receivables securitized (retail notes)	\$ 4,032	\$ 4,172
Allowance for credit losses	(10)	(13)
Other assets	108	105
Total restricted securitized assets	\$ 4,130	\$ 4,264

The components of consolidated secured borrowings and other liabilities related to securitizations at October 28, 2018 and October 29, 2017 were as follows in millions of dollars:

	2018	2017
Short-term securitization borrowings	\$ 3,957	\$ 4,119
Accrued interest on borrowings	3	2
Total liabilities related to restricted securitized assets	\$ 3,960	\$ 4,121

The secured borrowings related to these restricted securitized retail notes are obligations that are payable as the retail notes are liquidated. Repayment of the secured borrowings depends primarily on cash flows generated by the restricted assets. Due to the company's short-term credit rating, cash collections from these restricted assets are not required to be placed into a segregated collection account until immediately prior to the time payment is required to the secured creditors. At October 28, 2018, the maximum remaining term of all securitized retail notes was approximately six years.

14. EQUIPMENT ON OPERATING LEASES

Operating leases arise primarily from the leasing of John Deere equipment to retail customers. Initial lease terms generally range from 12 to 60 months. Net equipment on operating leases at October 28, 2018 and October 29, 2017 consisted of the following in millions of dollars:

	2018	2017
Equipment on operating leases:		
Agriculture and turf	\$ 5,682	\$ 5,385
Construction and forestry	1,483	1,209
Equipment on operating leases – net	\$ 7,165	\$ 6,594

The equipment is depreciated on a straight-line basis over the term of the lease. The accumulated depreciation on this equipment was \$1,515 million and \$1,315 million at October 28, 2018 and October 29, 2017, respectively. The corresponding depreciation expense was \$928 million in 2018, \$853 million in 2017, and \$742 million in 2016.

Future payments to be received on operating leases totaled \$2,309 million at October 28, 2018 and are scheduled in millions of dollars as follows: 2019 – \$980, 2020 – \$688, 2021 – \$400, 2022 – \$198, and 2023 – \$43. At October 28, 2018 and October 29, 2017, the company's financial services operations had \$34 million and \$52 million, respectively, of deposits withheld from dealers available for potential losses on residual values.

15. INVENTORIES

A majority of inventory owned by Deere & Company and its U.S. equipment subsidiaries are valued at cost, on the "last-in, first-out" (LIFO) basis. Remaining inventories are generally valued at the lower of cost, on the "first-in, first-out" (FIFO) basis, or net realizable value. The value of gross inventories on the LIFO basis at October 28, 2018 and October 29, 2017 represented 54 percent and 61 percent, respectively, of worldwide gross inventories at FIFO value. If all inventories had been valued on a FIFO basis, estimated inventories by major classification at October 28, 2018 and October 29, 2017 in millions of dollars would have been as follows:

	2018	2017
Raw materials and supplies	\$ 2,233	\$ 1,688
Work-in-process	776	495
Finished goods and parts	4,777	3,182
Total FIFO value	7,786	5,365
Less adjustment to LIFO value	1,637	1,461
Inventories	\$ 6,149	\$ 3,904

16. PROPERTY AND DEPRECIATION

A summary of property and equipment at October 28, 2018 and October 29, 2017 in millions of dollars follows:

	Useful Lives*	(Years)	2018	2017
Equipment Operations				
Land			\$ 283	\$ 122
Buildings and building equipment	23		3,848	3,396
Machinery and equipment	11		5,570	5,378
Dies, patterns, tools, etc.	8		1,564	1,647
All other	5		1,032	942
Construction in progress			619	358
Total at cost			12,916	11,843
Less accumulated depreciation			7,095	6,826
Total			5,821	5,017
Financial Services				
Land		4	4	
Buildings and building equipment	26	74	74	
All other	6	34	38	
Total at cost		112	116	
Less accumulated depreciation		65	65	
Total		47	51	
Property and equipment - net			\$5,868	\$5,068

* Weighted-averages

Total property and equipment additions in 2018, 2017, and 2016 were \$985 million, \$602 million, and \$674 million and depreciation was \$754 million, \$726 million, and \$701 million, respectively. Capitalized interest was \$4 million, \$3 million, and \$3 million in the same periods, respectively. The cost of leased property and equipment under capital leases of \$52 million and \$40 million and accumulated depreciation of \$22 million and \$15 million at October 28, 2018 and October 29, 2017, respectively, is included in property and equipment.

Capitalized software has an estimated useful life of three years. The amounts of total capitalized software costs,

including purchased and internally developed software, classified as "Other Assets" at October 28, 2018 and October 29, 2017 were \$1,207 million and \$1,078 million, less accumulated amortization of \$910 million and \$826 million, respectively. Capitalized interest on software was \$3 million and \$1 million at October 28, 2018 and October 29, 2017, respectively. Amortization of these software costs in 2018, 2017, and 2016 was \$145 million, \$118 million, and \$102 million, respectively.

The cost of compliance with foreseeable environmental requirements has been accrued and did not have a material effect on the company's consolidated financial statements.

17. GOODWILL AND OTHER INTANGIBLE ASSETS - NET

The changes in amounts of goodwill by operating segments were as follows in millions of dollars:

	Agriculture and Turf	Construction and Forestry	Total
Goodwill at October 30, 2016	\$ 323	\$ 493	\$ 816
Acquisitions*	193		193
Translation adjustments and other	5	19	24
Goodwill at October 29, 2017	521	512	1,033
Acquisitions*	71	2,068	2,139
Divestitures*		(18)	(18)
Translation adjustments	(9)	(44)	(53)
Goodwill at October 28, 2018	\$ 583	\$ 2,518	\$3,101

* See Note 4.

There were no accumulated impairment losses in the reported periods.

The components of other intangible assets are as follows in millions of dollars:

	Useful Lives*	(Years)	2018	2017
Amortized intangible assets:				
Customer lists and relationships	16		\$ 542	\$ 42
Technology, patents, trademarks, and other	18		1,080	139
Total at cost			1,622	181
Less accumulated amortization**			183	86
Total			1,439	95
Unamortized intangible assets:				
In-process research and development***			123	123
Other intangible assets - net			\$1,562	\$218

* Weighted-averages

** Accumulated amortization at 2018 and 2017 for customer lists and relationships was \$46 million and \$17 million and technology, patents, trademarks, and other was \$137 million and \$69 million, respectively.

*** See Note 4.

Other intangible assets are stated at cost less accumulated amortization. The amortization of other intangible assets in

2018, 2017, and 2016 was \$100 million, \$18 million, and \$15 million, respectively.

The estimated amortization expense for the next five years is as follows in millions of dollars: 2019 – \$117, 2020 – \$105, 2021 – \$101, 2022 – \$100, and 2023 – \$98.

18. TOTAL SHORT-TERM BORROWINGS

Total short-term borrowings at October 28, 2018 and October 29, 2017 consisted of the following in millions of dollars:

	2018	2017
Equipment Operations		
Notes payable to banks	\$ 464	\$ 221
Long-term borrowings due within one year	970	154
Total	<u>1,434</u>	<u>375</u>
Financial Services		
Commercial paper	3,857	3,439
Notes payable to banks	344	157
Long-term borrowings due within one year*	5,427	6,064
Total	<u>9,628</u>	<u>9,660</u>
Short-term borrowings	<u>11,062</u>	<u>10,035</u>
Short-term securitization borrowings		
Equipment Operations	75	
Financial Services	3,882	4,119
Total	<u>3,957</u>	<u>4,119</u>
Total short-term borrowings	<u><u>\$15,019</u></u>	<u><u>\$14,154</u></u>

* Includes unamortized fair value adjustments related to interest rate swaps.

The short-term securitization borrowings are secured by financing receivables (retail notes) on the balance sheet (see Note 13). Although these securitization borrowings are classified as short-term since payment is required if the retail notes are liquidated early, the payment schedule for these borrowings, which are net of debt acquisition costs, at October 28, 2018 based on the expected liquidation of the retail notes in millions of dollars is as follows: 2019 – \$2,161, 2020 – \$1,076, 2021 – \$546, 2022 – \$168, 2023 – \$11, and 2024 – \$1.

The weighted-average interest rates on total short-term borrowings, excluding current maturities of long-term borrowings, at October 28, 2018 and October 29, 2017 were 3.0 percent and 1.8 percent, respectively.

Lines of credit available from U.S. and foreign banks were \$8,389 million at October 28, 2018. At October 28, 2018, \$3,724 million of these worldwide lines of credit were unused. For the purpose of computing the unused credit lines, commercial paper, and short-term bank borrowings, excluding secured borrowings and the current portion of long-term borrowings, were primarily considered to constitute utilization. Included in the total credit lines at October 28, 2018 were 364-day credit facility agreements of \$1,750 million, expiring

in April 2019, and \$750 million, expiring in October 2019. In addition, total credit lines included long-term credit facility agreements of \$2,500 million, expiring in April 2021, and \$2,500 million, expiring in April 2022. The agreements are mutually extendable and the annual facility fees are not significant. These credit agreements require Capital Corporation to maintain its consolidated ratio of earnings to fixed charges at not less than 1.05 to 1 for each fiscal quarter and the ratio of senior debt, excluding securitization indebtedness, to capital base (total subordinated debt and stockholder's equity excluding accumulated other comprehensive income (loss)) at not more than 11 to 1 at the end of any fiscal quarter. The credit agreements also require the equipment operations to maintain a ratio of total debt to total capital (total debt and stockholders' equity excluding accumulated other comprehensive income (loss)) of 65 percent or less at the end of each fiscal quarter. Under this provision, the company's excess equity capacity and retained earnings balance free of restriction at October 28, 2018 was \$12,368 million. Alternatively under this provision, the equipment operations had the capacity to incur additional debt of \$22,969 million at October 28, 2018. All of these requirements of the credit agreements have been met during the periods included in the consolidated financial statements.

Deere & Company has an agreement with Capital Corporation pursuant to which it has agreed to continue to own, directly or through one or more wholly-owned subsidiaries, at least 51 percent of the voting shares of capital stock of Capital Corporation and to maintain Capital Corporation's consolidated tangible net worth at not less than \$50 million. This agreement also obligates Deere & Company to make payments to Capital Corporation such that its consolidated ratio of earnings to fixed charges is not less than 1.05 to 1 for each fiscal quarter. Deere & Company's obligations to make payments to Capital Corporation under the agreement are independent of whether Capital Corporation is in default on its indebtedness, obligations or other liabilities. Further, Deere & Company's obligations under the agreement are not measured by the amount of Capital Corporation's indebtedness, obligations or other liabilities. Deere & Company's obligations to make payments under this agreement are expressly stated not to be a guaranty of any specific indebtedness, obligation or liability of Capital Corporation and are enforceable only by or in the name of Capital Corporation. No payments were required under this agreement during the periods included in the consolidated financial statements.

19. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses at October 28, 2018 and October 29, 2017 consisted of the following in millions of dollars:

	2018	2017
Equipment Operations		
Accounts payable:		
Trade payables	\$ 2,465	\$ 2,069
Dividends payable	223	194
Other	243	164
Accrued expenses:		
Dealer sales discounts	1,801	1,559
Product warranties	1,146	1,007
Employee benefits	1,038	861
Accrued taxes	836	503
Unearned revenue	665	520
Other	965	841
Total	<u>9,382</u>	<u>7,718</u>
Financial Services		
Accounts payable:		
Deposits withheld from dealers and merchants	190	207
Other	239	275
Accrued expenses:		
Unearned revenue	885	797
Accrued interest	163	148
Employee benefits	63	55
Other	516	345
Total	<u>2,056</u>	<u>1,827</u>
Eliminations*	<u>1,327</u>	<u>1,128</u>
Accounts payable and accrued expenses	<u>\$10,111</u>	<u>\$ 8,417</u>

* Primarily trade receivable valuation accounts which are reclassified as accrued expenses by the equipment operations as a result of their trade receivables being sold to financial services.

20. LONG-TERM BORROWINGS

Long-term borrowings at October 28, 2018 and October 29, 2017 consisted of the following in millions of dollars:

	2018	2017
Equipment Operations		
U.S. dollar notes and debentures:		
4.375% notes due 2019	\$ 750	
8-1/2% debentures due 2022	\$ 105	105
2.60% notes due 2022	1,000	1,000
6.55% debentures due 2028	200	200
5.375% notes due 2029	500	500
8.10% debentures due 2030	250	250
7.125% notes due 2031	300	300
3.90% notes due 2042	1,250	1,250
Euro notes:		
Medium-term notes due 2020 – 2023: (€850 principal) Average interest rates of .4% - 2018, .3% - 2017	967	990
Other notes	159	166
Less debt issuance costs	17	20
Total	<u>4,714</u>	<u>5,491</u>
Financial Services		
Notes and debentures:		
Medium-term notes due 2019 – 2028: (principal \$21,221 - 2018, \$18,678 - 2017) Average interest rates of 2.8% - 2018, 2.0% - 2017	20,865*	18,601*
2.75% senior note due 2022: (\$500 principal) Swapped \$500 to variable interest rate of 3.5% – 2018, 2.0% – 2017	489*	502*
Other notes	1,215	1,339
Less debt issuance costs	46	42
Total	<u>22,523</u>	<u>20,400</u>
Long-term borrowings**	<u>\$ 27,237</u>	<u>\$ 25,891</u>

* Includes unamortized fair value adjustments related to interest rate swaps.

** All interest rates are as of year end.

The approximate principal amounts of the equipment operations' long-term borrowings maturing in each of the next five years in millions of dollars are as follows: 2019 – \$970, 2020 – \$536, 2021 – \$25, 2022 – \$1,108, and 2023 – \$571. The approximate principal amounts of the financial services' long-term borrowings maturing in each of the next five years in millions of dollars are as follows: 2019 – \$5,430, 2020 – \$6,185, 2021 – \$5,699, 2022 – \$3,567, and 2023 – \$3,654.

21. LEASES

At October 28, 2018, future minimum lease payments under capital leases amounted to \$30 million as follows: 2019 – \$11, 2020 – \$9, 2021 – \$6, 2022 – \$2, 2023 – \$1, and later years \$1. Total rental expense for operating leases was \$167 million in 2018, \$167 million in 2017, and \$185 million in 2016. At October 28, 2018, future minimum lease payments under operating leases amounted to \$383 million as follows: 2019 – \$110, 2020 – \$83, 2021 – \$60, 2022 – \$50, 2023 – \$34, and later years \$46.

22. COMMITMENTS AND CONTINGENCIES

The company generally determines its total warranty liability by applying historical claims rate experience to the estimated amount of equipment that has been sold and is still under warranty based on dealer inventories and retail sales. The historical claims rate is primarily determined by a review of five-year claims costs and current quality developments.

The premiums for extended warranties are primarily recognized in income in proportion to the costs expected to be incurred over the contract period. The unamortized extended warranty premiums (deferred revenue) included in the following table totaled \$506 million and \$461 million at October 28, 2018 and October 29, 2017, respectively.

A reconciliation of the changes in the warranty liability and unearned premiums in millions of dollars follows:

	Warranty Liability/ Unearned Premiums	
	2018	2017
Beginning of year balance	\$1,468	\$1,226
Payments	(907)	(743)
Amortization of premiums received	(217)	(207)
Accruals for warranties	978	959
Premiums received	270	224
Acquisition*	80	
Foreign exchange	(20)	9
End of year balance	<u>\$1,652</u>	<u>\$1,468</u>

* See Note 4.

At October 28, 2018, the company had approximately \$357 million of guarantees issued primarily to banks outside the U.S. and Canada related to third-party receivables for the retail financing of John Deere and Wirtgen equipment. The increase from October 29, 2017 primarily relates to the Wirtgen acquisition. The company may recover a portion of any required payments incurred under these agreements from repossession of the equipment collateralizing the receivables. At October 28, 2018, the company recorded a liability of approximately \$14 million under these agreements. The maximum remaining term of the receivables guaranteed at October 28, 2018 was approximately seven years.

At October 28, 2018, the company had commitments of approximately \$289 million for the construction and acquisition of property and equipment. Also at October 28, 2018, the company had restricted assets of \$111 million, classified as "Other Assets". See Note 13 for additional restricted assets associated with borrowings related to securitizations.

The company also had other miscellaneous contingent liabilities totaling approximately \$155 million at October 28, 2018. The accrued liability for these contingencies was approximately \$20 million at October 28, 2018.

The company is subject to various unresolved legal actions which arise in the normal course of its business, the most prevalent of which relate to product liability (including asbestos related liability), retail credit, employment, patent, and trademark matters. The company believes the reasonably

possible range of losses for these unresolved legal actions would not have a material effect on its financial statements.

23. CAPITAL STOCK

Changes in the common stock account in millions were as follows:

	Number of Shares Issued	Amount
Balance at November 1, 2015	536.4	\$ 3,826
Stock options and other		86
Balance at October 30, 2016	536.4	3,912
Stock options and other		369
Balance at October 29, 2017	536.4	4,281
Stock options and other		193
Balance at October 28, 2018	536.4	\$ 4,474

The number of common shares the company is authorized to issue is 1,200 million. The number of authorized preferred shares, none of which has been issued, is nine million.

The Board of Directors at its meeting in December 2013 authorized the repurchase of up to \$8,000 million of common stock (60.2 million shares based on the fiscal year end closing common stock price of \$133.00 per share). At the end of the fiscal year, this repurchase program had \$2,312 million (17.4 million shares at the same price) remaining to be repurchased. Repurchases of the company's common stock under this plan will be made from time to time, at the company's discretion, in the open market.

A reconciliation of basic and diluted net income per share attributable to Deere & Company follows in millions, except per share amounts:

	2018	2017	2016
Net income attributable to Deere & Company	\$2,368.4	\$2,159.1	\$1,523.9
Less income allocable to participating securities	.4	.6	.7
Income allocable to common stock	\$2,368.0	\$2,158.5	\$1,523.2
Average shares outstanding	<u>322.6</u>	<u>319.5</u>	<u>315.2</u>
Basic per share	\$ 7.34	\$ 6.76	\$ 4.83
Average shares outstanding	<u>322.6</u>	<u>319.5</u>	<u>315.2</u>
Effect of dilutive stock options	<u>4.7</u>	<u>3.8</u>	<u>1.4</u>
Total potential shares outstanding	<u>327.3</u>	<u>323.3</u>	<u>316.6</u>
Diluted per share	\$ 7.24	\$ 6.68	\$ 4.81

All stock options outstanding were included in the computation during 2018, 2017, and 2016, except .4 million in 2018, .2 million in 2017, and 9.9 million in 2016 that had an antidilutive effect under the treasury stock method.

24. STOCK OPTION AND RESTRICTED STOCK AWARDS

The company issues stock options and restricted stock awards to key employees under plans approved by stockholders. Restricted stock is also issued to nonemployee directors for their services as directors under a plan approved by stockholders. Options are awarded with the exercise price

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equal to the market price and become exercisable in one to three years after grant. Options expire ten years after the date of grant. Restricted stock awards generally vest after three years. The compensation cost for stock options, service based restricted stock units, and market/service based restricted stock units, which is based on the fair value at the grant date, is recognized on a straight-line basis over the requisite period the employee is required to render service. The compensation cost for performance/service based units, which is based on the fair value at the grant date, is recognized over the employees' requisite service period and periodically adjusted for the probable number of shares to be awarded. According to these plans at October 28, 2018, the company is authorized to grant an additional 10.0 million shares related to stock options or restricted stock.

The fair value of each option award was estimated on the date of grant using a binomial lattice option valuation model. Expected volatilities are based on implied volatilities from traded call options on the company's stock. The expected volatilities are constructed from the following three components: the starting implied volatility of short-term call options traded within a few days of the valuation date; the predicted implied volatility of long-term call options; and the trend in implied volatilities over the span of the call options' time to maturity. The company uses historical data to estimate option exercise behavior and employee termination within the valuation model. The expected term of options granted is derived from the output of the option valuation model and represents the period of time that options granted are expected to be outstanding. The risk-free rates utilized for periods throughout the contractual life of the options are based on U.S. Treasury security yields at the time of grant.

The assumptions used for the binomial lattice model to determine the fair value of options follow:

	2018	2017	2016
Risk-free interest rate	1.69% – 2.7%	.88% – 2.5%	.23% – 2.3%
Expected dividends	1.6% 22.3% – 23.0%	2.4% 24.0% – 24.8%	2.8% 25.2% – 29.0%
Expected volatility			
Weighted-average volatility	22.8%	24.5%	26.5%
Expected term (in years)	7.9 – 8.6	7.8 – 8.6	7.0 – 8.6

Stock option activity at October 28, 2018 and changes during 2018 in millions of dollars and shares follow:

	Exercise Shares	Remaining Contractual Term (Years)	Aggregate Intrinsic Value	
Outstanding at beginning of year	11.2	\$ 81.39		
Granted	.5	151.95		
Exercised	(2.9)	75.62		
Outstanding at end of year	<u>8.8</u>	87.08	5.80	\$ 413.6
Exercisable at end of year	7.0	82.92	5.26	349.4

* Weighted-averages

The weighted-average grant-date fair values of options granted during 2018, 2017, and 2016 were \$39.11, \$24.46, and \$16.88, respectively. The total intrinsic values of options exercised during 2018, 2017, and 2016 were \$229 million, \$225 million, and \$23 million, respectively. During 2018, 2017, and 2016, cash received from stock option exercises was \$217 million, \$529 million, and \$36 million with tax benefits of \$54 million, \$83 million, and \$8 million, respectively.

The company granted 415 thousand, 579 thousand, and 255 thousand restricted stock units to employees and nonemployee directors in 2018, 2017, and 2016, of which 330 thousand, 465 thousand, and 113 thousand are subject to service based only conditions, 85 thousand, 57 thousand, and 71 thousand are subject to performance/service based conditions, and none, 57 thousand, and 71 thousand are subject to market/service based conditions, respectively. The service based only units award one share of common stock for each unit at the end of the vesting period and include dividend equivalent payments.

The performance/service based units are subject to a performance metric based on the company's compound annual revenue growth rate, compared to a benchmark group of companies over the vesting period. The market/service based units are subject to a market related metric based on total shareholder return, compared to the same benchmark group of companies over the vesting period. The performance/service based units and the market/service based units both award common stock in a range of zero to 200 percent for each unit granted based on the level of the metric achieved and do not include dividend equivalent payments over the vesting period. The weighted-average fair values of the service based only units at the grant dates during 2018, 2017, and 2016 were \$151.67, \$101.03, and \$79.84 per unit, respectively, based on the market price of a share of underlying common stock. The fair value of the performance/service based units at the grant date during 2018, 2017, and 2016 were \$145.33, \$93.86, and \$72.93 per unit, respectively, based on the market price of a share of underlying common stock excluding dividends. The fair value of the market/service based units at the grant date during 2017 and 2016 were \$129.70 and \$103.66 per unit, respectively, based on a lattice valuation model excluding dividends.

The company's restricted shares at October 28, 2018 and changes during 2018 in millions of shares follow:

	Shares	Grant-Date Fair Value*
Service based only		
Nonvested at beginning of year	.7	\$ 95.90
Granted	.3	151.67
Vested	(.1)	91.92
Nonvested at end of year	<u>.9</u>	117.47
Performance/service and market/service based		
Nonvested at beginning of year	.4	\$ 98.46
Granted	.1	145.33
Vested	(.2)	113.97
Nonvested at end of year	<u>.3</u>	110.56

* Weighted-averages

During 2018, 2017, and 2016, the total share-based compensation expense was \$84 million, \$68 million, and \$71 million, respectively, with recognized income tax benefits of \$20 million, \$25 million, and \$26 million, respectively. At October 28, 2018, there was \$47 million of total unrecognized compensation cost from share-based compensation arrangements granted under the plans, which is related to restricted shares and options. This compensation is expected to be recognized over a weighted-average period of approximately two years. The total grant-date fair values of stock options and restricted shares vested during 2018, 2017, and 2016 were \$63 million, \$72 million, and \$69 million, respectively.

The company currently uses shares that have been repurchased through its stock repurchase programs to satisfy share option exercises. At fiscal year end, the company had 218 million shares in treasury stock and 17 million shares remaining to be repurchased under its current publicly announced repurchase program (see Note 23).

25. OTHER COMPREHENSIVE INCOME ITEMS

The after-tax changes in accumulated other comprehensive income at November 1, 2015, October 30, 2016, October 29, 2017, and October 28, 2018 in millions of dollars follow:

	Retirement Benefits Adjustment	Cumulative Translation Adjustment	Unrealized Gain on Derivatives	Unrealized Gain on Investments	Total Accumulated Other Comprehensive Income	(Loss)
2015	\$ (3,501)	\$ (1,238)	\$ (2)	\$ 12	\$ (4,729)	
Period Change	(908)	9	3	(1)	(897)	
2016	(4,409)	(1,229)	1	11	(5,626)	
Period Change	829	230	4	(1)	1,062	
2017	(3,580)	(999)	5	10	(4,564)	
Period Change	1,052	(195)	9	(13)	853	
ASU No. 2018-02*	(709)	(10)	1	1	(717)	
2018	<u>\$ (3,237)</u>	<u>\$ (1,204)</u>	<u>\$ 15</u>	<u>\$ (2)</u>	<u>\$ (4,428)</u>	

* See Note 3.

Following are amounts recorded in and reclassifications out of other comprehensive income (loss), and the income tax effects, in millions of dollars:

	Before Tax Amount	Tax (Expense) Credit	After Tax Amou
2018			
Cumulative translation adjustment	\$ (188)	\$ (7)	\$ (195)
Unrealized gain (loss) on derivatives:			
Unrealized hedging gain (loss)	18	(4)	1
Reclassification of realized (gain) loss to:			
Interest rate contracts – Interest expense	(5)	1	(4)
Foreign exchange contracts – Other operating expenses	(1)		(1)
Net unrealized gain (loss) on derivatives	12	(3)	9
Unrealized gain (loss) on investments:			
Unrealized holding gain (loss)	(17)	5	(12)
Reclassification of realized (gain) loss – Other income	(1)		(1)
Net unrealized gain (loss) on investments	(18)	5	(15)
Retirement benefits adjustment:			
Pensions			
Net actuarial gain (loss)	553	(128)	425
Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*			
Actuarial (gain) loss	226	(63)	163
Prior service (credit) cost	12	(4)	8
Settlements/curtailments	8	(2)	6
OPEB			
Net actuarial gain (loss) and prior service credit (cost)	603	(142)	461
Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*			
Actuarial (gain) loss	62	(17)	45
Prior service (credit) cost	(77)	21	(55)
Net unrealized gain (loss) on retirement benefits adjustment	1,387	(335)	1,052
Total other comprehensive income (loss)	<u>\$ 1,193</u>	<u>\$ (340)</u>	<u>\$ 85</u>

* These accumulated other comprehensive income amounts are included in net periodic pension and OPEB costs. See Note 7 for additional detail.

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	Before Tax Amount	Tax (Expense) Credit	After Tax Amount	Before Tax Amount	Tax (Expense) Credit	After Tax Amount	
2017							
Cumulative translation adjustment	\$ 232	\$ (2)	\$ 230	\$ 8	\$ 1	\$ 9	
Unrealized gain (loss) on derivatives:							
Unrealized hedging gain (loss)	3	(1)	2	(2)	1	(1)	
Reclassification of realized (gain) loss to:							
Interest rate contracts – Interest expense	2	(1)	1	7	(2)	5	
Foreign exchange contracts – Other operating expenses	1		1	(1)		(1)	
Net unrealized gain (loss) on derivatives	6	(2)	4	4	(1)	(1)	
Unrealized gain (loss) on investments:							
Unrealized holding gain (loss)	274	(101)	173	2			
Reclassification of realized (gain) loss – Other income	(275)	101	(174)	(4)	1	(3)	
Net unrealized gain (loss) on investments	(1)		(1)	(2)	1	(1)	
Retirement benefits adjustment:							
Pensions							
Net actuarial gain (loss)	702	(248)	454	Net actuarial gain (loss) and prior service credit (cost)	(1,141)	397	(74)
Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*				Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*			
Actuarial (gain) loss	247	(89)	158	Actuarial (gain) loss	211	(77)	13
Prior service (credit) cost	12	(4)	8	Prior service (credit) cost	16	(6)	1
Settlements/curtailments	2	(1)	1	Settlements/curtailments	14	(4)	1
OPEB				Net actuarial gain (loss) and prior service credit (cost)	(493)	178	(31)
Net actuarial gain (loss)	309	(115)	194	Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*			
Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*				Actuarial (gain) loss	73	(27)	4
Actuarial (gain) loss	99	(36)	63	Prior service (credit) cost	(78)	29	(4)
Prior service (credit) cost	(77)	28	(49)	Net unrealized gain (loss) on retirement benefits adjustment	(1,398)	490	(90)
Net unrealized gain (loss) on retirement benefits adjustment	1,294	(465)	829	Total other comprehensive income (loss)	\$(1,388)	\$ 491	\$ (89)
Total other comprehensive income (loss)	\$1,531	\$ (469)	\$1,062				

* These accumulated other comprehensive income amounts are included in net periodic pension and OPEB costs. See Note 7 for additional detail.

	Before Tax Amount	Tax (Expense) Credit	After Tax Amount	Before Tax Amount	Tax (Expense) Credit	After Tax Amount
2016						
Cumulative translation adjustment	\$ 8	\$ 1	\$ 9			
Unrealized gain (loss) on derivatives:						
Unrealized hedging gain (loss)	(2)	1	(1)			
Reclassification of realized (gain) loss to:						
Interest rate contracts – Interest expense	7	(2)	5			
Foreign exchange contracts – Other operating expenses	(1)		(1)			
Net unrealized gain (loss) on derivatives	4	(1)	(1)			
Unrealized gain (loss) on investments:						
Unrealized holding gain (loss)	2		2			
Reclassification of realized (gain) loss – Other income	(4)	1	(3)			
Net unrealized gain (loss) on investments	(2)	1	(1)			
Retirement benefits adjustment:						
Pensions						
Net actuarial gain (loss) and prior service credit (cost)	(1,141)	397	(74)			
Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*						
Actuarial (gain) loss	211	(77)	13			
Prior service (credit) cost	16	(6)	1			
Settlements/curtailments	14	(4)	1			
OPEB						
Net actuarial gain (loss) and prior service credit (cost)	(493)	178	(31)			
Reclassification through amortization of actuarial (gain) loss and prior service (credit) cost to other operating expenses:*						
Actuarial (gain) loss	73	(27)	4			
Prior service (credit) cost	(78)	29	(4)			
Net unrealized gain (loss) on retirement benefits adjustment	(1,398)	490	(90)			
Total other comprehensive income (loss)	\$(1,388)	\$ 491	\$ (89)			

* These accumulated other comprehensive income amounts are included in net periodic pension and OPEB costs. See Note 7 for additional detail.

The noncontrolling interests' comprehensive income (loss) was \$2.1 million in 2018, \$.3 million in 2017, and \$(2.4) million in 2016, which consisted of net income (loss) of \$2.2 million in 2018, \$.1 million in 2017, and \$(2.4) million in 2016 and cumulative translation adjustments of \$(.1) million in 2018, \$.2 million in 2017, and none in 2016.

26. FAIR VALUE MEASUREMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. To

determine fair value, the company uses various methods including market and income approaches. The company utilizes valuation models and techniques that maximize the use of observable inputs. The models are industry-standard models that consider various assumptions including time values and yield curves as well as other

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economic measures. These valuation techniques are consistently applied.

Level 1 measurements consist of quoted prices in active markets for identical assets or liabilities. Level 2 measurements include significant other observable inputs such as quoted prices for similar assets or liabilities in active markets; identical assets or liabilities in inactive markets; observable inputs such as interest rates and yield curves; and other market-corroborated inputs. Level 3 measurements include significant unobservable inputs.

The fair values of financial instruments that do not approximate the carrying values at October 28, 2018 and October 29, 2017 in millions of dollars follow:

	2018		2017	
	Carrying Value	Fair Value*	Carrying Value	Fair Value*
Financing receivables – net:				
Equipment operations**	\$ 93	\$ 91		
Financial services	26,961	26,722	\$ 25,104	\$ 24,946
Total	<u>\$ 27,054</u>	<u>\$ 26,813</u>	<u>\$ 25,104</u>	<u>\$ 24,946</u>
Financing receivables securitized – net:				
Equipment operations**	\$ 76	\$ 73		
Financial services	3,946	3,895	\$ 4,159	\$ 4,130
Total	<u>\$ 4,022</u>	<u>\$ 3,968</u>	<u>\$ 4,159</u>	<u>\$ 4,130</u>
Short-term securitization borrowings:				
Equipment operations**	\$ 75	\$ 75		
Financial services	3,882	3,870	\$ 4,119	\$ 4,118
Total	<u>\$ 3,957</u>	<u>\$ 3,945</u>	<u>\$ 4,119</u>	<u>\$ 4,118</u>
Long-term borrowings due within one year:				
Equipment operations**	\$ 970	\$ 979	\$ 154	\$ 154
Financial services	5,427	5,411	6,064	6,079
Total	<u>\$ 6,397</u>	<u>\$ 6,390</u>	<u>\$ 6,218</u>	<u>\$ 6,233</u>
Long-term borrowings:				
Equipment operations**	\$ 4,714	\$ 4,948	\$ 5,491	\$ 6,026
Financial services	22,523	22,590	20,400	20,606
Total	<u>\$ 27,237</u>	<u>\$ 27,538</u>	<u>\$ 25,891</u>	<u>\$ 26,632</u>

* Fair value measurements above were Level 3 for all financing receivables, Level 3 for equipment operations short-term securitization borrowings, and Level 2 for all other borrowings.

** See Note 4.

Fair values of the financing receivables that were issued long-term were based on the discounted values of their related

discounted values of their related cash flows at current market interest rates. Certain long-term borrowings have been swapped to current variable interest rates. The carrying values of these long-term borrowings included adjustments related to fair value hedges.

Assets and liabilities measured at October 28, 2018 and October 29, 2017 at fair value on a recurring basis in millions of dollars follow:

	2018*	2017*
Marketable securities		
Equity fund	\$ 46	\$ 48
Fixed income fund		15
U.S. government debt securities	111	77
Municipal debt securities	46	39
Corporate debt securities	140	135
International debt securities	10	20
Mortgage-backed securities**	137	118
Total marketable securities	<u>\$ 490</u>	<u>\$ 452</u>
Other assets		
Derivatives:		
Interest rate contracts	80	116
Foreign exchange contracts	83	108
Cross-currency interest rate contracts	5	11
Total assets***	<u>\$ 658</u>	<u>\$ 687</u>
Accounts payable and accrued expenses		
Derivatives:		
Interest rate contracts	\$ 350	\$ 131
Foreign exchange contracts	49	26
Cross-currency interest rate contracts		1
Total liabilities	<u>\$ 399</u>	<u>\$ 158</u>

* All measurements above were Level 2 measurements except for Level 1 measurements of the equity fund of \$46 million and \$48 million at October 28, 2018 and October 29, 2017, respectively, the fixed income fund of \$15 million at October 29, 2017, and U.S. government debt securities of \$44 million and \$44 million at October 28, 2018 and October 29, 2017, respectively. In addition, \$8 million and \$17 million of the international debt securities were Level 3 measurements at October 28, 2018 and October 29, 2017, respectively. There were no transfers between Level 1 and Level 2 during 2018 and 2017.

** Primarily issued by U.S. government sponsored enterprises.

*** Excluded from this table were cash equivalents, which were carried at cost that approximates fair value. The cash equivalents consist primarily of money market funds and time deposits.

Fair value, recurring Level 3 measurements from available-for-sale marketable securities at October 28, 2018, October 29, 2017, and October 30, 2016 in millions of dollars follow:

	2018	2017	2016
Beginning of year balance	\$ 17	\$ 28	\$ 29
Purchases			25
Principal payments	(9)	(13)	(22)
Change in unrealized gain (loss)	1	2	(4)
Other	(1)		
End of year balance	<u>\$ 8</u>	<u>\$ 17</u>	<u>\$ 28</u>

cash flows at interest rates currently being offered by the company for similar financing receivables. The fair values of the remaining financing receivables approximated the carrying amounts.

Fair values of long-term borrowings and short-term securitization borrowings were based on current market quotes for identical or similar borrowings and credit risk, or on the

Fair value, nonrecurring measurements from impairments at October 28, 2018 and October 29, 2017 in millions of dollars follow:

	Fair Value*		Losses*		
	2018	2017	2018	2017	2016
Equipment on operating leases – net			\$ 31		
Property and equipment – net	=====	=====	\$ 13		
Investments in unconsolidated affiliates	=====	\$ 28	\$ 40	\$ 12	
Other assets	=====	=====	\$ 29		

* Fair value at October 29, 2017 was a Level 1 measurement. See financing receivables with specific allowances in Note 12 that were not significant. See Note 5 for impairments.

The following is a description of the valuation methodologies the company uses to measure certain financial instruments on the balance sheet at fair value:

Marketable Securities – The portfolio of investments, except for the Level 3 measurement international debt securities, is primarily valued on a market approach (matrix pricing model) in which all significant inputs are observable or can be derived from or corroborated by observable market data such as interest rates, yield curves, volatilities, credit risk, and prepayment speeds. Funds are primarily valued using the fund's net asset value, based on the fair value of the underlying securities. The Level 3 measurement international debt securities are primarily valued using an income approach based on discounted cash flows using yield curves derived from limited, observable market data.

Derivatives – The company's derivative financial instruments consist of interest rate swaps and caps, foreign currency futures, forwards and swaps, and cross-currency interest rate swaps. The portfolio is valued based on an income approach (discounted cash flow) using market observable inputs, including swap curves and both forward and spot exchange rates for currencies.

Financing Receivables – Specific reserve impairments are based on the fair value of the collateral, which is measured using a market approach (appraisal values or realizable values). Inputs include a selection of realizable values (see Note 12).

Equipment on Operating Leases - Net – The impairments are based on an income approach (discounted cash flow), using the contractual payments, plus an estimate of equipment sale price at lease maturity. Inputs include realized sales values (see Note 5).

Property and Equipment - Net – The impairments are measured at the lower of the carrying amount, or fair value. The valuations were based on a cost approach. The inputs include replacement cost estimates adjusted for physical deterioration and economic obsolescence (see Note 5).

Investment in Unconsolidated Affiliates – Other than temporary impairments for investments are measured as the difference

between the implied fair value and the carrying value of the investments. The fair value for publicly traded entities is the share price multiplied by the shares owned (see Note 5).

Other Assets – The impairments are measured at the fair value of the matured operating lease inventory. The valuations were based on a market approach. The inputs include sales of comparable assets (see Note 5).

27. DERIVATIVE INSTRUMENTS

Cash Flow Hedges

Certain interest rate and cross-currency interest rate contracts (swaps) were designated as hedges of future cash flows from borrowings. The total notional amounts of the receive-variable/pay-fixed interest rate contracts at October 28, 2018 and October 29, 2017 were \$3,050 million and \$1,700 million, respectively. The total notional amounts of the cross-currency interest rate contracts were none and \$22 million at October 28, 2018 and October 29, 2017, respectively. The effective portions of the fair value gains or losses on these cash flow hedges were recorded in OCI and subsequently reclassified into interest expense or other operating expenses (foreign exchange) in the same periods during which the hedged transactions affected earnings. These amounts offset the effects of interest rate or foreign currency exchange rate changes on the related borrowings. Any ineffective portions of the gains or losses on all cash flow interest rate contracts designated as cash flow hedges were recognized currently in interest expense or other operating expenses (foreign exchange) and were not material during any years presented. The cash flows from these contracts were recorded in operating activities in the statement of consolidated cash flows.

The amount of gain recorded in OCI at October 28, 2018 that is expected to be reclassified to interest expense or other operating expenses in the next twelve months if interest rates or exchange rates remain unchanged is approximately \$10 million after-tax. These contracts mature in up to 26 months. There were no gains or losses reclassified from OCI to earnings based on the probability that the original forecasted transaction would not occur.

Fair Value Hedges

Certain interest rate contracts (swaps) were designated as fair value hedges of borrowings. The total notional amounts of the receive-fixed/pay-variable interest rate contracts at October 28, 2018 and October 29, 2017 were \$8,479 million and \$8,661 million, respectively. The effective portions of the fair value gains or losses on these contracts were offset by fair value gains or losses on the hedged items (fixed-rate borrowings). Any ineffective portions of the gains or losses were recognized currently in interest expense. The ineffective portions were losses of \$2 million in both 2018 and 2016, and a gain of \$3 million in 2017. The cash flows from these contracts were recorded in operating activities in the statement of consolidated cash flows.

The gains (losses) on these contracts and the underlying borrowings recorded in interest expense follow in millions of dollars:

	2018	2017	2016
Interest rate contracts*	\$ (294)	\$ (284)	\$ 7
Borrowings**	292	287	(9)

* Includes changes in fair values of interest rate contracts excluding net accrued interest income of \$11 million, \$79 million, and \$146 million during 2018, 2017, and 2016, respectively.
** Includes adjustments for fair values of hedged borrowings excluding accrued interest expense of \$246 million, \$243 million, and \$290 million during 2018, 2017, and 2016, respectively.

Derivatives Not Designated as Hedging Instruments

The company has certain interest rate contracts (swaps and caps), foreign exchange contracts (futures, forwards and swaps), and cross-currency interest rate contracts (swaps), which were not formally designated as hedges. These derivatives were held as economic hedges for underlying interest rate or foreign currency exposures primarily for certain borrowings, purchases or sales of inventory, and below market retail financing programs. The total notional amounts of the interest rate swaps at October 28, 2018 and October 29, 2017 were \$8,075 million and \$6,757 million, the foreign exchange contracts were \$6,842 million and \$8,499 million, and the cross-currency interest rate contracts were \$81 million and \$66 million, respectively. The increase in the total notional amount of interest rate swaps primarily relates to the equipment operation's economic hedge of announced retail financing programs. The decrease in the total notional amounts of foreign exchange contracts primarily relates to the Wirtgen acquisition, which closed in December 2017 (see Note 4). At October 28, 2018 and October 29, 2017, there were also \$66 million and \$253 million, respectively, of interest rate caps purchased and the same amounts sold at the same capped interest rate to facilitate borrowings through securitization of retail notes. The fair value gains or losses from the interest rate contracts were recognized currently in interest expense and the gains or losses from foreign exchange contracts in cost of sales or other operating expenses, generally offsetting over time the expenses on the exposures being hedged. The cash flows from these non-designated contracts were recorded in operating activities in the statement of consolidated cash flows.

Fair values of derivative instruments in the consolidated balance sheet at October 28, 2018 and October 29, 2017 in millions of dollars follow:

	2018	2017
Other Assets		
Designated as hedging instruments:		
Interest rate contracts	\$ 29	\$ 74
Cross-currency interest rate contracts		5
Total designated	29	79
Not designated as hedging instruments:		
Interest rate contracts	51	42
Foreign exchange contracts	83	108
Cross-currency interest rate contracts	5	6
Total not designated	139	156
Total derivative assets	\$ 168	\$ 235

Accounts Payable and Accrued Expenses

	2018	2017
Designated as hedging instruments:		
Interest rate contracts	\$ 321	\$ 112
Total designated	321	112
Not designated as hedging instruments:		
Interest rate contracts	29	19
Foreign exchange contracts	49	26
Cross-currency interest rate contracts		1
Total not designated	78	46
Total derivative liabilities	\$ 399	\$ 158

The classification and gains (losses) including accrued interest expense related to derivative instruments on the statement of consolidated income consisted of the following in millions of dollars:

	2018	2017	2016
Fair Value Hedges			
Interest rate contracts – Interest expense		\$ (283)	\$ (205)
Cash Flow Hedges			
Recognized in OCI (Effective Portion):			
Interest rate contracts – OCI (pretax)*	17	4	(3)
Foreign exchange contracts – OCI (pretax)*	2	(1)	1
Reclassified from OCI (Effective Portion):			
Interest rate contracts – Interest expense*	5	(2)	(7)
Foreign exchange contracts – Other expense*	1	(1)	1
Recognized Directly in Income (Ineffective Portion)	**	**	**

Not Designated as Hedges

Interest rate contracts – Net sales	\$ 3
Interest rate contracts – Interest expense*	(4)
Foreign exchange contracts – Cost of sales	\$ 11
Foreign exchange contracts – Other expense*	\$ (1)
Total not designated	\$ 170
	\$ (107)
	\$ 58

* Includes interest and foreign exchange gains (losses) from cross-currency interest rate contracts.
** The amounts are not significant.

Counterparty Risk and Collateral

Derivative instruments are subject to significant concentrations of credit risk to the banking sector. The company manages individual counterparty exposure by setting limits that consider

the credit rating of the counterparty, the credit default swap spread of the counterparty, and other financial commitments and exposures between the company and the counterparty banks. All interest rate derivatives are transacted under International Swaps and Derivatives Association (ISDA) documentation. Some of these agreements include credit support provisions. Each master agreement permits the net settlement of amounts owed in the event of default or termination.

Certain of the company's derivative agreements contain credit support provisions that may require the company to post collateral based on the size of the net liability positions and credit ratings. The aggregate fair value of all derivatives with credit-risk-related contingent features that were in a net liability position at October 28, 2018 and October 29, 2017, was \$350 million and \$132 million, respectively. In accordance with the limits established in these agreements, the company posted \$59 million in cash collateral at October 28, 2018. No cash collateral was posted at October 29, 2017.

Derivatives are recorded without offsetting for netting arrangements or collateral. The impact on the derivative assets and liabilities related to netting arrangements and any collateral paid at October 28, 2018 and October 29, 2017 in millions of dollars follows:

	Gross Amounts Recognized	Netting Arrangements	Collateral Paid	Net Amount
2018				
Assets	\$ 168	\$ (65)		\$ 103
Liabilities	399	(65)	\$ (59)	275
2017				
Assets	\$ 235	\$ (65)		\$ 170
Liabilities	158	(65)		93

28. SEGMENT AND GEOGRAPHIC AREA DATA

The company's operations are presently organized and reported in three major business segments described as follows:

The agriculture and turf segment primarily manufactures and distributes a full line of agriculture and turf equipment and related service parts, including large, medium and utility tractors; tractor loaders; combines, cotton pickers, cotton strippers, and sugarcane harvesters; harvesting front-end equipment; sugarcane loaders and pull-behind scrapers; tillage, seeding and application equipment, including sprayers, nutrient management and soil preparation machinery; hay and forage equipment, including self-propelled forage harvesters and attachments, balers and mowers; turf and utility equipment, including riding lawn equipment and walk-behind mowers, golf course equipment, utility vehicles, and commercial mowing equipment, along with a broad line of associated implements; integrated agricultural management systems technology and solutions; and other outdoor power products.

The construction and forestry segment primarily manufactures and distributes a broad range of machines and service parts used in construction, earthmoving, road building, material handling, and timber harvesting, including backhoe loaders; crawler dozers and loaders; four-wheel-drive loaders; excavators; motor graders; articulated dump trucks; landscape loaders; skid-steer loaders; milling machines; recyclers; slipform pavers; surface miners; asphalt pavers; compactors; tandem and static rollers; mobile crushers and screens; mobile and stationary asphalt plants; log skidders; feller bunchers; log loaders; log forwarders; log harvesters; and related logging attachments.

The products and services produced by the segments above are marketed primarily through independent retail dealer networks and major retail outlets.

The financial services segment primarily finances sales and leases by John Deere dealers of new and used agriculture and turf equipment and construction and forestry equipment. In addition, the financial services segment provides wholesale financing to dealers of the foregoing equipment, finances retail revolving charge accounts, and offers extended equipment warranties.

Because of integrated manufacturing operations and common administrative and marketing support, a substantial number of allocations must be made to determine operating segment and geographic area data. Intersegment sales and revenues represent sales of components and finance charges, which are generally based on market prices.

Information relating to operations by operating segment in millions of dollars follows for the years ended October 28, 2018, October 29, 2017, and October 30, 2016. In addition to the following unaffiliated sales and revenues by segment, intersegment sales and revenues in 2018, 2017, and 2016 were as follows: agriculture and turf net sales of \$47 million, \$39 million, and \$31 million, construction and forestry net sales of none, \$1 million, and \$1 million, and financial services revenues of \$308 million, \$244 million, and \$225 million, respectively.

OPERATING SEGMENTS	2018	2017	2016
Net sales and revenues			
Unaffiliated customers:			
Agriculture and turf net sales	\$23,191	\$20,167	\$18,487
Construction and forestry net sales	10,160	5,718	4,900
Total net sales	33,351	25,885	23,387
Financial services revenues	3,252	2,935	2,694
Other revenues*	755	918	563
Total	\$37,358	\$29,738	\$26,644

* Other revenues are primarily the equipment operations' revenues for finance and interest income, and other income as disclosed in Note 31, net of certain intercompany eliminations.

(continued)

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OPERATING SEGMENTS	2018	2017	2016
Operating profit			
Agriculture and turf	\$ 2,816	\$ 2,513	\$ 1,719
Construction and forestry	868	346	189
Financial services*	792	715	701
Total operating profit**	<u>4,476</u>	<u>3,574</u>	<u>2,609</u>
Interest income	80	55	48
Interest expense	(298)	(264)	(251)
Foreign exchange gains (losses) from equipment operations' financing activities	36	(12)	(12)
Pension and OPEB costs, excluding service cost component	(15)	(31)	(20)
Corporate expenses – net	(182)	(192)	(153)
Income taxes	(1,727)	(971)	(700)
Total	<u>(2,106)</u>	<u>(1,415)</u>	<u>(1,088)</u>
Net income	<u>2,370</u>	<u>2,159</u>	<u>1,521</u>
Less: Net income (loss) attributable to noncontrolling interests	2		(3)
Net income attributable to Deere & Company	<u>\$ 2,368</u>	<u>\$ 2,159</u>	<u>\$ 1,524</u>

* Operating profit of the financial services business segment includes the effect of its interest expense and foreign exchange gains or losses.

** Fiscal year 2017 and 2016 amounts were restated for the adoption of ASU No. 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. See Note 3.

Interest income*				
Agriculture and turf	\$ 14	\$ 16	\$ 12	
Construction and forestry	33	1	1	
Financial services	1,998	1,771	1,650	
Corporate	80	55	48	
Intercompany	(331)	(268)	(240)	
Total	<u>\$ 1,794</u>	<u>\$ 1,575</u>	<u>\$ 1,471</u>	

* Does not include finance rental income for equipment on operating leases.

Interest expense				
Agriculture and turf	\$ 229	\$ 182	\$ 173	
Construction and forestry	71	53	44	
Financial services	937	669	536	
Corporate	298	264	251	
Intercompany	(331)	(268)	(240)	
Total	<u>\$ 1,204</u>	<u>\$ 900</u>	<u>\$ 764</u>	

Depreciation* and amortization expense				
Agriculture and turf	\$ 723	\$ 695	\$ 667	
Construction and forestry	251	145	136	
Financial services	953	876	757	
Total	<u>\$ 1,927</u>	<u>\$ 1,716</u>	<u>\$ 1,560</u>	

* Includes depreciation for equipment on operating leases.

Equity in income (loss) of unconsolidated affiliates				
Agriculture and turf	\$ 6	\$ 2	\$ 9	
Construction and forestry	19	(27)	(13)	

OPERATING SEGMENTS	2018	2017	2016
Identifiable operating assets			
Agriculture and turf	\$ 10,161	\$ 9,359	\$ 8,405
Construction and forestry	9,855	3,212	3,017
Financial services	45,720	42,596	40,837
Corporate*	4,372	10,619	5,659
Total	<u>\$70,108</u>	<u>\$65,786</u>	<u>\$57,918</u>

* Corporate assets are primarily the equipment operations' retirement benefits, deferred income tax assets, marketable securities, and cash and cash equivalents as disclosed in Note 31, net of certain intercompany eliminations.

Capital additions			
Agriculture and turf	\$ 675	\$ 485	\$ 556
Construction and forestry	308	114	115
Financial services	2	3	3
Total	<u>\$ 985</u>	<u>\$ 602</u>	<u>\$ 674</u>

Investments in unconsolidated affiliates

	2018	2017	2016
Net sales and revenues			
Unaffiliated customers:			
U.S. and Canada:			
Equipment operations net sales (88%)*	\$ 18,847	\$ 15,031	\$ 14,376
Financial services revenues (79%)*	2,785	2,526	2,366
Total	<u>21,632</u>	<u>17,557</u>	<u>16,742</u>
Outside U.S. and Canada:			
Equipment operations net sales	14,504	10,854	9,011
Financial services revenues	467	409	328
Total	<u>14,971</u>	<u>11,263</u>	<u>9,339</u>
Other revenues	755	918	563
Total	<u>\$37,358</u>	<u>\$29,738</u>	<u>\$26,644</u>

* The percentages indicate the approximate proportion of each amount that relates to the U.S. only and are based upon a three-year average for 2018, 2017, and 2016.

(continued)

Financial services	2	1	2
Total	\$ <u>27</u>	\$ <u>(24)</u>	\$ <u>(2)</u>

(continued)

GEOGRAPHIC AREAS	2018	2017	2016
Operating profit*			
U.S. and Canada:			
Equipment operations	\$2,356	\$ 1,754	\$ 1,328
Financial services	604	515	543
Total	<u>2,960</u>	<u>2,269</u>	<u>1,871</u>
Outside U.S. and Canada:			
Equipment operations	1,328	1,105	580
Financial services	188	200	158
Total	<u>1,516</u>	<u>1,305</u>	<u>738</u>
Total	<u><u>\$4,476</u></u>	<u><u>\$ 3,574</u></u>	<u><u>\$ 2,609</u></u>

* Fiscal year 2017 and 2016 amounts were restated for the adoption of FASB ASU No. 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. See Note 3.

Property and equipment	2018	2017	2016
U.S.	\$3,031	\$ 2,976	\$ 3,077
Germany	1,164	598	569
Other countries	<u>1,673</u>	<u>1,494</u>	<u>1,525</u>
Total	<u><u>\$5,868</u></u>	<u><u>\$ 5,068</u></u>	<u><u>\$ 5,171</u></u>

29. SUPPLEMENTAL INFORMATION (UNAUDITED)

The \$1 par value common stock of Deere & Company is listed on the New York Stock Exchange under the symbol "DE". At October 28, 2018, there were 20,559 holders of record of the company's \$1 par value common stock.

Quarterly information with respect to net sales and revenues and earnings is shown in the following schedule. The company's fiscal year ends in October and its interim periods (quarters) end in January, April, and July. Such information is shown in millions of dollars except for per share amounts.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2018				
Net sales and revenues	\$ 6,913	\$ 10,720	\$ 10,309	\$ 9,416
Net sales	5,974	9,747	9,287	8,343
Gross profit	1,269	2,414	2,134	1,962
Income before income taxes				
	518	1,384	1,190	979
Net income (loss) attributable to Deere & Company	(535)	1,208	910	785
Per share data:				
Basic	(1.66)	3.73	2.81	2.45
Diluted	(1.66)	3.67	2.78	2.42
Dividends declared	.60	.60	.69	.69
Dividends paid	.60	.60	.60	.69
2017*				
Net sales and revenues	\$ 5,625	\$ 8,287	\$ 7,808	\$ 8,018
Net sales	4,698	7,260	6,833	7,094
Gross profit**	916	1,832	1,585	1,686
Income before income taxes				
	328	1,169	890	767
Net income attributable to Deere & Company	199	808	642	510
Per share data:				
Basic	.63	2.53	2.00	1.59
Diluted	.62	2.50	1.97	1.57
Dividends declared	.60	.60	.60	.60
Dividends paid	.60	.60	.60	.60

Net income per share for each quarter must be computed independently. As a result, their sum may not equal the total net income per share for the year.

* See Note 5 for "Special Items."

** Amounts restated for the adoption of ASU No. 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. See Note 3.

30. SUBSEQUENT EVENTS

A quarterly dividend of \$.76 per share was declared at the Board of Directors meeting on December 5, 2018, payable on February 1, 2019 to stockholders of record on December 31, 2018. The new quarterly rate represents an increase of 7 cents per share over the previous level, or approximately 10 percent.

In November 2018, the company's financial services operations entered into a retail note securitization using its bank conduit facility that resulted in securitization borrowings of approximately \$1,245 million.

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31. SUPPLEMENTAL CONSOLIDATING DATA

INCOME STATEMENT

For the Years Ended October 28, 2018, October 29, 2017, and October 30, 2016

(In millions of dollars)

	EQUIPMENT OPERATIONS*			FINANCIAL SERVICES		
	2018	2017	2016	2018	2017	2016
Net Sales and Revenues						
Net sales	\$ 33,350.7	\$ 25,885.1	\$ 23,387.3			
Finance and interest income	126.3	71.7	61.1	\$ 3,311.4	\$ 2,928.2	\$ 2,690.1
Other income	874.5	1,065.0	653.7	248.6	250.9	229.0
Total	34,351.5	27,021.8	24,102.1	3,560.0	3,179.1	2,919.1
Costs and Expenses						
Cost of sales	25,573.0	19,867.9	18,198.0			
Research and development expenses	1,657.6	1,372.5	1,393.7			
Selling, administrative and general expenses	2,934.9	2,555.0	2,282.6	527.9	549.2	515.9
Interest expense	297.8	263.7	250.5	936.6	669.2	536.5
Interest compensation to Financial Services	299.8	234.5	216.6			
Other operating expenses	315.4	295.2	243.8	1,297.8	1,239.9	1,159.6
Total	31,078.5	24,588.8	22,585.2	2,762.3	2,458.3	2,212.0
Income of Consolidated Group before Income						
Taxes	3,273.0	2,433.0	1,516.9	797.7	720.8	707.1
Provision (credit) for income taxes	1,869.2	726.0	459.0	(142.3)	245.1	241.1
Income of Consolidated Group	1,403.8	1,707.0	1,057.9	940.0	475.7	466.0
Equity in Income (Loss) of Unconsolidated Subsidiaries and Affiliates						
Financial Services	942.0	476.9	467.6	2.0	1.2	1.6
Other	24.8	(24.7)	(4.0)			
Total	966.8	452.2	463.6	2.0	1.2	1.6
Net Income	2,370.6	2,159.2	1,521.5	942.0	476.9	467.6
Less: Net income (loss) attributable to noncontrolling interests	2.2	.1	(2.4)			
Net Income Attributable to Deere & Company	\$ 2,368.4	\$ 2,159.1	\$ 1,523.9	\$ 942.0	\$ 476.9	\$ 467.6

* Deere & Company with Financial Services on the equity basis.

The supplemental consolidating data is presented for informational purposes. The "Equipment Operations" reflect the basis of consolidation described in Note 1 to the consolidated financial statements. The consolidated group data in the "Equipment Operations" income statement reflect the results of the agriculture and turf operations and construction and forestry operations. Transactions between the "Equipment Operations" and "Financial Services" have been eliminated to arrive at the consolidated financial statements.

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31. SUPPLEMENTAL CONSOLIDATING DATA (continued)

BALANCE SHEET

As of October 28, 2018 and October 29, 2017

(In millions of dollars except per share amounts)

	EQUIPMENT OPERATIONS*		FINANCIAL SERVICES	
	2018	2017	2018	2017
ASSETS				
Cash and cash equivalents	\$ 3,194.8	\$ 8,168.4	\$ 709.2	\$ 1,166.5
Marketable securities	8.2	20.2	481.9	431.4
Receivables from unconsolidated subsidiaries and affiliates	1,700.4	1,032.1		
Trade accounts and notes receivable – net	1,373.7	876.3	4,906.4	4,134.1
Financing receivables – net	93.1		26,961.0	25,104.1
Financing receivables securitized – net	76.1		3,945.3	4,158.8
Other receivables	1,009.7	1,045.6	775.7	195.5
Equipment on operating leases – net			7,165.4	6,593.7
Inventories	6,148.9	3,904.1		
Property and equipment – net	5,820.6	5,017.3	46.9	50.4
Investments in unconsolidated subsidiaries and affiliates	5,231.2	4,812.3	15.2	13.8
Goodwill	3,100.7	1,033.3		
Other intangible assets – net	1,562.4	218.0		
Retirement benefits	1,241.5	538.1	56.8	16.9
Deferred income taxes	1,502.6	3,098.8	69.4	79.8
Other assets	1,132.8	973.9	587.1	651.4
Total Assets	\$ 33,196.7	\$ 30,738.4	\$ 45,720.3	\$ 42,596.4
LIABILITIES AND STOCKHOLDERS' EQUITY				
LIABILITIES				
Short-term borrowings	\$ 1,434.0	\$ 375.5	\$ 9,627.4	\$ 9,659.8
Short-term securitization borrowings	75.6		3,881.7	4,118.7
Payables to unconsolidated subsidiaries and affiliates	128.9	121.9	1,678.7	996.2
Accounts payable and accrued expenses	9,382.5	7,718.1	2,055.7	1,827.1
Deferred income taxes	496.8	115.6	823.0	857.7
Long-term borrowings	4,713.9	5,490.9	22,523.5	20,400.4
Retirement benefits and other liabilities	5,659.8	7,341.9	91.2	92.9
Total liabilities	21,891.5	21,163.9	40,681.2	37,952.8
Commitments and contingencies (Note 22)				
Redeemable noncontrolling interest (Note 4)	14.0	14.0		
STOCKHOLDERS' EQUITY				
Common stock, \$1 par value (authorized – 1,200,000,000 shares; issued – 536,431,204 shares in 2018 and 2017), at paid-in amount	4,474.2	4,280.5	2,099.5	2,099.1
Common stock in treasury, 217,975,806 shares in 2018 and 214,589,902 shares in 2017, at cost	(16,311.8)	(15,460.8)		
Retained earnings	27,553.0	25,301.3	3,257.2	2,782.0
Accumulated other comprehensive income (loss)	(4,427.6)	(4,563.7)	(317.6)	(237.5)
Total Deere & Company stockholders' equity	11,287.8	9,557.3	5,039.1	4,643.6
Noncontrolling interests	3.4	3.2		
Total stockholders' equity	11,291.2	9,560.5	5,039.1	4,643.6
Total Liabilities and Stockholders' Equity	\$ 33,196.7	\$ 30,738.4	\$ 45,720.3	\$ 42,596.4

* Deere & Company with Financial Services on the equity basis.

The supplemental consolidating data is presented for informational purposes. The "Equipment Operations" reflect the basis of consolidation described in Note 1 to the consolidated financial statements. Transactions between the "Equipment Operations" and "Financial Services" have been eliminated to arrive at the consolidated financial statements.

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31. SUPPLEMENTAL CONSOLIDATING DATA (continued)

STATEMENT OF CASH FLOWS

For the Years Ended October 28, 2018, October 29, 2017, and October 30, 2016

(In millions of dollars)

	EQUIPMENT OPERATIONS*			FINANCIAL SERVICES		
	2018	2017	2016	2018	2017	2016
Cash Flows from Operating Activities						
Net income	\$ 2,370.6	\$ 2,159.2	\$ 1,521.5	\$ 942.0	\$ 476.9	\$ 467.6
Adjustments to reconcile net income to net cash provided by operating activities:						
Provision for credit losses	39.4	9.9	8.2	51.4	88.4	86.1
Provision for depreciation and amortization	974.4	839.3	803.4	1,077.3	984.3	846.7
Impairment charges		39.8	25.4			59.7
Gain on sale of affiliates and investments	(25.1)	(375.1)	(74.5)			
Undistributed earnings of unconsolidated subsidiaries and affiliates	(502.8)	(125.0)	94.0	(1.8)	(1.1)	(1.5)
Provision (credit) for deferred income taxes	1,503.7	(6.7)	13.2	(23.8)	106.8	269.5
Changes in assets and liabilities:						
Trade receivables and Equipment Operations' financing receivables	(239.1)	(243.9)	(175.3)			
Inventories	(917.2)	(504.3)	578.4			
Accounts payable and accrued expenses	792.6	946.2	(169.6)	120.0	93.9	40.6
Accrued income taxes payable/receivable	102.8	(122.7)	18.2	(569.0)	38.5	(11.2)
Retirement benefits	(984.8)	(39.2)	232.4	(41.3)	7.3	6.2
Other	164.4	(139.5)	36.5	88.0	81.5	97.1
Net cash provided by operating activities	<u>3,278.9</u>	<u>2,438.0</u>	<u>2,911.8</u>	<u>1,642.8</u>	<u>1,876.5</u>	<u>1,860.8</u>
Cash Flows from Investing Activities						
Collections of receivables (excluding trade and wholesale)				17,032.3	15,963.2	15,831.4
Proceeds from maturities and sales of marketable securities	11.4	297.9	81.9	65.2	106.3	87.5
Proceeds from sales of equipment on operating leases				1,482.7	1,440.8	1,256.2
Proceeds from sales of businesses and unconsolidated affiliates, net of cash sold	155.6	113.9	81.1			
Cost of receivables acquired (excluding trade and wholesale)				(18,777.6)	(16,799.9)	(15,168.2)
Acquisitions of businesses, net of cash acquired	(5,245.0)	(284.2)	(198.5)			
Purchases of marketable securities			(59.4)	(132.8)	(118.0)	(111.8)
Purchases of property and equipment	(893.0)	(591.4)	(641.8)	(3.4)	(3.5)	(2.6)
Cost of equipment on operating leases acquired				(3,209.3)	(3,079.8)	(3,235.7)
Increase in investment in Financial Services	(.4)	(20.0)	(28.2)			
Decrease (increase) in trade and wholesale receivables				(1,222.4)	(379.9)	492.5
Other	17.7	(32.7)	(55.2)	(73.5)	(26.5)	24.6
Net cash used for investing activities	<u>(5,953.7)</u>	<u>(516.5)</u>	<u>(820.1)</u>	<u>(4,838.8)</u>	<u>(2,897.3)</u>	<u>(826.1)</u>
Cash Flows from Financing Activities						
Increase (decrease) in total short-term borrowings	16.1	64.5	(207.2)	457.1	1,246.1	(1,006.4)
Change in intercompany receivables/payables	(748.0)	2,142.0	(756.0)	748.0	(2,142.0)	756.0
Proceeds from long-term borrowings	148.5	1,107.0	173.4	8,139.3	7,595.2	4,897.3
Payments of long-term borrowings	(163.4)	(66.3)	(72.8)	(6,081.9)	(5,330.7)	(5,194.8)
Proceeds from issuance of common stock	216.9	528.7	36.0			
Repurchases of common stock	(957.9)	(6.2)	(205.4)			
Capital investment from Equipment Operations				.4	20.0	28.2
Dividends paid	(805.8)	(764.0)	(761.3)	(463.7)	(365.2)	(562.1)
Other	(60.0)	(54.4)	(36.7)	(32.5)	(33.4)	(28.0)
Net cash provided by (used for) financing activities	<u>(2,353.6)</u>	<u>2,951.3</u>	<u>(1,830.0)</u>	<u>2,766.7</u>	<u>990.0</u>	<u>(1,109.8)</u>
Effect of Exchange Rate Changes on Cash and Cash Equivalents						
54.8	155.1	(21.2)	(28.0)	2.0		8.2
Net Increase (Decrease) in Cash and Cash Equivalents						
(4,973.6)	5,027.9	240.5	(457.3)	(28.8)		(66.9)
Cash and Cash Equivalents at Beginning of Year						
8,168.4	3,140.5	2,900.0	1,166.5	1,195.3	1,262.2	
Cash and Cash Equivalents at End of Year	<u>\$ 3,194.8</u>	<u>\$ 8,168.4</u>	<u>\$ 3,140.5</u>	<u>\$ 709.2</u>	<u>\$ 1,166.5</u>	<u>\$ 1,195.3</u>

* Deere & Company with Financial Services on the equity basis.

The supplemental consolidating data is presented for informational purposes. The "Equipment Operations" reflect the basis of consolidation described in Note 1 to the consolidated financial statements. Transactions between the "Equipment Operations" and "Financial Services" have been eliminated to

arrive at the consolidated financial statements.

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DEERE & COMPANY

SELECTED FINANCIAL DATA

(Dollars in millions except per share amounts)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	
Net sales and revenues	\$37,358	\$29,738	\$ 26,644	\$ 28,863	\$ 36,067	\$ 37,795	\$ 36,157	\$ 32,013	\$ 26,005	\$ 23,112	
Net sales	33,351	25,885	23,387	25,775	32,961	34,998	33,501	29,466	23,573	20,756	
Finance and interest income	3,107	2,732	2,511	2,381	2,282	2,115	1,981	1,923	1,825	1,842	
Research and development expenses**	1,658	1,373	1,394	1,410	1,437	1,445	1,409	1,192	1,005	965	
Selling, administrative and general expenses**	3,456	3,098	2,791	2,868	3,266	3,558	3,369	3,143	2,926	2,753	
Interest expense	1,204	900	764	680	664	741	783	759	811	1,042	
Net income*	2,368	2,159	1,524	1,940	3,162	3,537	3,065	2,800	1,865	873	
Return on net sales	7.1%	8.3%	6.5%	7.5%	9.6%	10.1%	9.1%	9.5%	7.9%	4.2%	
Return on beginning Deere & Company stockholders' equity	24.8%	33.1%	22.6%	21.4%	30.8%	51.7%	45.1%	44.5%	38.7%	13.4%	
Comprehensive income (loss)*	3,221	3,221	627	994	2,072	5,416	2,171	2,502	2,079	(1,333)	
Net income per share – basic*	\$ 7.34	\$ 6.76	\$ 4.83	\$ 5.81	\$ 8.71	\$ 9.18	\$ 7.72	\$ 6.71	\$ 4.40	\$ 2.07	
– diluted*	7.24	6.68	4.81	5.77	8.63	9.09	7.63	6.63	4.35	2.06	
Dividends declared per share	2.58	2.40	2.40	2.40	2.22	1.99	1.79	1.52	1.16	1.12	
Dividends paid per share	2.49	2.40	2.40	2.40	2.13	1.94	1.74	1.41	1.14	1.12	
Average number of common shares outstanding (in millions) – basic	322.6	319.5	315.2	333.6	363.0	385.3	397.1	417.4	424.0	422.8	
diluted	—	327.3	323.3	316.6	336.0	366.1	389.2	401.5	422.4	428.6	424.4
Total assets	\$70,108	\$65,786	\$ 57,918	\$ 57,883	\$ 61,267	\$ 59,454	\$ 56,193	\$ 48,146	\$ 43,186	\$ 41,023	
Trade accounts and notes receivable – net	5,004	3,925	3,011	3,051	3,278	3,758	3,799	3,295	3,464	2,617	
Financing receivables – net	27,054	25,104	23,702	24,809	27,422	25,633	22,159	19,924	17,682	15,255	
Financing receivables securitized – net	4,022	4,159	5,127	4,835	4,602	4,153	3,618	2,905	2,238	3,108	
Equipment on operating leases – net	7,165	6,594	5,902	4,970	4,016	3,152	2,528	2,150	1,936	1,733	
Inventories	6,149	3,904	3,341	3,817	4,210	4,935	5,170	4,371	3,063	2,397	
Property and equipment – net	5,868	5,068	5,171	5,181	5,578	5,467	5,012	4,352	3,791	4,532	
Short-term borrowings:											
Equipment operations	1,434	375	249	464	434	1,080	425	529	85	490	
Financial services	9,628	9,660	6,662	7,961	7,584	7,707	5,966	6,307	5,239	3,535	
Total	11,062	10,035	6,911	8,425	8,018	8,787	6,391	6,836	5,324	4,025	
Short-term securitization borrowings:											
Equipment operations	75										
Financial services	3,882	4,119	4,998	4,585	4,553	4,103	3,569	2,773	2,204	3,126	
Total	3,957	4,119	4,998	4,585	4,553	4,103	3,569	2,773	2,204	3,126	
Long-term borrowings:											
Equipment operations	4,714	5,491	4,565	4,439	4,619	4,845	5,418	3,155	3,316	3,058	
Financial services	22,523	20,400	19,138	19,336	19,699	16,673	16,970	13,764	13,424	14,232	
Total	27,237	25,891	23,703	23,775	24,318	21,518	22,388	16,919	16,740	17,290	
Total Deere & Company stockholders' equity	11,288	9,557	6,520	6,743	9,063	10,266	6,842	6,800	6,290	4,819	
Book value per share*	\$ 35.45	\$ 29.70	\$ 20.71	\$ 21.29	\$ 26.23	\$ 27.46	\$ 17.64	\$ 16.75	\$ 14.90	\$ 11.39	
Capital expenditures	\$ 969	\$ 586	\$ 668	\$ 655	\$ 1,004	\$ 1,132	\$ 1,360	\$ 1,050	\$ 795	\$ 767	
Number of employees (at year end)	74,413	60,476	56,767	57,180	59,623	67,044	66,859	61,278	55,650	51,262	

* Attributable to Deere & Company.

** Restated balances for adoption of ASU No. 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. See Note 3.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Deere & Company:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Deere & Company and subsidiaries (the "Company") as of October 28, 2018 and October 29, 2017, the related statements of consolidated income, consolidated comprehensive income, changes in consolidated stockholders' equity, and consolidated cash flows for each of the three years in the period ended October 28, 2018, and the related notes (collectively referred to as the "financial statements".) In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of October 28, 2018, and October 29, 2017, and the results of its operations and its cash flows for each of the three years in the period ended October 28, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also 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 October 28, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated December 17, 2018, expressed an unqualified opinion on the Company's internal control over financial reporting.

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/ DELOITTE & TOUCHE LLP
Chicago, Illinois
December 17, 2018

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Deere & Company:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Deere & Company and subsidiaries (the "Company") as of October 28, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 28, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended October 28, 2018, of the Company and our report dated December 17, 2018, expressed an unqualified opinion on those financial statements.

As described in Management's Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at the acquired entities and assets of Wirtgen Group Holding GmbH ("Wirtgen"), which was acquired in December 2017 and whose financial statements constitute 9 percent of both total assets and net sales and revenues of the consolidated financial statement amounts as of and for the year ended October 28, 2018. Accordingly, our audit did not include the internal control over financial reporting at Wirtgen.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the 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/ DELOITTE & TOUCHE LLP
Chicago, Illinois
December 17, 2018

- 2.1 [Share and Asset Sale and Purchase Agreement, dated May 31, 2017, between Deere & Company and Wirtgen Group Holding GmbH \(Exhibit 2.1 to Form 8-K of registrant dated June 1, 2017*\)](#)
 - 2.2 [Accession Agreement to the Share and Asset Sale and Purchase Agreement, dated November 24, 2017, between Wirtgen Group Holding GmbH as Seller, Deere & Company as Purchaser, and Purchaser's Nominees: John Deere GmbH & Co. KG, John Deere Construction & Forestry Company, John Deere Asia \(Singapore\) Private Limited, John Deere Holding S.à r.L., John Deere India Private Limited, John Deere-Lanz Verwaltungs-GmbH, John Deere Proprietary Limited, WMT GmbH, and John Deere Technologies S.C.S.](#)
 - 2.3 [First Amendment to the Share and Asset Sale and Purchase Agreement, dated November 24, 2017, between Deere & Company and Wirtgen Group Holding GmbH**](#)
 - 2.4 [Second Amendment to the Share and Asset Sale and Purchase Agreement, dated December 1, 2017, between Wirtgen Group Holding GmbH as Seller, Deere & Company as Purchaser, and Purchaser's Nominees: John Deere GmbH & Co. KG, John Deere Construction & Forestry Company, John Deere Asia \(Singapore\) Private Limited, John Deere Holding S.à r.L., John Deere India Private Limited, John Deere-Lanz Verwaltungs-GmbH, John Deere Proprietary Limited, WMT GmbH, and John Deere Technologies S.C.S.**](#)
 - 3.1 [Certificate of incorporation, as amended \(Exhibit 3.1 to Form 8-K of registrant dated February 26, 2010, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 3.2 [Certificate of Designation Preferences and Rights of Series A Participating Preferred Stock \(Exhibit 3.2 to Form 10-K of registrant for the year ended October 31, 1998, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 3.3 [Bylaws, as amended \(Exhibit 3.1 to Form 8-K of registrant dated September 1, 2016, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 4.1 [Form of common stock certificate \(Exhibit 4.6 to Form 10-K of registrant for the year ended October 31, 1998, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 4.2 [Indenture dated as of September 25, 2008 between the registrant and The Bank of New York Mellon, as Trustee \(Exhibit 4.1 to the registration statement on Form S-3ASR no. 333-153704, filed September 26, 2008, Securities and Exchange Commission file number 1-4121*\)](#)
 - 4.3 [Terms and Conditions of the Euro Medium Term Notes, published on February 2, 2017, applicable to the U.S. \\$3,000,000,000 Euro Medium Term Note Programme of registrant, John Deere Capital Corporation, John Deere Bank S.A., and John Deere Cash Management S.A. \(Exhibit 4.3 to Form 10-K of registrant for the year ended October 29, 2017, Securities and Exchange Commission File Number 1-4121*\)](#)
- Certain instruments relating to long-term debt constituting less than 10% of the registrant's total assets, are not filed as exhibits herewith pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K. The registrant will file copies of such instruments upon request of the Commission.
- 10.1 [Agreement as amended November 1, 1994 between registrant and John Deere Capital Corporation concerning agricultural retail notes \(Exhibit 10.1 to Form 10-K of registrant for the year ended October 31, 1998, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 10.2 [Agreement as amended November 1, 1994 between registrant and John Deere Capital Corporation relating to lawn and grounds care retail notes \(Exhibit 10.2 to Form 10-K of registrant for the year ended October 31, 1998, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 10.3 [Agreement as amended November 1, 1994 between John Deere Construction Equipment Company, a wholly-owned subsidiary of registrant and John Deere Capital Corporation concerning construction retail notes \(Exhibit 10.3 to Form 10-K of registrant for the year ended October 31, 1998, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 10.4 [Agreement dated July 14, 1997 between the John Deere Construction Equipment Company and John Deere Capital Corporation concerning construction retail notes \(Exhibit 10.4 to Form 10-K of registrant for the year ended October 31, 2003, Securities and Exchange Commission File Number 1-4121*\)](#)
 - 10.5 [Agreement dated November 1, 2003 between registrant and John Deere Capital Corporation](#)

relating to fixed charges ratio, ownership and minimum net worth of John Deere Capital Corporation (Exhibit 10.5 to Form 10-K of registrant for the year ended October 31, 2003, Securities and Exchange Commission File Number 1-4121*).

- 10.6 Deere & Company Voluntary Deferred Compensation Plan as amended January 2014 (Exhibit 10.6 to Form 10-K of registrant for the year ended October 31, 2014, Securities and Exchange Commission File Number 1-4121*).

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- 10.7 [John Deere Short-Term Incentive Bonus Plan as amended February 25, 2015 \(Appendix E to Proxy Statement of registrant filed January 14, 2015 Securities, and Exchange Commission File Number 1-4121*\)](#)
- 10.8 [John Deere Long-Term Incentive Cash Plan \(Appendix C to Proxy Statement of registrant filed January 12, 2018, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.9 [John Deere Omnibus Equity and Incentive Plan as amended February 25, 2015 \(Appendix D to Proxy Statement of registrant filed January 14, 2015, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.10 [Form of Terms and Conditions for John Deere Nonqualified Stock Option Grant \(Exhibit 10.10 to Form 10-K of registrant for the year ended October 31, 2010, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.11 [Form of John Deere Restricted and Performance Stock Unit Grant for Employees \(Exhibit 10.11 to Form 10-K of the registrant for the year ended October 31, 2012, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.12 [Form of John Deere Restricted Stock Unit Grant for Directors \(Exhibit 10.13 to Form 10-K of the registrant for the year ended October 31, 2008, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.13 [Form of Nonemployee Director Restricted Stock Grant \(Exhibit 10.13 to Form 10-K of registrant for the year ended October 31, 2004, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.14 [John Deere Defined Contribution Restoration Plan, as amended October 2016 \(Exhibit 10.14 to Form 10-K of registrant for the year ended October 29, 2017, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.15 [John Deere Supplemental Pension Benefit Plan, as amended October 2014 \(Exhibit 10.15 to Form 10-K of registrant for the year ended October 31, 2014, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.16 [John Deere Senior Supplementary Pension Benefit Plan as amended October 2014 \(Exhibit 10.16 to Form 10-K of registrant for the year ended October 31, 2014, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.17 [John Deere ERISA Supplementary Pension Benefit Plan as amended December 2011 \(Exhibit 10.17 to Form 10-K of registrant for the year ended October 31, 2014, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.18 [Nonemployee Director Stock Ownership Plan \(Appendix A to Proxy Statement of registrant filed on January 13, 2012, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.19 [Deere & Company Nonemployee Director Deferred Compensation Plan, as amended October 2016 \(Exhibit 10.19 to Form 10-K of registrant for the year ended October 29, 2017, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.20 [Change in Control Severance Program, effective August 26, 2009 \(Exhibit 10 to Form 8-K of registrant dated August 26, 2009, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.21 [Executive Incentive Award Recoupment Policy \(Exhibit 10.9 to Form 10-Q of registrant for the quarter ended January 31, 2008, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.22 [Asset Purchase Agreement dated October 29, 2001 between registrant and Deere Capital, Inc. concerning the sale of trade receivables \(Exhibit 10.19 to Form 10-K of registrant for the year ended October 31, 2001, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.23 [Asset Purchase Agreement dated October 29, 2001 between John Deere Construction & Forestry Company and Deere Capital, Inc. concerning the sale of trade receivables \(Exhibit 10.20 to Form 10-K of registrant for the year ended October 31, 2001, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.24 [Factoring Agreement dated September 20, 2002 between John Deere Bank S.A. \(as successor in interest to John Deere Finance S.A.\) and John Deere Vertrieb, a branch of Deere & Company, concerning the sale of trade receivables \(Exhibit 10.21 to Form 10-K of registrant for the year ended October 31, 2002, Securities and Exchange Commission File Number 1-4121*\)](#)

- 10.25 [Receivables Purchase Agreement dated August 23, 2002 between John Deere Bank S.A. \(as successor in interest to John Deere Finance S.A.\) and John Deere Limited \(Scotland\) concerning the sale of trade receivables \(Exhibit 10.22 to Form 10-K of registrant for the year ended October 31, 2002, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.26 [Joint Venture Agreement dated May 16, 1988 between registrant and Hitachi Construction Machinery Co., Ltd.\(\(Exhibit 10.26 to Form 10-K of registrant for the year ended October 31, 2005, Securities and Exchange Commission File Number 1-4121*\)](#)

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- 10.27 [Marketing Profit Sharing Agreement dated January 1, 2002 between John Deere Construction and Forestry Equipment Company \(also known as John Deere Construction & Forestry Company\) and Hitachi Construction Machinery Holding U.S.A. Corporation \(Exhibit 10.27 to Form 10-K of registrant for the year ended October 31, 2005, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.28 [Integrated Marketing Agreement dated October 16, 2001 between registrant and Hitachi Construction Machinery Co. Ltd. \(Exhibit 10.28 to Form 10-K of registrant for the year ended October 31, 2005, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.29 [2021 Credit Agreement among the registrant, John Deere Capital Corporation, John Deere Bank S.A., various financial institutions, JPMorgan Chase Bank, N.A., as administrative agent, Citibank, N.A. and Deutsche Bank Securities Inc., as documentation agents, and Bank of America, N.A., as syndication agent, dated February 17, 2017 \(Exhibit 10.1 to form 10-Q of registrant for the quarter ended January 29, 2017, Securities and Exchange Commission File Number 1-4121*\)](#)
- 10.30 [2022 Credit Agreement among the registrant, John Deere Capital Corporation, John Deere Bank S.A., various financial institutions, JPMorgan Chase Bank, N.A., as administrative agent, Citibank, N.A. and Deutsche Bank Securities Inc., as documentation agents, and Bank of America, N.A., as syndication agent, dated February 17, 2017 \(Exhibit 10.2 to form 10-Q of registrant for the quarter ended January 29, 2017, Securities and Exchange Commission File Number 1-4121*\)](#)
21. [Subsidiaries](#)
23. [Consent of Deloitte & Touche LLP](#)
24. [Power of Attorney \(included on signature page\)](#)
- 31.1 [Rule 13a-14\(a\)/15d-14\(a\) Certification](#)
- 31.2 [Rule 13a-14\(a\)/15d-14\(a\) Certification](#)
- 32 [Section 1350 Certifications](#)
- 101 Interactive Data File

* Incorporated by reference. Copies of these exhibits are available from the Company upon request.

** Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Deere hereby undertakes to furnish supplemental copies of any of the omitted schedules upon request by the U.S. Securities and Exchange Commission.

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.

DEERE & COMPANY

By: /s/ Samuel R. Allen

Samuel R. Allen
Chairman and Chief Executive Officer
(Principal Executive Officer)

Date: December 17, 2018

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

Each person signing below also hereby appoints Samuel R. Allen, Rajesh Kalathur and Todd E. Davies, and each of them singly, his or her lawful attorney-in-fact with full power to execute and file any and all amendments to this report together with exhibits thereto and generally to do all such things as such attorney-in-fact may deem appropriate to enable Deere & Company to comply with the provisions of the Securities Exchange Act of 1934 and all requirements of the Securities and Exchange Commission.

<i>/s/ Rajesh Kalathur</i>	Senior Vice President,)
Rajesh Kalathur	Chief Financial Officer and Chief Information Officer (Principal Financial Officer and Principal Accounting Officer)))))
<i>/s/ Gregory R. Page</i>	Director))))
Gregory R. Page))))
<i>/s/ Sherry M. Smith</i>	Director)))
Sherry M. Smith)))
<i>/s/ Dmitri L. Stockton</i>	Director)))
Dmitri L. Stockton)))
<i>/s/ Sheila G. Talton</i>	Director)))
Sheila G. Talton))

