

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549



**FORM 10-K**

(Mark One)

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

For the fiscal year ended December 31, 2015

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_.

Commission File No. 1-768

**CATERPILLAR INC.**

(Exact name of Registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation)

**37-0602744**

(IRS Employer I.D. No.)

**100 NE Adams Street, Peoria, Illinois**

(Address of principal executive offices)

**61629**

(Zip Code)

Registrant's telephone number, including area code: **(309) 675-1000**

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

Title of each class	Name of each exchange on which registered
Common Stock (\$1.00 par value) <sup>(1)</sup>	New York Stock Exchange
9 3/8% Debentures due March 15, 2021	New York Stock Exchange
8% Debentures due February 15, 2023	New York Stock Exchange
5.3% Debentures due September 15, 2035	New York Stock Exchange

<sup>(1)</sup> In addition to the New York Stock Exchange, Caterpillar common stock is also listed on stock exchanges in France and Switzerland.

Securities registered pursuant to Section 12(g) of the Act: **None**

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

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

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

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

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

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller Reporting Company ☐

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

As of June 30, 2015, there were 602,632,543 shares of common stock of the Registrant outstanding, and the aggregate market value of the voting stock held by non-affiliates of the Registrant (assuming only for purposes of this computation that directors and executive officers may be affiliates) was approximately \$51.0 billion.

As of December 31, 2015, there were 582,321,890 shares of common stock of the Registrant outstanding.

#### **Documents Incorporated by Reference**

Portions of the documents listed below have been incorporated by reference into the indicated parts of this Form 10-K, as specified in the responses to the item numbers involved.

Part III                      2016 Annual Meeting Proxy Statement (Proxy Statement) to be filed with the Securities and Exchange Commission (SEC) within 120 days after the end of the calendar year.

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## **PART I**

### **Item 1. Business.**

#### **General**

Originally organized as Caterpillar Tractor Co. in 1925 in the State of California, our company was reorganized as Caterpillar Inc. in 1986 in the State of Delaware. As used herein, the term “Caterpillar,” “we,” “us,” “our” or “the company” refers to Caterpillar Inc. and its subsidiaries unless designated or identified otherwise.

#### **Overview**

With 2015 sales and revenues of \$47.011 billion, Caterpillar is the world’s leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. The company principally operates through its three product segments - Construction Industries, Resource Industries and Energy & Transportation - and also provides financing and related services through its Financial Products segment. Caterpillar is also a leading U.S. exporter. Through a global network of independent dealers and direct sales of certain products, Caterpillar builds long-term relationships with customers around the world.

Currently, we have seven operating segments, of which four are reportable segments and are described below. Further information about our reportable segments, including geographic information, appears in Note 23 — “Segment information” of Part II, Item 8 “Financial Statements and Supplementary Data.”

#### **Categories of Business Organization**

1. **Machinery, Energy & Transportation** — Represents the aggregate total of Construction Industries, Resource Industries, Energy & Transportation and All Other operating segments and related corporate items and eliminations.

2. **Financial Products** — Primarily includes the company’s Financial Products Segment. This category includes Caterpillar Financial Services Corporation (Cat Financial), Caterpillar Financial Insurance Services (Insurance Services) and their respective subsidiaries.

Other information about our operations in 2015, including certain risks associated with our operations, is included in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

#### ***Construction Industries***

Our Construction Industries segment is primarily responsible for supporting customers using machinery in infrastructure and building construction applications. The majority of machine sales in this segment are made in the heavy and general construction, rental, quarry and aggregates markets and mining.

Customer demand for construction machinery has generally been characterized over the past decade by a shift from developed to developing economies. Customers in developing economies often prioritize purchase price in making their investment decisions, while customers in developed economies generally weigh productivity and other performance criteria that contribute to lower lifetime owning and operating costs of a machine. To meet customer expectations in developing economies, Caterpillar developed differentiated product offerings that target customers in those markets, including our SEM brand machines. We believe that these customer-driven product innovations enable us to compete more effectively in developing economies. In those developed economies that are subject to diesel engine emission requirements, we continued our multi-year roll out of products designed to meet those requirements. The majority of Construction Industries’ research and development spending in 2015 focused on the next generation of construction machines.

The competitive environment for construction machinery is characterized by some global competitors and many regional and specialized local competitors. Examples of global competitors include Komatsu Ltd., Volvo Construction Equipment (part of the Volvo Group), CNH Industrial N.V., Deere & Company, Hitachi Construction Machinery Co., Ltd., J.C. Bamford Excavators Ltd., Doosan Infracore Co. Ltd., and Hyundai Construction Equipment (part of Hyundai Heavy Industries). As an example of regional and local competitors, our competitors in China also include Guangxi LiuGong Machinery Co., Ltd., Longking Holdings Ltd., Sany Heavy Industry Co., Ltd., Xiamen XGMA Machinery Co., Ltd., XCMG Group, The Shandong Heavy Industry Group Co., Ltd. (Shantui Construction Machinery Co., Ltd.), Strong Construction Machinery Co., Ltd., and

Shandong Lingong Construction Machinery Co., Ltd. (part of Volvo Group). Each of these companies has varying product lines that compete with Caterpillar products, and each has varying degrees of regional focus.

The Construction Industries product portfolio includes the following machines and related parts:

- |                         |  |                              |
|-------------------------|--|------------------------------|
| · backhoe loaders       | · compact wheel loaders                    | · small track-type tractors  |
| · small wheel loaders   | · track-type loaders                       | · medium track-type tractors |
| · skid steer loaders    | · mini excavators                          | · select work tools          |
| · multi-terrain loaders | · small, medium and large track excavators | · motor graders              |
| · medium wheel loaders  | · wheel excavators                         | · telehandlers               |
| · compact track loaders | · pipelayers                               | · mid-tier soil compactors   |

### ***Resource Industries***

The Resource Industries segment is primarily responsible for supporting customers using machinery in mine and quarry applications. Caterpillar offers mining customers the broadest product range in the industry. We manufacture high productivity equipment for both surface and underground mining operations around the world. Our equipment is used to extract and haul copper, iron ore, coal, oil sands, aggregates, gold and other minerals and ores. In addition to equipment, Resource Industries also develops and sells technology to provide customers fleet management systems, equipment management analytics and autonomous machine capabilities.

Customers in most markets place an emphasis on equipment that is highly productive, reliable and provides the lowest total cost of ownership over the life of the equipment. In some developing markets, customers often prioritize purchase price in making their investment decisions. We believe our ability to control the integration and design of key machine components represents a competitive advantage. Our research and development efforts remain focused on providing mining and quarry customers the lowest total cost of ownership enabled through the highest quality, most productive products in the industry.

The competitive environment for Resource Industries consists of a few larger global competitors that compete in several of the markets that we serve and a substantial number of smaller companies that compete in a more limited range of products, applications, and regional markets. Our global surface competitors include Komatsu Ltd., Joy Global, Inc., Hitachi Construction Machinery Co., Ltd., Volvo Construction Equipment, Atlas Copco AB, and Sandvik Mining. Our global underground competitors include Joy Global, Inc., Atlas Copco AB, Sandvik Mining and Zhengzhou Coal Mining Machinery Group Co., Ltd.

The Resource Industries product portfolio includes the following machines and related parts:

- |                           |                             |                                       |
|---------------------------|-----------------------------|---------------------------------------|
| · electric rope shovels   | · large track-type tractors | · wheel tractor scrapers              |
| · draglines               | · large mining trucks       | · wheel dozers                        |
| · hydraulic shovels       | · longwall miners           | · machinery components                |
| · track and rotary drills | · large wheel loaders       | · electronics and control systems     |
| · highwall miners         | · off-highway trucks        | · select work tools                   |
| · hard rock vehicles      | · articulated trucks        | · hard rock continuous mining systems |
| · continuous miners       | · scoops and haulers        |                                       |

### ***Energy & Transportation***

Our Energy & Transportation segment supports customers in oil and gas, power generation, marine, rail and industrial applications, including Cat® machines. The product and services portfolio includes reciprocating engines, generator sets, marine propulsion systems, gas turbines and turbine-related services, diesel-electric locomotives and other rail-related products and services.

Regulatory emissions standards of the U.S. Environmental Protection Agency (EPA) and comparable standards in other developed economies have required us to make significant investments in research and development that will continue as new products and similar regulations are introduced over the next several years. We believe that our emissions technology provides a competitive advantage in connection with emissions standards compliance and performance.

The competitive environment for reciprocating engines in marine, oil and gas, industrial and electric power generation systems along with turbines consists of a few larger global competitors that compete in a variety of markets that Caterpillar serves, and a substantial number of smaller companies that compete in a limited-size product range, geographic region and/or application. Principal global competitors include Cummins Inc., Rolls-Royce Power System, GE Oil & Gas, GE Power & Water, Deutz AG and Wärtsilä Corp. Other competitors, such as MAN Diesel & Turbo SE, Siemens Energy, Rolls-Royce Marine, Mitsubishi Heavy Industries Ltd., Volvo Penta, Weichai Power Co., Ltd., Kirloskar Oil Engines Limited and other emerging market competitors compete in certain markets in which Caterpillar competes. An additional set of competitors, including Generac Power Systems, Inc., Kohler Co., Inc., Aggreko plc and others, are packagers who source engines and/or other components from domestic and international suppliers and market products regionally and internationally through a variety of distribution channels. In rail-related businesses, our global competitors include GE Transportation, Vossloh AG, Siemens Akteingesellschaft, Alstom Transport SA, and Voestalpine AG. We also compete with other companies on a more limited range of products, services and/or geographic regions.

The Energy & Transportation portfolio includes the following products and related parts:

- reciprocating engine powered generator sets
- reciprocating engines supplied to the industrial industry as well as Caterpillar machinery
- integrated systems used in the electric power generation industry
- turbines, centrifugal gas compressors and related services
- reciprocating engines and integrated systems and solutions for the marine and oil and gas industries
- diesel-electric locomotives and components and other rail-related products and services

### ***Financial Products Segment***

The business of our Financial Products segment is primarily conducted by Cat Financial, a wholly owned finance subsidiary of Caterpillar. Cat Financial's primary business is to provide retail and wholesale financing alternatives for Caterpillar products to customers and dealers around the world. Retail financing is primarily comprised of the financing of Caterpillar equipment, machinery and engines. Cat Financial also provides financing for vehicles, power generation facilities and marine vessels that, in most cases, incorporate Caterpillar products. In addition to retail financing, Cat Financial provides wholesale financing to Caterpillar dealers and purchases short-term trade receivables from Caterpillar and its subsidiaries. The various financing plans offered by Cat Financial are primarily designed to increase the opportunity for sales of Caterpillar products and generate financing income for Cat Financial. A significant portion of Cat Financial's activities is conducted in North America. Cat Financial also has offices and subsidiaries in Asia/Pacific, Europe and Latin America.

For over 30 years, Cat Financial has been providing financing in the various markets in which it participates, contributing to its knowledge of asset values, industry trends, product structuring and customer needs.

In certain instances, Cat Financial's operations are subject to supervision and regulation by state, federal and various foreign governmental authorities, and may be subject to various laws and judicial and administrative decisions imposing various requirements and restrictions which, among other things, (i) regulate credit granting activities and the administration of loans, (ii) establish maximum interest rates, finance charges and other charges, (iii) require disclosures to customers and investors, (iv) govern secured transactions, (v) set collection, foreclosure, repossession and other trade practices and (vi) regulate the use and reporting of information related to a borrower's credit experience. Cat Financial's ability to comply with these and other governmental and legal requirements and restrictions affects its operations.

Cat Financial's retail leases and installment sale contracts (totaling 53 percent\*) include:

- Tax leases that are classified as either operating or finance leases for financial accounting purposes, depending on the characteristics of the lease. For tax purposes, Cat Financial is considered the owner of the equipment (14 percent\*).
- Finance (non-tax) leases, where the lessee for tax purposes is considered to be the owner of the equipment during the term of the lease, that either require or allow the customer to purchase the equipment for a fixed price at the end of the term (17 percent\*).
- Installment sale contracts, which are equipment loans that enable customers to purchase equipment with a down payment or trade-in and structure payments over time (21 percent\*).

- Governmental lease-purchase plans in the U.S. that offer low interest rates and flexible terms to qualified non-federal government agencies (1 percent\*).

Cat Financial's wholesale notes receivable, finance leases and installment sale contracts (totaling 13 percent\*) include:

- Inventory/rental programs, which provide assistance to dealers by financing their new Caterpillar inventory and rental fleets (5 percent\*).
- Short-term trade receivables Cat Financial purchased from Caterpillar at a discount (8 percent\*).

Cat Financial's retail notes receivables (34 percent\*) include:

- Loans that allow customers and dealers to use their Caterpillar equipment or other assets as collateral to obtain financing.

\*Indicates the percentage of Cat Financial's total portfolio at December 31, 2015. We define total portfolio as total finance receivables (net of unearned income and allowance for credit losses) plus equipment on operating leases, less accumulated depreciation. For more information on the above and Cat Financial's concentration of credit risk, please refer to Note 6 — "Cat Financial Financing Activities" of Part II, Item 8 "Financial Statements and Supplementary Data."

Cat Financial operates in a highly competitive environment, with financing for users of Caterpillar equipment available through a variety of sources, principally commercial banks and finance and leasing companies. Cat Financial's competitors include Wells Fargo Equipment Finance Inc., General Electric Capital Corporation and various other banks and finance companies. In addition, many of our manufacturing competitors own financial subsidiaries such as Volvo Financial Services, Komatsu Financial L.P. and John Deere Capital Corporation that utilize below-market interest rate programs (funded by the manufacturer) to assist machine sales. Caterpillar and Cat Financial work together to provide a broad array of financial merchandising programs around the world to meet these competitive offers.

Cat Financial's financial results are largely dependent upon the ability of Caterpillar dealers to sell equipment and customers' willingness to enter into financing or leasing agreements. It is also affected by, among other things, the availability of funds from its financing sources, general economic conditions such as inflation and market interest rates and its cost of funds relative to its competitors.

Cat Financial has a match-funding policy that addresses interest rate risk by aligning the interest rate profile (fixed or floating rate) of its debt portfolio with the interest rate profile of its receivables portfolio within predetermined ranges on an ongoing basis. In connection with that policy, Cat Financial uses interest rate derivative instruments to modify the debt structure to match assets within the receivables portfolio. This matched funding reduces the volatility of margins between interest-bearing assets and interest-bearing liabilities, regardless of which direction interest rates move. For more information regarding match funding, please see Note 3 — "Derivative financial instruments and risk management" of Part II, Item 8 "Financial Statements and Supplementary Data." See also the risk factors on pages 9 through 18 for general risks associated with our financial products business included in Item 1A. of this Form 10-K.

In managing foreign currency risk for Cat Financial's operations, the objective is to minimize earnings volatility resulting from conversion and the remeasurement of net foreign currency balance sheet positions, and future transactions denominated in foreign currencies. This policy allows the use of foreign currency forward, option and cross currency contracts to offset the risk of currency mismatch between the receivable and debt portfolios, and exchange rate risk associated with future transactions denominated in foreign currencies.

Cat Financial provides financing only when certain criteria are met. Credit decisions are based on a variety of credit quality factors including prior payment experience, customer financial information, credit-rating agency ratings, loan-to-value ratios and other internal metrics. Cat Financial typically maintains a security interest in retail-financed equipment and requires physical damage insurance coverage on financed equipment. Cat Financial finances a significant portion of Caterpillar dealers' sales and inventory of Caterpillar equipment throughout the world. Cat Financial's competitive position is improved by marketing programs offered in conjunction with Caterpillar and/or Caterpillar dealers. Under these programs, Caterpillar, or the dealer, funds an amount at the outset of the transaction, which Cat Financial then recognizes as revenue over the term of the financing. We believe that these marketing programs provide Cat Financial a significant competitive advantage in financing Caterpillar products.

Caterpillar Insurance Company, a wholly owned subsidiary of Insurance Services, is a U.S. insurance company domiciled in Missouri and primarily regulated by the Missouri Department of Insurance. Caterpillar Insurance Company is licensed to conduct property and casualty insurance business in 50 states and the District of Columbia and, as such, is also regulated in those jurisdictions. The State of Missouri acts as the lead regulatory authority and monitors Caterpillar Insurance Company's financial status to ensure that it is in compliance with minimum solvency requirements, as well as other financial ratios prescribed by the National Association of Insurance Commissioners. Caterpillar Insurance Company is also licensed to conduct insurance business through a branch in Zurich, Switzerland and, as such, is regulated by the Swiss Financial Market Supervisory Authority.

Caterpillar Life Insurance Company, a wholly owned subsidiary of Caterpillar, is a U.S. insurance company domiciled in Missouri and primarily regulated by the Missouri Department of Insurance. Caterpillar Life Insurance Company is licensed to conduct life and accident and health insurance business in 26 states and the District of Columbia and, as such, is also regulated in those jurisdictions. The State of Missouri acts as the lead regulatory authority and it monitors the financial status to ensure that it is in compliance with minimum solvency requirements, as well as other financial ratios prescribed by the National Association of Insurance Commissioners. Caterpillar Life Insurance Company provides stop loss insurance protection to a Missouri Voluntary Employees' Beneficiary Association (VEBA) trust used to fund medical claims of salaried retirees of Caterpillar under the VEBA.

Caterpillar Insurance Co. Ltd., a wholly owned subsidiary of Insurance Services, is a captive insurance company domiciled in Bermuda and regulated by the Bermuda Monetary Authority. Caterpillar Insurance Co. Ltd. is a Class 2 insurer (as defined by the Bermuda Insurance Amendment Act of 1995), which primarily insures its parent and affiliates. The Bermuda Monetary Authority requires an Annual Financial Filing for purposes of monitoring compliance with solvency requirements.

Caterpillar Product Services Corporation (CPSC), a wholly owned subsidiary of Caterpillar, is a warranty company domiciled in Missouri. CPSC previously conducted a machine extended service contract program in Germany and France by providing machine extended warranty reimbursement protection to dealers in Germany and France. The program was discontinued effective January 1, 2013, though CPSC continues to provide extended warranty reimbursement protection under existing contracts.

Caterpillar Insurance Services Corporation, a wholly owned subsidiary of Insurance Services, is a Tennessee insurance brokerage company licensed in all 50 states and the District of Columbia. It provides brokerage services for all property and casualty and life and health lines of business.

Caterpillar's insurance group provides protection for claims under the following programs:

- Contractual Liability Insurance to Caterpillar and its affiliates, Caterpillar dealers and original equipment manufacturers (OEMs) for extended service contracts (parts and labor) offered by Caterpillar, third party dealers and OEMs.
- Cargo insurance for the worldwide cargo risks of Caterpillar products.
- Contractors' Equipment Physical Damage Insurance for equipment manufactured by Caterpillar or OEMs, which is leased, rented or sold by third party dealers to customers.
- General liability, employer's liability, auto liability and property insurance for Caterpillar.
- Retiree Medical Stop Loss Insurance for medical claims under the VEBA.
- Brokerage services for property and casualty and life and health business.

### **Acquisitions**

Information related to acquisitions appears in Note 24 — "Acquisitions" of Part II, Item 8 "Financial Statements and Supplementary Data."



### **Competitive Environment**

Caterpillar products and product support services are sold worldwide into a variety of highly competitive markets. In all markets, we compete on the basis of product performance, customer service, quality and price. From time to time, the intensity of competition results in price discounting in a particular industry or region. Such price discounting puts pressure on margins and can negatively impact operating profit. Outside the United States, certain of our competitors enjoy competitive advantages inherent to operating in their home countries or regions.

### **Raw Materials and Component Products**

We source our raw materials and manufactured components from suppliers both domestically and internationally. These purchases include unformed materials and rough and finished parts. Unformed materials include a variety of steel products, which are then cut or formed to shape and machined in our facilities. Rough parts include various sized steel and iron castings and forgings, which are machined to final specification levels inside our facilities. Finished parts are ready to assemble components, which are made either to Caterpillar specifications or to the supplier developed specifications. We machine and assemble some of the components used in our machines, engines and power generation units and to support our after-market dealer parts sales. We also purchase various goods and services used in production, logistics, offices and product development processes. We maintain global strategic sourcing models to meet our global facilities' production needs while building long-term supplier relationships and leveraging enterprise spend. We expect our suppliers to maintain, at all times, industry-leading levels of quality and the ability to timely deliver raw materials and component products for our machine and engine products. We use a variety of agreements with suppliers to protect our intellectual property and processes to monitor and mitigate risks of the supply base causing a business disruption. The risks monitored include supplier financial viability, the ability to increase or decrease production levels, business continuity, quality and delivery.

### **Patents and Trademarks**

Our products are sold primarily under the brands "Caterpillar," "CAT," design versions of "CAT" and "Caterpillar," "Electro-Motive," "FG Wilson," "MaK," "MWM," "Perkins," "Progress Rail," "SEM" and "Solar Turbines." We own a number of patents and trademarks, which have been obtained over a period of years and relate to the products we manufacture and the services we provide. These patents and trademarks have been of value in the growth of our business and may continue to be of value in the future. We do not regard our business as being dependent upon any single patent or group of patents.

### **Order Backlog**

The dollar amount of backlog believed to be firm was approximately \$13.0 billion at December 31, 2015 and \$17.3 billion at December 31, 2014. Compared to year-end 2014, the order backlog declined about \$4.3 billion. The decrease was split about evenly across Construction Industries, Energy & Transportation and Resource Industries. Of the total backlog at December 31, 2015, approximately \$4.0 billion was not expected to be filled in 2016.

### **Dealers and Distributors**

Our machines are distributed principally through a worldwide organization of dealers (dealer network), 48 located in the United States and 127 located outside the United States, serving 182 countries and operating 3,593 places of business, including 1,274 dealer rental outlets. Reciprocating engines are sold principally through the dealer network and to other manufacturers for use in products. Some of the reciprocating engines manufactured by our subsidiary Perkins Engines Company Limited, are also sold through its worldwide network of 97 distributors covering 180 countries. The FG Wilson branded electric power generation systems manufactured by our subsidiary Caterpillar Northern Ireland Limited are sold through its worldwide network of 290 distributors located in 145 countries. Some of the large, medium speed reciprocating engines are also sold under the MaK brand through a worldwide network of 19 distributors located in 130 countries.

Our dealers do not deal exclusively with our products; however, in most cases sales and servicing of our products are the dealers' principal business. Some products, primarily turbines and locomotives, are sold directly to end customers through sales forces employed by the company. At times, these employees are assisted by independent sales representatives.

While the large majority of our worldwide dealers are independently owned and operated, we own and operate a dealership in Japan that covers approximately 85% of the Japanese market: Nippon Caterpillar Division. We are currently operating this Japanese dealer directly and its results are reported in the All Other operating segments. There are also three independent dealers in the Southern Region of Japan.

For Caterpillar branded products, the company's relationship with each of its independent dealers is memorialized in standard sales and service agreements. Pursuant to this agreement, the company grants the dealer the right to purchase and sell its products and to service the products in a specified geographic service territory. Prices to dealers are established by the company after receiving input from dealers on transactional pricing in the marketplace. The company also agrees to defend its intellectual property and to provide warranty and technical support to the dealer. The agreement further grants the dealer a non-exclusive license to use the company's trademarks, service marks and brand names. In some instances, a separate trademark agreement exists between the company and a dealer.

In exchange for these rights, the agreement obligates the dealer to develop and promote the sale of the company's products to current and prospective customers in the dealer's service territory. Each dealer agrees to employ adequate sales and support personnel to market, sell and promote the company's products, demonstrate and exhibit the products, perform the company's product improvement programs, inform the company concerning any features that might affect the safe operation of any of the company's products and maintain detailed books and records of the dealer's financial condition, sales and inventories and make these books and records available at the company's reasonable request.

These sales and service agreements are terminable at will by either party primarily upon 90 days written notice and provide for termination automatically if the dealer files for bankruptcy protection or upon the occurrence of comparable action seeking protection from creditors.

### **Research and Development**

We have always placed strong emphasis on product-oriented research and development relating to the development of new or improved machines, engines and major components. In 2015, 2014 and 2013, we spent \$2,165 million, \$2,135 million and \$2,046 million, or 4.6, 3.9 and 3.7 percent of our sales and revenues, respectively, on our research and development programs.

### **Employment**

As of December 31, 2015, we employed about 105,700 full-time persons of whom approximately 58,000 were located outside the United States. In the United States, we employed approximately 47,700 employees, most of whom are at-will employees and, therefore, not subject to any type of employment contract or agreement. Full-time employment at the end of 2015 includes approximately 2,100 employees who participated in the U.S. voluntary retirement enhancement program in the U.S. and left the company January 1, 2016. At select business units, certain highly specialized employees have been hired under employment contracts that specify a term of employment and specify pay and other benefits.

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#### **Full-Time Employees at Year-End**

	<b>2015</b>	<b>2014</b>
Inside U.S.....	<b>47,700</b>	50,800
Outside U.S.....	<b>58,000</b>	63,400
Total.....	<b>105,700</b>	114,200
By Region:		
North America.....	<b>48,000</b>	51,200
EAME.....	<b>21,300</b>	23,200
Latin America.....	<b>12,300</b>	14,400
Asia/Pacific .....	<b>24,100</b>	25,400
Total.....	<b>105,700</b>	114,200

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As of December 31, 2015, there were approximately 8,200 U.S. hourly production employees who were covered by collective bargaining agreements with various labor unions, including The United Automobile, Aerospace and Agricultural Implement Workers of America (UAW), The International Association of Machinists and The United Steelworkers. Approximately 6,100 of such employees are covered by collective bargaining agreements with the UAW that expire on March 1, 2017 and December 17, 2018. Outside the United States, the company enters into employment contracts and agreements in those countries in which such relationships are mandatory or customary. The provisions of these agreements generally correspond in each case with the required or customary terms in the subject jurisdiction.

## **Sales and Revenues**

Sales and revenues outside the United States were 59 percent of consolidated sales and revenues for 2015, 62 percent for 2014 and 67 percent for 2013.

## **Environmental Matters**

The company is regulated by federal, state and international environmental laws governing our use, transport and disposal of substances and control of emissions. In addition to governing our manufacturing and other operations, these laws often impact the development of our products, including, but not limited to, required compliance with air emissions standards applicable to internal combustion engines. We have made, and will continue to make, significant research and development and capital expenditures to comply with these emissions standards.

We are engaged in remedial activities at a number of locations, often with other companies, pursuant to federal and state laws. When it is probable we will pay remedial costs at a site, and those costs can be reasonably estimated, the investigation, remediation, and operating and maintenance costs are accrued against our earnings. Costs are accrued based on consideration of currently available data and information with respect to each individual site, including available technologies, current applicable laws and regulations, and prior remediation experience. Where no amount within a range of estimates is more likely, we accrue the minimum. Where multiple potentially responsible parties are involved, we consider our proportionate share of the probable costs. In formulating the estimate of probable costs, we do not consider amounts expected to be recovered from insurance companies or others. We reassess these accrued amounts on a quarterly basis. The amount recorded for environmental remediation is not material and is included in the line item "Accrued expenses" in Statement 3 — "Consolidated Financial Position at December 31" of Part II, Item 8 "Financial Statements and Supplementary Data." There is no more than a remote chance that a material amount for remedial activities at any individual site, or at all the sites in the aggregate, will be required.

## **Available Information**

The company files electronically with the Securities and Exchange Commission (SEC) required reports on Form 8-K, Form 10-Q, Form 10-K and Form 11-K; proxy materials; ownership reports for insiders as required by Section 16 of the Securities Exchange Act of 1934 (Exchange Act); and registration statements on Forms S-3 and S-8, as necessary; and other forms or reports as required. The public may read and copy any materials the company has filed with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website ([www.sec.gov](http://www.sec.gov)) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The company maintains a website ([www.Caterpillar.com](http://www.Caterpillar.com)) and copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to these reports filed or furnished with the SEC are available free of charge through our website ([www.Caterpillar.com/secfilings](http://www.Caterpillar.com/secfilings)) as soon as reasonably practicable after filing with the SEC. Copies of our board committee charters, our board's Guidelines on Corporate Governance Issues, Worldwide Code of Conduct and other corporate governance information are available on our website ([www.Caterpillar.com/governance](http://www.Caterpillar.com/governance)). The information contained on the company's website is not included in, or incorporated by reference into, this annual report on Form 10-K.

Additional company information may be obtained as follows:

### ***Current information -***

- phone our Information Hotline - (800) 228-7717 (U.S. or Canada) or (858) 764-9492 (outside U.S. or Canada) to request company publications by mail, listen to a summary of Caterpillar's latest financial results and current outlook, or to request a copy of results
- request, view or download materials on-line or register for email alerts at [www.Caterpillar.com/materialsrequest](http://www.Caterpillar.com/materialsrequest)

### ***Historical information -***

- view/download on-line at [www.Caterpillar.com/historical](http://www.Caterpillar.com/historical)

## Item 1A. Risk Factors.

The statements in this section describe the most significant risks to our business and should be considered carefully in conjunction with Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the "Notes to Consolidated Financial Statements" of Part II, Item 8 "Financial Statements and Supplementary Data" to this Form 10-K. In addition, the statements in this section and other sections of this Form 10-K, including in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" include "forward-looking statements" as that term is defined in the Private Securities Litigation Reform Act of 1995 and involve uncertainties that could significantly impact results. Forward-looking statements give current expectations or forecasts of future events about the company or our outlook. You can identify forward-looking statements by the fact they do not relate to historical or current facts and by the use of words such as "believe," "expect," "estimate," "anticipate," "will be," "should," "plan," "project," "intend," "could" and similar words or expressions.

Forward-looking statements are based on assumptions and on known risks and uncertainties. Although we believe we have been prudent in our assumptions, any or all of our forward-looking statements may prove to be inaccurate, and we can make no guarantees about our future performance. Should known or unknown risks or uncertainties materialize or underlying assumptions prove inaccurate, actual results could materially differ from past results and/or those anticipated, estimated or projected.

We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise. You should, however, consult any subsequent disclosures we make in our filings with the SEC on Form 10-Q or Form 8-K.

The following is a cautionary discussion of risks, uncertainties and assumptions that we believe are significant to our business. In addition to the factors discussed elsewhere in this report, the following are some of the important factors that, individually or in the aggregate, we believe could make our actual results differ materially from those described in any forward-looking statements. It is impossible to predict or identify all such factors and, as a result, you should not consider the following factors to be a complete discussion of risks, uncertainties and assumptions.

### **Our business is highly sensitive to global and regional economic conditions and economic conditions in the industries we serve.**

Our results of operations are materially affected by economic conditions globally and regionally and in the particular industries we serve. The demand for our products and services tends to be cyclical and can be significantly reduced in an economic environment characterized by lower levels of government and business investment, lower levels of business confidence, lower corporate earnings, perceived or actual industry overcapacity, higher unemployment and lower consumer spending. A prolonged period of slow growth may also reduce demand for our products and services. Economic conditions vary across regions and countries, and demand for our products and services generally increases in those regions and countries experiencing economic growth and investment. A change in the global mix of regions and countries experiencing economic growth and investment could have an adverse effect on our business, results of operations and financial condition.

The energy and mining industries are major users of our products, including the coal, iron ore, gold, copper, oil and natural gas industries. Decisions to purchase our products are dependent upon the performance of these industries, which in turn are dependent in part on commodity prices. Prices of commodities in these industries are frequently volatile and can change abruptly and unpredictably in response to general economic conditions, economic growth, government actions, regulatory actions, commodity inventories, production levels, market expectations and any disruptions in production or distribution. We assume certain prices for key commodities in preparing our general economic and financial outlooks (outlooks). Commodity prices lower than those assumed in our outlooks may negatively impact our business, results of operations and financial condition. Economic conditions affecting the industries we serve may in the future also lead to reduced capital expenditures by our customers. Reduced capital expenditures by our customers are likely to lead to a decrease in the demand for our products and may also result in a decrease in demand for aftermarket parts as customers are likely to extend preventative maintenance schedules and delay major overhauls when possible.

The rates of infrastructure spending, housing starts and commercial construction also play a significant role in our results. Our products are an integral component of these activities, and as these activities decrease, demand for our products may be significantly impacted, which could negatively impact our results. Slower rates of economic growth than anticipated in our outlooks could also adversely impact our business, results of operations and financial condition.

**Changes in government monetary or fiscal policies may negatively impact our results.**

Most countries where our products and services are sold have established central banks to regulate monetary systems and influence economic activities, generally by adjusting interest rates. Interest rate changes affect overall economic growth, which affects demand for residential and nonresidential structures, as well as energy and mined products, which in turn affects sales of our products and services that serve these activities. Interest rate changes also affect our customers' ability to finance machine purchases, can change the optimal time to keep machines in a fleet and can impact the ability of our suppliers to finance the production of parts and components necessary to manufacture and support our products. Our outlooks typically include assumptions about interest rates in a number of countries. Increases in interest rates could negatively impact sales and create supply chain inefficiencies.

Central banks and other policy arms of many countries take actions to vary the amount of liquidity and credit available in an economy. Liquidity and credit policies different from those assumed in our outlooks could impact the customers and markets we serve or our suppliers, which could adversely impact our business, results of operations and financial condition.

Changes in monetary and fiscal policies, along with other factors, may cause currency exchange rates to fluctuate. Actions that lead the currency exchange rate of a country where we manufacture products to increase relative to other currencies could reduce the competitiveness of products made in that country, which could adversely affect our competitive position, results of operations and financial condition.

Government policies on taxes and spending also affect our business. Throughout the world, government spending finances a significant portion of infrastructure development, such as highways, airports, sewer and water systems and dams. Tax regulations determine depreciation lives and the amount of money users of our products can retain, both of which influence investment decisions. Unfavorable developments, such as declines in government revenues, decisions to reduce public spending or increases in taxes, could negatively impact our results.

**Commodity price changes, component price increases, fluctuations in demand for our products or significant shortages of component products may adversely impact our financial results or our ability to meet commitments to customers.**

We are a significant user of steel and many other commodities required for the manufacture of our products. Unanticipated increases in the prices of such commodities would increase our costs, negatively impacting our business, results of operations and financial condition if we are unable to fully offset the effect of these increased costs through price increases, productivity improvements or cost reduction programs.

We rely on suppliers to secure component products, particularly steel, required for the manufacture of our products. A disruption in deliveries to or from suppliers or decreased availability of components or commodities could have an adverse effect on our ability to meet our commitments to customers or increase our operating costs. On the other hand, if demand for our products is less than we expect, we may experience excess inventories and be forced to incur additional charges and our profitability may suffer. Our business, competitive position, results of operations or financial condition could be negatively impacted if supply is insufficient for our operations, if we experience excess inventories or if we are unable to adjust our production schedules or our purchases from suppliers to reflect changes in customer demand and market fluctuations on a timely basis.

**Disruptions or volatility in global financial markets could limit our sources of liquidity, or the liquidity of our customers, dealers and suppliers.**

Global economic conditions may cause volatility and disruptions in the capital and credit markets. Although we have generated funds from our operations to pay our operating expenses, fund our capital expenditures and support growth, fund our employee retirement benefit programs, pay dividends and buy back stock, continuing to meet these cash requirements over the long-term requires substantial liquidity and access to varied sources of funds, including capital and credit markets. Changes in global economic conditions, including material cost increases and decreases in economic activity in the markets that we serve, and the success of plans to manage cost increases, inventory and other important elements of our business may significantly impact our ability to generate funds from operations. Market volatility, changes in counterparty credit risk, the impact of government intervention in financial markets and general economic conditions may also adversely impact our ability to access capital and credit markets to fund operating needs. Global or regional economic downturns could cause financial markets to decrease the availability of liquidity, credit and credit capacity for certain issuers, including certain of our customers, dealers and suppliers. An inability to access capital and credit markets may have an adverse effect on our business, results of operations, financial condition and competitive position.

In addition, demand for our products generally depends on customers' ability to pay for our products, which, in turn, depends on their access to funds. Subject to global economic conditions, customers may experience increased difficulty in generating funds from operations. Capital and credit market volatility and uncertainty may cause financial institutions to revise their lending standards, resulting in decreased access to capital. If capital and credit market volatility occurs, customers' liquidity may decline which, in turn, would reduce their ability to purchase our products.

**Our global operations are exposed to political and economic risks, commercial instability and events beyond our control in the countries in which we operate.**

Our global operations are dependent upon products manufactured, purchased and sold in the U.S. and internationally, including in countries with political and economic instability. Some countries have greater political and economic volatility and greater vulnerability to infrastructure and labor disruptions than others. Our business could be negatively impacted by adverse fluctuations in freight costs, limitations on shipping and receiving capacity, and other disruptions in the transportation and shipping infrastructure at important geographic points of exit and entry for our products. Operating and seeking to expand business in a number of different regions and countries exposes us to a number of risks, including:

- multiple and potentially conflicting laws, regulations and policies that are subject to change;
- imposition of currency restrictions, restrictions on repatriation of earnings or other restraints;
- imposition of burdensome tariffs or quotas;
- imposition of new or additional trade and economic sanctions laws imposed by the U.S. or foreign governments;
- national and international conflict;
- war or terrorist acts; and
- political and economic instability or civil unrest that may severely disrupt economic activity in affected countries.

The occurrence of one or more of these events may negatively impact our business, results of operations and financial condition.

**Failure to maintain our credit ratings would increase our cost of borrowing and could adversely affect our cost of funds, liquidity, competitive position and access to capital markets.**

Each of Caterpillar's and Cat Financial's costs of borrowing and ability to access the capital markets are affected not only by market conditions but also by the short- and long-term debt ratings assigned to their respective debt by the major credit rating agencies. These ratings are based, in significant part, on each of Caterpillar's and Cat Financial's performance as measured by financial metrics such as net worth and interest coverage and leverage ratios, as well as transparency with rating agencies and timeliness of financial reporting. There can be no assurance that Caterpillar or Cat Financial will be able to maintain their credit ratings and the failure of either Caterpillar or Cat Financial to do so could adversely affect our cost of funds, liquidity, competitive position and access to the capital markets, including restricting, in whole or in part, our access to the commercial paper market. There can be no assurance that the commercial paper market will continue to be a reliable source of short-term financing for Cat Financial or an available source of short-term financing for Caterpillar. An inability to access the capital markets could have an adverse effect on our cash flow, results of operations and financial condition.

**Our Financial Products segment is subject to risks associated with the financial services industry.**

Cat Financial is significant to our operations and provides financing support to a significant share of our global sales. The inability of Cat Financial to access funds to support its financing activities to our customers could have an adverse effect on our business, results of operations and financial condition.

Continuing to meet Cat Financial's cash requirements over the long-term could require substantial liquidity and access to sources of funds, including capital and credit markets. Cat Financial has continued to maintain access to key global medium term note and commercial paper markets, but there can be no assurance that such markets will continue to represent a reliable source of financing. If global economic conditions were to deteriorate, Cat Financial could face materially higher financing costs, become unable to access adequate funding to operate and grow its business and/or meet its debt service obligations as they mature, and be required to draw upon contractually committed lending agreements and/or by seeking other funding

sources. However, there can be no assurance that such agreements and other funding sources would be available or sufficient under extreme market conditions. Any of these events could negatively impact Cat Financial's business, as well as our and Cat Financial's results of operations and financial condition.

Market disruption and volatility may also lead to a number of other risks in connection with these events, including but not limited to:

- Market developments that may affect customer confidence levels and cause declines in the demand for financing and adverse changes in payment patterns, causing increases in delinquencies and default rates, which could impact Cat Financial's write-offs and provision for credit losses.
- The process Cat Financial uses to estimate losses inherent in its credit exposure requires a high degree of management's judgment regarding numerous subjective qualitative factors, including forecasts of economic conditions and how economic predictors might impair the ability of its borrowers to repay their loans. Financial market disruption and volatility may impact the accuracy of these judgments.
- Cat Financial's ability to engage in routine funding transactions or borrow from other financial institutions on acceptable terms or at all could be adversely affected by disruptions in the capital markets or other events, including actions by rating agencies and deteriorating investor expectations.
- As Cat Financial's counterparties are primarily financial institutions, their ability to perform in accordance with any of its underlying agreements could be adversely affected by market volatility and/or disruptions in financial markets.

**Changes in interest rates or market liquidity conditions could adversely affect Cat Financial's and our earnings and/or cash flow.**

Changes in interest rates and market liquidity conditions could have an adverse effect on Cat Financial's and our earnings and cash flows. Because a significant number of the loans made by Cat Financial are made at fixed interest rates, its business is subject to fluctuations in interest rates. Changes in market interest rates may influence its financing costs, returns on financial investments and the valuation of derivative contracts and could reduce its and our earnings and cash flows. Although Cat Financial manages interest rate and market liquidity risks through a variety of techniques, including a match funding program, the selective use of derivatives and a broadly diversified funding program, there can be no assurance that fluctuations in interest rates and market liquidity conditions will not have an adverse effect on its and our earnings and cash flows. If any of the variety of instruments and strategies Cat Financial uses to hedge its exposure to these types of risk is ineffective, we may incur losses. With respect to Insurance Services' investment activities, changes in the equity and bond markets could cause an impairment of the value of its investment portfolio, requiring a negative adjustment to earnings.

**An increase in delinquencies, repossessions or net losses of Cat Financial customers could adversely affect its results.**

Inherent in the operation of Cat Financial is the credit risk associated with its customers. The creditworthiness of each customer and the rate of delinquencies, repossessions and net losses on customer obligations are directly impacted by several factors, including relevant industry and economic conditions, the availability of capital, the experience and expertise of the customer's management team, commodity prices, political events and the sustained value of the underlying collateral. Any increase in delinquencies, repossessions and net losses on customer obligations could have a material adverse effect on Cat Financial's and our earnings and cash flows. In addition, although Cat Financial evaluates and adjusts its allowance for credit losses related to past due and non-performing receivables on a regular basis, adverse economic conditions or other factors that might cause deterioration of the financial health of its customers could change the timing and level of payments received and thus necessitate an increase in Cat Financial's estimated losses, which could also have a material adverse effect on Cat Financial's and our earnings and cash flows.

**New regulations or changes in financial services regulation could adversely impact Caterpillar and Cat Financial.**

Cat Financial's operations are highly regulated by governmental authorities in the locations where it operates, which can impose significant additional costs and/or restrictions on its business. In the U.S., for example, certain of Cat Financial's activities are subject to the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), a comprehensive financial reform act signed into law in July 2010 that includes extensive provisions regulating the financial services industry. As such, Cat Financial has become and could continue to become subject to additional regulatory costs that could be significant and have an adverse effect on Cat Financial's and our results of operations and financial condition. Additional regulations in

the U.S. or internationally impacting the financial services industry could also add significant cost or operational constraints that might have an adverse effect on Cat Financial's and our results of operations and financial condition.

**We 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.**

In pursuing our business strategy, we routinely evaluate targets and enter into agreements regarding possible acquisitions, divestitures and joint ventures. We often compete with others for the same opportunities. To be successful, we conduct due diligence to identify valuation issues and potential loss contingencies, negotiate transaction terms, complete complex transactions and manage post-closing matters such as the integration of acquired businesses. Our due diligence reviews are subject to the completeness and accuracy of disclosures made by third parties. We may incur unanticipated costs or expenses following a completed acquisition, including post-closing asset impairment charges, expenses associated with eliminating duplicate facilities, litigation, and other liabilities.

The risks associated with our past or future acquisitions also include the following:

- the business culture of the acquired business may not match well with our culture;
- technological and product synergies, economies of scale and cost reductions may not occur as expected;
- unforeseen expenses, delays or conditions may be imposed upon the acquisition, including due to required regulatory approvals or consents;
- we may acquire or assume unexpected liabilities or be subject to unexpected penalties or other enforcement actions;
- faulty assumptions may be made regarding the integration process;
- unforeseen difficulties may arise in integrating operations, processes and systems;
- higher than expected investments may be required to implement necessary compliance processes and related systems, including IT systems, accounting systems and internal controls over financial reporting;
- we may fail to retain, motivate and integrate key management and other employees of the acquired business;
- higher than expected costs may arise due to unforeseen changes in tax, trade, environmental, labor, safety, payroll or pension policies in any jurisdiction in which the acquired business conducts its operations; and
- we may experience problems in retaining customers and integrating customer bases.

Many of these factors will be outside of our control and any one of them could result in increased costs, decreases in the amount of expected revenues and diversion of management's time and attention. They may also delay the realization of the benefits we anticipate when we enter into a transaction.

In order to conserve cash for operations, we may undertake acquisitions financed in part through public offerings or private placements of debt or equity securities, or other arrangements. Such acquisition financing could result in a decrease in our earnings and adversely affect other leverage measures. If we issue equity securities or equity-linked securities, the issued securities may have a dilutive effect on the interests of the holders of our common shares.

Failure to implement our acquisition strategy, including successfully integrating acquired businesses, could have an adverse effect on our business, financial condition and results of operations. Furthermore, we make strategic divestitures from time to time. In the case of divestitures, we may agree to indemnify acquiring parties for certain liabilities arising from our former businesses. These divestitures may also result in continued financial involvement in the divested businesses, including through guarantees or other financial arrangements, following the transaction. Lower performance by those divested businesses could affect our future financial results.



**International trade policies may impact demand for our products and our competitive position.**

Government policies on international trade and investment such as import quotas, capital controls or tariffs, whether adopted by individual governments or addressed by regional trade blocs, can affect the demand for our products and services, impact the competitive position of our products or prevent us from being able to sell products in certain countries. The implementation of more restrictive trade policies, such as more detailed inspections, higher tariffs or new barriers to entry, in countries where we sell large quantities of products and services could negatively impact our business, results of operations and financial condition. For example, a government's adoption of "buy national" policies or retaliation by another government against such policies could have a negative impact on our results of operations.

**The success of our business depends on our ability to develop, produce and market quality products that meet our customers' needs.**

Our business relies on continued global demand for our brands and products. To achieve business goals, we must develop and sell products that appeal to our dealers, OEMs and end-user customers. This is dependent on a number of factors, including our ability to maintain key dealer relationships, our ability to produce products that meet the quality, performance and price expectations of our customers and our ability to develop effective sales, advertising and marketing programs. In addition, our continued success in selling products that appeal to our customers is dependent on leading-edge innovation, with respect to both products and operations, and on the availability and effectiveness of legal protection for our innovation. Failure to continue to deliver high quality, innovative, competitive products to the marketplace, to adequately protect our intellectual property rights, to supply products that meet applicable regulatory requirements, including engine exhaust emission requirements or to predict market demands for, or gain market acceptance of, our products, could have a negative impact on our business, results of operations and financial condition.

**We operate in a highly competitive environment, which could adversely affect our sales and pricing.**

We operate in a highly competitive environment, and our outlook depends on a forecast of our share of industry sales based on our ability to compete with others in the marketplace. We compete on the basis of a variety of factors, including product performance, customer service, quality and price. There can be no assurance that our products will be able to compete successfully with other companies' products. Thus, our share of industry sales could be reduced due to aggressive pricing or product strategies pursued by competitors, unanticipated product or manufacturing difficulties, our failure to price our products competitively, our failure to produce our products at a competitive cost or an unexpected buildup in competitors' new machine or dealer-owned rental fleets, leading to severe downward pressure on machine rental rates and/or used equipment prices.

Our sales outlook assumes that certain price increases we announce from time to time will be realized in the marketplace. Changes in market acceptance of price increases, changes in market requirements for price discounts, changes in our competitors' behavior or a weak pricing environment attributable to industry overcapacity could have an adverse impact on our business, results of operations and financial condition.

In addition, our results and ability to compete may be impacted negatively by changes in our sales mix. Our outlook assumes a certain geographic mix of sales as well as a certain product mix of sales. If actual results vary from this projected geographic and product mix of sales, our results could be negatively impacted.

**We may not realize all of the anticipated benefits from cost-reduction initiatives, cash flow improvement initiatives and efficiency or productivity initiatives.**

We are actively engaged in a number of initiatives to increase our productivity, efficiency and cash flow and to reduce costs, which we expect to have a positive effect on our business, competitive position, results of operations and financial condition. For example, we formed the Caterpillar Enterprise System Group in 2013 to implement sustained improvements in our operational efficiency and order-to-delivery processes so that our lead time is better aligned with customer requirements, as well as to reduce waste, further enhance quality and maximize value for our customers. We are also in the process of implementing new enterprise resource planning (ERP) systems in many of our businesses to increase efficiency and harmonize our operations. There can be no assurance that these ERP systems, these initiatives, or others will continue to be beneficial to the extent anticipated, or that the estimated efficiency improvements, incremental cost savings or cash flow improvements will be realized as anticipated or at all. If our new ERP systems are not implemented successfully, it could have an adverse effect on our operations and competitive position.

**We expect to incur additional restructuring charges as we continue to contemplate cost reduction actions in an effort to optimize our cost structure and may not achieve the anticipated savings and benefits of these actions.**

On September 24, 2015, we announced significant restructuring and cost reduction actions to lower our operating costs in response to current economic and business conditions. We expect to take additional restructuring actions through 2018 to optimize our cost structure and improve the efficiency of our operation, which will reduce our profitability in the periods incurred. As a result of these actions, we will likely continue to incur charges, which may include but not be limited to asset impairments, employee termination costs, charges for pension and other postretirement contractual benefits, potential additional pension funding obligations, and pension curtailments, any of which could be significant, and could adversely affect our financial condition and results of operations. In addition, we may not realize anticipated savings or benefits from past or future cost reduction actions in full or in part or within the time periods we expect. We are also subject to the risks of labor unrest, negative publicity and business disruption in connection with our cost reduction actions. Failure to realize anticipated savings or benefits from our cost reduction actions could have a material adverse effect on our business, prospects, financial condition, liquidity, results of operations and cash flows.

**Our business is subject to the inventory management decisions and sourcing practices of our dealers and our OEM customers.**

We sell finished products primarily through an independent dealer network and directly to OEMs and are subject to risks relating to their inventory management decisions and operational and sourcing practices. Both carry inventories of finished products as part of ongoing operations and adjust those inventories based on their assessments of future needs. Such adjustments may impact our results positively or negatively. If the inventory levels of our dealers and OEM customers are higher than they desire, they may postpone product purchases from us, which could cause our sales to be lower than the end-user demand for our products and negatively impact our results. Similarly, our results could be negatively impacted through the loss of time-sensitive sales if our dealers and OEM customers do not maintain inventory levels sufficient to meet customer demand. Additionally, some of our engine customers are OEMs that manufacture or could in the future manufacture engines for their own products. Despite their engine manufacturing abilities, these customers have chosen to outsource certain types of engine production to us due to the quality of our engine products and in order to reduce costs, eliminate production risks and maintain company focus. However, there can be no assurance that these customers will continue to outsource engine manufacture in the future. Decreased levels of production outsourcing by these customers could result from a number of factors, such as shifts in our customers' business strategies, acquisition by a customer of another engine manufacturer, the inability of third-party suppliers to meet specifications and the emergence of low-cost production opportunities in foreign countries. A significant reduction in the level of engine production outsourcing from our OEM customers could significantly impact our revenues and, accordingly, have an adverse effect on our business, results of operations and financial condition.

**We are subject to stringent environmental laws and regulations that impose significant compliance costs.**

Our facilities, operations and products are subject to increasingly stringent environmental laws and regulations globally, including laws and regulations governing emissions to noise, air, discharges to water and the generation, handling, storage, transportation, treatment and disposal of non-hazardous and hazardous waste materials. Some environmental laws impose strict, retroactive and joint and several liability for the remediation of the release of hazardous substances, even for conduct that was lawful at the time it occurred, or for the conduct of, or conditions caused by, prior operators, predecessors or other third parties. Failure to comply with environmental laws could expose us to penalties or clean-up costs, civil or criminal liability and sanctions on certain of our activities, as well as damage to property or natural resources. These liabilities, sanctions, damages and remediation efforts related to any non-compliance with such laws and regulations could negatively impact our ability to conduct our operations and our financial condition and results of operations. In addition, there can be no assurances that we will not be adversely affected by costs, liabilities or claims with respect to existing or subsequently acquired operations or under present laws and regulations or those that may be adopted or imposed in the future.

Environmental laws and regulations may also change from time to time, as may related interpretations and other guidance. Changes in environmental laws or regulations could result in higher expenses and payments, and uncertainty relating to environmental laws or regulations may also affect how we conduct our operations and structure our investments and could limit our ability to enforce our rights. Changes in environmental and climate change laws or regulations, including laws relating to greenhouse gas emissions, could lead to new or additional investment in product designs and could increase environmental compliance expenditures. Changes in climate change concerns, or in the regulation of such concerns, including greenhouse gas emissions, could subject us to additional costs and restrictions, including increased energy and raw materials costs. If environmental laws or regulations are either changed or adopted and impose significant operational restrictions and compliance requirements upon us or our products, they could negatively impact our business, capital expenditures, results of operations, financial condition and competitive position.

**Our global operations are subject to extensive trade and anti-corruption laws and regulations.**

Due to the international scope of our operations, we are subject to a complex system of import- and export-related laws and regulations, including U.S. regulations issued by Customs and Border Protection, the Bureau of Industry and Security, the Office of Antiboycott Compliance, the Directorate of Defense Trade Controls and the Office of Foreign Assets Control, as well as the counterparts of these agencies in other countries. Any alleged or actual violations may subject us to government scrutiny, investigation and civil and criminal penalties, and may limit our ability to import or export our products or to provide services outside the United States. Furthermore, embargoes and sanctions imposed by the U.S. and other governments restricting or prohibiting sales to specific persons or countries or based on product classification expose us to potential criminal and civil sanctions. We cannot predict the nature, scope or effect of future regulatory requirements to which our operations might be subject or the manner in which existing laws might be administered or interpreted.

In addition, the U.S. Foreign Corrupt Practices Act and similar foreign anti-corruption laws generally prohibit companies and their intermediaries from making improper payments or providing anything of value to improperly influence foreign government officials for the purpose of obtaining or retaining business, or obtaining an unfair advantage. Recent years have seen a substantial increase in the global enforcement of anti-corruption laws. Our operations outside the United States, including in developing countries, could increase the risk of such violations. In addition, we enter into joint ventures with joint venture partners who are domiciled in areas of the world with laws, regulations and business practices that differ from those in the United States. There is risk that our joint venture partners will violate applicable laws and regulations. Violations of anti-corruption laws or regulations by our employees, by intermediaries acting on our behalf, or by our joint venture partners may result in severe criminal or civil sanctions, could disrupt our business, and result in an adverse effect on our reputation, business and results of operations or financial condition.

**We may incur additional tax expense or become subject to additional tax exposure.**

We are subject to income taxes in the United States and numerous foreign jurisdictions. Our domestic and international tax liabilities are dependent upon the location of earnings among these different jurisdictions. Our future results of operations could be adversely affected by changes in the effective tax rate as a result of a change in the mix of earnings in countries with differing statutory tax rates, changes in our overall profitability, changes in tax laws or treaties or in their application or interpretation, changes in tax rates, changes in generally accepted accounting principles, changes in the valuation of deferred tax assets and liabilities, changes in the amount of earnings indefinitely reinvested offshore, the results of audits and examinations of previously filed tax returns and continuing assessments of our tax exposures. We are also subject to the continuous examination of our income tax returns by the U.S. Internal Revenue Service and other tax authorities. We regularly assess the likelihood of an adverse outcome resulting from these examinations. If our 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, our operating results, cash flows and financial condition could be adversely affected. For information regarding additional legal matters related to our taxes, please see Note 5 — "Income taxes" and Note 22 — "Environmental and legal matters" of Part II, Item 8 "Financial Statements and Supplementary Data" to this Annual Report on Form 10-K.

**Currency exchange rate fluctuations affect our results of operations, as reported in our financial statements.**

We conduct operations in many areas of the world, involving transactions denominated in a variety of currencies. We are subject to currency exchange rate risk to the extent that our costs are denominated in currencies other than those in which we earn revenues. In addition, changes in currency exchange rates have had, and will continue to have, an impact on our results of operations. There can be no assurance that currency exchange rate fluctuations will not adversely affect our results of operations, financial condition and cash flows. While the use of currency hedging instruments may provide us with protection from adverse fluctuations in currency exchange rates, by utilizing these instruments we potentially forego the benefits that might result from favorable fluctuations in currency exchange rates. In addition, our outlooks do not assume fluctuations in currency exchange rates. Adverse fluctuations in currency exchange rates from the date of our outlooks could cause our actual results to differ materially from those anticipated in our outlooks and adversely impact our business, results of operations and financial condition.

We also face risks arising from the imposition of exchange controls and currency devaluations. Exchange controls may limit our ability to convert foreign currencies into U.S. dollars or to remit dividends and other payments by our foreign subsidiaries or businesses located in or conducted within a country imposing controls. Currency devaluations result in a diminished value of funds denominated in the currency of the country instituting the devaluation.

**Restrictive covenants in our debt agreements could limit our financial and operating flexibility.**

We maintain a number of credit facilities to support general corporate purposes (facilities) and have issued debt securities to manage liquidity and fund operations (debt securities). The agreements relating to a number of the facilities and the debt securities contain certain restrictive covenants applicable to us and certain of our subsidiaries, including Cat Financial. These covenants include maintaining a consolidated net worth (defined as the consolidated stockholder's equity including preferred stock but excluding the pension and other post-retirement benefits balance within accumulated other comprehensive income (loss)) of not less than \$9 billion, limitations on the incurrence of liens and certain restrictions on consolidation and merger. Cat Financial has also agreed under certain of these agreements to maintain a leverage ratio (consolidated debt to consolidated net worth, calculated (1) on a monthly basis as the average of the leverage ratios determined on the last day of each of the six preceding calendar months and (2) at each December 31) not greater than 10.0 to 1, to maintain a minimum interest coverage ratio (profit excluding income taxes, interest expense and net gain/(loss) from interest rate derivatives to interest expense, calculated at the end of each calendar quarter for the rolling four quarter period then most recently ended) of not less than 1.15 to 1 and not to terminate, amend or modify its support agreement with us.

A breach of one or more of the covenants could result in adverse consequences that could negatively impact our business, results of operations and financial condition. These consequences may include the acceleration of amounts outstanding under certain of the facilities, triggering of an obligation to redeem certain debt securities, termination of existing unused commitments by our lenders, refusal by our lenders to extend further credit under one or more of the facilities or to enter into new facilities or the lowering or modification of our credit ratings or those of one or more of our subsidiaries.

**Sustained increases in funding obligations under our pension plans may reduce our profitability.**

We maintain certain defined benefit pension plans for our employees, which impose on us certain funding obligations. In determining our future payment obligations under the plans, we assume certain rates of return on the plan assets and growth rates of certain costs. Significant adverse changes in credit or capital markets could result in actual rates of return being materially lower than projected and increased pension expense in future years. We are expecting to make contributions to our pension plans in the future, and may be required to make contributions that could be material. Our cost growth rates may also be materially higher than projected. These factors could significantly increase our payment obligations under the plans, and as a result, adversely affect our business, results of operations and financial condition.

**Union disputes or other labor matters could adversely affect our operations and financial results.**

Some of our employees are represented by labor unions in a number of countries under various collective bargaining agreements with varying durations and expiration dates. There can be no assurance that any current or future issues with our employees will be resolved or that we will not encounter future strikes, work stoppages or other types of conflicts with labor unions or our employees. We may not be able to satisfactorily renegotiate collective bargaining agreements in the United States and other countries when they expire. If we fail to renegotiate our existing collective bargaining agreements, we could encounter strikes or work stoppages or other types of conflicts with labor unions. In addition, existing collective bargaining agreements may not prevent a strike or work stoppage at our facilities in the future. We may also be subject to general country strikes or work stoppages unrelated to our business or collective bargaining agreements. A work stoppage or other limitations on production at our facilities for any reason could have an adverse effect on our business, results of operations and financial condition. In addition, many of our customers and suppliers have unionized work forces. Strikes or work stoppages experienced by our customers or suppliers could have an adverse effect on our business, results of operations and financial condition.

**Costs associated with lawsuits or investigations or adverse rulings in enforcement or other legal proceedings may have an adverse effect on our results of operations.**

We are subject to a variety of legal proceedings and legal compliance risks in virtually every part of the world. We face an inherent business risk of exposure to various types of claims, lawsuits and government investigations. We are involved in various intellectual property, product liability, product warranty and environmental claims and lawsuits and other legal proceedings that arise in and outside of the ordinary course of our business. The industries in which we operate are also periodically reviewed or investigated by regulators, which could lead to enforcement actions, fines and penalties or the assertion of private litigation claims. It is not possible to predict with certainty the outcome of claims, investigations and lawsuits, and we could in the future incur judgments, fines or penalties or enter into settlements of lawsuits and claims that could have an adverse effect on our business, results of operations and financial condition in any particular period.

The global and diverse nature of our operations means that legal and compliance risks will continue to exist and additional legal proceedings and other contingencies, the outcome of which cannot be predicted with certainty, will arise from time to time. In addition, subsequent developments in legal proceedings may affect our assessment and estimates of loss contingencies recorded as a reserve and require us to make payments in excess of our reserves, which could have an adverse effect on our results of operations.

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

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP), which is periodically revised and/or expanded. Accordingly, from time to time we are required to adopt new or revised accounting guidance and related interpretations issued by recognized authoritative bodies, including the Financial Accounting Standards Board and the SEC. The impact of accounting pronouncements that have been issued but not yet implemented is disclosed in this annual report on Form 10-K and our quarterly reports on Form 10-Q. An assessment of proposed standards is not provided, as such proposals are subject to change through the exposure process and, therefore, their effects on our financial statements cannot be meaningfully assessed. It is possible that future accounting guidance we are required to adopt, or future changes in accounting principles, could change the current accounting treatment that we apply to our consolidated financial statements and that such changes could have an adverse effect on our results of operations, as reported in our consolidated financial statements.

**Increased information technology security threats and more sophisticated computer crime pose a risk to our systems, networks, products and services.**

We rely upon information technology systems and networks, some of which are managed by third parties, in connection with a variety of business activities. Additionally, we collect and store data that is sensitive to Caterpillar. Operating these information technology systems and networks and processing and maintaining this data, in a secure manner, are critical to our business operations and strategy. Information technology security threats -- from user error to cybersecurity attacks designed to gain unauthorized access to our systems, networks and data -- are increasing in frequency and sophistication. Cybersecurity attacks may range from random attempts to coordinated and targeted attacks, including sophisticated computer crime and advanced threats. These threats pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of our data. We have experienced cybersecurity attacks that have resulted in unauthorized parties gaining access to our information technology systems and networks, and we could in the future experience similar attacks. However, to date, no cybersecurity attack has had a material impact on our financial condition, results of operations or liquidity. While we actively manage information technology security risks within our control, there can be no assurance that such actions will be sufficient to mitigate all potential risks to our systems, networks and data. The potential consequences of a material cybersecurity attack include reputational damage, litigation with third parties, diminution in the value of our investment in research, development and engineering, and increased cybersecurity protection and remediation costs, which in turn could adversely affect our competitiveness and results of operations.

**Unexpected events, including natural disasters, may increase our cost of doing business or disrupt our operations.**

The occurrence of one or more unexpected events, including war, terrorist acts, fires, tornadoes, tsunamis, hurricanes, earthquakes, floods and other forms of severe weather in the United States or in other countries in which we operate or in which our suppliers are located could adversely affect our operations and financial performance. Natural disasters, pandemic illness, equipment failures, power outages or other unexpected events could result in physical damage to and complete or partial closure of one or more of our manufacturing facilities or distribution centers, temporary or long-term disruption in the supply of component products from some local and international suppliers, disruption in the transport of our products to dealers and end-users and delay in the delivery of our products to our distribution centers. Existing insurance arrangements may not provide protection for all of the costs that may arise from such events.

**Item 1B. Unresolved Staff Comments.**

None.

## Item 1C. Executive Officers of the Registrant.

Name	Present Caterpillar Inc. position and date of initial election	Principal positions held during the past five years if other than Caterpillar Inc. position currently held
Douglas R. Oberhelman (62)	Chairman and Chief Executive Officer (2010)	
Bradley M. Halverson (55)	Group President and Chief Financial Officer (2013)	Vice President (2010-2012)
Robert B. Charter (52)	Group President (2015)	Vice President (2009-2015)
Thomas A. Pellette (53)	Group President (2015)	Vice President (2013-2015) Vice President, Customer Services, Solar (2010-2013)
Denise C. Johnson (49)*	Group President (2016)	Vice President (2012-2016) General Manager, Specialty Products (2011-2012)
Edward J. Rapp (58)**	Group President (2007)	Group President and Chief Financial Officer (2010 - 2012)
D. James Umpleby III (57)	Group President (2013)	Vice President (2010-2012)
James B. Buda (68)	Executive Vice President, Law and Public Policy (2012)	Vice President and Chief Legal Officer (2010 - 2011) Senior Vice President and Chief Legal Officer (2011 - 2012)
David P. Bozeman (47)	Senior Vice President (2013)	Vice President (2009-2013)
Jananne A. Copeland (53)	Chief Accounting Officer (2007)	Chief Accounting Officer and Corporate Controller (2010 - 2012)

\*effective April 1, 2016

\*\*retires in 2016

## Item 2. Properties.

### General Information

Caterpillar's operations are highly integrated. Although the majority of our plants are involved primarily in production relating to our Construction Industries, Resource Industries or Energy & Transportation segments, several plants are involved in manufacturing relating to more than one business segment. In addition, several plants reported in our financial statements under the All Other segments are involved in the manufacturing of components that are used in the assembly of products for more than one business segment. Caterpillar's parts distribution centers are involved in the storage and distribution of parts for Construction Industries, Resource Industries and Energy & Transportation, and are included in the All Other segments. The research and development activities carried on at our Technical Center in Mossville, Illinois involve products for Construction Industries, Resource Industries and Energy & Transportation.

We believe the properties we own to be generally well maintained and adequate for present use. Through planned capital expenditures, we expect these properties to remain adequate for future needs. Properties we lease are covered by leases expiring over terms of generally one to ten years. We do not anticipate any difficulty in retaining occupancy of any leased facilities, either by renewing leases prior to expiration or by replacing them with equivalent leased facilities.

### Headquarters and Other Key Offices

Our corporate headquarters are in Peoria, Illinois. Additional marketing and operating headquarters are located both inside and outside the United States including Miami, Florida; Oak Creek, Wisconsin; San Diego, California; Geneva, Switzerland; Beijing, China; Singapore, Republic of Singapore; Piracicaba, Brazil, and Tokyo, Japan. Our Financial Products business is headquartered in leased offices located in Nashville, Tennessee.

**Technical Center, Training Centers, Demonstration Areas and Proving Grounds**

We operate a Technical Center located in Mossville, Illinois, and various other technical and training centers, demonstration areas and proving grounds located both inside and outside the United States.

**Parts Distribution Centers**

Distribution of our parts is conducted from parts distribution centers inside and outside the United States and included in the All Other segments in our financial statements. We operate parts distribution centers in the following locations: Morton, Illinois; Mossville, Illinois; Arvin, California; Denver, Colorado; Miami, Florida; Atlanta, Georgia; St. Paul, Minnesota; Southaven, Mississippi; Clayton, Ohio; Houston, Pennsylvania; York, Pennsylvania; Waco, Texas; Van Alstyne, Texas; Duffield, Virginia; Spokane, Washington; Melbourne, Australia; Stapylton, Australia; Queensland, Australia; Grimbergen, Belgium; Piracicaba, Brazil; Shanghai, China; Dortmund, Germany; Lunen, Germany; San Luis Potosi, Mexico; Singapore, Republic of Singapore; Moscow, Russia; Johannesburg, South Africa, and Dubai, United Arab Emirates. We also own or lease other facilities that support our distribution activities.

**Remanufacturing and Components**

Component manufacturing and the remanufacturing of our products that is reported in the All Other segments is conducted primarily at facilities in the following locations: Toccoa, Georgia; Aurora, Illinois; East Peoria, Illinois; Peoria, Illinois; Franklin, Indiana; Danville, Kentucky; Menominee, Michigan; Corinth, Mississippi; Oxford, Mississippi; Prentiss County, Mississippi; Boonville, Missouri; West Plains, Missouri; Franklin, North Carolina; Goldsboro, North Carolina; Morganton, North Carolina; West Fargo, North Dakota; Sumter, South Carolina; Piracicaba, Brazil; Shanghai, China; Tianjin, China; Xuzhou, China; Chaumont, France; Bazzano, Italy; Frosinone, Italy; San Eusebio, Italy; Nuevo Laredo, Mexico; Ramos Arizpe, Mexico; Radom, Poland; Singapore, Republic of Singapore; Pyongtaek, South Korea; Shrewsbury, United Kingdom, and Skinningrove, United Kingdom. We also lease or own other facilities that support our remanufacturing and component manufacturing activities.

**Manufacturing**

Manufacturing of products for our Construction Industries, Resource Industries and Energy & Transportation segments is conducted primarily at the locations listed below. These facilities are believed to be suitable for their intended purposes, with adequate capacities for current and projected needs for existing products.

Our principal manufacturing facilities include those used by the following segments in the following locations:

<b>Segment</b>	<b>U.S. Facilities</b>	<b>Facilities Outside the U.S.</b>
<b>Construction Industries</b>	<b>Arkansas:</b> North Little Rock <b>Illinois:</b> Aurora, Decatur, East Peoria <b>North Carolina:</b> Clayton, Sanford <b>Texas:</b> Victoria <b>Georgia:</b> Athens	<b>Belgium:</b> Gosselies <b>Brazil:</b> Campo Largo, Piracicaba <b>China:</b> Suzhou, Wujiang, Xuzhou, Qingzhou <b>France:</b> Grenoble, Echirolles <b>Hungary:</b> Godollo <b>India:</b> Thiruvallar <b>Indonesia:</b> Jakarta <b>Japan:</b> Akashi, Sagamihara <b>Poland:</b> Janow, Sosnowiec <b>Russia:</b> Tosno, Novosibirsk <b>United Kingdom:</b> Desford, Stockton <b>Thailand:</b> Rayong
<b>Resource Industries</b>	<b>Illinois:</b> Aurora, Decatur, East Peoria, Joliet <b>North Carolina:</b> Winston-Salem <b>Pennsylvania:</b> Houston <b>South Carolina:</b> Sumter <b>Tennessee:</b> Dyersburg <b>Texas:</b> Denison <b>Wisconsin:</b> South Milwaukee	<b>Australia:</b> Beresfield, Burnie <b>China:</b> Langfang, Tongzhou, Wuxi, Zhengzhou <b>Czech Republic:</b> Ostrava <b>France:</b> Arras <b>Germany:</b> Dortmund, Lunen <b>India:</b> Hosur, Thiruvallur <b>Indonesia:</b> Batam <b>Italy:</b> Jesi <b>Japan:</b> Sagamihara <b>Mexico:</b> Acuna, Monterrey, Reynosa, Torreon <b>Russia:</b> Tosno <b>Thailand:</b> Rayong <b>United Kingdom:</b> Peterlee
<b>Energy &amp; Transportation</b>	<b>Alabama:</b> Albertville, Montgomery <b>California:</b> San Diego <b>Georgia:</b> Griffin <b>Illinois:</b> LaGrange, Mossville, Mapleton, Pontiac <b>Indiana:</b> Lafayette, Muncie <b>Kentucky:</b> Decoursey, Louisville, Mayfield <b>South Carolina:</b> Newberry <b>Texas:</b> Channelview, De Soto, Mabank, San Antonio, Schertz, Seguin, Sherman	<b>Australia:</b> Revesby <b>Belgium:</b> Gosselies <b>Brazil:</b> Curitiba, Hortolandia, Piracicaba, Sete Lagoas <b>China:</b> Tianjin, Wuxi <b>Czech Republic:</b> Zatec <b>Germany:</b> Kiel, Mannheim, Rostock <b>India:</b> Hosur, Aurangabad <b>Mexico:</b> San Luis Potosi, Tijuana <b>Republic of Singapore:</b> Singapore <b>Sweden:</b> Ockero Islands <b>Switzerland:</b> Riazzino <b>United Kingdom:</b> Larne, Monkstown, Peterborough, Sandiacre, Shoreham, South Queensferry, Springvale, Stafford, Wimborne



### Item 3. Legal Proceedings.

Certain legal proceedings in which we are involved are discussed in Note 22 — "Environmental and legal matters" of Part II, Item 8 "Financial Statements and Supplementary Data" and should be considered an integral part of Part I, Item 3 "Legal Proceedings."

### Item 4. Mine Safety Disclosures.

Not applicable.

## PART II

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

#### Common Stock (NYSE: CAT)

**Listing Information:** Caterpillar common stock is listed on the New York Stock Exchange in the United States, and on stock exchanges in France and Switzerland.

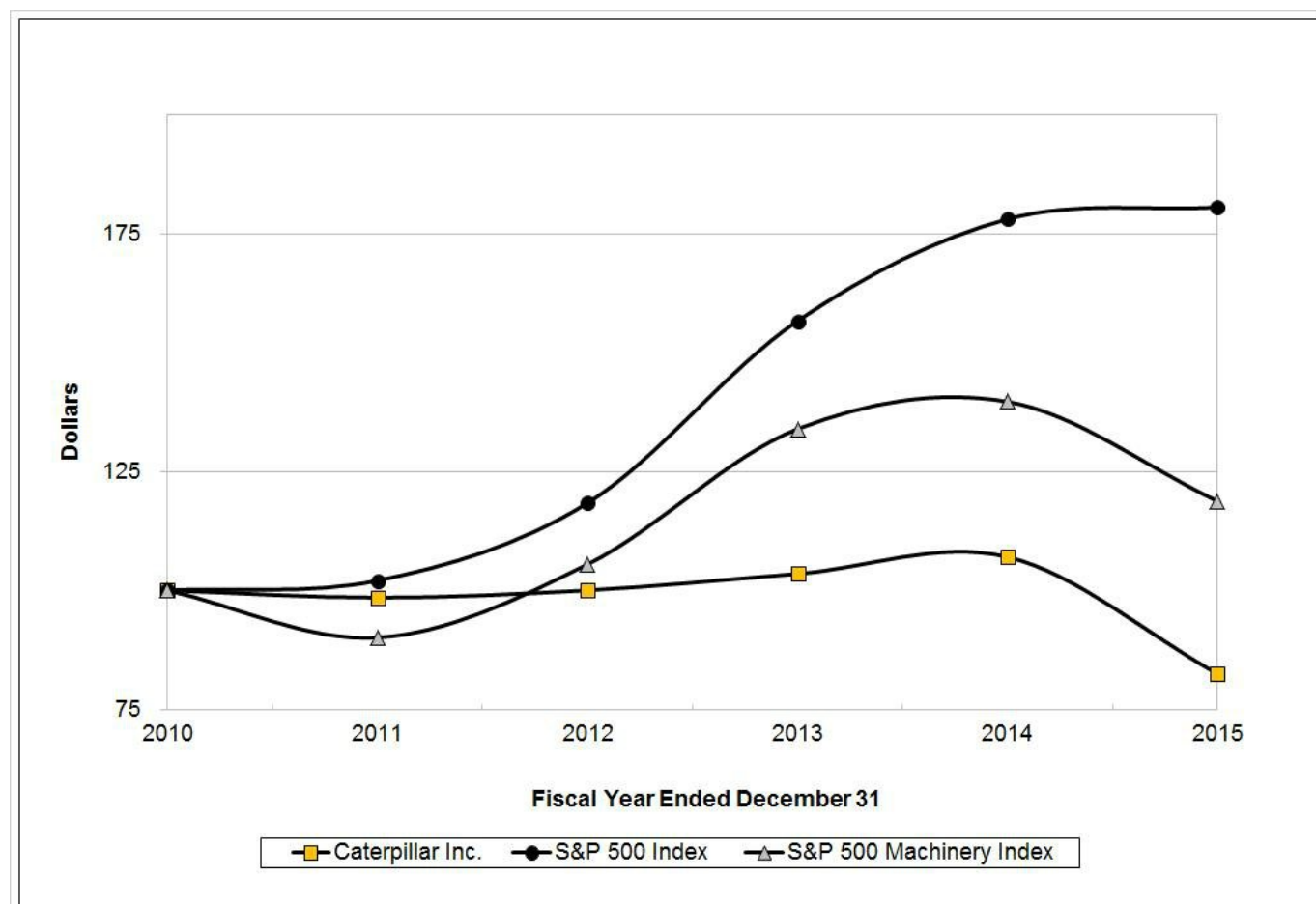
**Price Ranges:** Quarterly price ranges of Caterpillar common stock on the New York Stock Exchange, the principal market in which the stock is traded, were:

Quarter	2015		2014	
	High	Low	High	Low
First	\$ 92.37	\$ 78.19	\$ 100.63	\$ 85.88
Second	\$ 89.62	\$ 79.39	\$ 109.85	\$ 98.94
Third	\$ 85.45	\$ 62.99	\$ 111.46	\$ 98.26
Fourth	\$ 75.93	\$ 63.10	\$ 107.12	\$ 88.03

**Number of Stockholders:** Stockholders of record at year-end totaled 30,274, compared with 30,702 at the end of 2014. Approximately 63 percent of our issued shares are held by institutions and banks, 32 percent by individuals and 5 percent by employees through company stock plans.

### **Performance Graph: Total Cumulative Stockholder Return for Five-Year Period Ending December 31, 2015**

The graph below shows the cumulative stockholder return assuming an investment of \$100 on December 31, 2010, and reinvestment of dividends issued thereafter.



	2010	2011	2012	2013	2014	2015
Caterpillar Inc.	\$ 100.00	\$ 98.47	\$ 100.03	\$ 103.48	\$ 107.03	\$ 82.46
S&P 500	\$ 100.00	\$ 102.08	\$ 118.39	\$ 156.70	\$ 178.10	\$ 180.56
S&P 500 Machinery	\$ 100.00	\$ 90.09	\$ 105.49	\$ 133.95	\$ 139.69	\$ 118.78

Additional information required by Item 5 regarding our stock is included in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" under "Dividends paid per common share."

### **Non-U.S. Employee Stock Purchase Plans**

As of December 31, 2015, we had 29 employee stock purchase plans (the "EIP Plans") administered outside the United States for our non-U.S. employees, which had approximately 14,000 active participants in the aggregate. During the fourth quarter of 2015, approximately 99,000 shares of Caterpillar common stock were purchased by the EIP Plans pursuant to the terms of such plans.

### **Issuer Purchases of Equity Securities**

No shares were repurchased during the fourth quarter of 2015.

### **Other Purchases of Equity Securities**

Period	Total number of Shares Purchased <sup>(1)</sup>	Average Price Paid per Share	Total Number of Shares Purchased Under the Program	Approximate Dollar Value of Shares that may yet be Purchased under the Program
October 1-31, 2015	6,191	\$ 72.35	N/A	N/A
November 1-30, 2015	1,810	\$ 71.96	N/A	N/A
December 1-31, 2015	—	\$ —	N/A	N/A
<b>Total</b>	<b>8,001</b>	<b>\$ 72.26</b>		

<sup>(1)</sup> Represents shares delivered back to issuer for the payment of taxes resulting from the vesting of restricted stock units for employees and Directors.

## Item 6. Selected Financial Data.

### Five-year Financial Summary

(Dollars in millions except per share data)

	2015	2014	2013	2012	2011
<b>Years ended December 31,</b>					
Sales and revenues .....	\$ 47,011	\$ 55,184	\$ 55,656	\$ 65,875	\$ 60,138
Percent inside the United States .....	41%	38%	33%	31%	30%
Percent outside the United States .....	59%	62%	67%	69%	70%
Sales .....	\$ 44,147	\$ 52,142	\$ 52,694	\$ 63,068	\$ 57,392
Revenues .....	\$ 2,864	\$ 3,042	\$ 2,962	\$ 2,807	\$ 2,746
Profit <sup>4</sup> .....	\$ 2,102	\$ 3,695	\$ 3,789	\$ 5,681	\$ 4,928
Profit per common share <sup>1</sup> .....	\$ 3.54	\$ 5.99	\$ 5.87	\$ 8.71	\$ 7.64
Profit per common share—diluted <sup>2</sup> .....	\$ 3.50	\$ 5.88	\$ 5.75	\$ 8.48	\$ 7.40
Dividends declared per share of common stock .....	\$ 3.01	\$ 2.70	\$ 2.32	\$ 2.02	\$ 1.82
Return on average common stockholders' equity <sup>3</sup> ...	13.3%	19.6%	19.7%	37.2%	41.4%
Capital expenditures:					
Property, plant and equipment .....	\$ 1,388	\$ 1,539	\$ 2,522	\$ 3,350	\$ 2,515
Equipment leased to others .....	\$ 1,873	\$ 1,840	\$ 1,924	\$ 1,726	\$ 1,409
Depreciation and amortization .....	\$ 3,046	\$ 3,163	\$ 3,087	\$ 2,813	\$ 2,527
Research and development expenses .....	\$ 2,165	\$ 2,135	\$ 2,046	\$ 2,466	\$ 2,297
As a percent of sales and revenues .....	4.6%	3.9%	3.7%	3.7%	3.8%
Average number of employees .....	110,800	115,600	122,500	127,800	113,600
<b>December 31,</b>					
Total assets .....	\$ 78,497	\$ 84,681	\$ 84,896	\$ 88,970	\$ 81,218
Long-term debt due after one year:					
Consolidated .....	\$ 25,247	\$ 27,784	\$ 26,719	\$ 27,752	\$ 24,944
Machinery, Energy & Transportation .....	\$ 9,004	\$ 9,493	\$ 7,999	\$ 8,666	\$ 8,415
Financial Products .....	\$ 16,243	\$ 18,291	\$ 18,720	\$ 19,086	\$ 16,529
Total debt:					
Consolidated .....	\$ 38,093	\$ 39,285	\$ 37,750	\$ 40,143	\$ 34,592
Machinery, Energy & Transportation .....	\$ 9,530	\$ 10,012	\$ 8,775	\$ 10,415	\$ 9,066
Financial Products .....	\$ 28,563	\$ 29,273	\$ 28,975	\$ 29,728	\$ 25,526

<sup>1</sup> Computed on weighted-average number of shares outstanding.

<sup>2</sup> Computed on weighted-average number of shares outstanding diluted by assumed exercise of stock-based compensation awards, using the treasury stock method.

<sup>3</sup> Represents profit divided by average stockholders' equity (beginning of year stockholders' equity plus end of year stockholders' equity divided by two).

<sup>4</sup> Profit attributable to common stockholders.

Additional information required by Item 6 is included in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our discussion of cautionary statements and significant risks to the company's business under Item 1A. Risk Factors of this Form 10-K.

### **OVERVIEW**

Our 2015 sales and revenues were \$47.011 billion, a decrease of 15 percent from \$55.184 billion in 2014. The two most significant reasons for the decline from 2014 were weakening economic growth and substantially lower commodity prices. The impact of weak economic growth was most pronounced in developing countries, such as China and Brazil. Lower oil prices had a substantial negative impact on the portion of ***Energy & Transportation*** that supports oil drilling and well servicing. Profit in 2015 was \$2.102 billion, a decrease of 43 percent from \$3.695 billion in 2014. The 2015 profit per share was \$3.50, down 40 percent from \$5.88 in 2014. Profit declined primarily due to lower ***sales volume***.

Fourth-quarter 2015 sales and revenues were \$11.030 billion, down \$3.214 billion from \$14.244 billion in the fourth quarter of 2014. Fourth-quarter 2015 loss was \$87 million compared with profit of \$757 million in the fourth quarter of 2014. The loss was \$0.15 per share in the fourth quarter of 2015 compared with profit per share of \$1.23 in the fourth quarter of 2014.

### **Highlights for 2015 include:**

- 2015 sales and revenues were \$47.011 billion, down 15 percent from 2014. Sales declined in all regions and in all segments.
- ***Restructuring costs*** were \$908 million in 2015 with an after-tax impact of \$1.14 per share.
- Profit per share was \$3.50 in 2015, or \$4.64 per share excluding restructuring costs. Profit in 2014 was \$5.88 per share, or \$6.38 per share excluding restructuring costs.
- Inventory declined about \$1.45 billion during the fourth quarter of 2015. For the full year, inventory decreased about \$2.5 billion.
- ***Machinery, Energy & Transportation (ME&T)*** operating cash flow for 2015 was about \$5.2 billion.
- ME&T ***debt-to-capital ratio*** was 39.1 percent at the end of 2015, compared with 37.4 percent at the end of 2014. We ended the year with about \$6.5 billion of enterprise cash.
- During the year, we repurchased about \$2 billion of Caterpillar stock and increased the quarterly dividend by 10 percent.

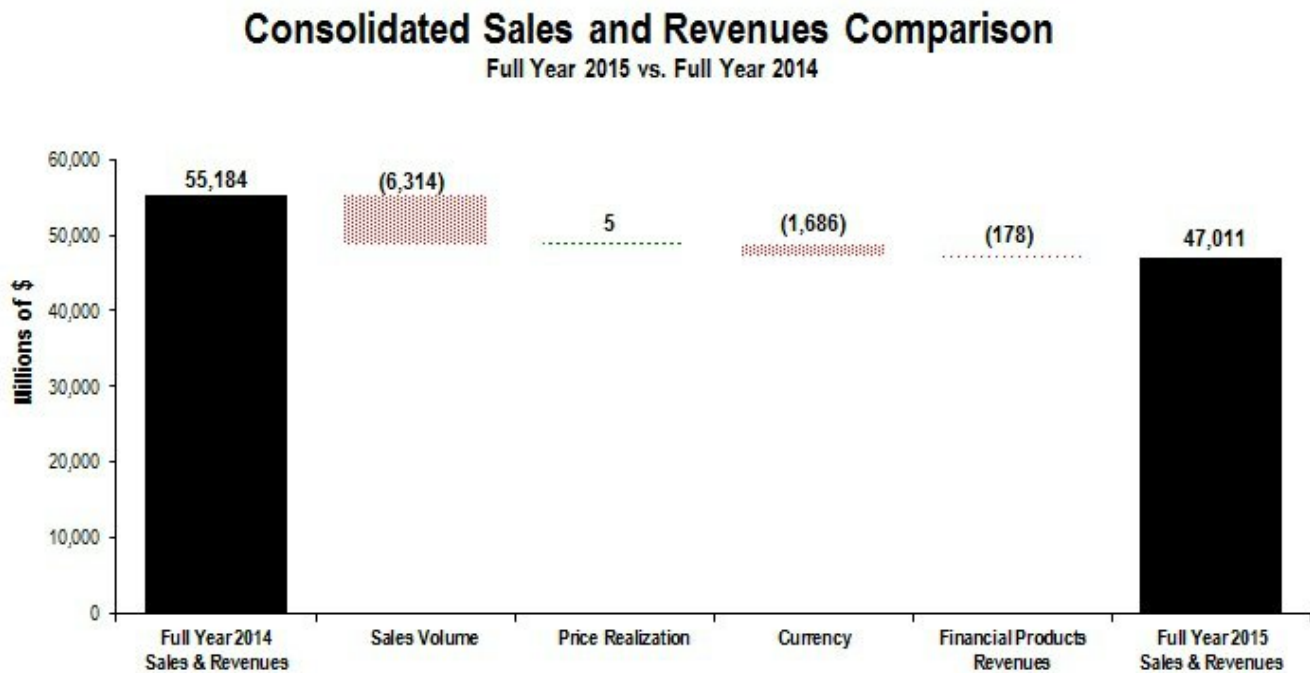
### **Restructuring Costs**

For the past several years, we have incurred substantial restructuring costs as a result of actions to lower our cost structure in response to weak economic conditions in the key industries we serve. In 2015, we incurred \$908 million of restructuring costs for employee separation costs related to a reduction in workforce and for costs related to closure and consolidation of numerous manufacturing facilities throughout the company. We incurred restructuring costs of \$441 million in 2014, including \$273 million related to actions at our Gosselies, Belgium, facility to reduce costs and improve competitiveness. We expect to take additional restructuring actions in 2016 and anticipate that these actions will result in costs of about \$400 million.

\* Glossary of terms included on pages 46 to 48; first occurrence of terms shown in bold italics.

## 2015 COMPARED WITH 2014

### CONSOLIDATED SALES AND REVENUES



The chart above graphically illustrates reasons for the change in Consolidated Sales and Revenues between 2014 (at left) and 2015 (at right). Items favorably impacting sales and revenues appear as upward stair steps with the corresponding dollar amounts above each bar, while items negatively impacting sales and revenues appear as downward stair steps with dollar amounts reflected in parentheses above each bar. Caterpillar management utilizes these charts internally to visually communicate with the company's Board of Directors and employees.

Total sales and revenues were \$47.011 billion in 2015, down \$8.173 billion, or 15 percent, from 2014. The decrease was largely due to lower sales volume, primarily in Energy & Transportation and **Construction Industries**. Sales volume was also lower in **Resource Industries**. **Currency** had an unfavorable impact of \$1.7 billion due to continued strengthening of the U.S. dollar against most currencies, with the largest impact from the euro. We expect the continued strength of the U.S. dollar to negatively impact sales in 2016. While sales for both new equipment and aftermarket parts declined in Energy & Transportation, Construction Industries and Resource Industries, most of the decrease was for new equipment. Financial Products' revenues declined \$178 million.

While **price realization** was about flat from 2014 to 2015, it was positive in the first half of 2015 and negative over the second half of 2015. We expect that negative trend to continue in 2016. We are experiencing pricing pressure from the competitive nature of the businesses we are in and from the impact of a stronger U.S. dollar.

The two most significant reasons for the decline in sales and revenues from 2014 were weakening economic growth and substantially lower commodity prices. The impact of weak economic growth was most pronounced in developing countries, such as China and Brazil. Lower oil prices had a substantial negative impact on the portion of Energy & Transportation that supports oil drilling and well servicing, where new order rates in 2015 were down close to 90 percent from 2014. We do not expect an improvement in world economic growth or commodity prices in 2016 and expect our 2016 sales and revenues to be lower than 2015.

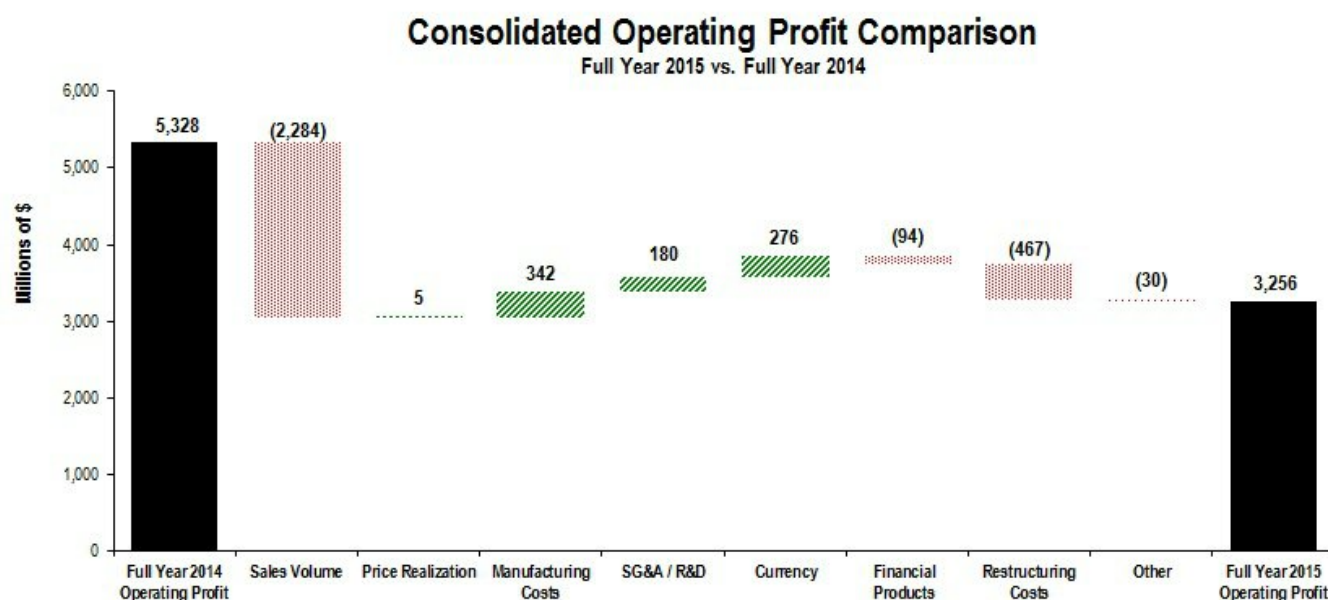
The impact of changes in dealer machine and engine inventories was about flat. In total, dealer inventories decreased about \$1 billion in both 2015 and 2014. We expect that a further decline in sales in 2016 will cause dealers to reduce inventory levels about as much as they did in 2015. Dealers are independent, and there could be many reasons for changes in their inventory levels. In general, dealers adjust inventory based on their expectations of future demand and product delivery times. Dealers' demand expectations take into account seasonal changes, macroeconomic conditions and other factors. Delivery times can vary based on availability of product from Caterpillar factories and product distribution centers.

Sales declined in all regions. Sales in North America declined 11 percent, primarily in Energy & Transportation with the most significant decrease in rail applications. Sales also declined in Resource Industries and Construction Industries. In Asia/Pacific, sales declined 19 percent, primarily due to lower end-user demand for construction and mining equipment and oil and gas applications. The impact of currency was also unfavorable, as our sales in Japanese yen and Australian dollars translated into fewer U.S. dollars. In **EAME**, sales declined 14 percent, primarily due to the unfavorable impact of currency, as our sales in euros

translated into fewer U.S. dollars. The remaining sales decline is primarily due to lower sales in Russia as a recession slowed demand and the absence of a large power generation project that occurred in 2014. **Latin America** sales decreased 28 percent due to lower end-user demand, mostly for construction equipment. The decline was due to continued widespread economic weakness across the region with the most significant decline in Brazil due to continued weak construction activity resulting from depressed economic conditions.

By segment, sales decreased in Energy & Transportation, Construction Industries and Resource Industries. Energy & Transportation's sales declined 17 percent with much of the decline a result of low oil prices. Construction Industries' sales declined 14 percent, primarily due to lower end-user demand and the unfavorable impact of currency. Resource Industries' sales declined 15 percent, primarily due to weaker demand for mining products, partially offset by the favorable impact of changes in dealer inventories, as dealer inventories decreased more in 2014 than in 2015. Financial Products' segment revenues decreased 7 percent, primarily due to lower average *earning assets* and lower average financing rates.

## CONSOLIDATED OPERATING PROFIT



The chart above graphically illustrates reasons for the change in Consolidated Operating Profit between 2014 (at left) and 2015 (at right). Items favorably impacting operating profit appear as upward stair steps with the corresponding dollar amounts above each bar, while items negatively impacting operating profit appear as downward stair steps with dollar amounts reflected in parentheses above each bar. Caterpillar management utilizes these charts internally to visually communicate with the company's Board of Directors and employees. The bar entitled Other includes *consolidating adjustments* and *Machinery, Energy & Transportation other operating (income) expenses*.

Operating profit for 2015 was \$3.256 billion, a decrease of \$2.072 billion from 2014. The decrease was primarily the result of lower sales volume and higher restructuring costs, partially offset by lower *manufacturing costs*, the favorable impact of currency and lower SG&A and R&D expenses.

Restructuring costs of \$908 million in 2015, included in corporate items, were primarily related to a reduction in workforce across the company. In 2014, restructuring costs were \$441 million, primarily related to a workforce reduction at the Gosselies, Belgium, facility and other actions across the company. Our restructuring activities continued in 2015 as part of our ongoing efforts to optimize our cost structure and improve the efficiency of our operations. In 2016, we expect to incur restructuring costs related to programs started in 2015 and for additional actions to further improve our long-term cost structure.

Manufacturing costs were lower primarily due to improved material costs and lower incentive compensation expense. Favorable material costs were due to declines in commodity prices and a focus on reducing the cost of components in our products. These lower costs were partially offset by the unfavorable impact of cost absorption as there was a more significant inventory decline in 2015 than 2014, and manufacturing inefficiencies driven by costs decreasing at a lower rate than production volume. In 2016, we expect lower material costs as a result of lower commodity prices and supplier collaboration, favorable cost absorption as we expect a smaller inventory decline in 2016 than in 2015 and favorable variable manufacturing costs as we focus on operational improvements.

The favorable impact of currency was primarily due to the strengthening of the U.S. dollar in relation to the Japanese yen and British pound, as we are a net exporter from Japan and the United Kingdom.

SG&A and R&D expenses declined as lower incentive compensation expense was partially offset by higher spending for new product introductions.

Short-term incentive compensation expense related to 2015, was about \$585 million compared to about \$1.3 billion of short-term incentive compensation expense related to 2014. Short-term incentive compensation expense is directly related to financial and operational performance measured against targets set annually.

In 2016, we expect a greater proportion of the expected sales decline will occur in higher margin products for the oil and gas and mining industries, likely resulting in an unfavorable impact on operating margin.

### **Other Profit/Loss Items**

**Other income/expense** was income of \$106 million in 2015, compared with income of \$239 million in 2014. The change was primarily due to the unfavorable net impact of currency translation and hedging gains and losses, partially offset by a gain of \$120 million on the sale of the remaining 35 percent interest in our former third party logistics business. Translation and hedging losses in 2015 totaled \$228 million primarily due to the Brazilian real and Japanese yen. In 2014, translation and hedging gains were \$54 million primarily due to the euro.

The **provision for income taxes** for 2015 reflects an estimated annual tax rate of 24.5 percent compared with 28 percent for 2014, excluding the items discussed below. The decrease is primarily due to a more favorable geographic mix of profits from a tax perspective in 2015, including the impact of restructuring costs primarily at higher U.S. tax rates.

The provision for income taxes for 2015 also includes a \$42 million net charge to increase unrecognized tax benefits by \$68 million partially offset by a benefit of \$26 million to record U.S. refund claims related to prior tax years currently under examination. Our consideration of decisions by the U.S. Court of Appeals for the Second Circuit in 2015 involving other taxpayers caused us to increase our unrecognized tax benefits related to foreign tax credits that arose as a result of certain financings.

The 2014 tax provision also included a benefit of \$23 million for the release of a valuation allowance against the deferred tax assets of a non-U.S. subsidiary and a net benefit of \$21 million to adjust prior years' U.S. taxes and interest.



## Segment Information

### Sales and Revenues by Geographic Region

(Millions of dollars)	Total	% Change	North America	% Change	Latin America	% Change	EAME	% Change	Asia/ Pacific	% Change
<b>2015</b>										
Construction Industries <sup>1</sup> .....	\$16,568	(14)%	\$ 8,084	(4)%	\$ 1,449	(41)%	\$ 3,808	(11)%	\$ 3,227	(24)%
Resource Industries <sup>2</sup> .....	7,551	(15)%	2,820	(12)%	1,216	(20)%	1,741	(18)%	1,774	(15)%
Energy & Transportation <sup>3</sup> .....	17,938	(17)%	7,759	(19)%	1,634	(17)%	5,270	(16)%	3,275	(15)%
All Other Segments <sup>4</sup> .....	2,197	(2)%	1,576	10 %	143	(43)%	296	(14)%	182	(17)%
Corporate Items and Eliminations .....	(107)		(115)		2		1		5	
<b>Machinery, Energy &amp; Transportation Sales</b> .....	<b>44,147</b>	<b>(15)%</b>	<b>20,124</b>	<b>(11)%</b>	<b>4,444</b>	<b>(28)%</b>	<b>11,116</b>	<b>(14)%</b>	<b>8,463</b>	<b>(19)%</b>
Financial Products Segment .....	3,078	(7)%	1,812	2 %	400	(15)%	408	(17)%	458	(20)%
Corporate Items and Eliminations .....	(214)		(111)		(42)		(22)		(39)	
<b>Financial Products Revenues</b> .....	<b>2,864</b>	<b>(6)%</b>	<b>1,701</b>	<b>4 %</b>	<b>358</b>	<b>(14)%</b>	<b>386</b>	<b>(18)%</b>	<b>419</b>	<b>(19)%</b>
<b>Consolidated Sales and Revenues ....</b>	<b><u>\$47,011</u></b>	<b>(15)%</b>	<b><u>\$ 21,825</u></b>	<b>(10)%</b>	<b><u>\$ 4,802</u></b>	<b>(27)%</b>	<b><u>\$11,502</u></b>	<b>(15)%</b>	<b><u>\$ 8,882</u></b>	<b>(19)%</b>
<b>2014</b>										
Construction Industries <sup>1</sup> .....	\$19,362		\$ 8,403		\$ 2,445		\$ 4,267		\$ 4,247	
Resource Industries <sup>2</sup> .....	8,921		3,193		1,514		2,116		2,098	
Energy & Transportation <sup>3</sup> .....	21,727		9,612		1,963		6,297		3,855	
All Other Segments <sup>4</sup> .....	2,251		1,436		251		345		219	
Corporate Items and Eliminations .....	(119)		(85)		(1)		(34)		1	
<b>Machinery, Energy &amp; Transportation Sales</b> .....	<b>52,142</b>		<b>22,559</b>		<b>6,172</b>		<b>12,991</b>		<b>10,420</b>	
Financial Products Segment .....	3,313		1,782		468		494		569	
Corporate Items and Eliminations .....	(271)		(145)		(51)		(26)		(49)	
<b>Financial Products Revenues</b> .....	<b>3,042</b>		<b>1,637</b>		<b>417</b>		<b>468</b>		<b>520</b>	
<b>Consolidated Sales and Revenues ....</b>	<b><u>\$55,184</u></b>		<b><u>\$ 24,196</u></b>		<b><u>\$ 6,589</u></b>		<b><u>\$13,459</u></b>		<b><u>\$10,940</u></b>	

<sup>1</sup> Does not include inter-segment sales of \$193 million and \$250 million in 2015 and 2014, respectively.

<sup>2</sup> Does not include inter-segment sales of \$353 million and \$431 million in 2015 and 2014, respectively.

<sup>3</sup> Does not include inter-segment sales of \$1,800 million and \$2,248 million in 2015 and 2014, respectively.

<sup>4</sup> Does not include inter-segment sales of \$3,122 million and \$3,440 million in 2015 and 2014, respectively.

## Sales and Revenues by Segment

(Millions of dollars)	2014	Sales Volume	Price Realization	Currency	Other	2015	\$ Change	% Change
Construction Industries .....	\$ 19,362	\$ (2,017)	\$ 2	\$ (779)	\$ —	\$ 16,568	\$ (2,794)	(14)%
Resource Industries .....	8,921	(1,110)	(78)	(182)	—	7,551	(1,370)	(15)%
Energy & Transportation .....	21,727	(3,175)	59	(673)	—	17,938	(3,789)	(17)%
All Other Segments .....	2,251	(27)	21	(48)	—	2,197	(54)	(2)%
Corporate Items and Eliminations .....	(119)	15	1	(4)	—	(107)	12	
<b>Machinery, Energy &amp; Transportation Sales .....</b>	<b>52,142</b>	<b>(6,314)</b>	<b>5</b>	<b>(1,686)</b>	<b>—</b>	<b>44,147</b>	<b>(7,995)</b>	<b>(15)%</b>
Financial Products Segment .....	3,313	—	—	—	(235)	3,078	(235)	(7)%
Corporate Items and Eliminations .....	(271)	—	—	—	57	(214)	57	
<b>Financial Products Revenues .....</b>	<b>3,042</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>(178)</b>	<b>2,864</b>	<b>(178)</b>	<b>(6)%</b>
<b>Consolidated Sales and Revenues .....</b>	<b>\$ 55,184</b>	<b>\$ (6,314)</b>	<b>\$ 5</b>	<b>\$ (1,686)</b>	<b>\$ (178)</b>	<b>\$ 47,011</b>	<b>\$ (8,173)</b>	<b>(15)%</b>

## Operating Profit by Segment

(Millions of dollars)	2015	2014	\$ Change	% Change
Construction Industries .....	\$ 1,925	\$ 2,207	\$ (282)	(13)%
Resource Industries .....	(88)	404	(492)	(122)%
Energy & Transportation .....	3,239	4,135	(896)	(22)%
All Other Segments .....	779	850	(71)	(8)%
Corporate Items and Eliminations .....	(3,114)	(2,875)	(239)	
<b>Machinery, Energy &amp; Transportation .....</b>	<b>2,741</b>	<b>4,721</b>	<b>(1,980)</b>	<b>(42)%</b>
Financial Products Segment .....	809	901	(92)	(10)%
Corporate Items and Eliminations .....	(35)	(16)	(19)	
<b>Financial Products .....</b>	<b>774</b>	<b>885</b>	<b>(111)</b>	<b>(13)%</b>
Consolidating Adjustments .....	(259)	(278)	19	
<b>Consolidated Operating Profit .....</b>	<b>\$ 3,256</b>	<b>\$ 5,328</b>	<b>\$ (2,072)</b>	<b>(39)%</b>

## Construction Industries

Construction Industries' sales were \$16.568 billion in 2015, a decrease of \$2.794 billion, or 14 percent, from 2014. The sales decrease was due to lower sales volume and the unfavorable impact of currency. While sales for both new equipment and aftermarket parts declined, most of the decrease was for new equipment.

- The decrease in sales volume was primarily due to lower deliveries to end users caused by widespread economic weakness primarily in developing countries.
- The unfavorable currency impact was primarily from a weaker euro, Japanese yen and Brazilian real, as sales in these currencies translated into fewer U.S. dollars.

Sales decreased in all geographic regions.

- In Asia/Pacific, the sales decline was primarily due to lower sales in China and Japan. In China, the lower sales resulted primarily from continued weak residential and nonresidential construction activity, which we expect to continue in 2016. Sales in Japan declined due to a weaker Japanese yen, as sales in yen translated into fewer U.S. dollars.
- Decreases in Latin America were primarily related to lower demand due to continued weak construction activity with the most significant impact in Brazil. In addition, the absence of a large government order that occurred in 2014 and the unfavorable impact of a weaker Brazilian real contributed to the decline in sales in Brazil.
- Sales declined in EAME primarily due to the unfavorable impact of currency, as sales in euros translated into fewer U.S. dollars.

- In North America, the sales decline was due to both lower end-user demand and unfavorable changes in dealer inventory, as dealer inventories remained relatively flat in 2015 compared to an increase in 2014. Lack of investment in oil and gas-related construction activity and a decline in infrastructure spending were partially offset by stronger activity in residential and nonresidential building construction. We believe declines in construction activity related to oil and gas have resulted in availability of existing construction equipment for other purposes. We expect general and heavy construction activity to expand in 2016 in the United States. However, we believe this will not translate into higher sales volume in the United States because low construction activity related to oil and gas will continue to free up equipment for building and infrastructure construction jobsites.

Construction Industries' profit was \$1.925 billion in 2015, compared with \$2.207 billion in 2014. The decrease in profit was primarily due to lower sales volume, partially offset by lower manufacturing costs, SG&A and R&D expenses and the favorable impact of currency. Manufacturing costs were favorable primarily due to lower incentive compensation expense and improved material costs. SG&A and R&D expenses were lower primarily due to lower incentive compensation expense.

### **Resource Industries**

Resource Industries' sales were \$7.551 billion in 2015, a decrease of \$1.370 billion, or 15 percent, from 2014, primarily due to lower sales volume and the unfavorable impact of currency, mostly the euro and Australian dollar. Price realization was slightly unfavorable, resulting from a competitive pricing environment. Sales declined for both new equipment and aftermarket parts. We believe some mining companies are continuing to curtail maintenance and rebuild activities.

Commodity prices remained weak, and mining customers continued to focus on improving productivity in existing mines and reducing their total capital expenditures as they have for the last several years. As a result, sales and new orders in Resource Industries continued to weaken. We are expecting a further decline in sales volume in 2016 as a result of continued reductions in mining-related commodity prices and difficult financial conditions for many mining customers around the world.

The sales volume decrease was partially offset by the favorable impact of changes in dealer inventories. While dealers continued to reduce inventories in 2015, the reductions were less significant than in 2014.

Sales decreased in all geographic regions.

- In EAME, the sales decline was primarily due to lower end-user demand and the unfavorable impact of currency due to a weaker euro, as sales in euro translated into fewer U.S. dollars. The decline was partially offset by the favorable impact of changes in dealer inventories. While dealers continued to reduce inventories in 2015, the reductions were less significant than in 2014.
- In North America, the sales decline was primarily due to lower end-user demand driven by lower sales of mining equipment partially offset by increases in sales of equipment used to support the quarry and aggregate industry and the favorable impact of changes in dealer inventories. While dealers continued to reduce inventories in 2015, the reductions were less significant than in 2014.
- Sales declined in Asia/Pacific primarily due to lower end-user demand and the unfavorable impact of currency, mostly due to the Australian dollar, as sales translated into fewer U.S. dollars, partially offset by the favorable impact of changes in dealer inventories. While dealers continued to reduce inventories in 2015, the reductions were less significant than in 2014.
- Decreases in Latin America were primarily related to continued weak mining activity and slightly unfavorable price realization resulting from a competitive pricing environment. The decline was partially offset by the favorable impact of changes in dealer inventories. While dealers continued to reduce inventories in 2015, the reductions were less significant than in 2014.

Resource Industries' loss was \$88 million in 2015, compared with profit of \$404 million in 2014. The decrease was primarily the result of lower sales volume, higher spending for new product introductions and unfavorable price realization, partially offset by lower manufacturing costs, primarily from improved material costs. We expect unfavorable price realization in 2016 due to continued pricing pressure from the competitive nature of the business and the impact of a stronger U.S. dollar.

### **Energy & Transportation**

Energy & Transportation's sales were \$17.938 billion in 2015, a decrease of \$3.789 billion, or 17 percent, from 2014. The sales decrease was primarily due to lower sales volume and the unfavorable impact of currency, mainly from a weaker euro. Sales decreased in all geographic regions and across all applications.

- **Oil and Gas** - The sales decrease was driven by lower end-user demand as oil prices continued to decline. Sales decreased in all regions. In North America, sales were lower primarily due to a decline in end-user demand for reciprocating engines used in drilling, well servicing and gas compression applications. Sales declined in Asia/Pacific primarily from lower end-user demand for equipment used in drilling applications and the unfavorable impact of changes in dealer inventories as

inventories decreased in 2015 and were about flat in 2014. In Latin America, sales were lower primarily due to the absence of a large project that occurred in 2014. Sales declined in EAME due to depressed oil prices and the unfavorable impact of currency, primarily from a weaker euro.

During the first half of 2015, sales remained at relatively high levels for equipment used in gas compression, well servicing and drilling because we started the year with a substantial order backlog. Sales declined during the second half of 2015 as orders from the backlog were shipped and new order levels were weak. Because of that impact, along with the further decline in oil prices, we expect reciprocating engine sales in well servicing, drilling and gas compression to decline in 2016. Sales in our turbine business are also expected to decline in 2016. Based on the current backlog and recent quotation activity, decreases in turbine sales related to oil projects in 2016 are expected to more than offset increases in turbine sales related to gas compression.

- **Transportation** - Sales decreased in North America and were about flat in all other geographic regions. In North America, sales into rail applications decreased primarily due to the absence of a Tier IV locomotive offering and lower sales of recyclable materials. The decline of recyclable materials was driven primarily by the year-over-year decrease in scrap prices and the lower volume of railcars available to scrap.
- **Power Generation** - Sales decreased in EAME and North America and were about flat in all other regions. In EAME, the sales decline was primarily due to lower end-user demand resulting from the absence of a large project that occurred in 2014, weak economic conditions and political instability in the region, and the negative impact of currency. Sales declined in North America mostly due to the absence of several large projects and unfavorable impact of changes in dealer inventories as inventories decreased in 2015 and were about flat in 2014.
- **Industrial** - Sales decreased in all regions except Latin America which was about flat. In EAME, sales decreased primarily due to lower end-user demand for engines used by original equipment manufacturers for agriculture and construction applications and the unfavorable impact of currency. In both Asia/Pacific and North America, lower demand for most industrial applications contributed to the sales decrease.

While oil and gas represents the most significant decline, continuing weakness in economic conditions in much of the world is expected to be negative for sales of power generation equipment, industrial engines, marine and rail in 2016.

Energy & Transportation's profit was \$3.239 billion in 2015, compared with \$4.135 billion in 2014. The decrease was primarily due to lower sales volume, which includes a favorable mix of products, partially offset by lower incentive compensation expense.

Excluding incentive compensation expense, manufacturing costs were about flat as improved material costs were about offset by the unfavorable impact of cost absorption and manufacturing inefficiencies driven by costs decreasing at a lower rate than production volume. The unfavorable impact of cost absorption resulted from a significant decrease in inventory in 2015, compared to an increase in inventory in 2014.

SG&A and R&D expenses were favorable as lower incentive compensation expense was partially offset by increases in program spending including for new product introductions.

### **Financial Products Segment**

Financial Products' revenues were \$3.078 billion, a decrease of \$235 million, or 7 percent, from 2014. The decline was primarily due to lower average earning assets and lower average financing rates. Average earning assets were down in Asia/Pacific, Latin America and EAME, partially offset by higher average earning assets in North America. Average financing rates decreased primarily in North America and EAME.

Financial Products' profit was \$809 million in 2015, compared with \$901 million in 2014. The decrease was primarily due to a \$68 million decrease in net yield on average earning assets reflecting changes in the geographic mix of margin and currency impacts and a \$55 million unfavorable impact from lower average earning assets, partially offset by a \$33 million decrease in the provision for credit losses at Cat Financial. The decrease in provision for credit losses at Cat Financial was primarily due to a favorable impact from changes in the allowance rate and a favorable impact from changes in portfolio balances, partially offset by an increase in write-offs, net of recoveries. The favorable impact from changes in the allowance rate was driven by changes in certain assumptions within the allowance for credit loss model. During 2015, as a result of management's review, the loss emergence period and loss given default assumptions were updated and resulted in a decrease to the allowance for credit losses of \$66 million.

At the end of 2015, past dues at Cat Financial were 2.14 percent, compared with 2.17 percent at the end of 2014. Write-offs, net of recoveries, were \$155 million for the full-year 2015, compared with \$104 million for the full-year 2014. The increase in write-offs, net of recoveries, was primarily driven by the mining and marine portfolios.

As of December 31, 2015, Cat Financial's allowance for credit losses totaled \$338 million, or 1.22 percent of net finance receivables, compared with \$401 million, or 1.36 percent of net finance receivables, at year-end 2014.

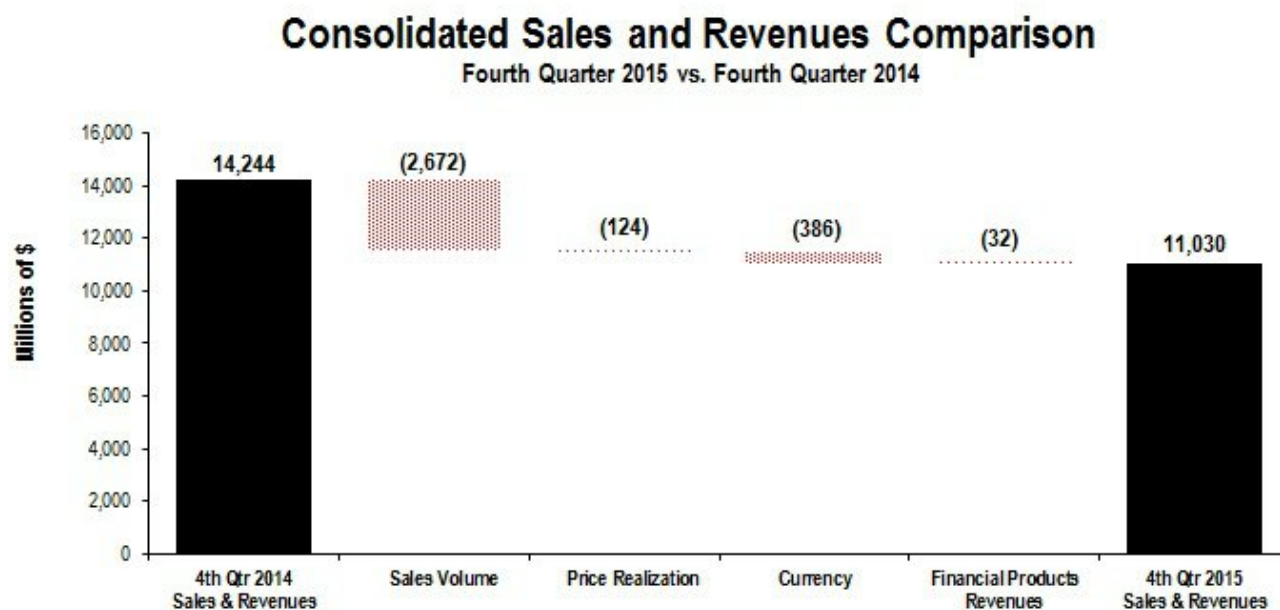
### **Corporate Items and Eliminations**

Expense for corporate items and eliminations was \$3.149 billion in 2015, an increase of \$258 million from 2014. Corporate items and eliminations include: corporate-level expenses; restructuring costs; timing differences, as some expenses are reported in segment profit on a cash basis; retirement benefit costs other than service cost; currency differences for ME&T, as segment profit is reported using annual fixed exchange rates, and inter-segment eliminations.

The increase in expense in 2015 was primarily due to a \$467 million increase in restructuring costs and an unfavorable impact from methodology differences, partially offset by a favorable impact from timing differences.

## **FOURTH QUARTER 2015 COMPARED WITH FOURTH QUARTER 2014**

### **CONSOLIDATED SALES AND REVENUES**



The chart above graphically illustrates reasons for the change in Consolidated Sales and Revenues between the fourth quarter of 2014 (at left) and the fourth quarter of 2015 (at right). Items favorably impacting sales and revenues appear as upward stair steps with the corresponding dollar amounts above each bar, while items negatively impacting sales and revenues appear as downward stair steps with dollar amounts reflected in parentheses above each bar. Caterpillar management utilizes these charts internally to visually communicate with the company's Board of Directors and employees.

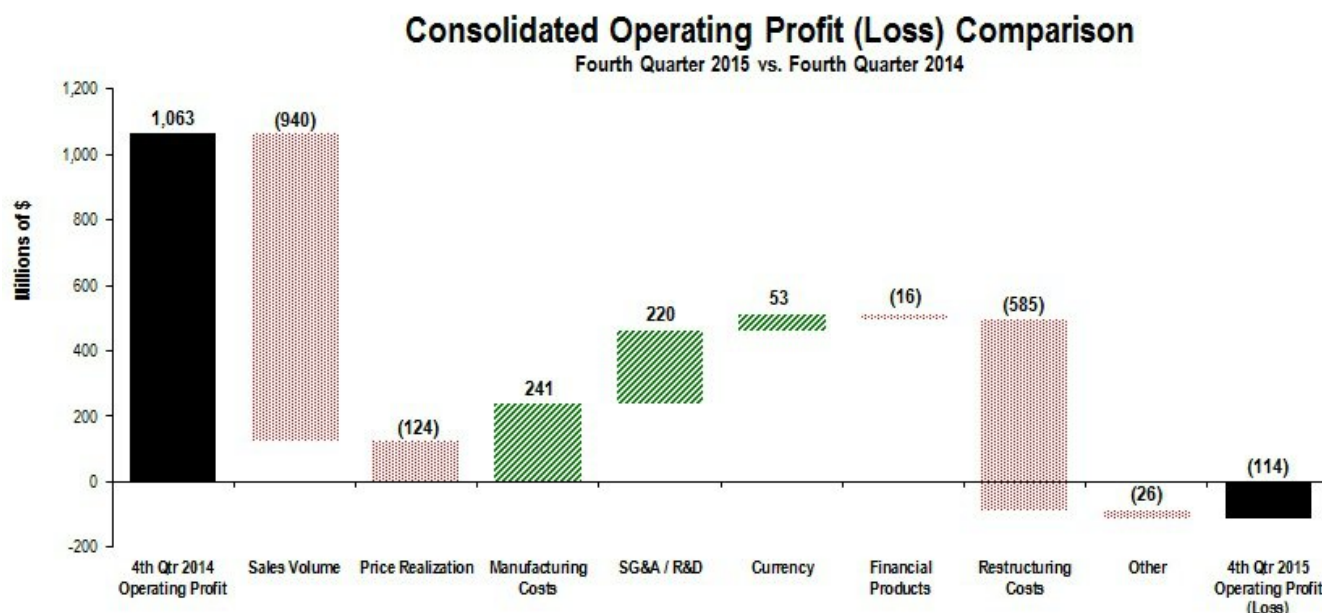
### **Sales and Revenues**

Total sales and revenues were \$11.030 billion in the fourth quarter of 2015, compared with \$14.244 billion in the fourth quarter of 2014, a decline of \$3.214 billion, or 23 percent. The decrease was primarily due to lower sales volume and the unfavorable impact of currency due to continued strengthening of the U.S. dollar against most currencies, with about half of the impact from the euro. The two most significant reasons for the decline in sales in 2015 were weakening economic growth primarily in developing countries and substantially lower commodity prices, most notably oil. While sales for both new equipment and aftermarket parts declined in all segments, most of the decrease was for new equipment.

Sales declined in all regions. In North America, sales decreased 26 percent due to lower end-user demand, primarily in Energy & Transportation, and unfavorable changes in dealer inventories, mostly in Construction Industries. In EAME, sales declined 20 percent, mostly due to lower end-user demand for products used in Energy & Transportation applications and the unfavorable impact of currency, as sales in euros translated into fewer U.S. dollars. Sales decreased 36 percent in Latin America, primarily due to widespread economic weakness across the region, which had a negative impact on construction and mining activity and demand for products used in oil and gas applications. The most significant decrease was in Brazil. Asia/Pacific sales declined 16 percent, primarily due to lower end-user demand for Energy & Transportation applications and products used in mining. In addition, the impact of currency was unfavorable as sales, mostly in Australian dollars and Japanese yen, translated into fewer U.S. dollars. These unfavorable items were partially offset by favorable changes in dealer inventories as dealers reduced inventories more significantly in the fourth quarter of 2014 compared to the fourth quarter of 2015.

Sales decreased in all segments. Energy & Transportation's sales declined 29 percent as sales decreased due to lower end-user demand and the unfavorable impact of currency. Construction Industries' sales decreased 18 percent, primarily due to the unfavorable impact of changes in dealer inventories as dealers decreased inventories more significantly in the fourth quarter of 2015 compared to the fourth quarter of 2014. Additionally, dealer deliveries to end users, the impact of currency and price realization were unfavorable. Resource Industries' sales declined 23 percent, mostly due to continued low end-user demand. Financial Products' segment revenues were down 8 percent, primarily due to lower average earning assets and lower average financing rates.

## CONSOLIDATED OPERATING PROFIT



The chart above graphically illustrates reasons for the change in Consolidated Operating Profit between the fourth quarter of 2014 (at left) and the fourth quarter of 2015 (at right). Items favorably impacting operating profit appear as upward stair steps with the corresponding dollar amounts above each bar, while items negatively impacting operating profit appear as downward stair steps with dollar amounts reflected in parentheses above each bar. Caterpillar management utilizes these charts internally to visually communicate with the company's Board of Directors and employees. The bar entitled Other includes consolidating adjustments and Machinery, Energy & Transportation other operating (income) expenses.

Operating loss for the fourth quarter of 2015 was \$114 million, compared with operating profit of \$1.063 billion in the fourth quarter of 2014. The decrease of \$1.177 billion was primarily due to lower sales volume reflecting weak market conditions in most of the industries we serve, higher restructuring costs and unfavorable price realization. These items were partially offset by favorable manufacturing costs and lower SG&A and R&D expenses.

The unfavorable price realization resulted from competitive market conditions and an unfavorable geographic mix of sales.

Manufacturing costs were favorable due to lower incentive compensation expense, lower spending due to cost reduction efforts and improved material costs partially offset by the unfavorable impact of cost absorption as inventory decreased more significantly in the fourth quarter of 2015 than in the fourth quarter of 2014.

SG&A and R&D expenses were favorable due to lower incentive compensation expense and lower spending due to cost reduction efforts.

Although the strong U.S. dollar had a negative impact to our sales, our sizable manufacturing presence outside of the United States resulted in a favorable impact to costs and operating profit.

Restructuring costs of \$682 million in the fourth quarter of 2015 were primarily related to a reduction in workforce. In the fourth quarter of 2014, restructuring costs were \$97 million.

### Other Profit/Loss Items

- **Other income/expense** in the fourth quarter of 2015 was income of \$30 million, compared with income of \$3 million in the fourth quarter of 2014. The favorable change of \$27 million was primarily due to gains on the sale of securities in the fourth quarter of 2015. The net impact from currency translation and hedging gains and losses was about flat.

- The **provision for income taxes** for the fourth quarter of 2015 reflects an effective tax rate of 24.5 percent, compared with 28 percent for the fourth quarter of 2014 excluding the items discussed below. The decrease is primarily due to a more favorable geographic mix of profits from a tax perspective in 2015, including the impact of restructuring costs primarily at higher U.S. tax rates.

The provision for income taxes for the fourth quarter of 2015 also includes a benefit of \$77 million related to the decrease from the third-quarter estimated annual tax rate of 27 percent, primarily due to the renewal in the fourth quarter of the U.S. research and development tax credit. The provision for income taxes for the fourth quarter of 2014 also included benefits of \$85 million related to a decrease from the third-quarter estimated annual effective tax rate and the release of a valuation allowance against the deferred tax assets of a non-U.S. subsidiary.

## **Segment Information**

### **Sales and Revenues by Geographic Region**

(Millions of dollars)	Total	% Change	North America	% Change	Latin America	% Change	EAME	% Change	Asia/ Pacific	% Change
<b><u>Fourth Quarter 2015</u></b>										
Construction Industries <sup>1</sup> .....	\$ 3,640	(18)%	\$ 1,664	(17)%	\$ 280	(49)%	\$ 913	(2)%	\$ 783	(17)%
Resource Industries <sup>2</sup> .....	1,836	(23)%	586	(31)%	274	(32)%	449	(21)%	527	(7)%
Energy & Transportation <sup>3</sup> .....	4,419	(29)%	1,852	(32)%	408	(25)%	1,406	(29)%	753	(20)%
All Other Segments <sup>4</sup> .....	468	(12)%	338	(5)%	28	(54)%	64	(17)%	38	(3)%
Corporate Items and Eliminations .....	(45)		(47)		—		1		1	
<b>Machinery, Energy &amp; Transportation Sales</b> .....	<b>10,318</b>	<b>(24)%</b>	<b>4,393</b>	<b>(26)%</b>	<b>990</b>	<b>(36)%</b>	<b>2,833</b>	<b>(20)%</b>	<b>2,102</b>	<b>(16)%</b>
Financial Products Segment .....	746	(8)%	452	— %	97	(13)%	97	(16)%	100	(25)%
Corporate Items and Eliminations .....	(34)		(6)		(13)		(5)		(10)	
<b>Financial Products Revenues</b> .....	<b>712</b>	<b>(4)%</b>	<b>446</b>	<b>8 %</b>	<b>84</b>	<b>(15)%</b>	<b>92</b>	<b>(16)%</b>	<b>90</b>	<b>(26)%</b>
<b>Consolidated Sales and Revenues</b> ....	<b>\$11,030</b>	<b>(23)%</b>	<b>\$ 4,839</b>	<b>(23)%</b>	<b>\$ 1,074</b>	<b>(35)%</b>	<b>\$ 2,925</b>	<b>(20)%</b>	<b>\$ 2,192</b>	<b>(16)%</b>
<b><u>Fourth Quarter 2014</u></b>										
Construction Industries <sup>1</sup> .....	\$ 4,420		\$ 1,996		\$ 549		\$ 934		\$ 941	
Resource Industries <sup>2</sup> .....	2,385		850		401		566		568	
Energy & Transportation <sup>3</sup> .....	6,191		2,730		541		1,980		940	
All Other Segments <sup>4</sup> .....	531		354		61		77		39	
Corporate Items and Eliminations .....	(27)		(26)		—		(3)		2	
<b>Machinery, Energy &amp; Transportation Sales</b> .....	<b>13,500</b>		<b>5,904</b>		<b>1,552</b>		<b>3,554</b>		<b>2,490</b>	
Financial Products Segment .....	811		451		112		115		133	
Corporate Items and Eliminations .....	(67)		(37)		(13)		(6)		(11)	
<b>Financial Products Revenues</b> .....	<b>744</b>		<b>414</b>		<b>99</b>		<b>109</b>		<b>122</b>	
<b>Consolidated Sales and Revenues</b> ....	<b>\$14,244</b>		<b>\$ 6,318</b>		<b>\$ 1,651</b>		<b>\$ 3,663</b>		<b>\$ 2,612</b>	

<sup>1</sup> Does not include inter-segment sales of \$63 million and \$52 million in the fourth quarter 2015 and 2014, respectively.

<sup>2</sup> Does not include inter-segment sales of \$85 million and \$113 million in the fourth quarter 2015 and 2014, respectively.

<sup>3</sup> Does not include inter-segment sales of \$382 million and \$542 million in the fourth quarter 2015 and 2014, respectively.

<sup>4</sup> Does not include inter-segment sales of \$729 million and \$843 million in the fourth quarter 2015 and 2014, respectively.

## Sales and Revenues by Segment

(Millions of dollars)	Fourth Quarter 2014	Sales Volume	Price Realization	Currency	Other	Fourth Quarter 2015	\$ Change	% Change
Construction Industries.....	\$ 4,420	\$ (522)	\$ (110)	\$ (148)	\$ —	\$ 3,640	\$ (780)	(18)%
Resource Industries .....	2,385	(474)	(20)	(55)	—	1,836	(549)	(23)%
Energy & Transportation.....	6,191	(1,600)	(3)	(169)	—	4,419	(1,772)	(29)%
All Other Segments .....	531	(60)	9	(12)	—	468	(63)	(12)%
Corporate Items and Eliminations .....	(27)	(16)	—	(2)	—	(45)	(18)	
<b>Machinery, Energy &amp; Transportation Sales.....</b>	<b>13,500</b>	<b>(2,672)</b>	<b>(124)</b>	<b>(386)</b>	<b>—</b>	<b>10,318</b>	<b>(3,182)</b>	<b>(24)%</b>
Financial Products Segment .....	811	—	—	—	(65)	746	(65)	(8)%
Corporate Items and Eliminations .....	(67)	—	—	—	33	(34)	33	
<b>Financial Products Revenues.....</b>	<b>744</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>(32)</b>	<b>712</b>	<b>(32)</b>	<b>(4)%</b>
<b>Consolidated Sales and Revenues .....</b>	<b>\$ 14,244</b>	<b>\$ (2,672)</b>	<b>\$ (124)</b>	<b>\$ (386)</b>	<b>\$ (32)</b>	<b>\$ 11,030</b>	<b>\$ (3,214)</b>	<b>(23)%</b>

## Operating Profit (Loss) by Segment

(Millions of dollars)	Fourth Quarter 2015	Fourth Quarter 2014	\$ Change	% Change
Construction Industries .....	\$ 220	\$ 362	\$ (142)	(39)%
Resource Industries .....	(105)	25	(130)	(520)%
Energy & Transportation.....	712	1,123	(411)	(37)%
All Other Segments.....	141	164	(23)	(14)%
Corporate Items and Eliminations .....	(1,195)	(753)	(442)	
<b>Machinery, Energy &amp; Transportation .....</b>	<b>(227)</b>	<b>921</b>	<b>(1,148)</b>	<b>(125)%</b>
Financial Products Segment.....	191	197	(6)	(3)%
Corporate Items and Eliminations .....	(15)	12	(27)	
<b>Financial Products .....</b>	<b>176</b>	<b>209</b>	<b>(33)</b>	<b>(16)%</b>
Consolidating Adjustments.....	(63)	(67)	4	
<b>Consolidated Operating Profit (Loss) .....</b>	<b>\$ (114)</b>	<b>\$ 1,063</b>	<b>\$ (1,177)</b>	<b>(111)%</b>

## Construction Industries

Construction Industries' sales were \$3.640 billion in the fourth quarter of 2015, a decrease of \$780 million, or 18 percent, from the fourth quarter of 2014. The decrease in sales was mostly due to lower volume and the unfavorable impact of currency. While sales declined for both new equipment and aftermarket parts, most of the decrease was for new equipment.

- Sales volume declined primarily due to the unfavorable impact of changes in dealer inventories as dealers decreased inventories more significantly in the fourth quarter of 2015 compared to the fourth quarter of 2014. In addition, deliveries to end users decreased.
- The unfavorable impact of currency was largely due to the euro, Japanese yen and Brazilian real.

Sales decreased in North America, Latin America and Asia/Pacific, while sales in EAME were about flat.

- In North America, sales declined mostly due to dealers substantially reducing inventories in the fourth quarter of 2015, compared to maintaining inventory levels in the fourth quarter of 2014. Although residential and nonresidential construction activity is improving, sales to end users were lower than the fourth quarter of 2014. We believe declines in construction activity related to oil and gas has resulted in availability of existing construction equipment for other purposes.
- In Latin America, dealer deliveries were down across the region, with the most significant decline in Brazil due to continued weak construction activity resulting from depressed economic conditions. In addition, sales declined due to the unfavorable impact of changes in dealer inventories as dealers lowered inventories in the fourth quarter of 2015, compared to relatively flat inventories in the fourth quarter of 2014.



- In Asia/Pacific, the sales decline was primarily due to lower sales in China and India and the unfavorable impact of currency. The most significant decline was in China, a result of continued weak residential and nonresidential construction activity. The unfavorable impact of currency was primarily due to the weaker Japanese yen and Australian dollar.
- Sales in EAME were about flat as lower end-user demand and the unfavorable impact of currency were about offset by the favorable impact of changes in dealer inventories. Dealers lowered inventories more in the fourth quarter of 2014 than in the fourth quarter of 2015.

Construction Industries' profit was \$220 million in the fourth quarter of 2015, compared with \$362 million in the fourth quarter of 2014. The decrease in profit was primarily due to lower sales volume, unfavorable price realization resulting from competitive market conditions and an unfavorable geographic mix of sales, and an unfavorable impact from litigation. The decline was partially offset by favorable manufacturing costs and lower SG&A and R&D expenses. The reduction in manufacturing costs and SG&A and R&D expenses was primarily due to lower incentive compensation expense and cost reduction efforts.

### **Resource Industries**

Resource Industries' sales were \$1.836 billion in the fourth quarter of 2015, a decrease of \$549 million, or 23 percent, from the fourth quarter of 2014. The decline was primarily due to lower sales volume. Sales were lower for both new equipment and aftermarket parts. We believe mining companies are continuing to curtail maintenance and rebuild activities.

The sales decrease was primarily due to lower end-user demand across all regions. This was partially offset by the favorable impact of changes in dealer inventories, primarily in Asia/Pacific, as dealer inventories were about flat in the fourth quarter of 2015, compared to a decline in the fourth quarter of 2014.

Commodity prices remained weak and mining customers continued to focus on improving productivity in existing mines and reducing their total capital expenditures, as they have for several years. As a result, sales and new orders in Resource Industries continue to be weak.

Resource Industries incurred a loss of \$105 million in the fourth quarter of 2015, compared with profit of \$25 million in the fourth quarter of 2014. The unfavorable change was primarily the result of lower sales volume partially offset by improved manufacturing costs.

Manufacturing costs were favorable due to lower period costs resulting from cost reduction efforts and improved material costs.

SG&A and R&D expenses were about flat, as higher spending for new product introductions was about offset by lower SG&A expenses.

### **Energy & Transportation**

Energy & Transportation's sales were \$4.419 billion in the fourth quarter of 2015, a decrease of \$1.772 billion, or 29 percent, from the fourth quarter of 2014. The decrease was primarily the result of lower sales volume and the unfavorable impact of currency, mostly from the euro. Sales decreased in all applications.

- **Oil and Gas** - Sales continued to decrease in much of the world due to substantially lower oil prices. The decline was most pronounced in equipment used for well servicing and drilling applications, with the most significant impact in North America, our largest market for well servicing. Demand for reciprocating engines used in gas compression was also down.
- **Power Generation** - Sales decreased in EAME and North America and were about flat in Latin America and Asia/Pacific. In EAME, sales decreased primarily due to the absence of a large project in the fourth quarter of 2014. In North America, sales declined primarily due to the absence of several large projects and unfavorable changes in dealer inventories as dealers decreased inventories in the fourth quarter of 2015 and increased inventories in the fourth quarter of 2014.
- **Transportation** - Sales decreased in North America and were about flat in all other geographic regions. In North America, sales weakened primarily due to the absence of a Tier IV locomotive offering.
- **Industrial** - Sales were lower in all regions. Lower sales in EAME were mostly the result of lower demand and the unfavorable impact of currency. In Asia/Pacific, North America and Latin America, the decline in sales was primarily due to lower end-user demand for most industrial applications primarily due to weak economic conditions.

Energy & Transportation's profit was \$712 million in the fourth quarter of 2015, compared with \$1.123 billion in the fourth quarter of 2014. The decrease was due to lower sales volume partially offset by lower costs, primarily incentive compensation expense, and favorable product mix due to the absence of the sale of a large power generation project in EAME that was recognized in the fourth quarter of 2014.

### **Financial Products Segment**

Financial Products' revenues were \$746 million in the fourth quarter of 2015, a decrease of \$65 million, or 8 percent, from the fourth quarter of 2014. The decline was primarily due to lower average earning assets and lower average financing rates. Average earning assets were down in Asia/Pacific, Latin America and EAME, partially offset by higher average earning assets in North America. Average financing rates were down in North America, EAME and Asia/Pacific, partially offset by higher rates in Latin America.

Financial Products' profit was \$191 million in the fourth quarter of 2015, compared with \$197 million in the fourth quarter of 2014. The decrease was primarily due to a \$17 million unfavorable impact from lower average earning assets, a \$10 million decrease in net yield on average earning assets reflecting changes in the geographic mix of margin and currency impacts and a \$10 million unfavorable impact from returned or repossessed equipment. These decreases were partially offset by a \$24 million increase in gains on sales of securities at Caterpillar Financial Insurance Services and a \$12 million decrease in SG&A expenses due to lower incentive compensation expense.

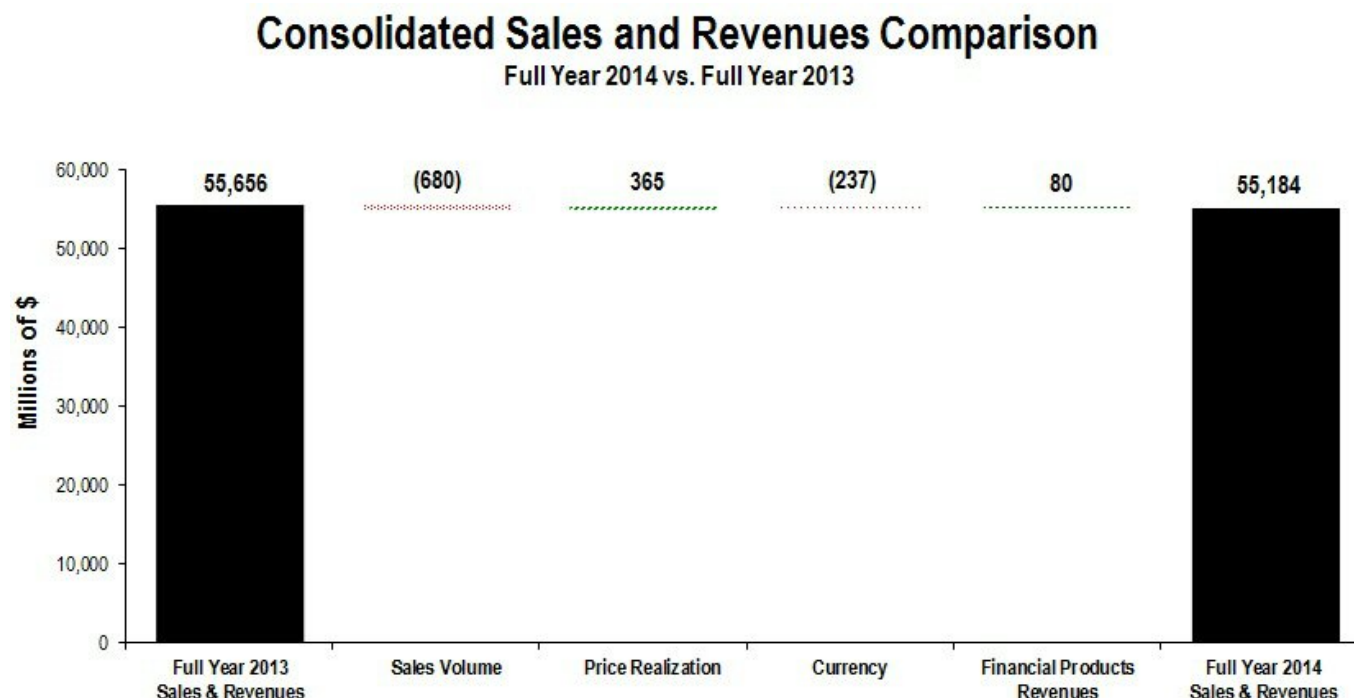
### **Corporate Items and Eliminations**

Expense for corporate items and eliminations was \$1.210 billion in the fourth quarter of 2015, an increase of \$469 million from the fourth quarter of 2014. Corporate items and eliminations include: corporate-level expenses; restructuring costs; timing differences, as some expenses are reported in segment profit on a cash basis; retirement benefit costs other than service cost; currency differences for ME&T, as segment profit is reported using annual fixed exchange rates; and inter-segment eliminations.

The increase in expense from the fourth quarter of 2014 was primarily due to a \$585 million increase in restructuring costs partially offset by timing differences.

## 2014 COMPARED WITH 2013

### CONSOLIDATED SALES AND REVENUES



The chart above graphically illustrates reasons for the change in Consolidated Sales and Revenues between 2013 (at left) and 2014 (at right). Items favorably impacting sales and revenues appear as upward stair steps with the corresponding dollar amounts above each bar, while items negatively impacting sales and revenues appear as downward stair steps with dollar amounts reflected in parentheses above each bar. Caterpillar management utilizes these charts internally to visually communicate with the company's Board of Directors and employees.

Total sales and revenues were \$55.184 billion in 2014, down \$472 million, or 1 percent, from 2013. Sales volume decreased \$680 million primarily due to lower volume in Resource Industries, partially offset by higher volume in Energy & Transportation and Construction Industries. In addition, the impact of currency was unfavorable \$237 million primarily due to the Japanese yen and Brazilian real. These unfavorable items were partially offset by improved price realization of \$365 million and an increase in Financial Products' revenues of \$80 million.

The volume decrease was primarily the result of lower end-user demand for mining equipment in Resource Industries, as customers reduced their capital expenditures. This unfavorable impact was partially offset by the favorable impact of changes in dealer machine and engine inventories, as dealers decreased inventories about \$1 billion in 2014, compared to a decrease of over \$3 billion in 2013. In addition, end-user demand increased for Energy & Transportation applications.

Dealers are independent, and there could be many reasons for changes in their inventory levels. In general, dealers adjust inventory based on their expectations of future demand and product delivery times. Dealers' demand expectations take into account seasonal changes, macroeconomic conditions and other factors. Delivery times can vary based on availability of product from Caterpillar factories and product distribution centers.

Aftermarket parts sales were about flat as increases in Energy & Transportation were about offset by declines in Resource Industries.

Sales declines in Asia/Pacific and Latin America were nearly offset by increases in North America. In Asia/Pacific, sales decreased 13 percent as a result of lower end-user demand resulting from weak economic conditions. Sales were down in each segment across the region. Sales declined 17 percent in Latin America primarily due to lower end-user demand for mining equipment. Sales increased 12 percent in North America primarily due to higher end-user demand for construction equipment and oil and gas and transportation applications and the favorable impact of dealer inventory changes primarily for construction equipment.

Sales were about flat in EAME, as lower end-user demand for mining equipment was about offset by the favorable impact of changes in dealer inventories. While sales in EAME were about flat, sales declines in the CIS were about offset by higher construction equipment sales in Europe due to weak but improving economic conditions. We believe the sales declines in the CIS were due to the effects of ongoing political unrest on economic activity in the region.

By segment, sales decreases in Resource Industries were partially offset by increases in Energy & Transportation and Construction Industries. Resource Industries' sales declined 24 percent, resulting primarily from weaker demand for mining products, partially offset by the favorable impact of changes in dealer inventories. Energy & Transportation's sales were 8 percent higher with increases in all applications. Construction Industries' sales increased 4 percent primarily due to the favorable impact of changes in dealer inventories.

## CONSOLIDATED OPERATING PROFIT



The chart above graphically illustrates reasons for the change in Consolidated Operating Profit between 2013 (at left) and 2014 (at right). Items favorably impacting operating profit appear as upward stair steps with the corresponding dollar amounts above each bar, while items negatively impacting operating profit appear as downward stair steps with dollar amounts reflected in parentheses above each bar. Caterpillar management utilizes these charts internally to visually communicate with the company's Board of Directors and employees. The bar entitled Other includes consolidating adjustments and Machinery, Energy & Transportation other operating (income) expenses.

Operating profit for 2014 was \$5.328 billion, compared with \$5.628 billion for 2013. The decrease was primarily the result of increased SG&A and R&D expenses, higher restructuring costs and the absence of a gain related to a settlement in 2013 with the previous owners of *Caterpillar (Zhengzhou) Ltd.* These unfavorable items were partially offset by improved price realization, primarily for Construction Industries and Energy & Transportation, and lower manufacturing costs.

SG&A and R&D expenses increased \$291 million primarily due to higher incentive compensation expense, partially offset by lower retirement benefits costs and decreased program spending. We are focusing on developmental activities in the area of data analytics in an effort to enhance customer productivity. We believe that should we be successful in developing an automated analytics and diagnostics solution that can be utilized across our product line, this will result in a competitive advantage for our company.

Our restructuring activities continued in 2014 as part of our ongoing efforts to optimize our cost structure and improve the efficiency of our operations. Restructuring costs for 2014 were \$441 million and related to a reduction in workforce at our Gosselies, Belgium, facility and other actions across the company. In 2013, restructuring costs were \$200 million.

Manufacturing costs improved \$104 million primarily due to lower material costs and favorable changes in cost absorption as inventory declined significantly in 2013 as compared to a slight decline in 2014. These favorable impacts were partially offset by higher incentive compensation, increased warranty expenses and the absence of LIFO inventory decrement benefits of \$115 million from 2013.

Short-term incentive compensation expense related to 2014 was about \$1.3 billion. Short-term incentive compensation expense related to 2013 was about \$545 million.

## Other Profit/Loss Items

- **Other income/expense** was income of \$239 million in 2014, compared with expense of \$35 million in 2013. The change was primarily due to the favorable impact of currency translation and hedging gains and losses. Translation and hedging losses in 2013 totaled \$254 million. In 2014, translation and hedging gains were \$54 million.
- **The provision for income taxes** for 2014 reflects an effective tax rate of 28 percent compared with 28.5 percent for 2013, excluding the items discussed below.

The 2014 tax provision also included a benefit of \$23 million for the release of a valuation allowance against the deferred tax assets of a non-U.S. subsidiary and a net benefit of \$21 million to adjust prior years' U.S. taxes and interest. This compares to benefits in 2013 of \$87 million primarily related to the U.S. research and development tax credit that was retroactively extended in 2013 for 2012 and \$55 million to adjust U.S. taxes from the prior year.

## Segment Information

### Sales and Revenues by Geographic Region

(Millions of dollars)	Total	% Change	North America	% Change	Latin America	% Change	EAME	% Change	Asia/ Pacific	% Change
<b>2014</b>										
Construction Industries <sup>1</sup> .....	\$19,362	4 %	\$ 8,403	19 %	\$ 2,445	(10)%	\$ 4,267	6 %	\$ 4,247	(10)%
Resource Industries <sup>2</sup> .....	8,921	(24)%	3,193	(11)%	1,514	(34)%	2,116	(29)%	2,098	(29)%
Energy & Transportation <sup>3</sup> .....	21,727	8 %	9,612	17 %	1,963	(9)%	6,297	10 %	3,855	(4)%
All Other Segments <sup>4</sup> .....	2,251	(1)%	1,436	3 %	251	9 %	345	(9)%	219	(14)%
Corporate Items and Eliminations .....	(119)		(85)		(1)		(34)		1	
<b>Machinery, Energy &amp; Transportation Sales</b> .....	<u>52,142</u>	(1)%	<u>22,559</u>	12 %	<u>6,172</u>	(17)%	<u>12,991</u>	(1)%	<u>10,420</u>	(13)%
Financial Products Segment .....	3,313	3 %	1,782	6 %	468	9 %	494	(2)%	569	(6)%
Corporate Items and Eliminations .....	(271)		(145)		(51)		(26)		(49)	
<b>Financial Products Revenues</b> .....	<u>3,042</u>	3 %	<u>1,637</u>	6 %	<u>417</u>	5 %	<u>468</u>	(1)%	<u>520</u>	(5)%
<b>Consolidated Sales and Revenues</b> .....	<u>\$55,184</u>	(1)%	<u>\$ 24,196</u>	11 %	<u>\$ 6,589</u>	(16)%	<u>\$13,459</u>	(1)%	<u>\$10,940</u>	(12)%
<b>2013</b>										
Construction Industries <sup>1</sup> .....	\$18,532		\$ 7,071		\$ 2,731		\$ 4,026		\$ 4,704	
Resource Industries <sup>2</sup> .....	11,805		3,583		2,283		2,998		2,941	
Energy & Transportation <sup>3</sup> .....	20,155		8,231		2,168		5,735		4,021	
All Other Segments <sup>4</sup> .....	2,263		1,399		231		378		255	
Corporate Items and Eliminations .....	(61)		(65)		2		1		1	
<b>Machinery, Energy &amp; Transportation Sales</b> .....	<u>52,694</u>		<u>20,219</u>		<u>7,415</u>		<u>13,138</u>		<u>11,922</u>	
Financial Products Segment .....	3,224		1,688		430		503		603	
Corporate Items and Eliminations .....	(262)		(145)		(34)		(28)		(55)	
<b>Financial Products Revenues</b> .....	<u>2,962</u>		<u>1,543</u>		<u>396</u>		<u>475</u>		<u>548</u>	
<b>Consolidated Sales and Revenues</b> .....	<u>\$55,656</u>		<u>\$ 21,762</u>		<u>\$ 7,811</u>		<u>\$13,613</u>		<u>\$12,470</u>	

<sup>1</sup> Does not include inter-segment sales of \$250 million and \$330 million in 2014 and 2013, respectively.

<sup>2</sup> Does not include inter-segment sales of \$431 million and \$432 million in 2014 and 2013, respectively.

<sup>3</sup> Does not include inter-segment sales of \$2,248 million and \$1,895 million in 2014 and 2013, respectively.

<sup>4</sup> Does not include inter-segment sales of \$3,440 million and \$3,234 million in 2014 and 2013, respectively.

## Sales and Revenues by Segment

(Millions of dollars)	2013	Sales Volume	Price Realization	Currency	Other	2014	\$ Change	% Change
Construction Industries.....	\$ 18,532	\$ 828	\$ 227	\$ (225)	\$ —	\$ 19,362	\$ 830	4 %
Resource Industries .....	11,805	(2,763)	(76)	(45)	—	8,921	(2,884)	(24)%
Energy & Transportation.....	20,155	1,353	182	37	—	21,727	1,572	8 %
All Other Segments .....	2,263	(38)	30	(4)	—	2,251	(12)	(1)%
Corporate Items and Eliminations .....	(61)	(60)	2	—	—	(119)	(58)	
<b>Machinery, Energy &amp; Transportation Sales .....</b>	<b>52,694</b>	<b>(680)</b>	<b>365</b>	<b>(237)</b>	<b>—</b>	<b>52,142</b>	<b>(552)</b>	<b>(1)%</b>
Financial Products Segment .....	3,224	—	—	—	89	3,313	89	3 %
Corporate Items and Eliminations .....	(262)	—	—	—	(9)	(271)	(9)	
<b>Financial Products Revenues.....</b>	<b>2,962</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>80</b>	<b>3,042</b>	<b>80</b>	<b>3 %</b>
<b>Consolidated Sales and Revenues .....</b>	<b>\$ 55,656</b>	<b>\$ (680)</b>	<b>\$ 365</b>	<b>\$ (237)</b>	<b>\$ 80</b>	<b>\$ 55,184</b>	<b>\$ (472)</b>	<b>(1)%</b>

## Operating Profit by Segment

(Millions of dollars)	2014	2013	\$ Change	% Change
Construction Industries .....	\$ 2,207	\$ 1,374	\$ 833	61 %
Resource Industries .....	404	1,572	(1,168)	(74)%
Energy & Transportation.....	4,135	3,415	720	21 %
All Other Segments.....	850	736	114	15 %
Corporate Items and Eliminations .....	(2,875)	(2,182)	(693)	
<b>Machinery, Energy &amp; Transportation .....</b>	<b>4,721</b>	<b>4,915</b>	<b>(194)</b>	<b>(4)%</b>
Financial Products Segment.....	901	990	(89)	(9)%
Corporate Items and Eliminations .....	(16)	(7)	(9)	
<b>Financial Products .....</b>	<b>885</b>	<b>983</b>	<b>(98)</b>	<b>(10)%</b>
Consolidating Adjustments .....	(278)	(270)	(8)	
<b>Consolidated Operating Profit.....</b>	<b>\$ 5,328</b>	<b>\$ 5,628</b>	<b>\$ (300)</b>	<b>(5)%</b>

## Construction Industries

Construction Industries' sales were \$19.362 billion in 2014, an increase of \$830 million, or 4 percent, from 2013. The sales increase was primarily due to higher sales volume and the favorable impact of price realization, partially offset by the unfavorable impact of currency. Sales of new equipment increased slightly, and sales of aftermarket parts were about flat.

- The increase in sales volume was primarily related to the impact of changes in dealer inventories. Dealer inventories increased slightly in 2014, compared to a decrease in 2013.
- About one-third of the price realization improvement was due to the absence of sales from a large government order in Brazil that started in 2013 and ended in the first half of 2014.
- The unfavorable currency impact was primarily from a weaker Japanese yen, as sales in Japanese yen translated into fewer U.S. dollars.

Sales increased in North America and EAME, while sales in Asia/Pacific and Latin America were down.

- In North America, higher sales were primarily due to higher end-user demand resulting from an increase in construction-related spending in the United States. Although still below prior peaks, construction-related spending continues to improve. The remaining sales increase was primarily due to the favorable impact of changes in dealer inventories, as dealers increased inventory in 2014, compared to a decrease in 2013.

- In EAME, higher sales were primarily due to the favorable impact of changes in dealer inventory, partially offset by lower end-user demand. Dealer inventory was about flat in 2014, compared to a decrease in 2013. The decrease in end-user demand was primarily due to lower dealer deliveries to end users in CIS and Africa/Middle East resulting from political unrest, partially offset by increased dealer deliveries to end users in Europe primarily due to weak but improving economic conditions.
- Sales decreased in Asia/Pacific primarily in Japan, China and Thailand. In Japan, sales during 2013 were favorably impacted by customer demand in advance of a 2014 emissions change. Sales in Japan also declined due to a weaker Japanese yen as sales in yen translated into fewer U.S. dollars. In China, construction-related spending declined as the overall construction machinery industry decreased approximately 15 percent from 2013. However, dealer deliveries to end users in China have outpaced the industry overall. In Thailand, sales declined as a result of social and political unrest.
- Sales declined in Latin America primarily due to lower sales for the large government order in Brazil and lower end-user demand resulting from weaker economic conditions.

Construction Industries' profit was \$2.207 billion in 2014, compared with \$1.374 billion in 2013. The increase in profit was primarily due to the favorable impact of currency, higher sales volume, improved price realization and lower manufacturing costs. These favorable items were partially offset by increased SG&A and R&D expenses.

Segment profit for 2014 is based on fixed exchange rates set at the beginning of 2014, while segment profit for 2013 is based on fixed exchange rates set at the beginning of 2013. The difference in these fixed exchange rates resulted in a favorable currency impact for the segment.

Manufacturing costs improved primarily due to favorable changes in cost absorption resulting from a significantly larger decrease in inventory in 2013 than in 2014. In addition, material costs were lower. These favorable items were partially offset by higher incentive compensation expense.

SG&A and R&D expenses were higher primarily due to increased incentive compensation expense.

### **Resource Industries**

Resource Industries' sales were \$8.921 billion for 2014, a decrease of \$2.884 billion, or 24 percent, from 2013. The sales volume decline was primarily due to lower end-user demand across all geographic regions. Aftermarket part sales also declined, as we believe some companies are continuing to extend proactive maintenance schedules and delay major overhauls when possible. These declines were partially offset by the favorable impact of changes in dealer inventory. While dealers continued to reduce machine inventories worldwide for 2014, the reductions were less significant than in 2013.

Customers in most geographic regions continued to reduce spending across the mining industry. We believe that mining companies are increasing productivity at existing mines and improving their transportation infrastructure rather than investing in expansions or new mine openings, which results in lower demand for our mining products. In addition, projects started in prior years have led to an increased supply of coal and iron ore which has outpaced demand and contributed to prices moving below investment thresholds for those commodities. As a result, new orders for mining equipment continued to be weak in 2014.

Resource Industries' profit was \$404 million for 2014, compared with \$1.572 billion for 2013. The decrease was primarily due to lower sales volume, the absence of a \$135 million gain related to the settlement with previous owners of Caterpillar (Zhengzhou) Ltd. and unfavorable price realization resulting from a competitive pricing environment. These items were partially offset by an improvement in manufacturing costs and benefits from restructuring actions.

The improvement in manufacturing costs was primarily driven by lower material costs and favorable changes in cost absorption. Cost absorption was favorable due to about flat inventory for 2014, compared with a decrease in inventory for 2013. These favorable items were partially offset by higher warranty expense.

### **Energy & Transportation**

Energy & Transportation's sales were \$21.727 billion for 2014, an increase of \$1.572 billion, or 8 percent, from 2013. The sales increase was primarily due to higher sales volume. In addition, the impact of price realization was favorable, and sales increased in all applications. Sales of aftermarket parts also increased.

- **Oil and Gas** - Sales increases in North America and EAME were partially offset by declines in Latin America and Asia/Pacific. In North America, sales increased primarily due to higher demand for equipment used in well servicing, gas compression and drilling applications. In EAME, the sales increase was primarily due to the timing of large projects. Due to the large project nature of many of the Energy & Transportation end markets, the timing of these projects can vary causing volatility in our sales. In Asia/Pacific, sales declines were primarily due to lower sales in Australia resulting from the absence of a large project in 2013. In Latin America, sales declined primarily due to lower end-user demand.

Caterpillar sells products that are used in a variety of different oil and gas applications, including offshore and land drilling, well servicing, oil and gas production and gas compression. The products we sell to the oil and gas industry include gas turbines and centrifugal natural gas compressors, reciprocating engines, transmissions and well stimulation pumps. About one-third of Energy & Transportation's sales in 2014 were related to oil and gas.

- **Transportation** - Sales increased in North America and EAME and were about flat in Asia/Pacific and Latin America. Higher sales in North America and EAME were primarily due to increased sales for rail applications. In North America, sales strengthened due to customer demand in advance of the 2015 emissions change for locomotives. In EAME, sales increased as we continued to expand our rail business.
- **Power Generation** - Sales increased in EAME and North America and were about flat in Asia/Pacific and Latin America. Sales improved in EAME primarily due to sales recognition for a large project. In North America, sales increased primarily due to higher end-user demand.
- **Industrial** - Sales into industrial applications increased in North America and were about flat in all other regions. Higher sales in North America were primarily due to higher demand for engines used by original equipment manufacturers for industrial applications.

Energy & Transportation's profit was \$4.135 billion for 2014, compared with \$3.415 billion for 2013. The increase in profit was primarily due to higher sales volume, which included negative product mix due to sales recognition for a large power generation project in EAME. In addition, price realization improved and material costs were lower. These favorable items were partially offset by higher incentive compensation expense.

### **Financial Products Segment**

Financial Products' revenues were \$3.313 billion, an increase of \$89 million, or 3 percent, from 2013. The increase was primarily due to higher average *earning assets* primarily in North America, partially offset by a decrease in Asia/Pacific. This increase was partially offset by the unfavorable impact from lower average financing rates primarily in North America, offset by an increase in Latin America.

Financial Products' profit was \$901 million in 2014, compared with \$990 million for 2013. The decrease was primarily due to the absence of \$72 million in favorable reserve adjustments at Caterpillar Financial Insurance Services, a \$59 million increase in the provision for credit losses at Cat Financial and a \$27 million unfavorable impact on interest rate swap contracts. These decreases were partially offset by a \$49 million favorable impact from higher average earning assets and a \$40 million improvement on net yield on average earning assets.

### **Corporate Items and Eliminations**

Expense for corporate items and eliminations was \$2.891 billion in 2014, an increase of \$702 million from 2013. Corporate items and eliminations include: corporate-level expenses; restructuring costs; timing differences, as some expenses are reported in segment profit on a cash basis; retirement benefit costs other than service cost; currency differences for ME&T, as segment profit is reported using annual fixed exchange rates and inter-segment eliminations.

The increase in expense from 2013 was primarily due to timing differences, higher restructuring costs, the unfavorable impact of currency, increased corporate costs, the absence of a LIFO inventory decrement benefit of \$115 million and the absence of a gain on a legal settlement of \$68 million from 2013. Segment profit for 2014 is based on fixed exchange rates set at the beginning of 2014, while segment profit for 2013 is based on fixed exchange rates set at the beginning of 2013. The difference in actual exchange rates compared with fixed exchange rates is included in corporate items and eliminations and is not reflected in segment profit. These unfavorable items were partially offset by decreased retirement benefit costs and other methodology differences.

### **RESTRUCTURING COSTS**

Restructuring costs for 2015, 2014 and 2013 were \$908 million, \$441 million and \$200 million, respectively. The 2015 restructuring costs included \$641 million of employee separation costs, \$127 million of long-lived asset impairments and \$92 million of defined benefit retirement plan curtailment and settlement losses and were recognized in Other operating (income) expense. In addition, in 2015 we incurred costs related to our restructuring programs of \$48 million. These costs were primarily for accelerated depreciation and inventory write-downs and were recognized primarily in Cost of goods sold. The 2014 restructuring costs included \$382 million of employee separation costs, \$48 million of long-lived asset impairments and \$11 million of defined benefit retirement plan curtailment and settlement losses. The 2013 restructuring costs included \$151 million of employee separation costs, \$41 million of long-lived asset impairments and \$8 million of other costs. Restructuring costs for 2014 and 2013 were recognized in Other operating (income) expense.



The restructuring costs in 2015 were primarily related to several restructuring programs across the company. The restructuring costs in 2014 were primarily related to a reduction in workforce at our Gosselies, Belgium, facility. The most significant charges in 2013 were for the restructuring of management and support functions and the closure or downsizing of several facilities related to our mining business.

Restructuring costs are a reconciling item between Segment profit and Consolidated profit before taxes.

The following table summarizes the 2014 and 2015 employee separation activity:

<b>(Millions of dollars)</b>	<b>Total</b>
Liability balance at December 31, 2013.....	\$ 89
Increase in liability (separation charges).....	382
Reduction in liability (payments).....	(289)
Liability balance at December 31, 2014.....	\$ 182
Increase in liability (separation charges).....	641
Reduction in liability (payments).....	(340)
Liability balance at December 31, 2015.....	<u>\$ 483</u>

In December 2013, we announced a restructuring plan for our Gosselies, Belgium, facility. This restructuring plan was designed to improve the competitiveness of our European manufacturing footprint and achieve competitiveness in our European operations by refocusing our current Gosselies operations on final machine assembly, test and paint with limited component and fabrication operations. This action includes reshaping our supply base for more efficient sourcing, improving factory efficiencies and workforce reductions and was approved by the Belgian Minister of Employment in February 2014. In 2014, we recognized \$273 million of these separation-related charges. In 2015, we recognized \$24 million of employee separation costs relating to this restructuring plan. We do not expect any further costs associated with this program.

In September 2015, we announced significant restructuring and cost reduction actions to lower our operating costs in response to current economic and business conditions. As part of that announcement, we offered a voluntary retirement enhancement program to qualifying U.S. employees, various voluntary separation programs outside of the U.S. and implemented additional involuntary separation programs throughout the company. We have eliminated approximately 5,000 positions since then, with about 3,000 employees separated by December 31, 2015 and the other 2,100 employees electing to take the voluntary retirement enhancement program in the U.S. and leave the company January 1, 2016. We incurred \$379 million of employee separation costs and \$86 million of defined benefit retirement plan curtailment losses related to these programs. Substantially all of the employee separation costs related to this program are included in the liability balance above and will be paid in the first quarter of 2016. The remaining liability balance as of December 31, 2015 represents costs for other employee separation programs, most of which are expected to be paid in 2016.

The remaining restructuring costs incurred during 2015 were primarily related to closure and consolidation of numerous manufacturing facilities throughout the company.

Additional restructuring actions are being contemplated including the consolidation and closures of manufacturing facilities occurring through 2018. In total, we expect the cost of these restructuring actions in 2016 to be about \$400 million. We expect that restructuring actions will result in a benefit to operating costs, primarily SG&A expenses and Cost of goods sold of about \$700 million in 2016.

## **GLOSSARY OF TERMS**

1. **All Other Segments** - Primarily includes activities such as: the remanufacturing of Cat® engines and components and remanufacturing services for other companies as well as the business strategy, product management, development, manufacturing, marketing and product support of undercarriage, specialty products, hardened bar stock components and ground engaging tools primarily for Cat products, paving products, forestry products and industrial and waste products; the product management, development, marketing, sales and product support of on-highway vocational trucks for North America; parts distribution; distribution services responsible for dealer development and administration including a wholly owned dealer in Japan, dealer portfolio management and ensuring the most efficient and effective distribution of machines, engines and parts.

2. **Consolidating Adjustments** - Elimination of transactions between Machinery, Energy & Transportation and Financial Products.
3. **Construction Industries** - A segment primarily responsible for supporting customers using machinery in infrastructure and building construction applications. Responsibilities include business strategy, product design, product management and development, manufacturing, marketing and sales and product support. The product portfolio includes backhoe loaders, small wheel loaders, small track-type tractors, skid steer loaders, multi-terrain loaders, mini excavators, compact wheel loaders, telehandlers, select work tools, small, medium and large track excavators, wheel excavators, medium wheel loaders, compact track loaders, medium track-type tractors, track-type loaders, motor graders, pipelayers, mid-tier soil compactors and related parts. In addition, Construction Industries has responsibility for an integrated manufacturing cost center.
4. **Currency** - With respect to sales and revenues, currency represents the translation impact on sales resulting from changes in foreign currency exchange rates versus the U.S. dollar. With respect to operating profit, currency represents the net translation impact on sales and operating costs resulting from changes in foreign currency exchange rates versus the U.S. dollar. Currency includes the impact on sales and operating profit for the Machinery, Energy & Transportation lines of business only; currency impacts on Financial Products' revenues and operating profit are included in the Financial Products' portions of the respective analyses. With respect to other income/expense, currency represents the effects of forward and option contracts entered into by the company to reduce the risk of fluctuations in exchange rates (hedging) and the net effect of changes in foreign currency exchange rates on our foreign currency assets and liabilities for consolidated results (translation).
5. **Debt-to-Capital Ratio** - A key measure of Machinery, Energy & Transportation's financial strength used by both management and our credit rating agencies. The metric is defined as Machinery, Energy & Transportation's short-term borrowings, long-term debt due within one year and long-term debt due after one year (debt) divided by the sum of Machinery, Energy & Transportation's debt and stockholders' equity. Debt also includes Machinery, Energy & Transportation's borrowings from Financial Products.
6. **EAME** - A geographic region including Europe, Africa, the Middle East and the Commonwealth of Independent States (CIS).
7. **Earning Assets** - Assets consisting primarily of total finance receivables net of unearned income, plus equipment on operating leases, less accumulated depreciation at Cat Financial.
8. **Energy & Transportation** - A segment primarily responsible for supporting customers using reciprocating engines, turbines, diesel-electric locomotives and related parts across industries serving power generation, industrial, oil and gas and transportation applications, including marine and rail-related businesses. Responsibilities include business strategy, product design, product management, development, manufacturing, marketing, sales and product support of turbines, centrifugal gas compressors and related services, reciprocating engine powered generator sets, integrated systems used in the electric power generation industry, reciprocating engines and integrated systems and solutions for the marine and oil and gas industries; reciprocating engines supplied to the industrial industry as well as Cat machinery; the business strategy, product design, product management, development, manufacturing, remanufacturing, leasing and service of diesel-electric locomotives and components and other rail-related products and services.
9. **Financial Products Segment** - Provides financing to customers and dealers for the purchase and lease of Cat and other equipment, as well as some financing for Caterpillar sales to dealers. Financing plans include operating and finance leases, installment sale contracts, working capital loans and wholesale financing plans. The segment also provides various forms of insurance to customers and dealers to help support the purchase and lease of our equipment. Financial Products Segment profit is determined on a pretax basis and includes other income/expense items.
10. **Latin America** - A geographic region including Central and South American countries and Mexico.
11. **Machinery, Energy & Transportation (ME&T)** - Represents the aggregate total of Construction Industries, Resource Industries, Energy & Transportation and All Other Segments and related corporate items and eliminations.
12. **Machinery, Energy & Transportation Other Operating (Income) Expenses** - Comprised primarily of gains/losses on disposal of long-lived assets, gains/losses on divestitures and legal settlements and accruals. Restructuring costs classified as other operating expenses on the Results of Operations are presented separately on the Operating Profit Comparison.
13. **Manufacturing Costs** - Manufacturing costs exclude the impacts of currency and represent the volume-adjusted change for variable costs and the absolute dollar change for period manufacturing costs. Variable manufacturing costs are defined as having a direct relationship with the volume of production. This includes material costs, direct labor and other costs that vary

directly with production volume such as freight, power to operate machines and supplies that are consumed in the manufacturing process. Period manufacturing costs support production but are defined as generally not having a direct relationship to short-term changes in volume. Examples include machinery and equipment repair, depreciation on manufacturing assets, facility support, procurement, factory scheduling, manufacturing planning and operations management.

14. **Price Realization** - The impact of net price changes excluding currency and new product introductions. Price realization includes geographic mix of sales, which is the impact of changes in the relative weighting of sales prices between geographic regions.
15. **Resource Industries** - A segment primarily responsible for supporting customers using machinery in mining and quarrying applications. Responsibilities include business strategy, product design, product management and development, manufacturing, marketing and sales and product support. The product portfolio includes large track-type tractors, large mining trucks, hard rock vehicles, longwall miners, electric rope shovels, draglines, hydraulic shovels, track and rotary drills, highwall miners, large wheel loaders, off-highway trucks, articulated trucks, wheel tractor scrapers, wheel dozers, continuous miners, scoops and haulers, hardrock continuous mining systems, select work tools, machinery components, electronics and control systems and related parts. Resource Industries also manages areas that provide services to other parts of the company, including integrated manufacturing and research and development.
16. **Restructuring Costs** - Primarily costs for employee separation costs, long-lived asset impairments and contract terminations. These costs are included in Other Operating (Income) Expenses. Beginning in the third quarter of 2015, restructuring costs also include other exit-related costs associated with the consolidation of manufacturing facilities as we expect these costs to be significant as we implement the restructuring plan that was announced on September 24, 2015. Other exit-related costs are primarily for accelerated depreciation, equipment relocation and inventory write-downs and are recognized primarily in Cost of goods sold.
17. **Sales Volume** - With respect to sales and revenues, sales volume represents the impact of changes in the quantities sold for Machinery, Energy & Transportation as well as the incremental revenue impact of new product introductions, including emissions-related product updates. With respect to operating profit, sales volume represents the impact of changes in the quantities sold for Machinery, Energy & Transportation combined with product mix as well as the net operating profit impact of new product introductions, including emissions-related product updates. Product mix represents the net operating profit impact of changes in the relative weighting of Machinery, Energy & Transportation sales with respect to total sales.

## **LIQUIDITY AND CAPITAL RESOURCES**

### **Sources of funds**

We generate significant capital resources from operating activities, which are the primary source of funding for our Machinery, Energy & Transportation operations. Funding for these businesses is also available from commercial paper and long-term debt issuances. Financial Products' operations are funded primarily from commercial paper, term debt issuances and collections from its existing portfolio. Despite weaknesses in many of the industries we serve, we had solid operating cash flow in 2015. On a consolidated basis, we ended 2015 with \$6.46 billion of cash, a decrease of \$881 million from year-end 2014. We intend to maintain a strong cash and liquidity position. Our cash balances are held in numerous locations throughout the world with approximately \$5.3 billion held by our non-U.S. subsidiaries. Amounts held by non-U.S. subsidiaries are available for general corporate use. However, if all of the cash held by non-U.S. subsidiaries were repatriated to the United States, a portion would be subject to additional U.S. tax.

Consolidated operating cash flow for 2015 was \$6.68 billion down from \$8.06 billion in 2014. The decrease was primarily due to lower profit in 2015, which included lower accruals for short-term incentive compensation payments. In addition, unfavorable changes to accounts payable (primarily due to decreased material purchases) as well as higher short-term incentive compensation payments in 2015 unfavorably impacted operating cash flow. Partially offsetting these items were favorable changes to inventory and receivables. See further discussion of operating cash flow under Machinery, Energy & Transportation and Financial Products.

Total debt as of December 31, 2015, was \$38.09 billion, a decrease of \$1.19 billion from year-end 2014. Debt related to Financial Products decreased \$710 million, reflecting decreasing portfolio funding requirements. Debt related to Machinery, Energy & Transportation decreased \$482 million in 2015, primarily due to the maturity of a long-term debt issuance.

We have three global credit facilities with a syndicate of banks totaling \$10.50 billion (Credit Facility) available in the aggregate to both Caterpillar and Cat Financial for general liquidity purposes. Based on management's allocation decision, which can be

revised from time to time, the portion of the Credit Facility available to Machinery, Energy & Transportation as of December 31, 2015 was \$2.75 billion. Our three Global Credit Facilities are:

- The 364-day facility of \$3.15 billion (of which \$0.82 billion is available to Machinery, Energy & Transportation) expires in September 2016.
- The three-year facility, as amended and restated in September 2015, of \$2.73 billion (of which \$0.72 billion is available to Machinery, Energy & Transportation) expires in September 2018.
- The five-year facility, as amended and restated in September 2015, of \$4.62 billion (of which \$1.21 billion is available to Machinery, Energy & Transportation) expires in September 2020.

At December 31, 2015, Caterpillar's consolidated net worth was \$19.92 billion, which was above the \$9.00 billion required under the Credit Facility. Consolidated net worth is defined as the consolidated stockholder's equity including preferred stock but excluding the pension and other postretirement benefits balance within Accumulated other comprehensive income (loss).

At December 31, 2015, Cat Financial's covenant interest coverage ratio was 2.05 to 1. This is above the 1.15 to 1 minimum ratio calculated as (1) profit excluding income taxes, interest expense and net gain/(loss) from interest rate derivatives to (2) interest expense calculated at the end of each calendar quarter for the rolling four quarter period then most recently ended, required by the Credit Facility.

In addition, at December 31, 2015, Cat Financial's six-month covenant leverage ratio was 7.49 to 1 and year-end covenant leverage ratio was 7.93 to 1. This is below the maximum ratio of debt to net worth of 10 to 1, calculated (1) on a monthly basis as the average of the leverage ratios determined on the last day of each of the six preceding calendar months and (2) at each December 31, required by the Credit Facility.

In the event Caterpillar or Cat Financial does not meet one or more of their respective financial covenants under the Credit Facility in the future (and are unable to obtain a consent or waiver), the syndicate of banks may terminate the commitments allocated to the party that does not meet its covenants. Additionally, in such event, certain of Cat Financial's other lenders under other loan agreements where similar financial covenants or cross default provisions are applicable, may, at their election, choose to pursue remedies under those loan agreements, including accelerating the repayment of outstanding borrowings. At December 31, 2015, there were no borrowings under the Credit Facility.

Our total credit commitments and available credit as of December 31, 2015 were:

(Millions of dollars)	December 31, 2015		
	Consolidated	Machinery, Energy & Transportation	Financial Products
Credit lines available:			
Global credit facilities .....	\$ 10,500	\$ 2,750	\$ 7,750
Other external .....	3,745	176	3,569
Total credit lines available.....	14,245	2,926	11,319
Less: Commercial paper outstanding .....	(5,811)	—	(5,811)
Less: Utilized credit .....	(1,444)	(9)	(1,435)
Available credit .....	<u>\$ 6,990</u>	<u>\$ 2,917</u>	<u>\$ 4,073</u>

The other consolidated credit lines with banks as of December 31, 2015 totaled \$3.75 billion. These committed and uncommitted credit lines, which may be eligible for renewal at various future dates or have no specified expiration date, are used primarily by our subsidiaries for local funding requirements. Caterpillar or Cat Financial may guarantee subsidiary borrowings under these lines.

In the event that Caterpillar or Cat Financial, or any of their debt securities, experiences a credit rating downgrade, it would likely result in an increase in our borrowing costs and make access to certain credit markets more difficult. In the event economic conditions deteriorate such that access to debt markets becomes unavailable, our Machinery, Energy & Transportation operations would rely on cash flow from operations, use of existing cash balances, borrowings from Cat Financial and access to our Credit Facility. Our Financial Products operations would rely on cash flow from its existing portfolio, existing cash balances, access to our Credit Facility and other credit line facilities of Cat Financial and potential borrowings from Caterpillar. In addition, we

maintain a support agreement with Cat Financial, which requires Caterpillar to remain the sole owner of Cat Financial and may, under certain circumstances, require Caterpillar to make payments to Cat Financial should Cat Financial fail to maintain certain financial ratios.

## **Machinery, Energy & Transportation**

Net cash provided by operating activities was \$5.18 billion in 2015, compared with \$7.47 billion in 2014. The decrease was primarily due to lower profit in 2015, which included lower accruals for short-term incentive compensation payments. In addition, unfavorable changes to accounts payable (primarily due to decreased material purchases) as well as higher short-term incentive compensation payments in 2015 unfavorably impacted operating cash flow. Partially offsetting these items were favorable changes to inventory. Inventory decreased in 2015 to a greater degree than the inventory reductions in 2014. We are anticipating that lower sales and our ongoing focus on operational improvements will result in some reduction in inventory in 2016.

Net cash used for investing activities in 2015 was \$1.78 billion compared with \$1.41 billion in 2014. The increase was due to higher spending related to investments and acquisitions in 2015.

Net cash used for financing activities in both 2015 and 2014 was \$4.24 billion. 2015 financing activities were primarily due to the repurchase of Caterpillar common stock, dividend payments and payments on long-term debt. 2014 financing activities were primarily due to the repurchase of Caterpillar common stock and dividend payments, partially offset by the issuance of long-term debt.

Our priorities for the use of cash are to maintain a strong financial position in support of our credit rating, provide capital to support growth, appropriately fund employee benefit plans, pay dividends and repurchase common stock.

**Strong financial position** — A key measure of Machinery, Energy & Transportation's financial strength used by both management and our credit rating agencies is Machinery, Energy & Transportation's debt-to-capital ratio. Debt-to-capital is defined as short-term borrowings, long-term debt due within one year and long-term debt due after one year (debt) divided by the sum of debt and stockholders' equity. Debt also includes Machinery, Energy & Transportation borrowings from Financial Products. The debt-to-capital ratio for Machinery, Energy & Transportation was 39.1 percent at December 31, 2015, within our target range of 30 to 45 percent. The Machinery, Energy & Transportation's debt-to-capital ratio was 37.4 percent at December 31, 2014. The increase was primarily due to a return of capital to stockholders of \$3.8 billion (\$2.0 billion stock repurchase and \$1.8 billion dividends) and unfavorable foreign currency translation adjustment to equity of \$1.0 billion. These items were partially offset by profit.

**Capital to support growth** — Capital expenditures during 2015 were \$1.63 billion. We expect Machinery, Energy & Transportation capital expenditures in 2016 to be lower than 2015.

**Appropriately funded employee benefit plans** — During 2015, we made contributions of \$30 million to our U.S. defined benefit pension plans and \$156 million to our non-U.S. pension plans. We made contributions of \$255 million to our U.S. defined benefit pension plans and \$265 million to our non-U.S. pension plans in 2014. We expect to make approximately \$150 million of required contributions in 2016. We believe we have adequate liquidity resources to fund both U.S. and non-U.S. pension plans.

**Paying dividends** — Dividends paid totaled \$1.76 billion in 2015, representing 70 cents per share paid in the first and second quarters and 77 cents per share in the third and fourth quarters. Each quarter, our Board of Directors reviews the company's dividend for the applicable quarter. The Board evaluates the financial condition of the company and considers the economic outlook, corporate cash flow, the company's liquidity needs and the health and stability of global credit markets to determine whether to maintain or change the quarterly dividend.

**Common stock repurchases** — In January 2014, the Board of Directors approved an authorization to repurchase up to \$10 billion of Caterpillar common stock (the 2014 Authorization), which will expire on December 31, 2018. As of January 1, 2015, \$7.50 billion remained available under the 2014 Authorization. In 2015, we repurchased \$2.03 billion of Caterpillar common stock, leaving approximately \$5.47 billion available under the 2014 Authorization. Caterpillar's basic shares outstanding as of December 31, 2015 were 582 million.

## Financial Products

Financial Products operating cash flow was \$1.39 billion in 2015, compared with \$1.43 billion in 2014. Net cash used for investing activities in 2015 was \$1.02 billion, compared with \$2.58 billion in 2014. The change was primarily due to lower levels of financing. Net cash used by financing activities in 2015 was \$228 million, compared with \$770 million net cash provided by financing activities in 2014. The change was primarily due to lower funding requirements for investing activities.

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### Dividends paid per common share

Quarter	2015	2014	2013
First .....	\$ .700	\$ .600	\$ — <sup>1</sup>
Second .....	.700	.600	.520
Third .....	.770	.700	.600
Fourth .....	.770	.700	.600
	<u>\$ 2.940</u>	<u>\$ 2.600</u>	<u>\$ 1.720</u>

<sup>1</sup> There were two dividend payments of \$0.52 per share in the fourth quarter of 2012 due to the acceleration of the fourth quarter dividend payment from January 2013 to December 2012.

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## Contractual obligations

The company has committed cash outflow related to long-term debt, operating lease agreements, postretirement benefit obligations, purchase obligations, interest on long-term debt and other long-term contractual obligations. Minimum payments for these obligations are:

(Millions of dollars)	2016	2017-2018	2019-2020	After 2020	Total
Long-term debt:					
Machinery, Energy & Transportation (excluding capital leases) .....	\$ 510	\$ 1,407	\$ —	\$ 7,520	\$ 9,437
Machinery, Energy & Transportation-capital leases .....	7	31	15	31	84
Financial Products .....	5,362	10,020	3,656	2,567	21,605
Total long-term debt .....	5,879	11,458	3,671	10,118	31,126
Operating leases .....	237	323	161	205	926
Postretirement benefit obligations <sup>1</sup> .....	350	2,400	1,730	4,250	8,730
Purchase obligations:					
Accounts payable <sup>2</sup> .....	5,023	—	—	—	5,023
Purchase orders <sup>3</sup> .....	5,462	1	—	—	5,463
Other contractual obligations <sup>4</sup> .....	343	502	380	182	1,407
Total purchase obligations .....	10,828	503	380	182	11,893
Interest on long-term debt <sup>5</sup> .....	958	1,568	989	6,882	10,397
Other long-term obligations <sup>6</sup> .....	200	302	170	138	810
Total contractual obligations .....	\$ 18,452	\$ 16,554	\$ 7,101	\$ 21,775	\$ 63,882

<sup>1</sup> Amounts represent expected contributions to our pension and other postretirement benefit plans through 2025, offset by expected Medicare Part D subsidy receipts.

<sup>2</sup> Amount represents invoices received and recorded as liabilities in 2015, but scheduled for payment in 2016. These represent short-term obligations made in the ordinary course of business.

<sup>3</sup> Amount represents contractual obligations for material and services on order at December 31, 2015 but not yet delivered. These represent short-term obligations made in the ordinary course of business.

<sup>4</sup> Amounts represent long-term commitments entered into with key suppliers for minimum purchases quantities.

<sup>5</sup> Amounts represent estimated contractual interest payments on long-term debt, including capital lease interest payments.

<sup>6</sup> Amounts represent contractual obligations primarily for logistics services agreements related to our former third party logistics business, software license contracts, IT consulting contracts and outsourcing contracts for benefit plan administration and software system support.

The total amount of gross unrecognized tax benefits for uncertain tax positions, including positions impacting only the timing of tax benefits, was \$968 million at December 31, 2015. Payment of these obligations would result from settlements with taxing authorities. Due to the difficulty in determining the timing of settlements, these obligations are not included in the table above. We do not expect to make a tax payment related to these obligations within the next year that would significantly impact liquidity.

## CRITICAL ACCOUNTING POLICIES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect reported amounts. The more significant estimates include: residual values for leased assets, fair values for goodwill impairment tests, impairment of available-for-sale securities, warranty liability, stock-based compensation, reserves for product liability and insurance losses, postretirement benefits, post-sale discounts, credit losses and income taxes. We have incorporated many years of data into the determination of each of these estimates and we have not historically experienced significant adjustments. These assumptions are reviewed at least annually with the Audit Committee of the Board of Directors. Following are the methods and assumptions used in determining our estimates and an indication of the risks inherent in each.

**Residual values for leased assets** – The residual values for Cat Financial’s leased assets, which are an estimate of the market value of leased equipment at the end of the lease term, are based on an analysis of historical wholesale market sales prices, projected forward on a level trend line without consideration for inflation or possible future pricing action. At the inception of the lease, residual values are estimated with consideration of the following critical factors: market size and demand, any known significant market/product trends, total expected hours of usage, machine configuration, application, location, model changes, quantities and past re-marketing experience, third-party residual guarantees and contractual customer purchase options. Many of these factors are gathered in an application survey that is completed prior to quotation. The lease agreement also clearly defines applicable return conditions and remedies for non-compliance, to ensure that the leased equipment will be in good operating condition upon return. Model changes and updates, as well as market strength and product acceptance, are monitored and adjustments are made to residual values in accordance with the significance of any such changes. Remarketing sales staff works closely with customers and dealers to manage the sale of lease returns and the recovery of residual exposure.

During the term of the leases, residual values are monitored. If estimated end-of-term market values of leased equipment reflect a non-temporary impairment due to economic factors, obsolescence or other adverse circumstances, the residual value of the leased equipment is adjusted so that the carrying value at end of lease term will approximate the estimated end-of-term market value. For equipment on operating leases, adjustments are made on a straight-line basis over the remaining term of the lease through depreciation expense. For finance leases, adjustments are recognized at the time of assessment through a reduction of finance revenue.

At December 31, 2015, the aggregate residual value of equipment on operating leases was \$2.09 billion. Without consideration of other factors such as third-party residual guarantees or contractual customer purchase options, a 10% non-temporary decrease in the market value of our equipment subject to operating leases would reduce residual value estimates and result in the recognition of approximately \$80 million of additional annual depreciation expense.

**Fair values for goodwill impairment tests** – We test goodwill for impairment annually, at the reporting unit level, and whenever events or circumstances make it likely that an impairment may have occurred, such as a significant adverse change in the business climate or a decision to sell all or a portion of a reporting unit. We perform our annual goodwill impairment test as of October 1 and monitor for interim triggering events on an ongoing basis.

Goodwill is reviewed for impairment utilizing either a qualitative assessment or a two-step process. If we choose to perform a qualitative assessment and determine the fair value more likely than not exceeds the carrying value, no further evaluation is necessary. For reporting units where we perform the two-step process, the first step requires us to compare the fair value of each reporting unit, which we primarily determine using an income approach based on the present value of discounted cash flows, to the respective carrying value, which includes goodwill. If the fair value of the reporting unit exceeds its carrying value, the goodwill is not considered impaired. If the carrying value is higher than the fair value, there is an indication that an impairment may exist and the second step is required. In step two, the implied fair value of goodwill is calculated as the excess of the fair value of a reporting unit over the fair values assigned to its assets and liabilities. If the implied fair value of goodwill is less than the carrying value of the reporting unit's goodwill, the difference is recognized as an impairment loss.

The impairment test process requires valuation of the respective reporting unit, which we primarily determine using an income approach based on a discounted five year forecasted cash flow with a year-five residual value. The residual value is computed using the constant growth method, which values the forecasted cash flows in perpetuity. The income approach is supported by a reconciliation of our calculated fair value for Caterpillar to the company's market capitalization. The assumptions about future cash flows and growth rates are based on each reporting unit's long-term forecast and are subject to review and approval by senior management. A reporting unit's discount rate is a risk-adjusted weighted average cost of capital, which we believe approximates the rate from a market participant's perspective. The estimated fair value could be impacted by changes in market conditions, interest rates, growth rates, tax rates, costs, pricing and capital expenditures.

Annual impairment tests, completed in the fourth quarter of 2015, indicated the fair value of each reporting unit was substantially above its respective carrying value, including goodwill, except as noted in the following paragraph. Caterpillar's market capitalization has remained significantly above the net book value of the Company.

Our Resource Industries segment has two reporting units with goodwill largely from our acquisition of Bucyrus International, Inc. in 2011: Hauling & Extraction with goodwill of approximately \$1.7 billion and Material Handling & Underground with goodwill of approximately \$1.9 billion. Hauling & Extraction's product portfolio primarily includes large mining trucks, electric rope shovels, draglines, hydraulic shovels, off-highway trucks, wheel tractor scrapers and related parts. Material Handling & Underground's product portfolio primarily includes large track-type tractors, hard rock vehicles, longwall miners, track and rotary drills, highwall miners, large wheel loaders, articulated trucks, wheel dozers, scoops and haulers, continuous miners, hardrock continuous mining systems and related parts. Our equipment is used to extract and haul copper, iron ore, coal, oil sands, aggregates,



gold and other minerals and ores. The demand for our equipment and related parts is highly cyclical and significantly impacted by commodity prices, although the impact may vary by reporting unit. Weakness in current economic conditions and in the mining industry have caused the October 1, 2015 fair values of these two reporting units to decline from previous periods as our future cash flow forecasts and growth rates have been reduced. We expect Resource Industries sales to decline about 15 to 20 percent in 2016 compared to 2015 as a result of continuing reductions in mining-related commodity prices and difficult financial conditions for many mining customers around the world. We expect Resource Industries sales and cash flows to improve over the remainder of the five year forecast period. Based on our estimates for long-term growth, profits and cash flows, the fair values of both Hauling & Extraction and Material Handling & Underground have remained greater than their respective carrying values. The fair value of the Hauling & Extraction reporting unit exceeds its carrying value by approximately 15 percent. The fair value of Material Handling & Underground remains substantially above its carrying value.

An unfavorable change in our expectations for the financial performance of our reporting units, particularly long-term growth and profitability, would reduce the fair value of our reporting units. The energy and mining industries are major users of our products, including the coal, iron ore, gold, copper, oil and natural gas industries. Decisions to purchase our products are dependent upon the performance of those industries, which in turn are dependent in part on commodity prices. Lower commodity prices or industry specific circumstances that have a negative impact to the valuation assumptions may reduce the fair value of our reporting units.

Should such events occur and it becomes more likely than not that a reporting unit's fair value has fallen below its carrying value, we will perform an interim goodwill impairment test(s), in addition to the annual impairment test. Future impairment tests may result in a goodwill impairment, depending on the outcome of both step one and step two of the impairment review process. A goodwill impairment would be reported as a non-cash charge to earnings.

**Impairment of available-for-sale securities** – Available-for-sale securities, primarily at Insurance Services, are reviewed at least quarterly to identify fair values below cost which may indicate that a security is impaired and should be written down to fair value.

For debt securities, once a security's fair value is below cost we utilize data gathered by investment managers, external sources and internal research to monitor the performance of the security to determine whether an other-than-temporary impairment has occurred. These reviews, which include an analysis of whether it is more likely than not that we will be required to sell the security before its anticipated recovery, consist of both quantitative and qualitative analysis and require a degree of management judgment. Securities in a loss position are monitored and assessed at least quarterly based on severity and timing of loss and may be deemed other-than-temporarily impaired at any time. Once a security's fair value has been 20 percent or more below its original cost for six consecutive months, the security will be other-than-temporarily impaired unless there are sufficient facts and circumstances supporting otherwise.

For equity securities in a loss position, determining whether a security is other-than-temporarily impaired requires an analysis of that security's historical sector return as well as the volatility of that return. This information is utilized to estimate a security's future fair value and to assess whether the security has the ability to recover to its original cost over a reasonable period of time. Both historical annualized sector returns and the volatility of those returns are applied over a two year period to arrive at these estimates.

For both debt and equity securities, qualitative factors are also considered in determining whether a security is other-than-temporarily impaired. These include reviews of the following: significant changes in the regulatory, economic or technological environment of the investee, significant changes in the general market condition of either the geographic area or the industry in which the investee operates, and length of time and the extent to which the fair value has been less than cost. These qualitative factors are subjective and require a degree of management judgment.

**Warranty liability** – At the time a sale is recognized, we record estimated future warranty costs. The warranty liability is determined by applying historical claim rate experience to the current field population and dealer inventory. Generally, historical claim rates are based on actual warranty experience for each product by machine model/engine size by customer or dealer location (inside or outside North America). Specific rates are developed for each product shipment month and are updated monthly based on actual warranty claim experience. Warranty costs may differ from those estimated if actual claim rates are higher or lower than our historical rates.

**Stock-based compensation** – We use a lattice-based option-pricing model to calculate the fair value of our stock options and SARs. The calculation of the fair value of the awards using the lattice-based option-pricing model is affected by our stock price on the date of grant as well as assumptions regarding the following:

- Volatility is a measure of the amount by which the stock price is expected to fluctuate each year during the expected term of the award and is based on historical Caterpillar stock price movement and current implied volatilities from traded

options on Caterpillar stock. The implied volatilities from traded options are impacted by changes in market conditions. An increase in the volatility would result in an increase in our expense.

- The expected term represents the period of time that awards granted are expected to be outstanding and is an output of the lattice-based option-pricing model. In determining the expected term of the award, future exercise and forfeiture patterns are estimated from Caterpillar employee historical exercise behavior. These patterns are also affected by the vesting conditions of the award. Changes in the future exercise behavior of employees or in the vesting period of the award could result in a change in the expected term. An increase in the expected term would result in an increase to our expense.
- The weighted-average dividend yield is based on Caterpillar's historical dividend yields. As holders of stock options and SARs do not receive dividend payments, this could result in employees retaining the award for a longer period of time if dividend yields decrease or exercising the award sooner if dividend yields increase. A decrease in the dividend yield would result in an increase in our expense.
- The risk-free interest rate is based on the U.S. Treasury yield curve in effect at time of grant. As the risk-free interest rate increases, the expected term increases, resulting in an increase in our expense.

The fair value of our RSUs and PRSUs is determined by reducing the stock price on the date of grant by the present value of the estimated dividends to be paid during the vesting period. The estimated dividends are based on Caterpillar's quarterly dividend per share at the time of grant. A decrease in the dividend per share would result in an increase in our expense.

Stock-based compensation expense recognized during the period is based on the value of the number of awards that are expected to vest. In determining the stock-based compensation expense to be recognized, a forfeiture rate is applied to the fair value of the award. This rate represents the number of awards that are expected to be forfeited prior to vesting and is based on Caterpillar employee historical behavior. Changes in the future behavior of employees could impact this rate. A decrease in this rate would result in an increase in our expense.

**Product liability and insurance loss reserve** – We determine these reserves based upon reported claims in process of settlement and actuarial estimates for losses incurred but not reported. Loss reserves, including incurred but not reported reserves, are based on estimates and ultimate settlements may vary significantly from such estimates due to increased claims frequency or severity over historical levels.

**Postretirement benefits** – Primary actuarial assumptions were determined as follows:

- The U.S. expected long-term rate of return on plan assets is based on our estimate of long-term passive returns for equities and fixed income securities weighted by the allocation of our plan assets. Based on historical performance, we increase the passive returns due to our active management of the plan assets. A similar process is used to determine the rate for our non-U.S. pension plans. This rate is impacted by changes in general market conditions, but because it represents a long-term rate, it is not significantly impacted by short-term market swings. Changes in our allocation of plan assets would also impact this rate. For example, a shift to more fixed income securities would lower the rate. A decrease in the rate would increase our expense.
- The assumed discount rate is used to discount future benefit obligations back to today's dollars. The U.S. discount rate is based on a benefit cash flow-matching approach and represents the rate at which our benefit obligations could effectively be settled as of our measurement date, December 31. The benefit cash flow-matching approach involves analyzing Caterpillar's projected cash flows against a high quality bond yield curve, calculated using a wide population of corporate Aa bonds available on the measurement date. The very highest and lowest yielding bonds (top and bottom 10 percent) are excluded from the analysis. A similar approach is used to determine the assumed discount rate for our most significant non-U.S. plans. This rate is sensitive to changes in interest rates. A decrease in the discount rate would increase our obligation and future expense.
- The expected rate of compensation increase is used to develop benefit obligations using projected pay at retirement. It represents average long-term salary increases. This rate is influenced by our long-term compensation policies. An increase in the rate would increase our obligation and expense.
- The assumed health care trend rate represents the rate at which health care costs are assumed to increase and is based on historical and expected experience. Changes in our projections of future health care costs due to general economic conditions and those specific to health care (e.g., technology driven cost changes) will impact this trend rate. An increase in the trend rate would increase our obligation and expense.

The effects of actual results differing from our assumptions and the effects of changing assumptions are considered actuarial gains or losses. Actuarial gains or losses are recorded in Accumulated other comprehensive income (loss). When the unamortized actuarial gains or losses for an individual plan exceed 10 percent of the higher of the projected benefit obligation or 10 percent of market-related value of plans assets at the beginning of the year, the excess is amortized as a component of net periodic benefit

cost using the straight-line method. The amortization period is generally the average remaining service period of active employees expected to receive benefits from the plan. For plans in which all or almost all of the plan's participants are inactive, actuarial gains or losses are amortized over the remaining life expectancy of the inactive participants. See Retirement Benefits section for a discussion of changes in accounting for retirement benefits.

**Post-sale discount reserve** – We provide discounts to dealers through merchandising programs. We have numerous programs that are designed to promote the sale of our products. The most common dealer programs provide a discount when the dealer sells a product to a targeted end user. The amount of accrued post-sale discounts was \$1,191 million and \$1,273 million as of December 31, 2015 and 2014, respectively. The reserve represents discounts that we expect to pay on previously sold units and is reviewed at least quarterly. The reserve is adjusted if discounts paid differ from those estimated. Historically, those adjustments have not been material.

**Credit loss reserve** - The allowance for credit losses is an estimate of the losses inherent in our finance receivable portfolio and includes consideration of accounts that have been individually identified as impaired, as well as pools of finance receivables where it is probable that certain receivables in the pool are impaired but the individual accounts cannot yet be identified. In identifying and measuring impairment, management takes into consideration past loss experience, known and inherent risks in the portfolio, adverse situations that may affect the borrower's ability to repay, estimated value of underlying collateral and current economic conditions.

Accounts are identified for individual review based on past-due status and information available about the customer, such as financial statements, news reports and published credit ratings, as well as general information regarding industry trends and the economic environment in which our customers operate. The allowance for credit losses attributable to finance receivables that are individually evaluated and determined to be impaired is based either on the present value of expected future cash flows discounted at the receivables' effective interest rate or the fair value of the collateral for collateral-dependent receivables. In determining collateral value, we estimate the current fair market value of the collateral less selling costs. We also consider credit enhancements such as additional collateral and contractual third-party guarantees. The allowance for credit losses attributable to the remaining accounts not yet individually identified as impaired is estimated based on loss forecast models utilizing probabilities of default, our estimate of the loss emergence period and the estimated loss given default. In addition, qualitative factors not able to be fully captured in our loss forecast models including industry trends, macroeconomic factors and model imprecision are considered in the evaluation of the adequacy of the allowance for credit losses. These qualitative factors are subjective and require a degree of management judgment.

While management believes it has exercised prudent judgment and applied reasonable assumptions, there can be no assurance that in the future, changes in economic conditions or other factors would not cause changes in the financial health of our customers. If the financial health of our customers deteriorates, the timing and level of payments received could be impacted and therefore, could result in a change to our estimated losses.

**Income taxes** – We are subject to the income tax laws of the many jurisdictions in which we operate. These tax laws are complex, and the manner in which they apply to our facts is sometimes open to interpretation. In establishing the provision for income taxes, we must make judgments about the application of these inherently complex tax laws.

Despite our belief that our tax return positions are consistent with applicable tax laws, we believe that taxing authorities could challenge certain positions. Settlement of any challenge can result in no change, a complete disallowance, or some partial adjustment reached through negotiations or litigation. We record tax benefits for uncertain tax positions based upon management's evaluation of the information available at the reporting date. To be recognized in the financial statements, a tax benefit must be at least more likely than not of being sustained based on technical merits. The benefit for positions meeting the recognition threshold is measured as the largest benefit more likely than not of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. Significant judgment is required in making these determinations and adjustments to unrecognized tax benefits may be necessary to reflect actual taxes payable upon settlement. Adjustments related to positions impacting the effective tax rate affect the provision for income taxes. Adjustments related to positions impacting the timing of deductions impact deferred tax assets and liabilities.

Our income tax positions and analysis are based on currently enacted tax law. Future changes in tax law could significantly impact the provision for income taxes, the amount of taxes payable, and the deferred tax asset and liability balances. Deferred tax assets generally represent tax benefits for tax deductions or credits available in future tax returns. Certain estimates and assumptions are required to determine whether it is more likely than not that all or some portion of the benefit of a deferred tax asset will not be realized. In making this assessment, management analyzes and estimates the impact of future taxable income, reversing temporary differences and available prudent and feasible tax planning strategies. Should a change in facts or circumstances lead to a change in judgment about the ultimate realizability of a deferred tax asset, we record or adjust the related valuation allowance

in the period that the change in facts and circumstances occurs, along with a corresponding increase or decrease in the provision for income taxes.

A provision for U.S. income taxes has not been recorded on undistributed profits of our non-U.S. subsidiaries that we have determined to be indefinitely reinvested outside the U.S. If management intentions or U.S. tax law changes in the future, there may be a significant negative impact on the provision for income taxes to record an incremental tax liability in the period the change occurs. A deferred tax asset is recognized only if we have definite plans to generate a U.S. tax benefit by repatriating earnings in the foreseeable future.

Income taxes are based on the statutory tax rate of the jurisdiction in which earnings are subject to taxation. That statutory rate may differ from the statutory tax rate of the jurisdiction in which that entity is incorporated. Taxes are paid in the jurisdictions where earnings are subject to taxation. The effective tax rate differs from the U.S. statutory rate in part due to indefinitely reinvested profits of non-U.S. subsidiaries being subject to statutory tax rates which are generally lower than the U.S. rate of 35 percent. The indefinitely reinvested profits of Caterpillar SARL (CSARL), primarily taxable in Switzerland, contribute the most significant amount of this difference. On January 30, 2015, we received a Revenue Agent's Report (RAR) from the Internal Revenue Service (IRS) indicating the end of the field examination of our U.S. income tax returns for 2007 to 2009 including the impact of a loss carryback to 2005. The IRS has proposed to tax in the United States profits earned from certain parts transactions by CSARL based on the IRS examination team's application of "substance-over-form" or "assignment-of-income" judicial doctrines. We are vigorously contesting this adjustment through the IRS appeals process. We believe that the relevant transactions complied with applicable tax laws and did not violate judicial doctrines. The purchase of parts by CSARL from unrelated parties and the subsequent sale of those parts to unrelated dealers outside the United States have substantial legal, commercial, and economic consequences for the parties involved. We have filed U.S. income tax returns on this same basis for years after 2009. We currently believe the ultimate disposition of this matter will not have a material adverse effect on our consolidated financial position, liquidity or results of operations.

## **OTHER MATTERS**

### **ENVIRONMENTAL AND LEGAL MATTERS**

The Company is regulated by federal, state and international environmental laws governing our use, transport and disposal of substances and control of emissions. In addition to governing our manufacturing and other operations, these laws often impact the development of our products, including, but not limited to, required compliance with air emissions standards applicable to internal combustion engines. We have made, and will continue to make, significant research and development and capital expenditures to comply with these emissions standards.

We are engaged in remedial activities at a number of locations, often with other companies, pursuant to federal and state laws. When it is probable we will pay remedial costs at a site, and those costs can be reasonably estimated, the investigation, remediation, and operating and maintenance costs are accrued against our earnings. Costs are accrued based on consideration of currently available data and information with respect to each individual site, including available technologies, current applicable laws and regulations, and prior remediation experience. Where no amount within a range of estimates is more likely, we accrue the minimum. Where multiple potentially responsible parties are involved, we consider our proportionate share of the probable costs. In formulating the estimate of probable costs, we do not consider amounts expected to be recovered from insurance companies or others. We reassess these accrued amounts on a quarterly basis. The amount recorded for environmental remediation is not material and is included in Accrued expenses. We believe there is no more than a remote chance that a material amount for remedial activities at any individual site, or at all the sites in the aggregate, will be required.

On January 8, 2015, the Company received a grand jury subpoena from the U.S. District Court for the Central District of Illinois. The subpoena requests documents and information from the Company relating to, among other things, financial information concerning U.S. and non-U.S. Caterpillar subsidiaries (including undistributed profits of non-U.S. subsidiaries and the movement of cash among U.S. and non-U.S. subsidiaries). The Company has received additional subpoenas relating to this investigation requesting additional documents and information relating to, among other things, the purchase and resale of replacement parts by Caterpillar Inc. and non-U.S. Caterpillar subsidiaries, dividend distributions of certain non-U.S. Caterpillar subsidiaries, and Caterpillar SARL and related structures. The Company is cooperating with this investigation. The Company is unable to predict the outcome or reasonably estimate any potential loss; however, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

On September 12, 2014, the SEC notified the Company that it was conducting an informal investigation relating to Caterpillar SARL and related structures. On December 8, 2015, the Company was notified by the SEC that it concluded its investigation relating to Caterpillar SARL and related structures and that it did not intend to recommend an enforcement action.

On September 10, 2014, the SEC issued to Caterpillar a subpoena seeking information concerning the Company's accounting for the goodwill relating to its acquisition of Bucyrus International Inc. in 2011 and related matters. The Company has received additional subpoenas relating to this investigation, and the Company is cooperating with the SEC regarding its ongoing investigation. The Company is unable to predict the outcome or reasonably estimate any potential loss; however, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

On March 20, 2014, Brazil's Administrative Council for Economic Defense (CADE) published a Technical Opinion which named 18 companies and over 100 individuals as defendants, including two subsidiaries of Caterpillar Inc., MGE - Equipamentos e Serviços Ferroviários Ltda. (MGE) and Caterpillar Brasil Ltda. The publication of the Technical Opinion opened CADE's official administrative investigation into allegations that the defendants participated in anticompetitive bid activity for the construction and maintenance of metro and train networks in Brazil. While companies cannot be held criminally liable for anticompetitive conduct in Brazil, criminal charges have been brought against two current employees of MGE and one former employee of MGE involving the same conduct alleged by CADE. The Company has responded to all requests for information from the authorities. The Company is unable to predict the outcome or reasonably estimate the potential loss; however, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

On October 24, 2013, Progress Rail received a grand jury subpoena from the U.S. District Court for the Central District of California. The subpoena requests documents and information from Progress Rail, United Industries Corporation, a wholly-owned subsidiary of Progress Rail, and Caterpillar Inc. relating to allegations that Progress Rail conducted improper or unnecessary railcar inspections and repairs and improperly disposed of parts, equipment, tools and other items. In connection with this subpoena, Progress Rail was informed by the U.S. Attorney for the Central District of California that it is a target of a criminal investigation into potential violations of environmental laws and alleged improper business practices. The Company is cooperating with the authorities and is currently in discussions regarding a potential resolution of the matter. Although the Company believes a loss is probable, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

In addition, we are involved in other unresolved legal actions that arise in the normal course of business. The most prevalent of these unresolved actions involve disputes related to product design, manufacture and performance liability (including claimed asbestos and welding fumes exposure), contracts, employment issues, environmental matters or intellectual property rights. The aggregate range of reasonably possible losses in excess of accrued liabilities, if any, associated with these unresolved legal actions is not material. In some cases, we cannot reasonably estimate a range of loss because there is insufficient information regarding the matter. However, we believe there is no more than a remote chance that any liability arising from these matters would be material. Although it is not possible to predict with certainty the outcome of these unresolved legal actions, we believe that these actions will not individually or in the aggregate have a material adverse effect on our consolidated results of operations, financial position or liquidity.

## **RETIREMENT BENEFITS**

We recognized pension expense of \$562 million in 2015 as compared to \$465 million in 2014. The increase in expense was primarily due to higher amortization of net actuarial losses primarily due to lower discount rates at the end of 2014 (reflected in 2015 expense) compared to the end of 2013 (reflected in 2014 expense) and changes to our U.S. mortality assumption. In addition, the 2015 expense includes \$52 million of curtailment expense related to the voluntary retirement enhancement program that was offered in 2015 to qualifying U.S. employees. The increase in expense was partially offset by lower interest costs. At the end of 2015, total actuarial losses recognized in Accumulated other comprehensive income (loss) for pension plans were \$7.55 billion, as compared to \$7.53 billion in 2014. The majority of the actuarial losses are due to changes in discount rates, losses from demographic assumptions over the past several years and plan asset losses. In the fourth quarter of 2014, the mortality assumption for our U.S. pension and other postretirement benefit plans was reviewed to consider the use of new tables that were released by the Society of Actuaries. As of December 31, 2014, the company adopted the new tables with modifications to reflect historical company specific mortality experience and its best estimate of future mortality improvements. The adoption of the new tables resulted in an increase in the life expectancy of plan participants and therefore an increase in our Liability for postemployment benefits of approximately \$400 million.

In 2015, we recognized other postretirement benefit expense of \$259 million compared to \$227 million in 2014. The increase in expense was primarily due to \$34 million of curtailment expense related to the U.S. voluntary retirement enhancement program. At the end of 2015 total actuarial losses recognized in Accumulated other comprehensive income (loss) for other postretirement benefit plans were \$171 million as compared to \$800 million in 2014. These losses mainly reflect the impact of discount rates, changes in our health care trend assumption and plan asset losses, partially offset by gains from lower than expected health care

costs. The decrease from 2014 to 2015 was primarily the result of gains from lower than expected health care costs, increase in the discount rates and amortization of net actuarial losses into earnings during 2015.

At December 31, 2015, we changed our method for calculating the service and interest cost components of net periodic benefit cost. Historically, these components were determined utilizing a single weighted-average discount rate based on a yield curve used to measure the benefit obligation at the beginning of the period. Beginning in 2016, we have elected to utilize a full yield curve approach in the estimation of the service and interest costs by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. We have made this change to provide a more precise measurement of service and interest costs by improving the correlation between the projected cash flows to the corresponding spot rates along the yield curve. Compared to the method used in 2015, we expect this change to result in lower pension and other postretirement benefit expense of approximately \$180 million in 2016 before considering the change in accounting principle discussed in the paragraph below. This change will have no impact on pension and other postretirement benefit liabilities and will be accounted for prospectively as a change in accounting estimate.

At January 1, 2016, we changed our accounting principle for recognizing actuarial gains and losses and expected return on plan assets for our pension and other postretirement benefit plans to a more preferable policy under U.S. GAAP. Prior to 2016, actuarial gains and losses were recognized as a component of Accumulated other comprehensive income (loss), and were generally amortized into earnings in future periods. Under the new principle, actuarial gains and losses will be immediately recognized through earnings upon the annual remeasurement in the fourth quarter, or on an interim basis as triggering events warrant remeasurement. In addition, we changed our policy for recognizing expected returns on plan assets from a market-related value method (based on a three-year smoothing of asset returns) to a fair value method. We believe that these changes are preferable as they provide greater transparency of our economic obligations in accounting results and better align with the fair value accounting principles by recognizing the effects of economic and interest rate changes on pension and other postretirement benefit assets and liabilities in the year in which the gains and losses are incurred. These changes will be applied retrospectively to prior years. We are currently determining the impact on prior years and will provide that information later in 2016. Excluding any gains or losses from remeasurement, we currently estimate this change will reduce our 2016 pension and other postretirement benefit expense by approximately \$425 million and the estimated impact on 2015 is a reduction in expense of approximately \$575 million. As the change to the use of specific spot rates for calculating the service and interest cost component of our pension and other postretirement benefit cost does not impact the measurement of benefit liabilities, the related change in service and interest costs will be offset in the gains or losses reported when benefit plans are remeasured.

Prior to making these changes, we would have expected our total pension and other postretirement benefit expense to decrease approximately \$230 million in 2016 which would have been primarily due to a decrease in amortization of net actuarial losses.

In general, our strategy for both the U.S. and the non-U.S. pensions includes further aligning our investments to our liabilities, while reducing risk in our portfolio. For our U.S. pension plans, our year-end 2015 asset allocation was 46 percent equity securities, 51 percent fixed income securities and 3 percent other. Our current U.S. pension target asset allocations is 45 percent equity and 55 percent fixed income. The target allocations will be revisited periodically to ensure that they reflect our overall objectives. The U.S. plans are rebalanced to plus or minus 5 percentage points of the target asset allocation ranges on a monthly basis.

The year-end 2015 asset allocation for our non-U.S. pension plans was 41 percent equity securities, 52 percent fixed income securities, 4 percent real estate and 3 percent other. The 2015 target allocation for our non-U.S. pension plans was 41 percent equity securities, 51 percent fixed income securities, 5 percent real estate and 3 percent other. The target allocations for each plan vary based upon local statutory requirements, demographics of the plan participants and funded status. The frequency of rebalancing for the non-U.S. plans varies depending on the plan.

The use of certain derivative instruments is permitted where appropriate and necessary for achieving overall investment policy objectives. The plans do not engage in derivative contracts for speculative purposes.

During 2015, we made contributions of \$30 million to our U.S. defined benefit pension plans and \$156 million to our non-U.S. pension plans. We made contributions of \$255 million to our U.S. defined benefit pension plans and \$265 million to our non-U.S. pension plans in 2014. We expect to make approximately \$150 million of required contributions in 2016. We believe we have adequate liquidity resources to fund both U.S. and non-U.S. pension plans.

Actuarial assumptions have a significant impact on both pension and other postretirement benefit expenses. The effects of a one percentage point change in our primary actuarial assumptions on 2015 benefit costs and year-end obligations are included in the table below.

## Postretirement Benefit Plan Actuarial Assumptions Sensitivity

Following are the effects of a one percentage-point change in our primary pension and other postretirement benefit actuarial assumptions (included in the following table) on 2015 pension and other postretirement benefits costs and obligations:

(Millions of dollars)	2015 Benefit Cost		Year-end Benefit Obligation	
	One percentage-point increase	One percentage-point decrease	One percentage-point increase	One percentage-point decrease
Pension benefits:				
Assumed discount rate .....	\$ (201)	\$ 243	\$ (2,320)	\$ 2,874
Expected rate of compensation increase .....	33	(31)	167	(155)
Expected long-term rate of return on plan assets .....	(158)	158	—	—
Other postretirement benefits:				
Assumed discount rate .....	(40)	50	(418)	509
Expected rate of compensation increase .....	—	—	1	(1)
Expected long-term rate of return on plan assets .....	(7)	7	—	—
Assumed health care cost trend rate .....	60	(45)	244	(202)

## Primary Actuarial Assumptions

	U.S. Pension Benefits			Non-U.S. Pension Benefits			Other Postretirement Benefits		
	2015	2014	2013	2015	2014	2013	2015	2014	2013
<b>Weighted-average assumptions used to determine benefit obligations, end of year:</b>									
Discount rate .....	4.2%	3.8%	4.6%	3.2%	3.3%	4.1%	4.1%	3.9%	4.6%
Rate of compensation increase .....	4.0%	4.0%	4.0%	3.8%	4.0%	4.2%	4.0%	4.0%	4.0%
<b>Weighted-average assumptions used to determine net cost:</b>									
Discount rate .....	3.8%	4.6%	3.7%	3.3%	4.1%	3.7%	3.9%	4.6%	3.7%
Expected rate of return on plan assets .....	7.4%	7.8%	7.8%	6.8%	6.9%	6.8%	7.8%	7.8%	7.8%
Rate of compensation increase .....	4.0%	4.0%	4.5%	4.0%	4.2%	3.9%	4.0%	4.0%	4.4%
<b>Health care cost trend rates at year-end:</b>									
Health care trend rate assumed for next year .....							6.5%	6.6%	6.6%
Rate that the cost trend rate gradually declines to .....							5.0%	5.0%	5.0%
Year that the cost trend rate reaches ultimate rate .....							2021	2021	2019

## SENSITIVITY

### Foreign Exchange Rate Sensitivity

Machinery, Energy & Transportation use foreign currency forward and option contracts to manage unmatched foreign currency cash inflow and outflow. Our objective is to minimize the risk of exchange rate movements that would reduce the U.S. dollar value of our foreign currency cash flow. Our policy allows for managing anticipated foreign currency cash flow for up to five

years. Based on the anticipated and firmly committed cash inflow and outflow for our Machinery, Energy & Transportation operations for the next 12 months and the foreign currency derivative instruments in place at year-end, a hypothetical 10 percent weakening of the U.S. dollar relative to all other currencies would adversely affect our expected 2016 cash flow for our Machinery, Energy & Transportation operations by approximately \$318 million. Last year similar assumptions and calculations yielded a potential \$362 million adverse impact on 2015 cash flow. We determine our net exposures by calculating the difference in cash inflow and outflow by currency and adding or subtracting outstanding foreign currency derivative instruments. We multiply these net amounts by 10 percent to determine the sensitivity.

Since our policy for Financial Products operations is to hedge the foreign exchange risk when the currency of our debt portfolio does not match the currency of our receivable portfolio, a 10 percent change in the value of the U.S. dollar relative to all other currencies would not have a material effect on our consolidated financial position, results of operations or cash flow. Neither our policy nor the effect of a 10 percent change in the value of the U.S. dollar has changed from that reported at the end of last year.

The effect of the hypothetical change in exchange rates ignores the effect this movement may have on other variables, including competitive risk. If it were possible to quantify this competitive impact, the results would probably be different from the sensitivity effects shown above. In addition, it is unlikely that all currencies would uniformly strengthen or weaken relative to the U.S. dollar. In reality, some currencies may weaken while others may strengthen. Our primary exposure (excluding competitive risk) is to exchange rate movements in the Chinese yuan, euro, Japanese yen, Australian dollar and British pound.

### **Interest Rate Sensitivity**

For our Machinery, Energy & Transportation operations, we have the option to use interest rate swaps to lower the cost of borrowed funds by attaching fixed-to-floating interest rate swaps to fixed-rate debt, and by entering into forward rate agreements on future debt issuances. A hypothetical 100 basis point adverse move in interest rates along the entire interest rate yield curve would have a minimal impact to the 2016 pre-tax earnings of Machinery, Energy & Transportation. Last year, similar assumptions and calculations yielded a minimal impact to 2015 pre-tax earnings.

For our Financial Products operations, we use interest rate derivative instruments primarily to meet our match-funding objectives and strategies. We have a match-funding policy whereby the interest rate profile (fixed or floating rate) of our debt portfolio is matched to the interest rate profile of our earning asset portfolio (finance receivables and operating leases) within certain parameters. In connection with that policy, we use interest rate swap agreements to modify the debt structure. Match funding assists us in maintaining our interest rate spreads, regardless of the direction interest rates move.

In order to properly manage sensitivity to changes in interest rates, Financial Products measures the potential impact of different interest rate assumptions on pre-tax earnings. All on-balance sheet positions, including derivative financial instruments, are included in the analysis. The primary assumptions included in the analysis are that there are no new fixed rate assets or liabilities, the proportion of fixed rate debt to fixed rate assets remains unchanged and the level of floating rate assets and debt remain constant. An analysis of the December 31, 2015 balance sheet, using these assumptions, estimates the impact of a 100 basis point immediate and sustained adverse change in interest rates to have a potential \$13 million adverse impact on pre-tax earnings. Last year, similar assumptions and calculations yielded a potential \$5 million adverse impact to 2015 pre-tax earnings.

This analysis does not necessarily represent our current outlook of future market interest rate movement, nor does it consider any actions management could undertake in response to changes in interest rates. Accordingly, no assurance can be given that actual results would be consistent with the results of our estimate.

### **NON-GAAP FINANCIAL MEASURES**

The following definitions are provided for the non-GAAP financial measures used in this report. These non-GAAP financial measures have no standardized meaning prescribed by U.S. GAAP and therefore are unlikely to be comparable to the calculation of similar measures for other companies. Management does not intend these items to be considered in isolation or as a substitute for the related GAAP measures.



We have incurred significant restructuring costs in 2015. We believe it is important to separately quantify the profit-per-share impact of restructuring costs in order for our results to be meaningful to our readers as these costs are incurred in the current year to generate longer term benefits. We have also provided 2014 profit per share excluding restructuring costs comparable to the 2015 presentation. Reconciliation of profit per share excluding restructuring costs to the most directly comparable GAAP measure, profit per share - diluted is as follows:

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2015	2014	2015	2014
Profit per share - diluted.....	\$ (0.15)	\$ 1.23	\$ 3.50	\$ 5.88
Per share restructuring costs <sup>1</sup> .....	\$ 0.89	\$ 0.12	\$ 1.14	\$ 0.50
Profit per share excluding restructuring costs .....	\$ 0.74	\$ 1.35	\$ 4.64	\$ 6.38

<sup>1</sup> At effective tax rate excluding discrete items.

## Supplemental Consolidating Data

We are providing supplemental consolidating data for the purpose of additional analysis. The data has been grouped as follows:

**Consolidated** – Caterpillar Inc. and its subsidiaries.

**Machinery, Energy & Transportation** – Caterpillar defines Machinery, Energy & Transportation as it is presented in the supplemental data as Caterpillar Inc. and its subsidiaries with Financial Products accounted for on the equity basis. Machinery, Energy & Transportation information relates to our design, manufacturing, marketing and parts distribution operations. Financial Products information relates to the financing to customers and dealers for the purchase and lease of Caterpillar and other equipment. The nature of these businesses is different, especially with regard to the financial position and cash flow items. Caterpillar management utilizes this presentation internally to highlight these differences. We also believe this presentation will assist readers in understanding our business.

**Financial Products** – Our finance and insurance subsidiaries, primarily Cat Financial and Insurance Services.

**Consolidating Adjustments** – Eliminations of transactions between Machinery, Energy & Transportation and Financial Products.

Pages 63 to 65 reconcile Machinery, Energy & Transportation with Financial Products on the equity basis to Caterpillar Inc. consolidated financial information.

**Supplemental Data for Results of Operations**  
**For The Years Ended December 31**

(Millions of dollars)	Supplemental consolidating data											
	Consolidated			Machinery, Energy & Transportation <sup>1</sup>			Financial Products			Consolidating Adjustments		
	2015	2014	2013	2015	2014	2013	2015	2014	2013	2015	2014	2013
<b>Sales and revenues:</b>												
Sales of Machinery, Energy & Transportation.....	\$44,147	\$52,142	\$52,694	\$44,147	\$52,142	\$52,694	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Revenues of Financial Products .....	2,864	3,042	2,962	—	—	—	3,179	3,386	3,302	(315) <sup>2</sup>	(344) <sup>2</sup>	(340) <sup>2</sup>
Total sales and revenues .....	47,011	55,184	55,656	44,147	52,142	52,694	3,179	3,386	3,302	(315)	(344)	(340)
<b>Operating costs:</b>												
Cost of goods sold .....	33,742	39,767	40,727	33,744	39,769	40,727	—	—	—	(2) <sup>3</sup>	(2) <sup>3</sup>	—
Selling, general and administrative expenses.....	5,199	5,697	5,547	4,637	5,098	5,029	588	635	566	(26) <sup>3</sup>	(36) <sup>3</sup>	(48) <sup>3</sup>
Research and development expenses..	2,165	2,135	2,046	2,165	2,135	2,046	—	—	—	—	—	—
Interest expense of Financial Products .....	587	624	727	—	—	—	593	631	734	(6) <sup>4</sup>	(7) <sup>4</sup>	(7) <sup>4</sup>
Other operating (income) expenses ....	2,062	1,633	981	860	419	(23)	1,224	1,235	1,019	(22) <sup>3</sup>	(21) <sup>3</sup>	(15) <sup>3</sup>
Total operating costs.....	43,755	49,856	50,028	41,406	47,421	47,779	2,405	2,501	2,319	(56)	(66)	(70)
<b>Operating profit</b> .....	3,256	5,328	5,628	2,741	4,721	4,915	774	885	983	(259)	(278)	(270)
Interest expense excluding Financial Products .....	507	484	465	550	526	508	—	—	—	(43) <sup>4</sup>	(42) <sup>4</sup>	(43) <sup>4</sup>
Other income (expense).....	106	239	(35)	(158)	(21)	(299)	48	24	37	216 <sup>5</sup>	236 <sup>5</sup>	227 <sup>5</sup>
<b>Consolidated profit before taxes</b> .....	2,855	5,083	5,128	2,033	4,174	4,108	822	909	1,020	—	—	—
Provision (benefit) for income taxes ..	742	1,380	1,319	512	1,120	1,039	230	260	280	—	—	—
Profit of consolidated companies .....	2,113	3,703	3,809	1,521	3,054	3,069	592	649	740	—	—	—
Equity in profit (loss) of unconsolidated affiliated companies ..	—	8	(6)	—	8	(6)	—	—	—	—	—	—
Equity in profit of Financial Products' subsidiaries.....	—	—	—	591	640	726	—	—	—	(591) <sup>6</sup>	(640) <sup>6</sup>	(726) <sup>6</sup>
<b>Profit of consolidated and affiliated companies</b> .....	2,113	3,711	3,803	2,112	3,702	3,789	592	649	740	(591)	(640)	(726)
Less: Profit (loss) attributable to noncontrolling interests.....	11	16	14	10	7	—	1	9	14	—	—	—
<b>Profit</b> <sup>7</sup> .....	\$ 2,102	\$ 3,695	\$ 3,789	\$ 2,102	\$ 3,695	\$ 3,789	\$ 591	\$ 640	\$ 726	\$ (591)	\$ (640)	\$ (726)

<sup>1</sup> Represents Caterpillar Inc. and its subsidiaries with Financial Products accounted for on the equity basis.

<sup>2</sup> Elimination of Financial Products' revenues earned from Machinery, Energy & Transportation.

<sup>3</sup> Elimination of net expenses recorded by Machinery, Energy & Transportation paid to Financial Products.

<sup>4</sup> Elimination of interest expense recorded between Financial Products and Machinery, Energy & Transportation.

<sup>5</sup> Elimination of discount recorded by Machinery, Energy & Transportation on receivables sold to Financial Products and of interest earned between Machinery, Energy & Transportation and Financial Products.

<sup>6</sup> Elimination of Financial Products' profit due to equity method of accounting.

<sup>7</sup> Profit attributable to common stockholders.

# Supplemental Data for Financial Position

At December 31

(Millions of dollars)	Supplemental consolidating data							
	Consolidated		Machinery, Energy & Transportation <sup>1</sup>		Financial Products		Consolidating Adjustments	
	2015	2014	2015	2014	2015	2014	2015	2014
<b>Assets</b>								
Current assets:								
Cash and short-term investments.....	\$ 6,460	\$ 7,341	\$ 5,340	\$ 6,317	\$ 1,120	\$ 1,024	\$ —	\$ —
Receivables - trade and other .....	6,695	7,737	3,564	4,215	345	300	2,786 <sup>2,3</sup>	3,222 <sup>2,3</sup>
Receivables - finance.....	8,991	9,027	—	—	12,891	13,458	(3,900) <sup>3</sup>	(4,431) <sup>3</sup>
Deferred and refundable income taxes.....	1,526	1,739	1,376	1,644	150	95	—	—
Prepaid expenses and other current assets.....	1,046	818	326	399	725	432	(5) <sup>4</sup>	(13) <sup>4</sup>
Inventories.....	9,700	12,205	9,700	12,205	—	—	—	—
Total current assets.....	34,418	38,867	20,306	24,780	15,231	15,309	(1,119)	(1,222)
Property, plant and equipment - net.....	16,090	16,577	11,888	12,392	4,202	4,185	—	—
Long-term receivables - trade and other.....	1,170	1,364	121	154	215	268	834 <sup>2,3</sup>	942 <sup>2,3</sup>
Long-term receivables - finance.....	13,651	14,644	—	—	14,516	15,618	(865) <sup>3</sup>	(974) <sup>3</sup>
Investments in unconsolidated affiliated companies.....	246	257	246	257	—	—	—	—
Investments in Financial Products subsidiaries.....	—	—	3,888	4,488	—	—	(3,888) <sup>5</sup>	(4,488) <sup>5</sup>
Noncurrent deferred and refundable income taxes.....	1,654	1,404	2,398	1,980	108	98	(852) <sup>6</sup>	(674) <sup>6</sup>
Intangible assets .....	2,821	3,076	2,815	3,069	6	7	—	—
Goodwill.....	6,615	6,694	6,598	6,677	17	17	—	—
Other assets .....	1,832	1,798	410	391	1,436	1,407	(14) <sup>4</sup>	—
Total assets.....	\$ 78,497	\$ 84,681	\$ 48,670	\$ 54,188	\$ 35,731	\$ 36,909	\$ (5,904)	\$ (6,416)
<b>Liabilities</b>								
Current liabilities:								
Short-term borrowings.....	\$ 6,967	\$ 4,708	\$ 9	\$ 9	\$ 8,054	\$ 5,807	\$ (1,096) <sup>7</sup>	\$ (1,108) <sup>7</sup>
Accounts payable.....	5,023	6,515	4,848	6,436	193	180	(18) <sup>8</sup>	(101) <sup>8</sup>
Accrued expenses .....	3,116	3,548	2,841	3,273	275	288	—	(13) <sup>9</sup>
Accrued wages, salaries and employee benefits.....	1,994	2,438	1,951	2,396	43	42	—	—
Customer advances.....	1,146	1,697	1,146	1,697	—	—	—	—
Dividends payable.....	448	424	448	424	—	—	—	—
Other current liabilities.....	1,730	1,754	1,374	1,361	373	402	(17) <sup>6,9</sup>	(9) <sup>6</sup>
Long-term debt due within one year .....	5,879	6,793	517	510	5,362	6,283	—	—
Total current liabilities.....	26,303	27,877	13,134	16,106	14,300	13,002	(1,131)	(1,231)
Long-term debt due after one year .....	25,247	27,784	9,035	9,525	16,243	18,291	(31) <sup>7</sup>	(32) <sup>7</sup>
Liability for postemployment benefits.....	8,843	8,963	8,843	8,963	—	—	—	—
Other liabilities.....	3,219	3,231	2,773	2,768	1,300	1,128	(854) <sup>6,9</sup>	(665) <sup>6</sup>
Total liabilities.....	63,612	67,855	33,785	37,362	31,843	32,421	(2,016)	(1,928)
<b>Commitments and contingencies</b>								
<b>Stockholders' equity</b>								
Common stock.....	5,238	5,016	5,238	5,016	911	911	(911) <sup>5</sup>	(911) <sup>5</sup>
Treasury stock .....	(17,640)	(15,726)	(17,640)	(15,726)	—	—	—	—
Profit employed in the business .....	34,208	33,887	34,208	33,887	3,747	3,756	(3,747) <sup>5</sup>	(3,756) <sup>5</sup>
Accumulated other comprehensive income (loss).....	(6,997)	(6,431)	(6,997)	(6,431)	(896)	(311)	896 <sup>5</sup>	311 <sup>5</sup>
Noncontrolling interests .....	76	80	76	80	126	132	(126) <sup>5</sup>	(132) <sup>5</sup>
Total stockholders' equity.....	14,885	16,826	14,885	16,826	3,888	4,488	(3,888)	(4,488)
Total liabilities and stockholders' equity.....	\$ 78,497	\$ 84,681	\$ 48,670	\$ 54,188	\$ 35,731	\$ 36,909	\$ (5,904)	\$ (6,416)

<sup>1</sup> Represents Caterpillar Inc. and its subsidiaries with Financial Products accounted for on the equity basis.

<sup>2</sup> Elimination of receivables between Machinery, Energy & Transportation and Financial Products.

<sup>3</sup> Reclassification of Machinery, Energy & Transportation's trade receivables purchased by Financial Products and Financial Products' wholesale inventory receivables.

<sup>4</sup> Elimination of Machinery, Energy & Transportation's insurance premiums that are prepaid to Financial Products.

<sup>5</sup> Elimination of Financial Products' equity which is accounted for by Machinery, Energy & Transportation on the equity basis.

<sup>6</sup> Reclassification reflecting required netting of deferred tax assets/liabilities by taxing jurisdiction.

<sup>7</sup> Elimination of debt between Machinery, Energy & Transportation and Financial Products.

<sup>8</sup> Elimination of payables between Machinery, Energy & Transportation and Financial Products.

<sup>9</sup> Elimination of prepaid insurance in Financial Products' accrued expenses or other liabilities.

# Supplemental Data for Statement of Cash Flow

## For the Years Ended December 31

(Millions of dollars)	Supplemental consolidating data							
	Consolidated		Machinery, Energy & Transportation <sup>1</sup>		Financial Products		Consolidating Adjustments	
	2015	2014	2015	2014	2015	2014	2015	2014
<b>Cash flow from operating activities:</b>								
Profit of consolidated and affiliated companies .....	\$ 2,113	\$ 3,711	\$ 2,112	\$ 3,702	\$ 592	\$ 649	\$ (591) <sup>2</sup>	\$ (640) <sup>2</sup>
Adjustments for non-cash items:								
Depreciation and amortization .....	3,046	3,163	2,164	2,253	882	910	—	—
Undistributed profit of Financial Products .....	—	—	—	(170)	—	—	—	170 <sup>3</sup>
Other .....	508	553	398	395	(138)	(114)	248 <sup>4</sup>	272 <sup>4</sup>
Financial Products' dividend in excess of profit .....	—	—	9	—	—	—	(9) <sup>10</sup>	—
Changes in assets and liabilities, net of acquisitions and divestitures:								
Receivables - trade and other .....	764	163	461	786	(85)	43	388 <sup>4,5</sup>	(666) <sup>4,5</sup>
Inventories .....	2,274	101	2,280	128	—	—	(6) <sup>4</sup>	(27) <sup>4</sup>
Accounts payable .....	(1,165)	222	(1,343)	212	95	(43)	83 <sup>4</sup>	53 <sup>4</sup>
Accrued expenses .....	(199)	(10)	(223)	54	11	(64)	13 <sup>4</sup>	—
Accrued wages, salaries and employee benefits .....	(389)	901	(390)	892	1	9	—	—
Customer advances .....	(501)	(593)	(501)	(593)	—	—	—	—
Other assets—net .....	(220)	(300)	(370)	(393)	(34)	(56)	184 <sup>4</sup>	149 <sup>4</sup>
Other liabilities—net .....	444	146	578	204	63	91	(197) <sup>4</sup>	(149) <sup>4</sup>
Net cash provided by (used for) operating activities .....	<u>6,675</u>	<u>8,057</u>	<u>5,175</u>	<u>7,470</u>	<u>1,387</u>	<u>1,425</u>	<u>113</u>	<u>(838)</u>
<b>Cash flow from investing activities:</b>								
Capital expenditures—excluding equipment leased to others .....	(1,388)	(1,539)	(1,373)	(1,519)	(16)	(20)	1 <sup>4</sup>	—
Expenditures for equipment leased to others .....	(1,873)	(1,840)	(257)	(122)	(1,643)	(1,797)	27 <sup>4</sup>	79 <sup>4</sup>
Proceeds from disposals of leased assets and property, plant and equipment .....	760	904	114	81	655	837	(9) <sup>4</sup>	(14) <sup>4</sup>
Additions to finance receivables .....	(9,929)	(11,278)	—	—	(12,928)	(14,380)	2,999 <sup>5,8</sup>	3,102 <sup>5,8</sup>
Collections of finance receivables .....	9,247	9,841	—	—	12,227	12,607	(2,980) <sup>5</sup>	(2,766) <sup>5</sup>
Net intercompany purchased receivables .....	—	—	—	—	745	10	(745) <sup>5</sup>	(10) <sup>5</sup>
Proceeds from sale of finance receivables .....	136	177	—	—	136	180	—	(3) <sup>5</sup>
Net intercompany borrowings .....	—	—	—	—	1	13	(1) <sup>6</sup>	(13) <sup>6</sup>
Investments and acquisitions (net of cash acquired) .....	(400)	(30)	(400)	(30)	—	—	—	—
Proceeds from sale of businesses and investments (net of cash sold) .....	178	199	184	219	—	—	(6) <sup>8</sup>	(20) <sup>8</sup>
Proceeds from sale of securities .....	351	810	25	403	326	407	—	—
Investments in securities .....	(485)	(825)	(27)	(425)	(458)	(400)	—	—
Other—net .....	(114)	(46)	(49)	(17)	(65)	(34)	—	5 <sup>9</sup>
Net cash provided by (used for) investing activities .....	<u>(3,517)</u>	<u>(3,627)</u>	<u>(1,783)</u>	<u>(1,410)</u>	<u>(1,020)</u>	<u>(2,577)</u>	<u>(714)</u>	<u>360</u>
<b>Cash flow from financing activities:</b>								
Dividends paid .....	(1,757)	(1,620)	(1,757)	(1,620)	(600)	(470)	600 <sup>7</sup>	470 <sup>7</sup>
Distribution to noncontrolling interests .....	(7)	(7)	(7)	(7)	—	—	—	—
Contribution from noncontrolling interests .....	—	4	—	4	—	—	—	—
Common stock issued, including treasury shares reissued .....	33	239	33	239	—	5	—	(5) <sup>9</sup>
Treasury shares purchased .....	(2,025)	(4,238)	(2,025)	(4,238)	—	—	—	—
Excess tax benefit from stock-based compensation .....	24	182	24	182	—	—	—	—
Net intercompany borrowings .....	—	—	(1)	(13)	—	—	1 <sup>6</sup>	13 <sup>6</sup>
Proceeds from debt issued (original maturities greater than three months) .....	5,132	10,649	3	1,994	5,129	8,655	—	—
Payments on debt (original maturities greater than three months) .....	(8,292)	(9,248)	(517)	(785)	(7,775)	(8,463)	—	—
Short-term borrowings - net (original maturities three months or less) .....	3,022	1,043	4	—	3,018	1,043	—	—
Net cash provided by (used for) financing activities .....	<u>(3,870)</u>	<u>(2,996)</u>	<u>(4,243)</u>	<u>(4,244)</u>	<u>(228)</u>	<u>770</u>	<u>601</u>	<u>478</u>
Effect of exchange rate changes on cash .....	(169)	(174)	(126)	(96)	(43)	(78)	—	—
<b>Increase (decrease) in cash and short-term investments .....</b>	<b>(881)</b>	<b>1,260</b>	<b>(977)</b>	<b>1,720</b>	<b>96</b>	<b>(460)</b>	<b>—</b>	<b>—</b>
Cash and short-term investments at beginning of period .....	7,341	6,081	6,317	4,597	1,024	1,484	—	—
Cash and short-term investments at end of period .....	<u>\$ 6,460</u>	<u>\$ 7,341</u>	<u>\$ 5,340</u>	<u>\$ 6,317</u>	<u>\$ 1,120</u>	<u>\$ 1,024</u>	<u>\$ —</u>	<u>\$ —</u>

<sup>1</sup> Represents Caterpillar Inc. and its subsidiaries with Financial Products accounted for on the equity basis.

<sup>2</sup> Elimination of Financial Products' profit after tax due to equity method of accounting.

<sup>3</sup> Elimination of non-cash adjustment for the undistributed earnings from Financial Products.

<sup>4</sup> Elimination of non-cash adjustments and changes in assets and liabilities related to consolidated reporting.

<sup>5</sup> Reclassification of Financial Products' cash flow activity from investing to operating for receivables that arose from the sale of inventory.

<sup>6</sup> Elimination of net proceeds and payments to/from Machinery, Energy & Transportation and Financial Products.

<sup>7</sup> Elimination of dividend from Financial Products to Machinery, Energy & Transportation.

<sup>8</sup> Elimination of proceeds received from Financial Products related to Machinery, Energy & Transportation's sale of businesses and investments.

<sup>9</sup> Elimination of change in investment and common stock related to Financial Products.

<sup>10</sup> Elimination of Financial Products' dividend to Machinery, Energy & Transportation in excess of Financial Products' profit

**Item 7A. Quantitative and Qualitative Disclosures About Market Risk.**

Information required by Item 7A appears in Note 1 — “Operations and summary of significant accounting policies,” Note 3 — “Derivative financial instruments and risk management,” Note 18 — “Fair value disclosures” and Note 19 — “Concentration of credit risk” of Part II, Item 8 “Financial Statements and Supplementary Data.” Other information required by Item 7A is included in Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

## Item 8. Financial Statements and Supplementary Data.

### MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Caterpillar Inc. (company) is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rule 13a-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2015. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework* (2013). Based on our assessment we concluded that, as of December 31, 2015, the company's internal control over financial reporting was effective based on those criteria.

The effectiveness of the company's internal control over financial reporting as of December 31, 2015 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm. Their report appears on page 68.

/s/ Douglas R. Oberhelman

Douglas R. Oberhelman  
Chairman of the Board  
and Chief Executive Officer

/s/ Bradley M. Halverson

Bradley M. Halverson  
Group President  
and Chief Financial Officer

February 16, 2016

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Caterpillar Inc.:

In our opinion, the accompanying consolidated statement of financial position and the related consolidated statements of results of operations, comprehensive income, changes in stockholders' equity, and of cash flow, including pages 69 through 148, present fairly, in all material respects, the financial position of Caterpillar Inc. and its subsidiaries at December 31, 2015 and 2014, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2015 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing on page 67. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed 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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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/ PricewaterhouseCoopers LLP

Peoria, Illinois  
February 16, 2016

## STATEMENT 1

Caterpillar Inc.

## Consolidated Results of Operations for the Years Ended December 31

(Dollars in millions except per share data)

	2015	2014	2013
<b>Sales and revenues:</b>			
Sales of Machinery, Energy & Transportation.....	\$ 44,147	\$ 52,142	\$ 52,694
Revenues of Financial Products .....	2,864	3,042	2,962
Total sales and revenues .....	47,011	55,184	55,656
<b>Operating costs:</b>			
Cost of goods sold .....	33,742	39,767	40,727
Selling, general and administrative expenses .....	5,199	5,697	5,547
Research and development expenses .....	2,165	2,135	2,046
Interest expense of Financial Products .....	587	624	727
Other operating (income) expenses .....	2,062	1,633	981
Total operating costs .....	43,755	49,856	50,028
<b>Operating profit</b> .....	3,256	5,328	5,628
Interest expense excluding Financial Products .....	507	484	465
Other income (expense) .....	106	239	(35)
<b>Consolidated profit before taxes</b> .....	2,855	5,083	5,128
Provision (benefit) for income taxes .....	742	1,380	1,319
Profit of consolidated companies .....	2,113	3,703	3,809
Equity in profit (loss) of unconsolidated affiliated companies .....	—	8	(6)
<b>Profit of consolidated and affiliated companies</b> .....	2,113	3,711	3,803
Less: Profit (loss) attributable to noncontrolling interests .....	11	16	14
<b>Profit</b> <sup>1</sup> .....	\$ 2,102	\$ 3,695	\$ 3,789
<b>Profit per common share</b> .....	\$ 3.54	\$ 5.99	\$ 5.87
<b>Profit per common share — diluted</b> <sup>2</sup> .....	\$ 3.50	\$ 5.88	\$ 5.75
<b>Weighted-average common shares outstanding (millions)</b>			
- Basic .....	594.3	617.2	645.2
- Diluted <sup>2</sup> .....	601.3	628.9	658.6
<b>Cash dividends declared per common share</b> .....	\$ 3.01	\$ 2.70	\$ 2.32

<sup>1</sup> Profit attributable to common stockholders.<sup>2</sup> Diluted by assumed exercise of stock-based compensation awards, using the treasury stock method.

See accompanying notes to Consolidated Financial Statements.



## STATEMENT 2

Caterpillar Inc.

## Consolidated Comprehensive Income for the Years Ended December 31

(Millions of dollars)

	2015	2014	2013
<b>Profit of consolidated and affiliated companies</b> .....	<b>\$ 2,113</b>	<b>\$ 3,711</b>	<b>\$ 3,803</b>
Other comprehensive income (loss), net of tax:			
Foreign currency translation, net of tax (provision)/benefit of: 2015 - \$(82); 2014 - \$(78); 2013 - \$57 .....	(977)	(1,164)	(277)
Pension and other postretirement benefits:			
Current year actuarial gain (loss), net of tax (provision)/benefit of: 2015 - \$19; 2014 - \$838; 2013 - \$(1,232) .....	(10)	(1,578)	2,277
Amortization of actuarial (gain) loss, net of tax (provision)/benefit of: 2015 -\$(217); 2014 - \$(175); 2013 - \$(265) .....	424	344	516
Current year prior service credit (cost), net of tax (provision)/benefit of: 2015 - \$5; 2014 - \$(2); 2013 - \$(2) .....	(3)	4	3
Amortization of prior service (credit) cost, net of tax (provision)/benefit of: 2015 - \$18; 2014 - \$13; 2013 - \$19 .....	(35)	(25)	(35)
Amortization of transition (asset) obligation, net of tax (provision)/benefit of: 2015 - \$0; 2014 - \$0; 2013 - \$(1) .....	—	—	1
Derivative financial instruments:			
Gains (losses) deferred, net of tax (provision)/benefit of: 2015 - \$11; 2014 - \$69; 2013 - \$2 .....	(19)	(118)	(4)
(Gains) losses reclassified to earnings, net of tax (provision)/benefit of: 2015 - \$(51); 2014 - \$(2); 2013 - \$(25) .....	88	4	41
Available-for-sale securities:			
Gains (losses) deferred, net of tax (provision)/benefit of: 2015 - \$9; 2014 - \$(12); 2013 - \$(15) .....	(10)	24	29
(Gains) losses reclassified to earnings, net of tax (provision)/benefit of: 2015 - \$20; 2014 - \$11; 2013 - \$6 .....	(36)	(24)	(13)
Total other comprehensive income (loss), net of tax .....	(578)	(2,533)	2,538
Comprehensive income .....	1,535	1,178	6,341
Less: comprehensive income attributable to the noncontrolling interests .....	1	(16)	(17)
<b>Comprehensive income attributable to stockholders</b> .....	<b>\$ 1,536</b>	<b>\$ 1,162</b>	<b>\$ 6,324</b>

See accompanying notes to Consolidated Financial Statements.

## STATEMENT 3

Caterpillar Inc.

## Consolidated Financial Position at December 31

(Dollars in millions)

	2015	2014
<b>Assets</b>		
Current assets:		
Cash and short-term investments .....	\$ 6,460	\$ 7,341
Receivables – trade and other .....	6,695	7,737
Receivables – finance .....	8,991	9,027
Deferred and refundable income taxes .....	1,526	1,739
Prepaid expenses and other current assets .....	1,046	818
Inventories .....	9,700	12,205
Total current assets .....	34,418	38,867
Property, plant and equipment – net .....	16,090	16,577
Long-term receivables – trade and other .....	1,170	1,364
Long-term receivables – finance .....	13,651	14,644
Investments in unconsolidated affiliated companies .....	246	257
Noncurrent deferred and refundable income taxes .....	1,654	1,404
Intangible assets .....	2,821	3,076
Goodwill .....	6,615	6,694
Other assets .....	1,832	1,798
<b>Total assets</b> .....	<b>\$ 78,497</b>	<b>\$ 84,681</b>
<b>Liabilities</b>		
Current liabilities:		
Short-term borrowings:		
Machinery, Energy & Transportation .....	\$ 9	\$ 9
Financial Products .....	6,958	4,699
Accounts payable .....	5,023	6,515
Accrued expenses .....	3,116	3,548
Accrued wages, salaries and employee benefits .....	1,994	2,438
Customer advances .....	1,146	1,697
Dividends payable .....	448	424
Other current liabilities .....	1,730	1,754
Long-term debt due within one year:		
Machinery, Energy & Transportation .....	517	510
Financial Products .....	5,362	6,283
Total current liabilities .....	26,303	27,877
Long-term debt due after one year:		
Machinery, Energy & Transportation .....	9,004	9,493
Financial Products .....	16,243	18,291
Liability for postemployment benefits .....	8,843	8,963
Other liabilities .....	3,219	3,231
<b>Total liabilities</b> .....	<b>63,612</b>	<b>67,855</b>
<b>Commitments and contingencies (Notes 21 and 22)</b>		
<b>Stockholders' equity</b>		
Common stock of \$1.00 par value:		
Authorized shares: 2,000,000,000		
Issued shares: (2015 and 2014 – 814,894,624 shares) at paid-in amount .....	5,238	5,016
Treasury stock: (2015 – 232,572,734 shares; and 2014 - 208,728,065 shares) at cost .....	(17,640)	(15,726)
Profit employed in the business .....	34,208	33,887
Accumulated other comprehensive income (loss) .....	(6,997)	(6,431)
Noncontrolling interests .....	76	80
<b>Total stockholders' equity</b> .....	<b>14,885</b>	<b>16,826</b>
<b>Total liabilities and stockholders' equity</b> .....	<b>\$ 78,497</b>	<b>\$ 84,681</b>

See accompanying notes to Consolidated Financial Statements.

## STATEMENT 4

Caterpillar Inc.

## Changes in Consolidated Stockholders' Equity for the Years Ended December 31

(Dollars in millions)

	Common stock	Treasury stock	Profit employed in the business	Accumulated other comprehensive income (loss)	Noncontrolling interests	Total
<b>Balance at January 1, 2013</b> .....	<b>\$ 4,481</b>	<b>\$ (10,074)</b>	<b>\$ 29,558</b>	<b>\$ (6,433)</b>	<b>\$ 50</b>	<b>\$ 17,582</b>
Profit of consolidated and affiliated companies.....	—	—	3,789	—	14	3,803
Foreign currency translation, net of tax .....	—	—	—	(280)	3	(277)
Pension and other postretirement benefits, net of tax .....	—	—	—	2,762	—	2,762
Derivative financial instruments, net of tax .....	—	—	—	37	—	37
Available-for-sale securities, net of tax.....	—	—	—	16	—	16
Change in ownership from noncontrolling interests .....	(6)	—	—	—	13	7
Dividends declared.....	—	—	(1,493)	—	—	(1,493)
Distribution to noncontrolling interests .....	—	—	—	—	(13)	(13)
Common shares issued from treasury stock for stock-based compensation: 6,258,692.....	(92)	220	—	—	—	128
Stock-based compensation expense .....	231	—	—	—	—	231
Net excess tax benefits from stock-based compensation .....	95	—	—	—	—	95
Common shares repurchased: 23,484,843 <sup>1</sup> .....	—	(2,000)	—	—	—	(2,000)
<b>Balance at December 31, 2013</b> .....	<b>\$ 4,709</b>	<b>\$ (11,854)</b>	<b>\$ 31,854</b>	<b>\$ (3,898)</b>	<b>\$ 67</b>	<b>\$ 20,878</b>
Profit of consolidated and affiliated companies.....	—	—	3,695	—	16	3,711
Foreign currency translation, net of tax .....	—	—	—	(1,164)	—	(1,164)
Pension and other postretirement benefits, net of tax .....	—	—	—	(1,255)	—	(1,255)
Derivative financial instruments, net of tax .....	—	—	—	(114)	—	(114)
Available-for-sale securities, net of tax.....	—	—	—	—	—	—
Change in ownership from noncontrolling interests .....	—	—	—	—	4	4
Dividends declared.....	—	—	(1,662)	—	—	(1,662)
Distribution to noncontrolling interests .....	—	—	—	—	(7)	(7)
Common shares issued from treasury stock for stock-based compensation: 10,106,542.....	(127)	366	—	—	—	239
Stock-based compensation expense .....	254	—	—	—	—	254
Net excess tax benefits from stock-based compensation .....	180	—	—	—	—	180
Common shares repurchased: 41,762,325 <sup>1</sup> .....	—	(4,238)	—	—	—	(4,238)
<b>Balance at December 31, 2014</b> .....	<b>\$ 5,016</b>	<b>\$ (15,726)</b>	<b>\$ 33,887</b>	<b>\$ (6,431)</b>	<b>\$ 80</b>	<b>\$ 16,826</b>

(Continued)

## Changes in Consolidated Stockholders' Equity for the Years Ended December 31

(Dollars in millions)

	Common stock	Treasury stock	Profit employed in the business	Accumulated other comprehensive income (loss)	Noncontrolling interests	Total
<b>Balance at December 31, 2014</b> .....	<b>\$ 5,016</b>	<b>\$ (15,726)</b>	<b>\$ 33,887</b>	<b>\$ (6,431)</b>	<b>\$ 80</b>	<b>\$ 16,826</b>
Profit of consolidated and affiliated companies.....	—	—	2,102	—	11	2,113
Foreign currency translation, net of tax .....	—	—	—	(965)	(12)	(977)
Pension and other postretirement benefits, net of tax .....	—	—	—	376	—	376
Derivative financial instruments, net of tax .....	—	—	—	69	—	69
Available-for-sale securities, net of tax .....	—	—	—	(46)	—	(46)
Dividends declared.....	—	—	(1,781)	—	—	(1,781)
Distribution to noncontrolling interests .....	—	—	—	—	(7)	(7)
Common shares issued from treasury stock for stock-based compensation: 2,931,595 .....	(78)	111	—	—	—	33
Stock-based compensation expense .....	283	—	—	—	—	283
Net excess tax benefits from stock-based compensation .....	10	—	—	—	—	10
Common shares repurchased: 25,841,608 <sup>1</sup> .....	—	(2,025)	—	—	—	(2,025)
Other .....	7	—	—	—	4	11
<b>Balance at December 31, 2015</b> .....	<b>\$ 5,238</b>	<b>\$ (17,640)</b>	<b>\$ 34,208</b>	<b>\$ (6,997)</b>	<b>\$ 76</b>	<b>\$ 14,885</b>

<sup>1</sup> See Note 16 regarding shares repurchased.

See accompanying notes to Consolidated Financial Statements.

## STATEMENT 5

Caterpillar Inc.

## Consolidated Statement of Cash Flow for the Years Ended December 31

(Millions of dollars)

	2015	2014	2013
<b>Cash flow from operating activities:</b>			
Profit of consolidated and affiliated companies .....	\$ 2,113	\$ 3,711	\$ 3,803
Adjustments for non-cash items:			
Depreciation and amortization .....	3,046	3,163	3,087
Other .....	508	553	482
Changes in assets and liabilities, net of acquisitions and divestitures:			
Receivables – trade and other .....	764	163	835
Inventories .....	2,274	101	2,658
Accounts payable .....	(1,165)	222	134
Accrued expenses .....	(199)	(10)	(108)
Accrued wages, salaries and employee benefits .....	(389)	901	(279)
Customer advances .....	(501)	(593)	(301)
Other assets – net .....	(220)	(300)	(49)
Other liabilities – net .....	444	146	(71)
Net cash provided by (used for) operating activities .....	<u>6,675</u>	<u>8,057</u>	<u>10,191</u>
<b>Cash flow from investing activities:</b>			
Capital expenditures – excluding equipment leased to others .....	(1,388)	(1,539)	(2,522)
Expenditures for equipment leased to others .....	(1,873)	(1,840)	(1,924)
Proceeds from disposals of leased assets and property, plant and equipment .....	760	904	844
Additions to finance receivables .....	(9,929)	(11,278)	(11,422)
Collections of finance receivables .....	9,247	9,841	9,567
Proceeds from sale of finance receivables .....	136	177	220
Investments and acquisitions (net of cash acquired) .....	(400)	(30)	(195)
Proceeds from sale of businesses and investments (net of cash sold) .....	178	199	365
Proceeds from sale of securities .....	351	810	449
Investments in securities .....	(485)	(825)	(402)
Other – net .....	(114)	(46)	(26)
Net cash provided by (used for) investing activities .....	<u>(3,517)</u>	<u>(3,627)</u>	<u>(5,046)</u>
<b>Cash flow from financing activities:</b>			
Dividends paid .....	(1,757)	(1,620)	(1,111)
Distribution to noncontrolling interests .....	(7)	(7)	(13)
Contribution from noncontrolling interests .....	—	4	—
Common stock issued, including treasury shares reissued .....	33	239	128
Treasury shares purchased .....	(2,025)	(4,238)	(2,000)
Excess tax benefit from stock-based compensation .....	24	182	96
Proceeds from debt issued (original maturities greater than three months):			
- Machinery, Energy & Transportation .....	3	1,994	195
- Financial Products .....	5,129	8,655	9,133
Payments on debt (original maturities greater than three months):			
- Machinery, Energy & Transportation .....	(517)	(785)	(1,769)
- Financial Products .....	(7,775)	(8,463)	(9,101)
Short-term borrowings – net (original maturities three months or less) .....	3,022	1,043	(69)
Net cash provided by (used for) financing activities .....	<u>(3,870)</u>	<u>(2,996)</u>	<u>(4,511)</u>
Effect of exchange rate changes on cash .....	<u>(169)</u>	<u>(174)</u>	<u>(43)</u>
<b>Increase (decrease) in cash and short-term investments .....</b>	<b>(881)</b>	<b>1,260</b>	<b>591</b>
Cash and short-term investments at beginning of period .....	7,341	6,081	5,490
Cash and short-term investments at end of period .....	<u>\$ 6,460</u>	<u>\$ 7,341</u>	<u>\$ 6,081</u>

All short-term investments, which consist primarily of highly liquid investments with original maturities of three months or less, are considered to be cash equivalents.

See accompanying notes to Consolidated Financial Statements.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### 1. Operations and summary of significant accounting policies

#### A. Nature of operations

Information in our financial statements and related commentary are presented in the following categories:

**Machinery, Energy & Transportation** – Represents the aggregate total of Construction Industries, Resource Industries, Energy & Transportation and All Other operating segments and related corporate items and eliminations.

**Financial Products** – Primarily includes the company's Financial Products Segment. This category includes Caterpillar Financial Services Corporation (Cat Financial), Caterpillar Financial Insurance Services (Insurance Services) and their respective subsidiaries.

Our products are sold primarily under the brands "Caterpillar," "CAT," design versions of "CAT" and "Caterpillar," "Electro-Motive," "FG Wilson," "MaK," "MWM," "Perkins," "Progress Rail," "SEM" and "Solar Turbines".

We conduct operations in our Machinery, Energy & Transportation lines of business under highly competitive conditions, including intense price competition. We place great emphasis on the high quality and performance of our products and our dealers' service support. Although no one competitor is believed to produce all of the same types of equipment that we do, there are numerous companies, large and small, which compete with us in the sale of each of our products.

Our machines are distributed principally through a worldwide organization of dealers (dealer network), 48 located in the United States and 127 located outside the United States, serving 182 countries and operating 3,593 places of business, including 1,274 dealer rental outlets. Reciprocating engines are sold principally through the dealer network and to other manufacturers for use in products. Some of the reciprocating engines manufactured by our subsidiary Perkins Engines Company Limited, are also sold through its worldwide network of 97 distributors covering 180 countries. The FG Wilson branded electric power generation systems manufactured by our subsidiary Caterpillar Northern Ireland Limited are sold through its worldwide network of 290 distributors located in 145 countries. Some of the large, medium speed reciprocating engines are also sold under the MaK brand through a worldwide network of 19 distributors located in 130 countries. Our dealers do not deal exclusively with our products; however, in most cases sales and servicing of our products are the dealers' principal business. Some products, primarily turbines and locomotives, are sold directly to end customers through sales forces employed by the company. At times, these employees are assisted by independent sales representatives.

The Financial Products line of business also conducts operations under highly competitive conditions. Financing for users of Caterpillar products is available through a variety of competitive sources, principally commercial banks and finance and leasing companies. We offer various financing plans designed to increase the opportunity for sales of our products and generate financing income for our company. A significant portion of Financial Products activity is conducted in North America, with additional offices in Latin America, Europe and Asia/Pacific.

#### B. Basis of presentation

The consolidated financial statements include the accounts of Caterpillar Inc. and its subsidiaries where we have a controlling financial interest.

Investments in companies where our ownership exceeds 20 percent and we do not have a controlling interest or where the ownership is less than 20 percent and for which we have a significant influence are accounted for by the equity method. See Note 9 for further discussion.

We consolidate all variable interest entities (VIEs) where Caterpillar Inc. is the primary beneficiary. For VIEs, we assess whether we are the primary beneficiary as prescribed by the accounting guidance on the consolidation of VIEs. The primary beneficiary of a VIE is the party that has both the power to direct the activities that most significantly impact the entity's economic performance and the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE. See Note 21 for further discussion on a consolidated VIE.

We have affiliates, suppliers and dealers that are VIEs of which we are not the primary beneficiary. Although we have provided financial support, we do not have the power to direct the activities that most significantly impact the economic performance of each entity.

Our maximum exposure to loss from VIEs for which we are not the primary beneficiary was as follows:

(Millions of dollars)	December 31,	
	2015	2014
Receivables - trade and other .....	\$ 19	\$ 36
Receivables - finance .....	466	216
Long-term receivables - finance .....	62	285
Investments in unconsolidated affiliated companies .....	35	83
Guarantees .....	175	129
<b>Total</b> .....	<b>\$ 757</b>	<b>\$ 749</b>

Shipping and handling costs are included in Cost of goods sold in Statement 1. Other operating (income) expenses primarily include Cat Financial's depreciation of equipment leased to others, Insurance Services' underwriting expenses, gains (losses) on disposal of long-lived assets and business divestitures, long-lived asset impairment charges, legal settlements and accruals, employee separation charges and benefit plan curtailments and settlement gains (losses).

Prepaid expenses and other current assets in Statement 3 include prepaid rent, prepaid insurance, assets held for sale, core to be returned for remanufacturing, restricted cash and other short-term investments, and other prepaid items.

Certain amounts for prior years have been reclassified to conform with the current-year financial statement presentation.

### C. Sales and revenue recognition

Sales of Machinery, Energy & Transportation are recognized and earned when all the following criteria are satisfied: (a) persuasive evidence of a sales arrangement exists; (b) price is fixed and determinable; (c) collectibility is reasonably assured; and (d) delivery has occurred. Persuasive evidence of an arrangement and a fixed or determinable price exist once we receive an order or contract from a customer or independently owned and operated dealer. We assess collectibility at the time of the sale and if collectibility is not reasonably assured, the sale is deferred and not recognized until collectibility is probable or payment is received. Typically, where product is produced and sold in the same country, title and risk of ownership transfer when the product is shipped. Products that are exported from a country for sale typically pass title and risk of ownership at the border of the destination country.

Sales of certain turbine machinery units, draglines and long wall roof supports are recognized under accounting for construction-type contracts, primarily using the percentage-of-completion method. Revenue is recognized based upon progress towards completion, which is estimated and continually updated over the course of construction. We provide for any loss that we expect to incur on these contracts when that loss is probable.

Our remanufacturing operations are primarily focused on the remanufacture of Cat engines and components and rail related products. In this business, used engines and related components (core) are inspected, cleaned and remanufactured. In connection with the sale of most of our remanufactured product, we collect a deposit from the dealer that is repaid if the dealer returns an acceptable core within a specified time period. Caterpillar owns and has title to the cores when they are returned from dealers. The rebuilt engine or component (the core plus any new content) is then sold as a remanufactured product to dealers and customers. Revenue is recognized pursuant to the same criteria as Machinery, Energy & Transportation sales noted above (title to the entire remanufactured product passes to the dealer upon sale). At the time of sale, the deposit is recognized in Other current liabilities in Statement 3. In addition, the core to be returned is recognized as an asset in Prepaid expenses and other current assets in Statement 3 at the estimated replacement cost (based on historical experience with useable cores). Upon receipt of an acceptable core, we repay the deposit and relieve the liability. The returned core is then included in inventory. In the event that the deposit is forfeited (i.e. upon failure by the dealer to return an acceptable core in the specified time period), we recognize the core deposit and the cost of the core in Sales and Cost of goods sold, respectively.

No right of return exists on sales of equipment. Replacement part returns are estimable and accrued at the time a sale is recognized.

We provide discounts to dealers through merchandising programs. We have numerous programs that are designed to promote the sale of our products. The most common dealer programs provide a discount when the dealer sells a product to a targeted end user. The cost of these discounts is estimated based on historical experience and known changes in merchandising programs and is reported as a reduction to sales when the product sale is recognized.

Our standard dealer invoice terms are established by marketing region. Our invoice terms for end-user customer sales are established by the responsible business unit. When a sale is made to a dealer, the dealer is responsible for payment even if the product is not sold to an end customer. Dealers and customers must make payment within the established invoice terms to avoid potential interest costs. Interest at or above prevailing market rates may be charged on any past due balance, and generally our practice is to not forgive this interest. In 2015, 2014 and 2013 terms were extended to not more than one year for \$635 million, \$624 million and \$706 million of receivables, respectively, which represent approximately 1 percent of consolidated sales.

We establish a bad debt allowance for Machinery, Energy & Transportation receivables when it becomes probable that the receivable will not be collected. Our allowance for bad debts is not significant.

Revenues of Financial Products are generated primarily from finance revenue on finance receivables and rental payments on operating leases. Finance revenue is recorded over the life of the related finance receivable using the interest method, including the accretion of certain direct origination costs that are deferred. Revenue from rental payments received on operating leases is recognized on a straight-line basis over the term of the lease.

Recognition of finance revenue and rental revenue is suspended and the account is placed on non-accrual status when management determines that collection of future income is not probable (generally after 120 days past due). Recognition is resumed, and previously suspended income is recognized, when the account becomes current and collection of remaining amounts is considered probable. See Note 6 for more information.

Sales and revenues are presented net of sales and other related taxes.

#### **D. Inventories**

Inventories are stated at the lower of cost or market. Cost is principally determined using the last-in, first-out (LIFO) method. The value of inventories on the LIFO basis represented about 60 percent of total inventories at December 31, 2015 and 2014.

If the FIFO (first-in, first-out) method had been in use, inventories would have been \$2,498 million and \$2,430 million higher than reported at December 31, 2015 and 2014, respectively.

#### **E. Depreciation and amortization**

Depreciation of plant and equipment is computed principally using accelerated methods. Depreciation on equipment leased to others, primarily for Financial Products, is computed using the straight-line method over the term of the lease. The depreciable basis is the original cost of the equipment less the estimated residual value of the equipment at the end of the lease term. In 2015, 2014 and 2013, Cat Financial depreciation on equipment leased to others was \$836 million, \$872 million and \$768 million, respectively, and was included in Other operating (income) expenses in Statement 1. In 2015, 2014 and 2013, consolidated depreciation expense was \$2,705 million, \$2,795 million and \$2,710 million, respectively. Amortization of purchased finite-lived intangibles is computed principally using the straight-line method, generally not to exceed a period of 20 years.

#### **F. Foreign currency translation**

The functional currency for most of our Machinery, Energy & Transportation consolidated companies is the U.S. dollar. The functional currency for most of our Financial Products and affiliates accounted for under the equity method is the respective local currency. Gains and losses resulting from the remeasurement of foreign currency amounts to the functional currency are included in Other income (expense) in Statement 1. Gains and losses resulting from translating assets and liabilities from the functional currency to U.S. dollars are included in Accumulated other comprehensive income (loss) in Statement 3.



## **G. Derivative financial instruments**

Our earnings and cash flow are subject to fluctuations due to changes in foreign currency exchange rates, interest rates and commodity prices. Our Risk Management Policy (policy) allows for the use of derivative financial instruments to prudently manage foreign currency exchange rate, interest rate and commodity price exposures. Our policy specifies that derivatives are not to be used for speculative purposes. Derivatives that we use are primarily foreign currency forward, option, and cross currency contracts, interest rate swaps, and commodity forward and option contracts. All derivatives are recorded at fair value. See Note 3 for more information.

## **H. Income taxes**

The provision for income taxes is determined using the asset and liability approach taking into account guidance related to uncertain tax positions. Tax laws require items to be included in tax filings at different times than the items are reflected in the financial statements. A current liability is recognized for the estimated taxes payable for the current year. Deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. Deferred taxes are adjusted for enacted changes in tax rates and tax laws. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized.

## **I. Goodwill**

For acquisitions accounted for as a business combination, goodwill represents the excess of the cost over the fair value of the net assets acquired. We are required to test goodwill for impairment, at the reporting unit level, annually and when events or circumstances indicate the fair value of a reporting unit may be below its carrying value. A reporting unit is an operating segment or one level below an operating segment (referred to as a component) to which goodwill is assigned when initially recorded. We assign goodwill to reporting units based on our integration plans and the expected synergies resulting from the acquisition. Because Caterpillar is a highly integrated company, the businesses we acquire are sometimes combined with or integrated into existing reporting units. When changes occur in the composition of our operating segments or reporting units, goodwill is reassigned to the affected reporting units based on their relative fair values.

We test goodwill for impairment annually and whenever events or circumstances make it more likely than not that an impairment may have occurred. We perform our annual goodwill impairment test as of October 1 and monitor for interim triggering events on an ongoing basis. Goodwill is reviewed for impairment utilizing either a qualitative assessment or a two-step process. We have an option to make a qualitative assessment of a reporting unit's goodwill for impairment. If we choose to perform a qualitative assessment and determine the fair value more likely than not exceeds the carrying value, no further evaluation is necessary. For reporting units where we perform the two-step process, the first step requires us to compare the fair value of each reporting unit, which we primarily determine using an income approach based on the present value of discounted cash flows, to the respective carrying value, which includes goodwill. If the fair value of the reporting unit exceeds its carrying value, the goodwill is not considered impaired. If the carrying value is higher than the fair value, there is an indication that an impairment may exist and the second step is required. In step two, the implied fair value of goodwill is calculated as the excess of the fair value of a reporting unit over the fair values assigned to its assets and liabilities. If the implied fair value of goodwill is less than the carrying value of the reporting unit's goodwill, the difference is recognized as an impairment loss. See Note 10 for further details.

## **J. Estimates in financial statements**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect reported amounts. The more significant estimates include: residual values for leased assets, fair values for goodwill impairment tests, impairment of available-for-sale securities, warranty liability, stock-based compensation and reserves for product liability and insurance losses, postretirement benefits, post-sale discounts, credit losses and income taxes.

## **K. New accounting guidance**

**Reporting discontinued operations and disclosures of disposals of components of an entity** – In April 2014, the Financial Accounting Standards Board (FASB) issued accounting guidance for determining which disposals can be presented as discontinued operations and modifies related disclosure requirements. The guidance defines a discontinued operation as a disposal of a component or group of components that is disposed of or is classified as held for sale and represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results. This guidance was effective January 1, 2015 and did not have a material impact on our financial statements.

**Revenue recognition** – In May 2014, the FASB issued new revenue recognition guidance to provide a single, comprehensive revenue recognition model for all contracts with customers. Under the new guidance, an entity will recognize revenue to depict the transfer of promised goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services. A five step model has been introduced for an entity to apply when recognizing revenue. The new guidance also includes enhanced disclosure requirements, and is effective January 1, 2018, with early adoption permitted for January 1, 2017. Entities have the option to apply the new guidance under a retrospective approach to each prior reporting period presented, or a modified retrospective approach with the cumulative effect of initially applying the new guidance recognized at the date of initial application within the Consolidated Statement of Changes in Stockholders' Equity. We are in the process of evaluating the application and implementation of the new guidance.

**Variable interest entities (VIE)** – In February 2015, the FASB issued accounting guidance on the consolidation of VIEs. The new guidance revises previous guidance by establishing an analysis for determining whether a limited partnership or similar entity is a VIE and whether outsourced decision-maker fees are considered variable interests. In addition, the new guidance revises how a reporting entity evaluates economics and related parties when assessing who should consolidate a VIE. This guidance was effective January 1, 2016 and did not have a material impact on our financial statements.

**Presentation of debt issuance costs** – In April 2015, the FASB issued accounting guidance which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability. Prior to the issuance of the new guidance, debt issuance costs were required to be presented in the balance sheet as an asset. This guidance was effective January 1, 2016 and did not have a material impact on our financial statements.

**Fair value disclosures for investments in certain entities that calculate net asset value per share** – In May 2015, the FASB issued accounting guidance which removes the requirement to categorize within the fair value hierarchy investments measured at net asset value (or its equivalent) as a practical expedient for fair value. The new guidance requires that the amount of these investments continue to be disclosed to reconcile the fair value hierarchy disclosure to the balance sheet. The guidance was effective January 1, 2016 and will be applied retrospectively. The adoption did not have a material impact on our financial statements.

**Simplifying the measurement of inventory** – In July 2015, the FASB issued accounting guidance which requires that inventory be measured at the lower of cost or net realizable value. Prior to the issuance of the new guidance, inventory was measured at the lower of cost or market. Replacing the concept of market with the single measurement of net realizable value is intended to create efficiencies for preparers. Inventory measured using the last-in, first-out (LIFO) method and the retail inventory method are not impacted by the new guidance. The guidance is effective January 1, 2017. We do not expect the adoption to have a material impact on our financial statements.

**Simplifying the accounting for measurement-period adjustments** – In September 2015, the FASB issued accounting guidance which eliminates the requirement for an acquirer in a business combination to restate prior period financial statements for measurement period adjustments. An acquirer in a business combination is required to report provisional amounts when measurements are incomplete at the end of the reporting period covering the business combination. Prior to the issuance of the new guidance, an acquirer was required to adjust such provisional amounts by restating prior period financial statements. Under the new guidance, the acquirer will recognize the measurement-period adjustment in the period the adjustment is determined. The guidance was effective January 1, 2016 and will be applied prospectively. The adoption did not have a material impact on our financial statements.

**Balance sheet classification of deferred taxes** - In November 2015, the FASB issued accounting guidance that requires all deferred tax assets and liabilities, along with any related valuation allowance, to be classified as noncurrent on the Consolidated Statement of Financial Position. Current guidance requires the deferred taxes for each jurisdiction to be presented as a net current asset or liability and net noncurrent asset or liability. As a result of the new guidance, each jurisdiction will now only have one net noncurrent deferred tax asset or liability. The new guidance does not change the existing requirement that only permits offsetting deferred tax assets and liabilities within a single jurisdiction. Entities have the option to apply the new guidance prospectively or retrospectively. The new guidance is effective January 1, 2017, with early adoption permitted. We adopted the new guidance effective January 1, 2016 and will apply it retrospectively. The adoption results in the reclassification of current deferred tax assets and liabilities to noncurrent assets and liabilities. See Note 5 on page 93 for the deferred taxes included in Statement 3.

**Recognition and measurement of financial assets and financial liabilities** - In January 2016, the FASB issued accounting guidance that affects the accounting for equity investments, financial liabilities accounted for under the fair value option and the presentation and disclosure requirements for financial instruments. Under the new guidance, all equity investments in unconsolidated entities (other than those accounted for using the equity method of accounting) will generally be measured at fair value through earnings. There will no longer be an available-for-sale classification for equity securities with readily determinable fair values. For financial liabilities when the fair value option has been elected, changes in fair value due to instrument-specific credit risk will be recognized separately in other comprehensive income. In addition, the FASB clarified guidance related to the valuation allowance assessment when recognizing deferred tax assets resulting from unrealized losses on available-for-sale debt securities. The new guidance is effective January 1, 2018, with the cumulative effect adjustment from initially applying the new guidance recognized in the Statement of Financial Position as of the beginning of the year of adoption. The impact from adoption on our financial statements will be based on changes in the fair value of our available-for-sale equity securities subsequent to January 1, 2018, which will be recorded through earnings.

## **2. Stock-based compensation**

Our stock-based compensation plans primarily provide for the granting of stock options, stock-settled stock appreciation rights (SARs), restricted stock units (RSUs) and performance-based restricted stock units (PRSUs) to Officers and other key employees, as well as non-employee Directors. Stock options permit a holder to buy Caterpillar stock at the stock's price when the option was granted. SARs permit a holder the right to receive the value in shares of the appreciation in Caterpillar stock that occurred from the date the right was granted up to the date of exercise. RSUs are agreements to issue shares of Caterpillar stock at the time of vesting. PRSUs are similar to RSUs and include performance conditions in the vesting terms of the award.

Our long-standing practices and policies specify all stock-based compensation awards are approved by the Compensation Committee (the Committee) of the Board of Directors on the date of grant. The stock-based award approval process specifies the number of awards granted, the terms of the award and the grant date. The same terms and conditions are consistently applied to all employee grants, including Officers. The Committee approves all individual Officer grants. The number of stock-based compensation awards included in an individual's award is determined based on the methodology approved by the Committee. The exercise price methodology approved by the Committee is the closing price of the Company stock on the date of the grant. The 2013 and 2014 grants were issued under the Caterpillar Inc. 2006 Long-Term Incentive Plan (approved by stockholders in June of 2006). In June of 2014, stockholders approved the Caterpillar Inc. 2014 Long-Term Incentive Plan under which all new stock-based compensation awards are granted.

Common stock issued from Treasury stock under the plans totaled 2,931,595 for 2015, 10,106,542 for 2014 and 6,258,692 for 2013. The total number of shares authorized for equity awards under the Caterpillar Inc. 2014 Long-Term Incentive Plan is 38,800,000, of which 25,503,631 shares remained available for issuance as of December 31, 2015.

Awards granted prior to 2015 generally vest three years after the date of grant (cliff vesting). The awards granted in 2015 generally vest according to a three-year graded vesting schedule. One-third of the award will become vested on the first anniversary of the grant date, one-third of the award will become vested on the second anniversary of the grant date and one-third of the award will become vested on the third anniversary of the grant date. Beginning in 2015, PRSUs were granted. PRSUs generally have a three-year performance period and vest upon achievement of performance targets established at the time of grant.

At grant, SARs and option awards have a term life of ten years. Upon separation from service, if the participant is 55 years of age or older with more than five years of service, the participant meets the criteria for a "Long Service Separation". If the "Long Service Separation" criteria are met, the vested options/SARs will have a life that is the lesser of ten years from the original grant date or five years from the separation date.

Prior to 2015, our stock-based compensation award terms allowed for the immediate vesting upon separation for employees who met the criteria for a "Long Service Separation" and fulfilled a requisite service period of six months. For these employees, compensation expense was recognized over the period from the grant date to the end date of the six-month requisite service period. Award terms for the 2015 grant allowed for the immediate vesting upon separation for employees who met the criteria for a "Long Service Separation" with no requisite service period. For these employees, compensation expense for the 2015 grant was recognized immediately on the grant date. For employees who become eligible for immediate vesting under a "Long Service Separation" subsequent to the grant date and prior to the completion of the vesting period, compensation expense is recognized over the period from grant date to the date eligibility is achieved.

Accounting guidance on share-based payments requires companies to estimate the fair value of options/SARs on the date of grant using an option-pricing model. The fair value of our option/SAR grants was estimated using a lattice-based option-pricing model. The lattice-based option-pricing model considers a range of assumptions related to volatility, risk-free interest rate and historical employee behavior. Expected volatility was based on historical Caterpillar stock price movement and current implied volatilities from traded options on Caterpillar stock. The risk-free rate was based on U.S. Treasury security yields at the time of grant. The weighted-average dividend yield was based on historical information. The expected life was determined from the lattice-based model. The lattice-based model incorporated exercise and post vesting forfeiture assumptions based on analysis of historical data. The following table provides the assumptions used in determining the fair value of the stock-based awards for the years ended December 31, 2015, 2014 and 2013, respectively.

	Grant Year		
	2015	2014	2013
Weighted-average dividend yield.....	2.3%	2.2%	2.1%
Weighted-average volatility.....	28.4%	28.2%	30.6%
Range of volatilities.....	19.9-35.9%	18.4-36.2%	23.4-40.6%
Range of risk-free interest rates.....	0.22-2.08%	0.12-2.60%	0.16-1.88%
Weighted-average expected lives.....	8 years	8 years	8 years

The fair value of RSU and PRSU grants was estimated by reducing the stock price on the date of grant by the present value of the estimated dividends to be paid during the vesting period. The estimated dividends are based on Caterpillar's quarterly dividend per share at the time of the grant.

Please refer to Tables I and II below for additional information on our stock-based awards.

TABLE I — Financial Information Related to Stock-based Compensation

	Stock options / SARs		RSUs		PRSUs	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Grant Date Fair Value	Shares	Weighted-Average Grant Date Fair Value
Outstanding at January 1, 2015 .....	34,581,083	\$ 74.48	4,084,136	\$ 91.92	—	\$ —
Granted to officers and key employees <sup>1</sup> .....	7,939,497	\$ 83.34	1,690,661	\$ 77.55	132,068	\$ 77.47
Exercised .....	(3,513,271)	\$ 57.37	—	\$ —	—	\$ —
Vested .....	—	\$ —	(1,350,457)	\$ 102.63	—	\$ —
Forfeited / expired .....	(668,784)	\$ 76.78	(93,827)	\$ 84.28	—	\$ —
Outstanding at December 31, 2015 .....	<u>38,338,525</u>	\$ 77.84	<u>4,330,513</u>	\$ 83.14	<u>132,068</u>	\$ 77.47
Exercisable at December 31, 2015 .....	<u>24,807,381</u>	\$ 72.26				

Stock options/SARs outstanding and exercisable as of December 31, 2015:

Exercise Prices	Outstanding				Exercisable			
	Shares Outstanding at 12/31/15	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Aggregate Intrinsic Value <sup>2</sup>	Shares Outstanding at 12/31/15	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Aggregate Intrinsic Value <sup>2</sup>
\$22.17 - 57.85	8,293,122	3.79	\$ 44.29	\$ 196	8,293,122	3.79	\$ 44.29	\$ 196
\$63.04 - 73.20	7,876,270	1.15	\$ 70.12	10	7,876,270	1.15	\$ 70.12	10
\$83.00 - 86.77	7,433,988	9.08	\$ 83.05	—	520,547	9.18	\$ 83.00	—
\$88.51 - 96.31	8,872,548	7.49	\$ 92.88	—	2,254,845	6.78	\$ 91.53	—
\$102.13 - 110.09	5,862,597	5.71	\$ 106.31	—	5,862,597	5.71	\$ 106.31	—
	<u>38,338,525</u>		\$ 77.84	\$ 206	<u>24,807,381</u>		\$ 72.26	\$ 206

<sup>1</sup> No SARs were granted during the year ended December 31, 2015.

<sup>2</sup> The difference between a stock award's exercise price and the underlying stock's closing market price at December 31, 2015, for awards with market price greater than the exercise price. Amounts are in millions of dollars.

The computations of weighted-average exercise prices and aggregate intrinsic values are not applicable to RSUs or PRSUs since these awards represent an agreement to issue shares of stock at the time of vesting. At December 31, 2015, there were 4,330,513 outstanding RSUs with a weighted average remaining contractual life of 1.2 years and 132,068 outstanding PRSUs with a weighted-average remaining contractual life of 2.0 years.

**TABLE II— Additional Stock-based Award Information**

<b>(Dollars in millions except per share data)</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Stock options/SARs activity:</b>			
Weighted-average fair value per share of stock awards granted.....	\$ 23.61	\$ 29.52	\$ 28.34
Intrinsic value of stock awards exercised.....	\$ 93	\$ 649	\$ 312
Fair value of stock awards vested <sup>1</sup> .....	\$ 155	\$ 108	\$ 167
Cash received from stock awards exercised.....	\$ 59	\$ 259	\$ 152
<b>RSUs activity:</b>			
Weighted-average fair value per share of stock awards granted.....	\$ 77.55	\$ 89.18	\$ 84.05
Fair value of stock awards vested <sup>2</sup> .....	\$ 109	\$ 106	\$ 117
<b>PRSUs activity:</b>			
Weighted-average fair value per share of stock awards granted.....	\$ 77.47	\$ —	\$ —
Fair value of stock awards vested <sup>2</sup> .....	\$ —	\$ —	\$ —

<sup>1</sup> Based on the grant date fair value.

<sup>2</sup> Based on the underlying stock's closing market price on the vesting date.

In accordance with guidance on share-based payments, stock-based compensation expense is based on the grant date fair value and is classified within Cost of goods sold, Selling, general and administrative expenses and Research and development expenses corresponding to the same line item as the cash compensation paid to respective employees, officers and non-employee directors. Stock-based compensation expense is recognized on a straight-line basis over the requisite service period for awards with terms that specify cliff or graded vesting and contain only service conditions. Stock-based compensation expense for PRSUs is based on the probable number of shares expected to vest and is recognized using the graded vesting method when the award terms specify a graded vesting schedule.

Before tax, stock-based compensation expense for 2015, 2014 and 2013 was \$283 million, \$254 million and \$231 million, respectively, with a corresponding income tax benefit of \$87 million, \$79 million and \$73 million, respectively.

The amount of stock-based compensation expense capitalized for the years ended December 31, 2015, 2014 and 2013 did not have a significant impact on our financial statements.

At December 31, 2015, there was \$215 million of total unrecognized compensation cost from stock-based compensation arrangements granted under the plans, which is related to non-vested stock-based awards. The compensation expense is expected to be recognized over a weighted-average period of approximately 1.8 years.

We currently use shares in treasury stock to satisfy share award exercises.

The cash tax benefits realized from stock awards exercised for 2015, 2014 and 2013 were \$68 million, \$253 million and \$127 million, respectively. We use the direct only method and tax law ordering approach to calculate the tax effects of stock-based compensation. In certain jurisdictions, tax deductions for exercises of stock-based awards did not generate a cash benefit. A tax benefit of approximately \$21 million will be recorded in additional paid-in capital when these deductions reduce our future income taxes payable.

### **3. Derivative financial instruments and risk management**

Our earnings and cash flow are subject to fluctuations due to changes in foreign currency exchange rates, interest rates and commodity prices. Our Risk Management Policy (policy) allows for the use of derivative financial instruments to prudently manage foreign currency exchange rate, interest rate and commodity price exposures. Our policy specifies that derivatives are not to be used for speculative purposes. Derivatives that we use are primarily foreign currency forward, option and cross currency contracts, interest rate swaps and commodity forward and option contracts. Our derivative activities are subject to the management, direction and control of our senior financial officers. Risk management practices, including the use of financial derivative instruments, are presented to the Audit Committee of the Board of Directors at least annually.

All derivatives are recognized in Statement 3 at their fair value. On the date the derivative contract is entered into, we designate the derivative as (1) a hedge of the fair value of a recognized asset or liability (fair value hedge), (2) a hedge of a forecasted transaction or the variability of cash flow to be paid (cash flow hedge) or (3) an undesignated instrument. Changes in the fair value of a derivative that is qualified, designated and highly effective as a fair value hedge, along with the gain or loss on the hedged recognized asset or liability that is attributable to the hedged risk, are recorded in current earnings. Changes in the fair value of a derivative that is qualified, designated and highly effective as a cash flow hedge are recorded in Accumulated other comprehensive income (loss) (AOCI), to the extent effective, in Statement 3 until they are reclassified to earnings in the same period or periods during which the hedged transaction affects earnings. Changes in the fair value of undesignated derivative instruments and the ineffective portion of designated derivative instruments are reported in current earnings. Cash flow from designated derivative financial instruments are classified within the same category as the item being hedged on Statement 5. Cash flow from undesignated derivative financial instruments are included in the investing category on Statement 5.

We formally document all relationships between hedging instruments and hedged items, as well as the risk-management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives that are designated as fair value hedges to specific assets and liabilities in Statement 3 and linking cash flow hedges to specific forecasted transactions or variability of cash flow.

We also formally assess, both at the hedge's inception and on an ongoing basis, whether the designated derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flow of hedged items. When a derivative is determined not to be highly effective as a hedge or the underlying hedged transaction is no longer probable, we discontinue hedge accounting prospectively, in accordance with the derecognition criteria for hedge accounting.

#### **A. Foreign currency exchange rate risk**

Foreign currency exchange rate movements create a degree of risk by affecting the U.S. dollar value of sales made and costs incurred in foreign currencies. Movements in foreign currency rates also affect our competitive position as these changes may affect business practices and/or pricing strategies of non-U.S.-based competitors. Additionally, we have balance sheet positions denominated in foreign currencies, thereby creating exposure to movements in exchange rates.

Our Machinery, Energy & Transportation operations purchase, manufacture and sell products in many locations around the world. As we have a diversified revenue and cost base, we manage our future foreign currency cash flow exposure on a net basis. We use foreign currency forward and option contracts to manage unmatched foreign currency cash inflow and outflow. Our objective is to minimize the risk of exchange rate movements that would reduce the U.S. dollar value of our foreign currency cash flow. Our policy allows for managing anticipated foreign currency cash flow for up to five years. As of December 31, 2015, the maximum term of these outstanding contracts was approximately 15 months.

We generally designate as cash flow hedges at inception of the contract any Australian dollar, Brazilian real, British pound, Canadian dollar, Chinese yuan, Indian rupee, Japanese yen, Mexican peso, Norwegian krona, Singapore dollar, Swiss franc, or Thailand baht forward or option contracts that meet the requirements for hedge accounting and the maturity extends beyond the current quarter-end. Designation is performed on a specific exposure basis to support hedge accounting. The remainder of Machinery, Energy & Transportation foreign currency contracts are undesignated.

As of December 31, 2015, \$8 million of deferred net losses, net of tax, included in equity (AOCI in Statement 3), are expected to be reclassified to current earnings (Other income (expense) in Statement 1) over the next twelve months when earnings are affected by the hedged transactions. The actual amount recorded in Other income (expense) will vary based on exchange rates at the time the hedged transactions impact earnings.

In managing foreign currency risk for our Financial Products operations, our objective is to minimize earnings volatility resulting from conversion and the remeasurement of net foreign currency balance sheet positions, and future transactions

denominated in foreign currencies. Our policy allows the use of foreign currency forward, option and cross currency contracts to offset the risk of currency mismatch between our receivables and debt, and exchange rate risk associated with future transactions denominated in foreign currencies. Substantially all such foreign currency forward, option and cross currency contracts are undesignated.

## **B. Interest rate risk**

Interest rate movements create a degree of risk by affecting the amount of our interest payments and the value of our fixed-rate debt. Our practice is to use interest rate derivatives to manage our exposure to interest rate changes.

Our Machinery, Energy & Transportation operations generally use fixed rate debt as a source of funding. Our objective is to minimize the cost of borrowed funds. Our policy allows us to enter into fixed-to-floating interest rate swaps and forward rate agreements to meet that objective. We designate fixed-to-floating interest rate swaps as fair value hedges at inception of the contract, and we designate certain forward rate agreements as cash flow hedges at inception of the contract.

As of December 31, 2015, \$4 million of deferred net losses, net of tax, included in equity (AOCI in Statement 3), related to Machinery, Energy & Transportation forward rate agreements, are expected to be reclassified to current earnings (Interest expense excluding Financial Products in Statement 1) over the next twelve months.

Financial Products operations has a match-funding policy that addresses interest rate risk by aligning the interest rate profile (fixed or floating rate) of Cat Financial's debt portfolio with the interest rate profile of their receivables portfolio within predetermined ranges on an ongoing basis. In connection with that policy, we use interest rate derivative instruments to modify the debt structure to match assets within the receivables portfolio. This matched funding reduces the volatility of margins between interest-bearing assets and interest-bearing liabilities, regardless of which direction interest rates move.

Our policy allows us to use fixed-to-floating, floating-to-fixed and floating-to-floating interest rate swaps to meet the match-funding objective. We designate fixed-to-floating interest rate swaps as fair value hedges to protect debt against changes in fair value due to changes in the benchmark interest rate. We designate most floating-to-fixed interest rate swaps as cash flow hedges to protect against the variability of cash flows due to changes in the benchmark interest rate.

As of December 31, 2015, less than \$1 million of deferred net losses, net of tax, included in equity (AOCI in Statement 3), related to Financial Products floating-to-fixed interest rate swaps, are expected to be reclassified to current earnings (Interest expense of Financial Products in Statement 1) over the next twelve months. The actual amount recorded in Interest expense of Financial Products will vary based on interest rates at the time the hedged transactions impact earnings.

We have, at certain times, liquidated fixed-to-floating and floating-to-fixed interest rate swaps at both Machinery, Energy & Transportation and Financial Products. The gains or losses associated with these swaps at the time of liquidation are amortized into earnings over the original term of the previously designated hedged item.

## **C. Commodity price risk**

Commodity price movements create a degree of risk by affecting the price we must pay for certain raw material. Our policy is to use commodity forward and option contracts to manage the commodity risk and reduce the cost of purchased materials.

Our Machinery, Energy & Transportation operations purchase base and precious metals embedded in the components we purchase from suppliers. Our suppliers pass on to us price changes in the commodity portion of the component cost. In addition, we are subject to price changes on energy products such as natural gas and diesel fuel purchased for operational use.

Our objective is to minimize volatility in the price of these commodities. Our policy allows us to enter into commodity forward and option contracts to lock in the purchase price of a portion of these commodities within a five-year horizon. All such commodity forward and option contracts are undesignated.



The location and fair value of derivative instruments reported in Statement 3 are as follows:

(Millions of dollars)	Consolidated Statement of Financial Position Location		Asset (Liability) Fair Value	
			Years ended December 31,	
			2015	2014
<b>Designated derivatives</b>				
Foreign exchange contracts				
Machinery, Energy & Transportation....	Receivables — trade and other .....	\$	12	\$ 25
Machinery, Energy & Transportation....	Accrued expenses.....		(25)	(134)
Interest rate contracts				
Financial Products .....	Receivables — trade and other .....		1	6
Financial Products .....	Long-term receivables — trade and other.....		51	73
Financial Products .....	Accrued expenses.....		(4)	(8)
		\$	35	\$ (38)
<b>Undesignated derivatives</b>				
Foreign exchange contracts				
Machinery, Energy & Transportation....	Receivables — trade and other .....	\$	2	\$ 2
Machinery, Energy & Transportation....	Accrued expenses.....		(9)	(43)
Financial Products .....	Receivables — trade and other .....		3	5
Financial Products .....	Long-term receivables — trade and other.....		36	17
Financial Products .....	Accrued expenses.....		(6)	(15)
Commodity contracts				
Machinery, Energy & Transportation....	Accrued expenses.....		(12)	(14)
		\$	14	\$ (48)

The total notional amounts of the derivative instruments are as follows:

(Millions of dollars)	Years ended December 31,	
	2015	2014
Machinery, Energy & Transportation.....	\$ 2,040	\$ 3,128
Financial Products .....	\$ 3,539	\$ 5,249

The notional amounts of the derivative financial instruments do not represent amounts exchanged by the parties. The amounts exchanged by the parties are calculated by reference to the notional amounts and by other terms of the derivatives, such as foreign currency exchange rates, interest rates or commodity prices.

The effect of derivatives designated as hedging instruments on Statement 1 is as follows:

Fair Value Hedges		Year ended December 31, 2015	
(Millions of dollars)	Classification	Gains (Losses) on Derivatives	Gains (Losses) on Borrowings
Interest rate contracts			
Financial Products.....	Other income (expense) .....	\$ (27)	\$ 26
		<u>\$ (27)</u>	<u>\$ 26</u>
		Year ended December 31, 2014	
	Classification	Gains (Losses) on Derivatives	Gains (Losses) on Borrowings
Interest rate contracts			
Financial Products.....	Other income (expense) .....	\$ (41)	\$ 23
		<u>\$ (41)</u>	<u>\$ 23</u>
		Year ended December 31, 2013	
	Classification	Gains (Losses) on Derivatives	Gains (Losses) on Borrowings
Interest rate contracts			
Financial Products.....	Other income (expense) .....	\$ (107)	\$ 114
		<u>\$ (107)</u>	<u>\$ 114</u>

**Cash Flow Hedges**  
(Millions of dollars)

		Year ended December 31, 2015			
		Recognized in Earnings			
	Amount of Gains (Losses) Recognized in AOI (Effective Portion)	Classification of Gains (Losses)	Amount of Gains (Losses) Reclassified from AOI to Earnings	Recognized in Earnings (Ineffective Portion)	
Foreign exchange contracts					
Machinery, Energy & Transportation.....	\$ (33)	Other income (expense) .....	\$ (128)	\$ —	
Financial Products .....	—	Other income (expense) .....	1	—	
Interest rate contracts					
Machinery, Energy & Transportation.....	—	Interest expense excluding Financial Products.....	(6)	—	
Financial Products .....	3	Interest expense of Financial Products.	(6)	—	
	<u>\$ (30)</u>		<u>\$ (139)</u>	<u>\$ —</u>	
Year ended December 31, 2014					
Recognized in Earnings					
	Amount of Gains (Losses) Recognized in AOI (Effective Portion)	Classification of Gains (Losses)	Amount of Gains (Losses) Reclassified from AOI to Earnings	Recognized in Earnings (Ineffective Portion)	
Foreign exchange contracts					
Machinery, Energy & Transportation.....	\$ (118)	Other income (expense) .....	\$ 5	\$ —	
Interest rate contracts					
Machinery, Energy & Transportation.....	(63)	Interest expense excluding Financial Products.....	(5)	—	
Financial Products .....	(6)	Interest expense of Financial Products.	(6)	—	
	<u>\$ (187)</u>		<u>\$ (6)</u>	<u>\$ —</u>	
Year ended December 31, 2013					
Recognized in Earnings					
	Amount of Gains (Losses) Recognized in AOI (Effective Portion)	Classification of Gains (Losses)	Amount of Gains (Losses) Reclassified from AOI to Earnings	Recognized in Earnings (Ineffective Portion)	
Foreign exchange contracts					
Machinery, Energy & Transportation.....	\$ (4)	Other income (expense) .....	\$ (57) <sup>2</sup>	\$ —	
Interest rate contracts					
Machinery, Energy & Transportation.....	—	Other income (expense) .....	(3)	—	
Financial Products .....	(2)	Interest expense of Financial Products.	(6)	1 <sup>1</sup>	
	<u>\$ (6)</u>		<u>\$ (66)</u>	<u>\$ 1</u>	

<sup>1</sup> The ineffective portion recognized in earnings is included in Other income (expense).

<sup>2</sup> Includes \$3 million of losses reclassified from AOI to Other income (expense) in 2013 as certain derivatives were dedesignated as the related transactions are no longer probable to occur.

The effect of derivatives not designated as hedging instruments on Statement 1 is as follows:

(Millions of dollars)	Classification of Gains (Losses)	Years ended December 31,		
		2015	2014	2013
Foreign exchange contracts				
Machinery, Energy & Transportation.....	Other income (expense) .....	\$ (32)	\$ (60)	\$ 17
Financial Products .....	Other income (expense) .....	(34)	(47)	8
Interest rate contracts				
Machinery, Energy & Transportation.....	Other income (expense) .....	2	2	(1)
Financial Products .....	Other income (expense) .....	—	—	(3)
Commodity contracts				
Machinery, Energy & Transportation.....	Other income (expense) .....	(23)	(15)	(3)
		<u>\$ (87)</u>	<u>\$ (120)</u>	<u>\$ 18</u>

We enter into International Swaps and Derivatives Association (ISDA) master netting agreements within Machinery, Energy & Transportation and Financial Products that permit the net settlement of amounts owed under their respective derivative contracts. Under these master netting agreements, net settlement generally permits the company or the counterparty to determine the net amount payable for contracts due on the same date and in the same currency for similar types of derivative transactions. The master netting agreements generally also provide for net settlement of all outstanding contracts with a counterparty in the case of an event of default or a termination event.

Collateral is generally not required of the counterparties or of our company under the master netting agreements. As of December 31, 2015 and 2014, no cash collateral was received or pledged under the master netting agreements.

The effect of the net settlement provisions of the master netting agreements on our derivative balances upon an event of default or termination event is as follows:

December 31, 2015			Gross Amounts Not Offset in the Statement of Financial Position			
(Millions of dollars)	Gross Amount of Recognized Assets	Gross Amounts Offset in the Statement of Financial Position	Net Amount of Assets Presented in the Statement of Financial Position	Financial Instruments	Cash Collateral Received	Net Amount of Assets
<b>Derivatives</b>						
Machinery, Energy & Transportation .....	\$ 14	\$ —	\$ 14	\$ (14)	\$ —	\$ —
Financial Products .....	91	—	91	(5)	—	86
Total .....	<u>\$ 105</u>	<u>\$ —</u>	<u>\$ 105</u>	<u>\$ (19)</u>	<u>\$ —</u>	<u>\$ 86</u>
December 31, 2015			Gross Amounts Not Offset in the Statement of Financial Position			
(Millions of dollars)	Gross Amount of Recognized Liabilities	Gross Amounts Offset in the Statement of Financial Position	Net Amount of Liabilities Presented in the Statement of Financial Position	Financial Instruments	Cash Collateral Pledged	Net Amount of Liabilities
<b>Derivatives</b>						
Machinery, Energy & Transportation .....	\$ (46)	\$ —	\$ (46)	\$ 14	\$ —	\$ (32)
Financial Products .....	(10)	—	(10)	5	—	(5)
Total .....	<u>\$ (56)</u>	<u>\$ —</u>	<u>\$ (56)</u>	<u>\$ 19</u>	<u>\$ —</u>	<u>\$ (37)</u>
December 31, 2014			Gross Amounts Not Offset in the Statement of Financial Position			
(Millions of dollars)	Gross Amount of Recognized Assets	Gross Amounts Offset in the Statement of Financial Position	Net Amount of Assets Presented in the Statement of Financial Position	Financial Instruments	Cash Collateral Received	Net Amount of Assets
<b>Derivatives</b>						
Machinery, Energy & Transportation .....	\$ 27	\$ —	\$ 27	\$ (27)	\$ —	\$ —
Financial Products .....	101	—	101	(8)	—	93
Total .....	<u>\$ 128</u>	<u>\$ —</u>	<u>\$ 128</u>	<u>\$ (35)</u>	<u>\$ —</u>	<u>\$ 93</u>
December 31, 2014			Gross Amounts Not Offset in the Statement of Financial Position			
(Millions of dollars)	Gross Amount of Recognized Liabilities	Gross Amounts Offset in the Statement of Financial Position	Net Amount of Liabilities Presented in the Statement of Financial Position	Financial Instruments	Cash Collateral Pledged	Net Amount of Liabilities
<b>Derivatives</b>						
Machinery, Energy & Transportation .....	\$ (191)	\$ —	\$ (191)	\$ 27	\$ —	\$ (164)
Financial Products .....	(23)	—	(23)	8	—	(15)
Total .....	<u>\$ (214)</u>	<u>\$ —</u>	<u>\$ (214)</u>	<u>\$ 35</u>	<u>\$ —</u>	<u>\$ (179)</u>

#### 4. Other income (expense)

(Millions of dollars)	Years ended December 31,		
	2015	2014	2013
Investment and interest income .....	\$ 65	\$ 66	\$ 84
Foreign exchange gains (losses) <sup>1</sup> .....	(228)	54	(254)
License fee income .....	111	128	114
Gains (losses) on sale of securities and affiliated companies.....	176 <sup>2</sup>	36	21
Miscellaneous income (loss).....	(18)	(45)	—
Total .....	<u>\$ 106</u>	<u>\$ 239</u>	<u>\$ (35)</u>

<sup>1</sup> Includes gains (losses) from foreign exchange derivative contracts. See Note 3 for further details.

<sup>2</sup> Includes pretax gain of \$120 million related to the sale of Caterpillar's 35 percent equity interest in the third party logistics business. See Note 9 for further details.

#### 5. Income taxes

The components of profit before taxes were:

(Millions of dollars)	Years ended December 31,		
	2015	2014	2013
U.S. ....	\$ 241	\$ 2,022	\$ 1,938
Non-U.S. ....	2,614	3,061	3,190
	<u>\$ 2,855</u>	<u>\$ 5,083</u>	<u>\$ 5,128</u>

Profit before taxes, as shown above, is based on the location of the entity to which such earnings are attributable. Where an entity's earnings are subject to taxation, however, may not correlate solely to where an entity is located. Thus, the income tax provision shown below as U.S. or non-U.S. may not correspond to the earnings shown above.

The components of the provision (benefit) for income taxes were:

(Millions of dollars)	Years ended December 31,		
	2015	2014	2013
Current tax provision (benefit):			
U.S. <sup>1</sup> .....	\$ 525	\$ 715	\$ 407
Non-U.S. ....	656	883	805
State (U.S.) .....	42	48	33
	<u>1,223</u>	<u>1,646</u>	<u>1,245</u>
Deferred tax provision (benefit):			
U.S. <sup>1</sup> .....	(501)	(167)	79
Non-U.S. ....	38	(77)	(7)
State (U.S.) .....	(18)	(22)	2
	<u>(481)</u>	<u>(266)</u>	<u>74</u>
Total provision (benefit) for income taxes.....	<u>\$ 742</u>	<u>\$ 1,380</u>	<u>\$ 1,319</u>

<sup>1</sup> Includes U.S. taxes related to non-U.S. profits.

We paid net income tax and related interest of \$1,143 million, \$1,595 million and \$1,544 million in 2015, 2014 and 2013, respectively.

**Reconciliation of the U.S. federal statutory rate to effective rate:**

(Millions of dollars)	Years ended December 31,					
	2015		2014		2013	
Taxes at U.S. statutory rate.....	\$ 999	35.0 %	\$ 1,779	35.0 %	\$ 1,795	35.0 %
(Decreases) increases resulting from:						
Non-U.S. subsidiaries taxed at other than 35% .....	(198)	(6.9)%	(249)	(4.9)%	(268)	(5.2)%
State and local taxes, net of federal .....	16	0.5 %	17	0.3 %	23	0.4 %
Interest and penalties, net of tax .....	12	0.4 %	12	0.2 %	4	0.1 %
U.S. research and production incentives.....	(95)	(3.3)%	(125)	(2.4)%	(91)	(1.8)%
Other—net.....	(34)	(1.2)%	(10)	(0.2)%	(2)	— %
	<u>700</u>	<u>24.5 %</u>	<u>1,424</u>	<u>28.0 %</u>	<u>1,461</u>	<u>28.5 %</u>
Prior year tax and interest adjustments .....	42	1.5 %	(21)	(0.4)%	(55)	(1.1)%
Release of valuation allowances .....	—	— %	(23)	(0.5)%	—	— %
Tax law changes.....	—	— %	—	— %	(87)	(1.7)%
Provision (benefit) for income taxes .....	<u>\$ 742</u>	<u>26.0 %</u>	<u>\$ 1,380</u>	<u>27.1 %</u>	<u>\$ 1,319</u>	<u>25.7 %</u>

Included within the effective tax rate reconciliation line item above labeled "Non-U.S. subsidiaries taxed at other than 35%" are the effects of indefinitely reinvested earnings of non-U.S. subsidiaries taxed at local tax rates, changes in the amount of unrecognized tax benefits associated with these earnings, losses at non-U.S. subsidiaries without local tax benefits due to valuation allowances, and permanent differences between tax and U.S. GAAP results. The indefinitely reinvested profits of Caterpillar SARL, primarily taxable in Switzerland, contribute the most significant amount of this line item. Although not individually significant by jurisdiction, pre-tax permanent differences due to nondeductible net foreign exchange losses of non-U.S. subsidiaries were approximately \$180 million, \$90 million and \$10 million in 2015, 2014 and 2013, respectively.

The provision for income taxes for 2015 included a \$42 million net charge to increase unrecognized tax benefits by \$68 million as discussed on page 95 offset by a benefit of \$26 million to record U.S. refund claims related to prior tax years currently under examination.

The provision for income taxes for 2014 included a benefit of \$23 million for the release of a valuation allowance against the deferred tax assets of a non-U.S. subsidiary and a net benefit of \$21 million to adjust prior years' U.S. taxes and interest. The net benefit for prior years' U.S. taxes and interest included a \$33 million benefit to reflect a settlement with the U.S. Internal Revenue Service (IRS) related to 1992 through 1994 which resulted in a \$16 million benefit to remeasure previously unrecognized tax benefits and a \$17 million benefit to adjust related interest, net of tax. This benefit of \$33 million was offset by a net charge of \$12 million to adjust prior years' U.S. taxes that included a charge of \$55 million to correct for an error which resulted in an understatement of tax liabilities for prior years. Management has concluded that the error was not material to any period presented.

The provision for income taxes for 2013 included a \$87 million benefit primarily related to the research and development tax credit that was retroactively extended in 2013 for 2012 and a benefit of \$55 million resulting from true-up of estimated amounts used in the tax provision to the 2012 U.S. income tax return as filed in September 2013.

We have recorded income tax expense at U.S. tax rates on all profits, except for undistributed profits of non-U.S. subsidiaries of approximately \$17 billion which are considered indefinitely reinvested. Upon distribution of these profits in the form of dividends or otherwise, we would be subject to both U.S. income taxes (subject to an adjustment for foreign tax credits) and in some instances withholding taxes payable to the various non-U.S. jurisdictions. Determination of the amount of unrecognized deferred tax liability related to indefinitely reinvested profits is not feasible primarily due to our legal entity structure and the complexity of U.S. and local tax laws. If management intentions or U.S. tax law changes in the future, there may be a significant

negative impact on the provision for income taxes to record an incremental tax liability in the period the change occurs. At December 31, 2015, cash and short-term investments held by non-U.S. subsidiaries was approximately \$5 billion.

Accounting for income taxes under U.S. GAAP requires that individual tax-paying entities of the company offset all current deferred tax liabilities and assets within each particular tax jurisdiction and present them as a single amount in the Consolidated Financial Position. A similar procedure is followed for all noncurrent deferred tax liabilities and assets. Amounts in different tax jurisdictions cannot be offset against each other. The amount of deferred income taxes at December 31, included on the following lines in Statement 3, are as follows:

(Millions of dollars)	December 31,	
	2015	2014
Assets:		
Deferred and refundable income taxes .....	\$ 910	\$ 992
Noncurrent deferred and refundable income taxes .....	1,532	1,267
	<u>2,442</u>	<u>2,259</u>
Liabilities:		
Other current liabilities .....	59	62
Other liabilities.....	351	414
Deferred income taxes—net .....	<u>\$ 2,032</u>	<u>\$ 1,783</u>
<b>Deferred income tax assets and liabilities:</b>		
(Millions of dollars)	December 31,	
	2015	2014
Deferred income tax assets:		
Pension.....	\$ 1,694	\$ 1,513
Postemployment benefits other than pensions .....	1,339	1,514
Tax carryforwards.....	1,098	826
Warranty reserves.....	359	346
Stock-based compensation.....	356	327
Inventory .....	129	123
Allowance for credit losses.....	203	198
Post sale discounts .....	185	175
Deferred compensation .....	124	132
Other—net.....	572	549
	<u>6,059</u>	<u>5,703</u>
Deferred income tax liabilities:		
Capital and intangible assets .....	(2,561)	(2,625)
Bond discount .....	(225)	(233)
Translation .....	(343)	(252)
Undistributed profits of non-U.S. subsidiaries .....	(82)	(69)
	<u>(3,211)</u>	<u>(3,179)</u>
Valuation allowance for deferred tax assets .....	(816)	(741)
Deferred income taxes—net .....	<u>\$ 2,032</u>	<u>\$ 1,783</u>



At December 31, 2015, approximately \$557 million of U.S. state tax net operating losses (NOLs) and \$145 million of U.S. state tax credit carryforwards were available. The state NOLs primarily expire between 2016 and 2035. The state tax credit carryforwards primarily expire over the next five years with certain carryforwards set to expire over the next fifteen years. Of the total \$189 million of deferred tax assets related to state NOLs and credit carryforwards, we established a valuation allowance of \$164 million for those that are more likely than not to expire prior to utilization.

At December 31, 2015, approximately \$307 million of U.S. foreign tax credits were available for carryforward. These credits expire in 2025 and 2026.

At December 31, 2015, amounts and expiration dates of net operating loss carryforwards in various non-U.S. taxing jurisdictions were:

(Millions of dollars)						
2016	2017	2018	2019-2021	2022-2036	Unlimited	Total
\$ 1	\$ 3	\$ 84	\$ 547	\$ 222	\$ 1,780	\$ 2,637

At December 31, 2015, non-U.S. entities that have not yet demonstrated consistent and/or sustainable profitability to support the realization of net deferred tax assets have recorded valuation allowances of \$652 million, including certain entities in Luxembourg.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits for uncertain tax positions, including positions impacting only the timing of tax benefits, follows.

Reconciliation of unrecognized tax benefits: <sup>1</sup>		
(Millions of dollars)	Years ended December 31,	
	2015	2014
Balance at January 1, .....	\$ 846	\$ 759
Additions for tax positions related to current year.....	73	58
Additions for tax positions related to prior years.....	118	84
Reductions for tax positions related to prior years .....	(30)	(31)
Reductions for settlements <sup>2</sup> .....	(30)	(18)
Reductions for expiration of statute of limitations .....	(9)	(6)
Balance at December 31, .....	\$ 968	\$ 846
Amount that, if recognized, would impact the effective tax rate.....	\$ 934	\$ 804

<sup>1</sup> Foreign currency impacts are included within each line as applicable.

<sup>2</sup> Includes cash payment or other reduction of assets to settle liability.

We classify interest and penalties on income taxes as a component of the provision for income taxes. We recognized a net provision for interest and penalties of \$20 million, \$3 million and \$7 million during the years ended December 31, 2015, 2014 and 2013, respectively. The total amount of interest and penalties accrued was \$79 million and \$61 million as of December 31, 2015 and 2014, respectively.

On January 30, 2015, we received a Revenue Agent's Report (RAR) from the IRS indicating the end of the field examination of our U.S. income tax returns for 2007 to 2009 including the impact of a loss carryback to 2005. The RAR proposed tax increases and penalties for these years of approximately \$1 billion primarily related to two significant areas that we are vigorously contesting through the IRS Appeals process. In the first area, the IRS has proposed to tax in the United States profits earned from certain parts transactions by one of our non-U.S. subsidiaries, Caterpillar SARL (CSARL), based on the

IRS examination team’s application of the “substance-over-form” or “assignment-of-income” judicial doctrines. We believe that the relevant transactions complied with applicable tax laws and did not violate judicial doctrines. We have filed U.S. income tax returns on this same basis for years after 2009. Based on the information currently available, we do not anticipate a significant increase or decrease to our unrecognized tax benefits for this matter within the next 12 months. We currently believe the ultimate disposition of this matter will not have a material adverse effect on our consolidated financial position, liquidity or results of operations.

In the second area, the IRS disallowed approximately \$125 million of foreign tax credits that arose as a result of certain financings unrelated to CSARL. Decisions of the U.S. Court of Appeals for the Second Circuit involving other taxpayers in 2015 caused us to conclude the benefits of this uncertain tax position are no longer more likely than not to be sustained based on technical merits. As tax benefits related to this tax position can no longer be recognized in the financial statements, we increased unrecognized tax benefits by \$68 million. We will continue to monitor ongoing court cases involving other taxpayers for information that may impact our analysis of this tax position.

The IRS field examination of our U.S. income tax returns for 2010 to 2012 began in 2015. With the exception of a loss carryback to 2005, tax years prior to 2007 are generally no longer subject to U.S. tax assessment. In our major non-U.S. jurisdictions including Australia, Brazil, China, Germany, Japan, Switzerland, Singapore and the U.K., tax years are typically subject to examination for three to eight years. Due to the uncertainty related to the timing and potential outcome of audits, we cannot estimate the range of reasonably possible change in unrecognized tax benefits in the next 12 months.

## 6. Cat Financial Financing Activities

### A. Wholesale inventory receivables

Wholesale inventory receivables are receivables of Cat Financial that arise when Cat Financial provides financing for a dealer’s purchase of inventory. These receivables are included in Receivables—trade and other and Long-term receivables—trade and other in Statement 3 and were \$2,165 million and \$2,170 million, at December 31, 2015 and 2014, respectively.

<b>Contractual maturities of outstanding wholesale inventory receivables:</b>				
<b>(Millions of dollars)</b>				
	<b>December 31, 2015</b>			
<b>Amounts Due In</b>	<b>Wholesale Installment Contracts</b>	<b>Wholesale Finance Leases</b>	<b>Wholesale Notes</b>	<b>Total</b>
2016.....	\$ 174	\$ 88	\$ 1,030	\$ 1,292
2017.....	98	78	236	412
2018.....	71	55	161	287
2019.....	37	28	5	70
2020.....	15	10	2	27
Thereafter.....	2	2	—	4
	<u>397</u>	<u>261</u>	<u>1,434</u>	<u>2,092</u>
Guaranteed residual value.....	—	62	—	62
Unguaranteed residual value.....	—	50	—	50
Less: Unearned income.....	(7)	(29)	(3)	(39)
Total.....	<u>\$ 390</u>	<u>\$ 344</u>	<u>\$ 1,431</u>	<u>\$ 2,165</u>

Cat Financial’s wholesale inventory receivables generally may be repaid or refinanced without penalty prior to contractual maturity. Accordingly, this presentation should not be regarded as a forecast of future cash collections.

Please refer to Note 18 and Table III for fair value information.

## B. Finance receivables

Finance receivables are receivables of Cat Financial and are reported in Statement 3 net of an allowance for credit losses.

### Contractual maturities of outstanding finance receivables:

(Millions of dollars)

Amounts Due In	December 31, 2015			
	Retail Installment Contracts	Retail Finance Leases	Retail Notes	Total
2016.....	\$ 2,472	\$ 2,508	\$ 4,132	\$ 9,112
2017.....	1,923	1,634	1,937	5,494
2018.....	1,300	922	1,447	3,669
2019.....	662	415	1,022	2,099
2020.....	188	166	926	1,280
Thereafter.....	8	98	976	1,082
	6,553	5,743	10,440	22,736
Guaranteed residual value.....	—	307	—	307
Unguaranteed residual value.....	—	642	—	642
Less: Unearned income.....	(133)	(505)	(88)	(726)
Total.....	\$ 6,420	\$ 6,187	\$ 10,352	\$ 22,959

Cat Financial's finance receivables generally may be repaid or refinanced without penalty prior to contractual maturity. Accordingly, this presentation should not be regarded as a forecast of future cash collections.

Please refer to Note 18 and Table III for fair value information.

## C. Allowance for credit losses

The allowance for credit losses is an estimate of the losses inherent in Cat Financial's finance receivable portfolio and includes consideration of accounts that have been individually identified as impaired, as well as pools of finance receivables where it is probable that certain receivables in the pool are impaired but the individual accounts cannot yet be identified. In identifying and measuring impairment, management takes into consideration past loss experience, known and inherent risks in the portfolio, adverse situations that may affect the borrower's ability to repay, estimated value of underlying collateral and current economic conditions.

Accounts are identified for individual review based on past-due status and using information available about the customer, such as financial statements, news reports and published credit ratings, as well as general information regarding industry trends and the economic environment in which Cat Financial's customers operate. The allowance for credit losses attributable to finance receivables that are individually evaluated and determined to be impaired is based either on the present value of expected future cash flows discounted at the receivables' effective interest rate or the fair value of the collateral for collateral-dependent receivables. In determining collateral value, Cat Financial estimates the current fair market value of the collateral less selling costs. Cat Financial also considers credit enhancements such as additional collateral and contractual third-party guarantees. The allowance for credit losses attributable to the remaining accounts not yet individually identified as impaired is estimated based on loss forecast models utilizing probabilities of default, our estimate of the loss emergence period and the estimated loss given default. In addition, qualitative factors not able to be fully captured in the loss forecast models including industry trends, macroeconomic factors and model imprecision are considered in the evaluation of the adequacy of the allowance for credit losses. These qualitative factors are subjective and require a degree of management judgment.

Cat Financial's allowance for credit losses is segregated into two portfolio segments:

- Customer - Finance receivables with retail customers.
- Dealer - Finance receivables with Caterpillar dealers.

A portfolio segment is the level at which the Company develops a systematic methodology for determining its allowance for credit losses.

Cat Financial further evaluates portfolio segments by the class of finance receivables, which is defined as a level of information (below a portfolio segment) in which the finance receivables have the same initial measurement attribute and a similar method for assessing and monitoring credit risk. Typically, Cat Financial's finance receivables within a geographic area have similar credit risk profiles and methods for assessing and monitoring credit risk. Cat Financial's classes, which align with management reporting for credit losses, are as follows:

- North America - Finance receivables originated in the United States or Canada.
- Europe - Finance receivables originated in Europe, Africa, Middle East and the Commonwealth of Independent States.
- Asia Pacific - Finance receivables originated in Australia, New Zealand, China, Japan, South Korea and Southeast Asia.
- Mining - Finance receivables related to large mining customers worldwide.
- Latin America - Finance receivables originated in Central and South American countries and Mexico.
- Caterpillar Power Finance - Finance receivables related to marine vessels with Caterpillar engines worldwide and Caterpillar electrical power generation, gas compression and co-generation systems and non-Caterpillar equipment that is powered by these systems worldwide.

An analysis of the allowance for credit losses was as follows:

(Millions of dollars)	December 31, 2015		
	Customer	Dealer	Total
<b>Allowance for Credit Losses:</b>			
Balance at beginning of year .....	\$ 388	\$ 10	\$ 398
Receivables written off .....	(196)	—	(196)
Recoveries on receivables previously written off .....	41	—	41
Provision for credit losses .....	119	(1)	118
Other .....	(25)	—	(25)
Balance at end of year .....	<u>\$ 327</u>	<u>\$ 9</u>	<u>\$ 336</u>
Individually evaluated for impairment .....	\$ 65	\$ —	\$ 65
Collectively evaluated for impairment .....	262	9	271
Ending Balance .....	<u>\$ 327</u>	<u>\$ 9</u>	<u>\$ 336</u>
<b>Recorded Investment in Finance Receivables:</b>			
Individually evaluated for impairment .....	\$ 601	\$ —	\$ 601
Collectively evaluated for impairment .....	18,788	3,570	22,358
Ending Balance .....	<u>\$ 19,389</u>	<u>\$ 3,570</u>	<u>\$ 22,959</u>

(Millions of dollars)

	December 31, 2014		
	Customer	Dealer	Total
<b>Allowance for Credit Losses:</b>			
Balance at beginning of year .....	\$ 365	\$ 10	\$ 375
Receivables written off .....	(151)	—	(151)
Recoveries on receivables previously written off .....	47	—	47
Provision for credit losses .....	150	—	150
Other .....	(23)	—	(23)
Balance at end of year .....	<u>\$ 388</u>	<u>\$ 10</u>	<u>\$ 398</u>
Individually evaluated for impairment .....	\$ 75	\$ —	\$ 75
Collectively evaluated for impairment .....	313	10	323
Ending Balance .....	<u>\$ 388</u>	<u>\$ 10</u>	<u>\$ 398</u>
<b>Recorded Investment in Finance Receivables:</b>			
Individually evaluated for impairment .....	\$ 613	\$ —	\$ 613
Collectively evaluated for impairment .....	19,899	3,554	23,453
Ending Balance .....	<u>\$ 20,512</u>	<u>\$ 3,554</u>	<u>\$ 24,066</u>

**Credit quality of finance receivables**

At origination, Cat Financial evaluates credit risk based on a variety of credit quality factors including prior payment experience, customer financial information, credit-rating agency ratings, loan-to-value ratios and other internal metrics. On an ongoing basis, Cat Financial monitors credit quality based on past-due status and collection experience as there is a meaningful correlation between the past-due status of customers and the risk of loss.

In determining past-due status, Cat Financial considers the entire finance receivable balance past due when any installment is over 30 days past due. The tables below summarize the recorded investment of finance receivables by aging category.

(Millions of dollars)

	December 31, 2015						
	31-60 Days Past Due	61-90 Days Past Due	91+ Days Past Due	Total Past Due	Current	Total Finance Receivables	91+ Still Accruing
<b>Customer</b>							
North America.....	\$ 45	\$ 12	\$ 30	\$ 87	\$ 7,850	\$ 7,937	\$ 4
Europe .....	18	7	44	69	2,358	2,427	9
Asia Pacific .....	21	12	21	54	1,647	1,701	6
Mining .....	6	1	68	75	1,793	1,868	1
Latin America.....	45	31	199	275	1,998	2,273	—
Caterpillar Power Finance.....	—	1	35	36	3,147	3,183	2
<b>Dealer</b>							
North America.....	—	—	—	—	2,209	2,209	—
Europe .....	—	—	—	—	149	149	—
Asia Pacific .....	—	—	—	—	552	552	—
Mining .....	—	—	—	—	4	4	—
Latin America.....	—	—	—	—	653	653	—
Caterpillar Power Finance.....	—	—	—	—	3	3	—
<b>Total</b> .....	<u>\$ 135</u>	<u>\$ 64</u>	<u>\$ 397</u>	<u>\$ 596</u>	<u>\$ 22,363</u>	<u>\$ 22,959</u>	<u>\$ 22</u>

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(Millions of dollars)

December 31, 2014

	31-60 Days Past Due	61-90 Days Past Due	91+ Days Past Due	Total Past Due	Current	Total Finance Receivables	91+ Still Accruing
<b>Customer</b>							
North America.....	\$ 46	\$ 8	\$ 27	\$ 81	\$ 7,192	\$ 7,273	\$ 4
Europe .....	16	23	29	68	2,607	2,675	6
Asia Pacific .....	29	22	69	120	2,316	2,436	16
Mining.....	28	—	11	39	2,084	2,123	—
Latin America.....	55	23	196	274	2,583	2,857	8
Caterpillar Power Finance.....	1	4	64	69	3,079	3,148	1
<b>Dealer</b>							
North America.....	—	—	—	—	2,189	2,189	—
Europe .....	—	—	—	—	153	153	—
Asia Pacific .....	—	—	—	—	566	566	—
Mining.....	—	—	—	—	—	—	—
Latin America.....	—	—	—	—	646	646	—
Caterpillar Power Finance.....	—	—	—	—	—	—	—
<b>Total</b> .....	<u>\$ 175</u>	<u>\$ 80</u>	<u>\$ 396</u>	<u>\$ 651</u>	<u>\$ 23,415</u>	<u>\$ 24,066</u>	<u>\$ 35</u>

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### Impaired finance receivables

For all classes, a finance receivable is considered impaired, based on current information and events, if it is probable that Cat Financial will be unable to collect all amounts due according to the contractual terms. Impaired finance receivables include finance receivables that have been restructured and are considered to be troubled debt restructurings.

There were no impaired finance receivables as of December 31, 2015, 2014 and 2013 for the Dealer portfolio segment. Cat Financial's recorded investment in impaired finance receivables and the related unpaid principal balances and allowance for the Customer portfolio segment were as follows:

(Millions of dollars)	December 31, 2015			December 31, 2014		
	Recorded Investment	Unpaid Principal Balance	Related Allowance	Recorded Investment	Unpaid Principal Balance	Related Allowance
<b><u>Impaired Finance Receivables With No Allowance Recorded</u></b>						
North America.....	\$ 12	\$ 12	\$ —	\$ 14	\$ 14	\$ —
Europe .....	41	41	—	44	43	—
Asia Pacific .....	1	1	—	1	1	—
Mining .....	84	84	—	29	29	—
Latin America.....	28	28	—	34	34	—
Caterpillar Power Finance.....	242	241	—	129	128	—
<b>Total.....</b>	<b>\$ 408</b>	<b>\$ 407</b>	<b>\$ —</b>	<b>\$ 251</b>	<b>\$ 249</b>	<b>\$ —</b>
<b><u>Impaired Finance Receivables With An Allowance Recorded</u></b>						
North America.....	\$ 14	\$ 13	\$ 4	\$ 6	\$ 6	\$ 1
Europe .....	11	10	5	12	12	4
Asia Pacific .....	34	34	4	29	29	8
Mining .....	11	11	3	138	137	9
Latin America.....	53	53	21	42	42	12
Caterpillar Power Finance.....	70	70	28	135	134	41
<b>Total.....</b>	<b>\$ 193</b>	<b>\$ 191</b>	<b>\$ 65</b>	<b>\$ 362</b>	<b>\$ 360</b>	<b>\$ 75</b>
<b><u>Total Impaired Finance Receivables</u></b>						
North America.....	\$ 26	\$ 25	\$ 4	\$ 20	\$ 20	\$ 1
Europe .....	52	51	5	56	55	4
Asia Pacific .....	35	35	4	30	30	8
Mining .....	95	95	3	167	166	9
Latin America.....	81	81	21	76	76	12
Caterpillar Power Finance.....	312	311	28	264	262	41
<b>Total.....</b>	<b>\$ 601</b>	<b>\$ 598</b>	<b>\$ 65</b>	<b>\$ 613</b>	<b>\$ 609</b>	<b>\$ 75</b>

(Millions of dollars)	Years ended December 31,					
	2015		2014		2013	
	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized	Average Recorded Investment	Interest Income Recognized
<b><u>Impaired Finance Receivables With No Allowance Recorded</u></b>						
North America.....	\$ 12	\$ 1	\$ 20	\$ 1	\$ 25	\$ 3
Europe .....	42	1	47	1	49	1
Asia Pacific .....	2	—	3	—	4	—
Mining.....	75	3	69	3	61	3
Latin America.....	31	—	30	—	11	—
Caterpillar Power Finance.	170	5	164	6	271	5
<b>Total.....</b>	<b>\$ 332</b>	<b>\$ 10</b>	<b>\$ 333</b>	<b>\$ 11</b>	<b>\$ 421</b>	<b>\$ 12</b>
<b><u>Impaired Finance Receivables With An Allowance Recorded</u></b>						
North America.....	\$ 9	\$ —	\$ 9	\$ —	\$ 18	\$ 1
Europe .....	14	1	21	1	22	1
Asia Pacific .....	35	2	22	1	18	1
Mining.....	39	1	90	7	1	—
Latin America.....	56	3	36	1	44	2
Caterpillar Power Finance.	115	3	96	2	135	1
<b>Total.....</b>	<b>\$ 268</b>	<b>\$ 10</b>	<b>\$ 274</b>	<b>\$ 12</b>	<b>\$ 238</b>	<b>\$ 6</b>
<b><u>Total Impaired Finance Receivables</u></b>						
North America.....	\$ 21	\$ 1	\$ 29	\$ 1	\$ 43	\$ 4
Europe .....	56	2	68	2	71	2
Asia Pacific .....	37	2	25	1	22	1
Mining.....	114	4	159	10	62	3
Latin America.....	87	3	66	1	55	2
Caterpillar Power Finance.	285	8	260	8	406	6
<b>Total.....</b>	<b>\$ 600</b>	<b>\$ 20</b>	<b>\$ 607</b>	<b>\$ 23</b>	<b>\$ 659</b>	<b>\$ 18</b>

Recognition of income is suspended and the finance receivable is placed on non-accrual status when management determines that collection of future income is not probable (generally after 120 days past due). Recognition is resumed and previously suspended income is recognized when the finance receivable becomes current and collection of remaining amounts is considered probable. Payments received while the finance receivable is on non-accrual status are applied to interest and principal in accordance with the contractual terms.

As of December 31, 2015 and 2014 there were no finance receivable on non-accrual status for the Dealer portfolio segment.



The investment in customer finance receivable on non-accrual status was as follows:

(Millions of dollars)	December 31,	
	2015	2014
North America.....	\$ 31	\$ 27
Europe.....	39	28
Asia Pacific.....	15	54
Mining.....	106	62
Latin America.....	217	201
Caterpillar Power Finance.....	77	96
<b>Total</b> .....	<b>\$ 485</b>	<b>\$ 468</b>

### Troubled Debt Restructurings

A restructuring of a finance receivable constitutes a troubled debt restructuring (TDR) when the lender grants a concession it would not otherwise consider to a borrower experiencing financial difficulties. Concessions granted may include extended contract maturities, inclusion of interest only periods, below market interest rates, extended skip payment periods and reduction of principal and/or accrued interest.

There were no finance receivables modified as TDRs during the years ended December 31, 2015, 2014 or 2013 for the Dealer portfolio segment. Finance receivables in the Customer portfolio segment modified as TDRs during the years ended December 31, 2015, 2014 and 2013 were as follows:

(Millions of dollars)

	Year ended December 31, 2015		
	Number of Contracts	Pre-TDR Recorded Investment	Post-TDR Recorded Investment
North America.....	14	\$ 1	\$ 1
Europe .....	23	2	2
Asia Pacific .....	21	26	26
Mining .....	4	65	65
Latin America.....	11	1	2
Caterpillar Power Finance.....	21	259	242
<b>Total</b> .....	<b>94</b>	<b>\$ 354</b>	<b>\$ 338</b>

	Year ended December 31, 2014		
	Number of Contracts	Pre-TDR Recorded Investment	Post-TDR Recorded Investment
North America.....	34	\$ 12	\$ 7
Europe .....	8	7	7
Asia Pacific .....	2	—	—
Mining .....	51	185	176
Latin America.....	51	32	31
Caterpillar Power Finance.....	18	137	139
<b>Total</b> .....	<b>164</b>	<b>\$ 373</b>	<b>\$ 360</b>

	Year ended December 31, 2013		
	Number of Contracts	Pre-TDR Recorded Investment	Post-TDR Recorded Investment
North America.....	62	\$ 9	\$ 9
Europe .....	51	7	7
Asia Pacific .....	3	1	1
Mining .....	45	123	123
Latin America.....	16	2	2
Caterpillar Power Finance <sup>1</sup> .....	17	153	157
<b>Total</b> .....	<b>194</b>	<b>\$ 295</b>	<b>\$ 299</b>

<sup>1</sup> During the year ended December 31, 2013, \$25 million of additional funds were subsequently loaned to a borrower whose terms had been modified in a TDR. The \$25 million of additional funds are not reflected in the table above as no incremental modifications have been made with the borrower during the periods presented.

TDRs in the Customer portfolio segment with a payment default during the years ended December 31, 2015, 2014 and 2013 which had been modified within twelve months prior to the default date, were as follows:

(Millions of dollars)	Year ended December 31, 2015		Year ended December 31, 2014		Year ended December 31, 2013	
	Number of Contracts	Post-TDR Recorded Investment	Number of Contracts	Post-TDR Recorded Investment	Number of Contracts	Post-TDR Recorded Investment
North America .....	12	\$ 1	11	\$ 1	19	\$ 4
Europe .....	—	—	46	2	5	—
Latin America .....	12	1	11	1	—	—
Caterpillar Power Finance ...	—	—	—	—	2	3
<b>Total</b> .....	<b>24</b>	<b>\$ 2</b>	<b>68</b>	<b>\$ 4</b>	<b>26</b>	<b>\$ 7</b>

## 7. Inventories

Inventories (principally using the LIFO method) are comprised of the following:

(Millions of dollars)	December 31,	
	2015	2014
Raw materials .....	\$ 2,467	\$ 2,986
Work-in-process .....	1,857	2,455
Finished goods .....	5,122	6,504
Supplies .....	254	260
Total inventories .....	<b>\$ 9,700</b>	<b>\$ 12,205</b>

We had long-term material purchase obligations of approximately \$1,407 million at December 31, 2015.

During 2013 inventory quantities were reduced. This reduction resulted in a liquidation of LIFO inventory layers carried at lower costs prevailing in prior years as compared with current costs. In 2013, the effect of this reduction of inventory decreased Cost of goods sold by approximately \$115 million and increased Profit by approximately \$81 million or \$0.12 per share. The impact of LIFO liquidations during 2015 and 2014 was not significant to Statement 1.

## 8. Property, plant and equipment

(Millions of dollars)	Useful Lives (Years)	December 31,	
		2015	2014
Land .....	—	\$ 644	\$ 665
Buildings and land improvements .....	20-45	7,242	7,119
Machinery, equipment and other .....	3-10	15,686	15,516
Software .....	3-7	1,636	1,455
Equipment leased to others .....	1-10	5,728	5,596
Construction-in-process .....	—	1,041	1,221
Total property, plant and equipment, at cost .....		<b>31,977</b>	<b>31,572</b>
Less: Accumulated depreciation .....		<b>(15,887)</b>	<b>(14,995)</b>
Property, plant and equipment—net .....		<b>\$ 16,090</b>	<b>\$ 16,577</b>

We had commitments for the purchase or construction of capital assets of approximately \$224 million at December 31, 2015.

**Assets recorded under capital leases: <sup>1</sup>**

(Millions of dollars)	December 31,	
	2015	2014
Gross capital leases <sup>2</sup> .....	\$ 124	\$ 111
Less: Accumulated depreciation .....	(44)	(52)
Net capital leases .....	<u>\$ 80</u>	<u>\$ 59</u>

<sup>1</sup> Included in Property, plant and equipment table above.

<sup>2</sup> Consists primarily of machinery and equipment.

At December 31, 2015, scheduled minimum rental payments on assets recorded under capital leases were:

(Millions of dollars)					
2016	2017	2018	2019	2020	Thereafter
\$ 7	\$ 24	\$ 7	\$ 7	\$ 8	\$ 31

**Equipment leased to others (primarily by Cat Financial):**

(Millions of dollars)	December 31,	
	2015	2014
Equipment leased to others—at original cost .....	\$ 5,728	\$ 5,596
Less: Accumulated depreciation .....	(1,571)	(1,565)
Equipment leased to others—net .....	<u>\$ 4,157</u>	<u>\$ 4,031</u>

At December 31, 2015, scheduled minimum rental payments to be received for equipment leased to others were:

(Millions of dollars)					
2016	2017	2018	2019	2020	Thereafter
\$ 886	\$ 573	\$ 352	\$ 177	\$ 75	\$ 61

**9. Investments in unconsolidated affiliated companies**

**Caterpillar's investments in unconsolidated affiliated companies:**

(Millions of dollars)	December 31,	
	2015	2014
Investments in equity method companies .....	\$ 203	\$ 248
Plus: Investments in cost method companies .....	43	9
Total investments in unconsolidated affiliated companies .....	<u>\$ 246</u>	<u>\$ 257</u>

The changes in investments in equity method companies noted above are primarily related to the sale of Caterpillar's 35 percent equity interest in the third party logistics business, formerly Caterpillar Logistics Services LLC. In February 2015, we sold our interest to an affiliate of The Goldman Sachs Group, Inc. and investment funds affiliated with Rhône Capital LLC for \$177 million, which was comprised of \$167 million in cash and a \$10 million note receivable included in Long-term receivables - trade and other in Statement 3. As a result of the sale, we recognized a pretax gain of \$120 million (included in Other income (expense)) and derecognized the carrying value of our noncontrolling interest of \$57 million, which was previously included in Investments in unconsolidated affiliated companies in Statement 3. The gain on the disposal is included

as a reconciling item between Segment profit and Consolidated profit before taxes. The sale of this investment supports Caterpillar's increased focus on growth opportunities in its core businesses.

## 10. Intangible assets and goodwill

### A. Intangible assets

Intangible assets are comprised of the following:

(Millions of dollars)	Weighted Amortizable Life (Years)	December 31, 2015		
		Gross Carrying Amount	Accumulated Amortization	Net
Customer relationships.....	15	\$ 2,489	\$ (809)	\$ 1,680
Intellectual property .....	11	1,660	(626)	1,034
Other.....	12	174	(67)	107
Total finite-lived intangible assets .....	14	<u>\$ 4,323</u>	<u>\$ (1,502)</u>	<u>\$ 2,821</u>

(Millions of dollars)	Weighted Amortizable Life (Years)	December 31, 2014		
		Gross Carrying Amount	Accumulated Amortization	Net
Customer relationships.....	15	\$ 2,489	\$ (669)	\$ 1,820
Intellectual property .....	11	1,724	(578)	1,146
Other.....	11	239	(129)	110
Total finite-lived intangible assets .....	14	<u>\$ 4,452</u>	<u>\$ (1,376)</u>	<u>\$ 3,076</u>

During 2015, we acquired finite-lived intangible assets of \$82 million due to the purchase of Rail Product Solutions, Inc. See Note 24 for details on this acquisition.

Gross customer relationship intangibles of \$48 million and related accumulated amortization of \$9 million were divested during 2014, and are not included in the December 31, 2014 balances in the table above. These transactions were related to the divestiture of portions of the Bucyrus distribution business. See Note 25 for additional information on divestitures.

In-process research & development indefinite-lived intangibles of \$18 million from the Energy & Transportation segment were impaired during 2014. Fair value of the intangibles was determined using an income approach based on the present value of discounted cash flows. The impairment of \$18 million was recognized in Other operating (income) expenses in Statement 1 and included in the Energy & Transportation segment.

Finite-lived intangible assets are amortized over their estimated useful lives and tested for impairment if events or changes in circumstances indicate that the asset may be impaired.

Amortization expense related to intangible assets was \$337 million, \$365 million and \$371 million for 2015, 2014 and 2013, respectively.

As of December 31, 2015, amortization expense related to intangible assets is expected to be:

(Millions of dollars)						
2016	2017	2018	2019	2020	Thereafter	
\$ 341	\$ 330	\$ 324	\$ 321	\$ 314	\$ 1,191	

## B. Goodwill

During 2015, we acquired net assets with related goodwill aggregating \$133 million primarily related to the purchases of Rail Product Solutions, Inc. (\$53 million) and RDS Manufacturing, Inc. (\$59 million). See Note 24 for details on these acquisitions.

During 2013, we acquired net assets with related goodwill of \$106 million due to the purchase of Johan Walter Berg AB (Berg). In 2014, we finalized the allocation of the Berg purchase price to identifiable assets and liabilities, adjusting goodwill from our December 31, 2013 preliminary allocation by an increase of \$7 million. See Note 24 for details on this acquisition.

There were no goodwill impairments during 2015, 2014 or 2013.

Goodwill of \$15 million was reclassified to held for sale and/or divested during 2014 and is not included in the December 31, 2015 and 2014 balances in the table below. The reclassified/divested amount in 2014 primarily related to the divestiture of portions of the Bucyrus distribution business. See Note 25 for additional information on divestitures.

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

(Millions of dollars)	December 31, 2014	Acquisitions <sup>1</sup>	Held for Sale and Business Divestitures <sup>2</sup>	Impairment Loss	Other Adjustments <sup>3</sup>	December 31, 2015
Construction Industries						
Goodwill .....	\$ 275	\$ —	\$ —	\$ —	\$ (12)	\$ 263
Resource Industries						
Goodwill .....	4,287	—	—	—	(142)	4,145
Impairment .....	(580)	—	—	—	—	(580)
Net goodwill .....	3,707	—	—	—	(142)	3,565
Energy & Transportation						
Goodwill .....	2,542	133	—	—	(55)	2,620
All Other <sup>4</sup>						
Goodwill .....	192	—	—	—	(3)	189
Impairment .....	(22)	—	—	—	—	(22)
Net goodwill .....	170	—	—	—	(3)	167
Consolidated total						
Goodwill .....	7,296	133	—	—	(212)	7,217
Impairment .....	(602)	—	—	—	—	(602)
Net goodwill .....	<u>\$ 6,694</u>	<u>\$ 133</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (212)</u>	<u>\$ 6,615</u>
	December 31, 2013	Acquisitions <sup>1</sup>	Held for Sale and Business Divestitures <sup>2</sup>	Impairment Loss	Other Adjustments <sup>3</sup>	December 31, 2014
Construction Industries						
Goodwill .....	\$ 291	\$ —	\$ —	\$ —	\$ (16)	\$ 275
Resource Industries						
Goodwill .....	4,468	—	(15)	—	(166)	4,287
Impairment .....	(580)	—	—	—	—	(580)
Net goodwill .....	3,888	—	(15)	—	(166)	3,707
Energy & Transportation						
Goodwill .....	2,600	7	—	—	(65)	2,542
All Other <sup>4</sup>						
Goodwill .....	199	—	—	—	(7)	192
Impairment .....	(22)	—	—	—	—	(22)
Net goodwill .....	177	—	—	—	(7)	170
Consolidated total						
Goodwill .....	7,558	7	(15)	—	(254)	7,296
Impairment .....	(602)	—	—	—	—	(602)
Net goodwill .....	<u>\$ 6,956</u>	<u>\$ 7</u>	<u>\$ (15)</u>	<u>\$ —</u>	<u>\$ (254)</u>	<u>\$ 6,694</u>

<sup>1</sup> See Note 24 for additional information.

<sup>2</sup> See Note 25 for additional information.

<sup>3</sup> Other adjustments are comprised primarily of foreign currency translation.

<sup>4</sup> Includes All Other operating segments (See Note 23).

## 11. Available-for-sale securities

We have investments in certain debt and equity securities, primarily at Insurance Services, that have been classified as available-for-sale and recorded at fair value. These investments are primarily included in Other assets in Statement 3. Unrealized gains and losses arising from the revaluation of available-for-sale securities are included, net of applicable deferred income taxes, in equity (Accumulated other comprehensive income (loss) in Statement 3). Realized gains and losses on sales of investments are generally determined using the specific identification method for debt and equity securities and are included in Other income (expense) in Statement 1.

The cost basis and fair value of available-for-sale securities were as follows:

(Millions of dollars)	December 31, 2015			December 31, 2014		
	Cost Basis	Unrealized Pretax Net Gains (Losses)	Fair Value	Cost Basis	Unrealized Pretax Net Gains (Losses)	Fair Value
<b>Government debt</b>						
U.S. treasury bonds.....	\$ 9	\$ —	\$ 9	\$ 10	\$ —	\$ 10
Other U.S. and non-U.S. government bonds ..	71	1	72	94	—	94
<b>Corporate bonds</b>						
Corporate bonds.....	701	7	708	677	16	693
Asset-backed securities.....	129	—	129	103	2	105
<b>Mortgage-backed debt securities</b>						
U.S. governmental agency.....	291	1	292	292	2	294
Residential .....	12	—	12	15	—	15
Commercial.....	59	2	61	63	4	67
<b>Equity securities</b>						
Large capitalization value.....	243	30	273	150	83	233
Real estate investment trust (REIT).....	25	—	25	—	—	—
Smaller company growth.....	37	17	54	17	26	43
Total.....	<u>\$ 1,577</u>	<u>\$ 58</u>	<u>\$ 1,635</u>	<u>\$ 1,421</u>	<u>\$ 133</u>	<u>\$ 1,554</u>

**Investments in an unrealized loss position that are not other-than-temporarily impaired:**

(Millions of dollars)	December 31, 2015					
	Less than 12 months <sup>1</sup>		12 months or more <sup>1</sup>		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
<b>Corporate bonds</b>						
Corporate bonds .....	\$ 242	\$ 3	\$ 27	\$ 1	\$ 269	\$ 4
Asset-backed securities .....	84	1	10	1	94	2
<b>Mortgage-backed debt securities</b>						
U.S. governmental agency .....	135	1	57	1	192	2
<b>Equity securities</b>						
Large capitalization value .....	97	8	2	—	99	8
Smaller company growth .....	14	1	—	—	14	1
<b>Total</b> .....	<u>\$ 572</u>	<u>\$ 14</u>	<u>\$ 96</u>	<u>\$ 3</u>	<u>\$ 668</u>	<u>\$ 17</u>

(Millions of dollars)	December 31, 2014					
	Less than 12 months <sup>1</sup>		12 months or more <sup>1</sup>		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
<b>Corporate bonds</b>						
Corporate bonds .....	\$ 195	\$ 1	\$ 32	\$ —	\$ 227	\$ 1
<b>Mortgage-backed debt securities</b>						
U.S. governmental agency .....	34	—	140	3	174	3
<b>Equity securities</b>						
Large capitalization value .....	15	2	1	—	16	2
<b>Total</b> .....	<u>\$ 244</u>	<u>\$ 3</u>	<u>\$ 173</u>	<u>\$ 3</u>	<u>\$ 417</u>	<u>\$ 6</u>

<sup>1</sup> Indicates length of time that individual securities have been in a continuous unrealized loss position.

**Corporate Bonds.** The unrealized losses on our investments in corporate bonds and asset-backed securities relate to changes in interest rates and credit-related yield spreads since time of purchase. We do not intend to sell the investments and it is not likely that we will be required to sell the investments before recovery of their amortized cost basis. We do not consider these investments to be other-than-temporarily impaired as of December 31, 2015.

**Mortgage-Backed Debt Securities.** The unrealized losses on our investments in mortgage-backed securities relate to changes in interest rates and credit-related yield spreads since time of purchase. We do not intend to sell the investments and it is not likely that we will be required to sell these investments before recovery of their amortized cost basis. We do not consider these investments to be other-than-temporarily impaired as of December 31, 2015.

**Equity Securities.** The unrealized losses on our investments in equity securities relate to inherent risks of individual holdings and/or their respective sectors. We do not consider these investments to be other-than-temporarily impaired as of December 31, 2015.

The cost basis and fair value of the available-for-sale debt securities at December 31, 2015, by contractual maturity, is shown below. Expected maturities will differ from contractual maturities because borrowers may have the right to prepay and creditors may have the right to call obligations.



(Millions of dollars)	December 31, 2015	
	Cost Basis	Fair Value
Due in one year or less.....	\$ 124	\$ 124
Due after one year through five years.....	709	716
Due after five years through ten years.....	49	50
Due after ten years.....	28	28
U.S. governmental agency mortgage-backed securities.....	291	292
Residential mortgage-backed securities.....	12	12
Commercial mortgage-backed securities.....	59	61
Total debt securities – available-for-sale.....	<u>\$ 1,272</u>	<u>\$ 1,283</u>

#### Sales of Securities:

(Millions of dollars)	Years Ended December 31,		
	2015	2014	2013
Proceeds from the sale of available-for-sale securities.....	\$ 351	\$ 434	\$ 449
Gross gains from the sale of available-for-sale securities.....	\$ 64	\$ 38	\$ 22
Gross losses from the sale of available-for-sale securities.....	\$ 2	\$ 2	\$ 2

## 12. Postemployment benefit plans

We provide defined benefit pension plans, defined contribution plans and/or other postretirement benefit plans (retirement health care and life insurance) to employees in many of our locations throughout the world. Our defined benefit pension plans provide a benefit based on years of service and/or the employee's average earnings near retirement. Our defined contribution plans allow employees to contribute a portion of their salary to help save for retirement, and in certain cases, we provide a matching contribution. The benefit obligation related to our non-U.S. defined benefit pension plans are for employees located primarily in Europe, Japan and Brazil. For other postretirement benefits, substantially all of our benefit obligation is for employees located in the United States.

Our U.S. defined benefit pension plans for support and management employees were frozen for certain employees on December 31, 2010, and will freeze for remaining employees on December 31, 2019. On the respective transition dates employees move to a retirement benefit that provides a frozen pension benefit and a 401(k) plan that will include a matching contribution and a new annual employer contribution.

As discussed in Note 26, during 2015 the company offered a voluntary retirement enhancement program to qualifying U.S. employees. This voluntary program impacted employees participating in certain U.S. pension and other postretirement benefit plans and resulted in a curtailment loss of \$86 million, recognized in Other operating (income) expenses in Statement 1.

At December 31, 2015, we changed our method for calculating the service and interest cost components of net periodic benefit cost. Historically, these components were determined utilizing a single weighted-average discount rate based on a yield curve used to measure the benefit obligation at the beginning of the period. Beginning in 2016, we have elected to utilize a full yield curve approach in the estimation of the service and interest costs by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. We have made this change to provide a more precise measurement of service and interest costs by improving the correlation between the projected cash flows to the corresponding spot rates along the yield curve. This change will have no impact on pension and other postretirement benefit liabilities and will be accounted for prospectively as a change in accounting estimate.

At January 1, 2016, we changed our accounting principle for recognizing actuarial gains and losses and expected return on plan assets for our pension and other postretirement benefit plans to a more preferable policy under U.S. GAAP. Prior to 2016, actuarial gains and losses were recognized as a component of Accumulated other comprehensive income (loss), and were generally amortized into earnings in future periods. Under the new principle, actuarial gains and losses will be immediately recognized through earnings upon the annual remeasurement in the fourth quarter, or on an interim basis as triggering events

warrant remeasurement. In addition, we changed our policy for recognizing expected returns on plan assets from a market-related value method (based on a three-year smoothing of asset returns) to a fair value method. We believe that these changes are preferable as they provide greater transparency of our economic obligations in accounting results and better align with the fair value accounting principles by recognizing the effects of economic and interest rate changes on pension and other postretirement benefit assets and liabilities in the year in which the gains and losses are incurred. These changes will be applied retrospectively to prior years.

#### A. Benefit obligations

(Millions of dollars)	U.S. Pension Benefits		Non-U.S. Pension Benefits		Other Postretirement Benefits	
	2015	2014	2015	2014	2015	2014
<b>Change in benefit obligation:</b>						
Benefit obligation, beginning of year .....	\$ 16,249	\$ 14,419	\$ 4,801	\$ 4,609	\$ 4,938	\$ 4,784
Service cost .....	181	157	110	109	101	82
Interest cost .....	608	648	146	185	181	213
Plan amendments .....	—	—	—	—	3	(1)
Actuarial losses (gains) .....	(384)	1,994	(167)	604	(626)	196
Foreign currency exchange rates .....	—	—	(292)	(436)	(42)	(30)
Participant contributions .....	—	—	8	9	52	61
Benefits paid - gross .....	(890)	(963)	(191)	(206)	(345)	(377)
Less: federal subsidy on benefits paid .....	—	—	—	—	11	14
Curtailments, settlements and termination benefits .....	28	(6)	(60)	(53)	40	(4)
Acquisitions, divestitures and other .....	—	—	—	(20)	—	—
Benefit obligation, end of year .....	<u>\$ 15,792</u>	<u>\$ 16,249</u>	<u>\$ 4,355</u>	<u>\$ 4,801</u>	<u>\$ 4,313</u>	<u>\$ 4,938</u>
Accumulated benefit obligation, end of year .....	<u>\$ 15,550</u>	<u>\$ 15,701</u>	<u>\$ 4,024</u>	<u>\$ 4,408</u>		
<b>Weighted-average assumptions used to determine benefit obligation:</b>						
Discount rate .....	4.2%	3.8%	3.2%	3.3%	4.1%	3.9%
Rate of compensation increase .....	4.0%	4.0%	3.8%	4.0%	4.0%	4.0%

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

(Millions of dollars)	One-percentage-point increase	One-percentage-point decrease
Effect on 2015 service and interest cost components of other postretirement benefit cost .....	\$ 37	\$ (6)
Effect on accumulated postretirement benefit obligation .....	\$ 244	\$ (202)

## B. Plan assets

(Millions of dollars)	U.S. Pension Benefits		Non-U.S. Pension Benefits		Other Postretirement Benefits	
	2015	2014	2015	2014	2015	2014
<b>Change in plan assets:</b>						
Fair value of plan assets, beginning of year.....	\$ 12,530	\$ 12,395	\$ 4,100	\$ 3,949	\$ 776	\$ 822
Actual return on plan assets .....	(225)	849	105	507	3	75
Foreign currency exchange rates.....	—	—	(232)	(352)	—	—
Company contributions .....	30	255	156	265	164	195
Participant contributions .....	—	—	8	9	52	61
Benefits paid.....	(890)	(963)	(191)	(206)	(345)	(377)
Settlements and termination benefits .....	(5)	(6)	(56)	(50)	—	—
Acquisitions, divestitures and other .....	—	—	—	(22)	—	—
Fair value of plan assets, end of year .....	<u>\$ 11,440</u>	<u>\$ 12,530</u>	<u>\$ 3,890</u>	<u>\$ 4,100</u>	<u>\$ 650</u>	<u>\$ 776</u>

In general, our strategy for both the U.S. and non-U.S. pensions includes further aligning our investments to our liabilities, while reducing risk in our portfolio. The current U.S. pension target asset allocations are 45 percent equities and 55 percent fixed income. These target allocations will be revisited periodically to ensure that they reflect our overall objectives. The non-U.S. pension weighted-average target allocations are 41 percent equities, 51 percent fixed income, 5 percent real estate and 3 percent other. The target allocations for each plan vary based upon local statutory requirements, demographics of plan participants and funded status. The non-U.S. plan assets are primarily invested in non-U.S. securities.

Our target allocations for the other postretirement benefit plans are 70 percent equities and 30 percent fixed income.

The U.S. plans are rebalanced to plus or minus 5 percentage points of the target asset allocation ranges on a monthly basis. The frequency of rebalancing for the non-U.S. plans varies depending on the plan. As a result of our diversification strategies, there are no significant concentrations of risk within the portfolio of investments.

The use of certain derivative instruments is permitted where appropriate and necessary for achieving overall investment policy objectives. The plans do not engage in derivative contracts for speculative purposes.

The accounting guidance on fair value measurements specifies a fair value hierarchy based upon the observability of inputs used in valuation techniques (Level 1, 2 and 3). See Note 18 for a discussion of the fair value hierarchy.

Fair values are determined as follows:

- Equity securities are primarily based on valuations for identical instruments in active markets.
- Fixed income securities are primarily based upon models that take into consideration such market-based factors as recent sales, risk-free yield curves and prices of similarly rated bonds.
- Real estate is stated at the fund's net asset value or at appraised value.
- Cash, short-term instruments and other are based on the carrying amount, which approximates fair value, or the fund's net asset value.

The fair value of the pension and other postretirement benefit plan assets by category is summarized below:

(Millions of dollars)	December 31, 2015			
	Level 1	Level 2	Level 3	Total Assets, at Fair Value
<b><u>U.S. Pension</u></b>				
Equity securities:				
U.S. equities.....	\$ 2,976	\$ —	\$ 172	\$ 3,148
Non-U.S. equities.....	2,044	5	1	2,050
Fixed income securities:				
U.S. corporate bonds.....	—	4,004	42	4,046
Non-U.S. corporate bonds .....	—	575	—	575
U.S. government bonds.....	—	526	—	526
U.S. governmental agency mortgage-backed securities .....	—	627	—	627
Non-U.S. government bonds .....	—	65	—	65
Real estate .....	—	—	9	9
Cash, short-term instruments and other .....	157	234	3	394
Total U.S. pension assets .....	<u>\$ 5,177</u>	<u>\$ 6,036</u>	<u>\$ 227</u>	<u>\$ 11,440</u>
December 31, 2014				
(Millions of dollars)	Level 1	Level 2	Level 3	Total Assets, at Fair Value
<b><u>U.S. Pension</u></b>				
Equity securities:				
U.S. equities.....	\$ 3,713	\$ 1	\$ 161	\$ 3,875
Non-U.S. equities.....	2,291	12	1	2,304
Fixed income securities:				
U.S. corporate bonds.....	—	3,985	25	4,010
Non-U.S. corporate bonds .....	—	552	—	552
U.S. government bonds.....	—	528	—	528
U.S. governmental agency mortgage-backed securities .....	—	752	2	754
Non-U.S. government bonds .....	—	62	2	64
Real estate .....	—	—	9	9
Cash, short-term instruments and other .....	37	397	—	434
Total U.S. pension assets .....	<u>\$ 6,041</u>	<u>\$ 6,289</u>	<u>\$ 200</u>	<u>\$ 12,530</u>

(Millions of dollars)	December 31, 2015			
	Level 1	Level 2	Level 3	Total Assets, at Fair Value
<b>Non-U.S. Pension</b>				
Equity securities:				
U.S. equities .....	\$ 426	\$ 118	\$ —	\$ 544
Non-U.S. equities .....	680	152	2	834
Global equities <sup>1</sup> .....	155	49	—	204
Fixed income securities:				
U.S. corporate bonds .....	—	135	3	138
Non-U.S. corporate bonds .....	—	400	2	402
U.S. government bonds .....	—	64	—	64
Non-U.S. government bonds .....	—	1,083	—	1,083
Global fixed income <sup>1</sup> .....	—	341	—	341
Real estate .....	—	172	—	172
Cash, short-term instruments and other <sup>2</sup> .....	61	47	—	108
Total non-U.S. pension assets .....	<u>\$ 1,322</u>	<u>\$ 2,561</u>	<u>\$ 7</u>	<u>\$ 3,890</u>

(Millions of dollars)	December 31, 2014			
	Level 1	Level 2	Level 3	Total Assets, at Fair Value
<b>Non-U.S. Pension</b>				
Equity securities:				
U.S. equities .....	\$ 552	\$ —	\$ —	\$ 552
Non-U.S. equities .....	794	250	—	1,044
Global equities <sup>1</sup> .....	218	52	—	270
Fixed income securities:				
U.S. corporate bonds .....	—	81	9	90
Non-U.S. corporate bonds .....	—	503	2	505
U.S. government bonds .....	—	1	—	1
Non-U.S. government bonds .....	—	836	—	836
Global fixed income <sup>1</sup> .....	—	363	—	363
Real estate .....	—	182	48	230
Cash, short-term instruments and other <sup>2</sup> .....	159	50	—	209
Total non-U.S. pension assets .....	<u>\$ 1,723</u>	<u>\$ 2,318</u>	<u>\$ 59</u>	<u>\$ 4,100</u>

<sup>1</sup> Includes funds that invest in both U.S. and non-U.S. securities.

<sup>2</sup> Includes funds that invest in multiple asset classes, hedge funds and other.

(Millions of dollars)	December 31, 2015			
	Level 1	Level 2	Level 3	Total Assets, at Fair Value
<b>Other Postretirement Benefits</b>				
Equity securities:				
U.S. equities.....	\$ 296	\$ 1	\$ —	\$ 297
Non-U.S. equities.....	136	—	—	136
Fixed income securities:				
U.S. corporate bonds.....	—	87	—	87
Non-U.S. corporate bonds .....	—	18	—	18
U.S. government bonds.....	—	31	—	31
U.S. governmental agency mortgage-backed securities .....	—	45	—	45
Non-U.S. government bonds .....	—	4	—	4
Cash, short-term instruments and other .....	17	15	—	32
Total other postretirement benefit assets .....	<u>\$ 449</u>	<u>\$ 201</u>	<u>\$ —</u>	<u>\$ 650</u>
December 31, 2014				
(Millions of dollars)	Level 1	Level 2	Level 3	Total Assets, at Fair Value
<b>Other Postretirement Benefits</b>				
Equity securities:				
U.S. equities.....	\$ 392	\$ —	\$ —	\$ 392
Non-U.S. equities.....	158	1	—	159
Fixed income securities:				
U.S. corporate bonds.....	—	103	—	103
Non-U.S. corporate bonds .....	—	17	—	17
U.S. government bonds.....	—	30	—	30
U.S. governmental agency mortgage-backed securities .....	—	50	—	50
Non-U.S. government bonds .....	—	3	—	3
Cash, short-term instruments and other .....	9	13	—	22
Total other postretirement benefit assets .....	<u>\$ 559</u>	<u>\$ 217</u>	<u>\$ —</u>	<u>\$ 776</u>

Below are roll-forwards of assets measured at fair value using Level 3 inputs for the years ended December 31, 2015 and 2014. These instruments were valued using pricing models that, in management's judgment, reflect the assumptions a market participant would use.

<b>(Millions of dollars)</b>	<b>Equities</b>	<b>Fixed Income</b>	<b>Real Estate</b>	<b>Other</b>
<b><u>U.S. Pension</u></b>				
Balance at December 31, 2013 .....	\$ 129	\$ 54	\$ 8	\$ —
Unrealized gains (losses) .....	1	—	1	—
Realized gains (losses) .....	19	3	—	—
Purchases, issuances and settlements, net .....	13	(23)	—	—
Transfers in and/or out of Level 3 .....	—	(5)	—	—
Balance at December 31, 2014 .....	\$ 162	\$ 29	\$ 9	\$ —
Unrealized gains (losses) .....	(1)	(1)	—	—
Realized gains (losses) .....	14	—	—	—
Purchases, issuances and settlements, net .....	(2)	16	—	2
Transfers in and/or out of Level 3 .....	—	(2)	—	1
Balance at December 31, 2015 .....	<u>\$ 173</u>	<u>\$ 42</u>	<u>\$ 9</u>	<u>\$ 3</u>
<b><u>Non-U.S. Pension</u></b>				
Balance at December 31, 2013 .....	\$ —	\$ 21	\$ 111	\$ —
Unrealized gains (losses) .....	—	(1)	(23)	—
Realized gains (losses) .....	—	—	22	—
Purchases, issuances and settlements, net .....	—	(1)	(62)	—
Transfers in and/or out of Level 3 .....	—	(8)	—	—
Balance at December 31, 2014 .....	\$ —	\$ 11	\$ 48	\$ —
Unrealized gains (losses) .....	—	(1)	(18)	—
Realized gains (losses) .....	—	—	15	—
Purchases, issuances and settlements, net .....	—	—	(45)	—
Transfers in and/or out of Level 3 .....	2	(5)	—	—
Balance at December 31, 2015 .....	<u>\$ 2</u>	<u>\$ 5</u>	<u>\$ —</u>	<u>\$ —</u>

### C. Funded status

The funded status of the plans, reconciled to the amount reported on Statement 3, is as follows:

(Millions of dollars)	U.S. Pension Benefits		Non-U.S. Pension Benefits		Other Postretirement Benefits	
	2015	2014	2015	2014	2015	2014
<b>End of Year</b>						
Fair value of plan assets .....	\$ 11,440	\$ 12,530	\$ 3,890	\$ 4,100	\$ 650	\$ 776
Benefit obligations .....	15,792	16,249	4,355	4,801	4,313	4,938
Over (under) funded status recognized in financial position .....	<u>\$ (4,352)</u>	<u>\$ (3,719)</u>	<u>\$ (465)</u>	<u>\$ (701)</u>	<u>\$ (3,663)</u>	<u>\$ (4,162)</u>
<b>Components of net amount recognized in financial position:</b>						
Other assets (non-current asset) .....	\$ 6	\$ 3	\$ 163	\$ 144	\$ —	\$ —
Accrued wages, salaries and employee benefits (current liability) .....	(32)	(28)	(19)	(24)	(161)	(160)
Liability for postemployment benefits (non-current liability) .....	(4,326)	(3,694)	(609)	(821)	(3,502)	(4,002)
Net liability recognized .....	<u>\$ (4,352)</u>	<u>\$ (3,719)</u>	<u>\$ (465)</u>	<u>\$ (701)</u>	<u>\$ (3,663)</u>	<u>\$ (4,162)</u>
<b>Amounts recognized in Accumulated other comprehensive income (pre-tax) consist of:</b>						
Net actuarial loss (gain) .....	\$ 6,245	\$ 6,034	\$ 1,300	\$ 1,494	\$ 171	\$ 800
Prior service cost (credit) .....	1	2	1	9	39	(31)
Total .....	<u>\$ 6,246</u>	<u>\$ 6,036</u>	<u>\$ 1,301</u>	<u>\$ 1,503</u>	<u>\$ 210</u>	<u>\$ 769</u>

In 2016, we elected to make a change in accounting principle related to the recognition of actuarial gains and losses. Actuarial gains and losses will be immediately recognized upon the annual remeasurement in the fourth quarter, or on an interim basis as triggering events warrant remeasurement. Accordingly, there will be no actuarial gains and losses amortized from Accumulated other comprehensive income (loss) into net periodic benefit cost in 2016. This change will be effective in reporting periods after December 31, 2015 and will be applied retrospectively to prior years. The estimated amount of prior service cost (credit) that will be amortized from Accumulated other comprehensive income (loss) at December 31, 2015 into net periodic benefit cost (pre-tax) in 2016 are as follows:

(Millions of dollars)	U.S. Pension Benefits	Non-U.S. Pension Benefits	Other Postretirement Benefits
Prior service cost (credit) .....	\$ —	\$ —	\$ (30)
Total .....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (30)</u>

The following amounts relate to our pension plans with projected benefit obligations in excess of plan assets:

(Millions of dollars)	U.S. Pension Benefits at Year-end		Non-U.S. Pension Benefits at Year-end	
	2015	2014	2015	2014
Projected benefit obligation .....	\$ 15,734	\$ 16,182	\$ 1,818	\$ 4,539
Accumulated benefit obligation .....	\$ 15,493	\$ 15,634	\$ 1,657	\$ 4,148
Fair value of plan assets .....	\$ 11,377	\$ 12,460	\$ 1,190	\$ 3,695



The following amounts relate to our pension plans with accumulated benefit obligations in excess of plan assets:

(Millions of dollars)	U.S. Pension Benefits at Year-end		Non-U.S. Pension Benefits at Year-end	
	2015	2014	2015	2014
Projected benefit obligation .....	\$ 15,734	\$ 16,182	\$ 1,363	\$ 1,879
Accumulated benefit obligation .....	\$ 15,493	\$ 15,634	\$ 1,320	\$ 1,734
Fair value of plan assets .....	\$ 11,377	\$ 12,460	\$ 793	\$ 1,068

The accumulated postretirement benefit obligation exceeds plan assets for all of our other postretirement benefit plans for all years presented.

#### D. Expected cash flow

Information about the expected cash flow for the pension and other postretirement benefit plans is as follows:

(Millions of dollars)	U.S. Pension Benefits	Non-U.S. Pension Benefits	Other Postretirement Benefits
<b>Employer contributions:</b>			
2016 (expected) .....	\$ 30	\$ 120	\$ 200
<b>Expected benefit payments:</b>			
2016 .....	\$ 990	\$ 220	\$ 310
2017 .....	990	170	320
2018 .....	980	170	310
2019 .....	980	170	310
2020 .....	980	170	300
2021-2025 .....	4,890	990	1,480
Total .....	\$ 9,810	\$ 1,890	\$ 3,030

The above table reflects the total employer contributions and benefits expected to be paid from the plan or from company assets and does not include the participants' share of the cost. The expected benefit payments for our other postretirement benefits include payments for prescription drug benefits. Medicare Part D subsidy amounts expected to be received by the company which will offset other postretirement benefit payments are as follows:

(Millions of dollars)	2016	2017	2018	2019	2020	2021-2025	Total
Other postretirement benefits .....	\$ 15	\$ 15	\$ 20	\$ 20	\$ 20	\$ 100	\$ 190

## E. Net periodic cost

(Millions of dollars)	U.S. Pension Benefits			Non-U.S. Pension Benefits			Other Postretirement Benefits		
	2015	2014	2013	2015	2014	2013	2015	2014	2013
<b>Components of net periodic benefit cost:</b>									
Service cost.....	\$ 181	\$ 157	\$ 196	\$ 110	\$ 109	\$ 120	\$ 101	\$ 82	\$ 108
Interest cost.....	608	648	581	146	185	166	181	213	195
Expected return on plan assets <sup>1</sup> .....	(879)	(885)	(832)	(260)	(258)	(225)	(53)	(52)	(56)
Other adjustments <sup>2</sup> .....	—	—	31	—	—	—	—	—	(22)
Curtailments, settlements and termination benefits <sup>3</sup> .....	52	—	—	14	14	2	32	(2)	—
Amortization of:									
Transition obligation (asset) ....	—	—	—	—	—	—	—	—	2
Prior service cost (credit) <sup>4</sup> .....	1	17	18	—	—	1	(54)	(55)	(73)
Net actuarial loss (gain) <sup>5</sup> .....	490	392	546	99	86	128	52	41	107
Total cost included in operating profit .....	\$ 453	\$ 329	\$ 540	\$ 109	\$ 136	\$ 192	\$ 259	\$ 227	\$ 261
<b>Other changes in plan assets and benefit obligations recognized in other comprehensive income (pre-tax):</b>									
Current year actuarial loss (gain) .....	\$ 701	\$ 2,030	\$ (2,344)	\$ (95)	\$ 207	\$ (406)	\$ (577)	\$ 179	\$ (759)
Amortization of actuarial (loss) gain .....	(490)	(392)	(546)	(99)	(86)	(128)	(52)	(41)	(107)
Current year prior service cost (credit) .....	—	—	—	(8)	(4)	(7)	16	(2)	2
Amortization of prior service (cost) credit .....	(1)	(17)	(18)	—	—	(1)	54	55	73
Amortization of transition (obligation) asset .....	—	—	—	—	—	—	—	—	(2)
Total recognized in other comprehensive income .....	210	1,621	(2,908)	(202)	117	(542)	(559)	191	(793)
Total recognized in net periodic cost and other comprehensive income .....	\$ 663	\$ 1,950	\$ (2,368)	\$ (93)	\$ 253	\$ (350)	\$ (300)	\$ 418	\$ (532)
<b>Weighted-average assumptions used to determine net cost:</b>									
Discount rate.....	3.8%	4.6%	3.7%	3.3%	4.1%	3.7%	3.9%	4.6%	3.7%
Expected rate of return on plan assets <sup>6</sup> .....	7.4%	7.8%	7.8%	6.8%	6.9%	6.8%	7.8%	7.8%	7.8%
Rate of compensation increase ...	4.0%	4.0%	4.5%	4.0%	4.2%	3.9%	4.0%	4.0%	4.4%

<sup>1</sup> Expected return on plan assets developed using calculated market-related value of plan assets which recognizes differences in expected and actual returns over a three-year period.

<sup>2</sup> Charge to recognize a previously unrecorded liability related to a subsidiary's pension plans and an adjustment to other postretirement benefits related to certain other benefits.

<sup>3</sup> Curtailments, settlements and termination benefits were recognized in Other operating (income) expenses in Statement 1.

<sup>4</sup> Prior service cost (credit) for both pension and other postretirement benefits are generally amortized using the straight-line method over the average remaining service period of active employees expected to receive benefits from the plan. For pension plans in which all or almost all of the plan's participants are inactive and other postretirement benefit plans in which all or almost all of the plan's participants are fully eligible for benefits under the plan, prior service cost (credit) are amortized using the straight-line method over the remaining life expectancy of those participants.

<sup>5</sup> Net actuarial loss (gain) for pension and other postretirement benefit plans are generally amortized using the straight-line method over the average remaining service period of active employees expected to receive benefits from the plan. For plans in which all or almost all of the plan's participants are inactive, net actuarial loss (gain) are amortized using the straight-line method over the remaining life expectancy of the inactive participants.

<sup>6</sup> The weighted-average rates for 2016 are 6.9 percent and 6.1 percent for U.S. and non-U.S. pension plans, respectively.

The assumed discount rate is used to discount future benefit obligations back to today's dollars. The U.S. discount rate is based on a benefit cash flow-matching approach and represents the rate at which our benefit obligations could effectively be settled as of our measurement date, December 31. The benefit cash flow-matching approach involves analyzing Caterpillar's projected cash flows against a high quality bond yield curve, calculated using a wide population of corporate Aa bonds available on the measurement date. The very highest and lowest yielding bonds (top and bottom 10 percent) are excluded from the analysis. A similar process is used to determine the assumed discount rate for our most significant non-U.S. plans. This rate is sensitive to changes in interest rates. A decrease in the discount rate would increase our obligation and future expense.

Our U.S. expected long-term rate of return on plan assets is based on our estimate of long-term passive returns for equities and fixed income securities weighted by the allocation of our pension assets. Based on historical performance, we increase the passive returns due to our active management of the plan assets. To arrive at our expected long-term return, the amount added for active management was 0.95 percent for 2015 and 1 percent for 2014 and 2013. A similar process is used to determine this rate for our non-U.S. plans.

The assumed health care trend rate represents the rate at which health care costs are assumed to increase. We assumed a weighted-average increase of 6.6 percent in our calculation of 2015 benefit expense. We expect a weighted-average increase of 6.5 percent during 2016. The 2016 rates are assumed to decrease gradually to the ultimate health care trend rate of 5 percent in 2021. This rate represents 3 percent general inflation plus 2 percent additional health care inflation.

## F. Other postemployment benefit plans

We offer long-term disability benefits, continued health care for disabled employees, survivor income benefit insurance and supplemental unemployment benefits to substantially all U.S. employees.

## G. Defined contribution plans

We have both U.S. and non-U.S. employee defined contribution plans to help employees save for retirement. Our primary U.S. 401(k) plan allows eligible employees to contribute a portion of their cash compensation to the plan on a tax-deferred basis. Employees with frozen defined benefit pension accruals are eligible for matching contributions equal to 100 percent of employee contributions to the plan up to 6 percent of cash compensation and an annual employer contribution that ranges from 3 to 5 percent of cash compensation (depending on years of service and age). Employees that are still accruing benefits under a defined benefit pension plan are eligible for matching contributions equal to 50 percent of employee contributions up to 6 percent of cash compensation. These 401(k) plans include various investments funds, including a non-leveraged employee stock ownership plan (ESOP). As of December 31, 2015 and 2014 the ESOP held 26.4 million and 26.2 million shares, respectively. All of the shares held by the ESOP were allocated to participant accounts. Dividends paid to participants are automatically reinvested into company shares unless the participant elects to have all or a portion of the dividend paid to the participant. Various other U.S. and non-U.S. defined contribution plans allow eligible employees to contribute a portion of their salary to the plans, and in some cases, we provide a matching contribution to the funds.

Total company costs related to U.S. and non-U.S. defined contribution plans were as follows:

<b>(Millions of dollars)</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
U.S. plans .....	\$ 267	\$ 301	\$ 308
Non-U.S. plans .....	76	85	64
	<u>\$ 343</u>	<u>\$ 386</u>	<u>\$ 372</u>

## H. Summary of long-term liability:

(Millions of dollars)	December 31,	
	2015	2014
Pensions:		
U.S. pensions .....	\$ 4,326	\$ 3,694
Non-U.S. pensions .....	609	821
Total pensions .....	4,935	4,515
Postretirement benefits other than pensions .....	3,502	4,002
Other postemployment benefits .....	104	112
Defined contribution .....	302	334
	<u>\$ 8,843</u>	<u>\$ 8,963</u>

## 13. Short-term borrowings

(Millions of dollars)	December 31,	
	2015	2014
Machinery, Energy & Transportation:		
Notes payable to banks .....	\$ 9	\$ 9
Commercial paper .....	—	—
	<u>9</u>	<u>9</u>
Financial Products:		
Notes payable to banks .....	440	411
Commercial paper .....	5,811	3,688
Demand notes .....	707	600
	<u>6,958</u>	<u>4,699</u>
Total short-term borrowings .....	<u>\$ 6,967</u>	<u>\$ 4,708</u>

The weighted-average interest rates on short-term borrowings outstanding were:

	December 31,	
	2015	2014
Notes payable to banks .....	9.2%	6.8%
Commercial paper .....	0.5%	0.3%
Demand notes .....	0.8%	0.8%

Please refer to Note 18 and Table III for fair value information on short-term borrowings.

## 14. Long-term debt

(Millions of dollars)	December 31,	
	2015	2014
Machinery, Energy & Transportation:		
Notes—5.700% due 2016 <sup>3</sup>	\$ —	\$ 504
Notes—3.900% due 2021 <sup>3</sup>	1,247	1,246
Notes—5.200% due 2041 <sup>3</sup>	757	757
Debentures—1.500% due 2017 <sup>3</sup>	500	500
Debentures—7.900% due 2018 <sup>3</sup>	900	899
Debentures—9.375% due 2021	120	120
Debentures—2.600% due 2022 <sup>3</sup>	499	498
Debentures—8.000% due 2023	82	82
Debentures—3.400% due 2024	1,000	1,000
Debentures—6.625% due 2028 <sup>3</sup>	193	193
Debentures—7.300% due 2031 <sup>3</sup>	241	241
Debentures—5.300% due 2035 <sup>1,3</sup>	213	211
Debentures—6.050% due 2036 <sup>3</sup>	459	459
Debentures—8.250% due 2038 <sup>3</sup>	65	65
Debentures—6.950% due 2042 <sup>3</sup>	160	160
Debentures—3.803% due 2042 <sup>2,3</sup>	1,207	1,188
Debentures—4.300% due 2044	497	497
Debentures—4.750% due 2064	498	498
Debentures—7.375% due 2097 <sup>3</sup>	244	244
Capital lease obligations	77	85
Other	45	46
Total Machinery, Energy & Transportation	9,004	9,493
Financial Products:		
Medium-term notes	15,713	17,295
Other	530	996
Total Financial Products	16,243	18,291
Total long-term debt due after one year	\$ 25,247	\$ 27,784

<sup>1</sup> Debentures due in 2035 have a face value of \$307 million and an effective yield to maturity of 8.55%.

<sup>2</sup> Debentures due in 2042 have a face value of \$1,722 million and an effective yield to maturity of 6.33%.

<sup>3</sup> Redeemable at our option in whole or in part at any time at a redemption price equal to the greater of (i) 100% of the principal amount or (ii) the discounted present value of the notes or debentures, calculated in accordance with the terms of such notes or debentures.

All outstanding notes and debentures are unsecured and rank equally with one another.

On May 8, 2014, we issued \$1.0 billion of 3.400% Senior Notes due 2024, \$500 million of 4.300% Senior Notes due 2044, and \$500 million of 4.750% Senior Notes due 2064.

Cat Financial's medium term notes are offered by prospectus and are issued through agents at fixed and floating rates. These notes have a weighted average interest rate of 2.4% with remaining maturities up to 12 years at December 31, 2015.

The aggregate amounts of maturities of long-term debt during each of the years 2016 through 2020, including amounts due within one year and classified as current, are:

(Millions of dollars)	December 31,				
	2016	2017	2018	2019	2020
Machinery, Energy & Transportation.....	\$ 517	\$ 531	\$ 907	\$ 7	\$ 8
Financial Products .....	5,362	5,866	4,154	2,531	1,125
	<u>\$ 5,879</u>	<u>\$ 6,397</u>	<u>\$ 5,061</u>	<u>\$ 2,538</u>	<u>\$ 1,133</u>

Interest paid on short-term and long-term borrowings for 2015, 2014 and 2013 was \$1,047 million, \$1,109 million and \$1,141 million respectively.

Please refer to Note 18 and Table III for fair value information on long-term debt.

## 15. Credit commitments

(Millions of dollars)	December 31, 2015		
	Consolidated	Machinery, Energy & Transportation	Financial Products
Credit lines available:			
Global credit facilities .....	\$ 10,500	\$ 2,750	\$ 7,750
Other external.....	3,745	176	3,569
Total credit lines available.....	14,245	2,926	11,319
Less: Commercial paper outstanding .....	(5,811)	—	(5,811)
Less: Utilized credit.....	(1,444)	(9)	(1,435)
Available credit.....	<u>\$ 6,990</u>	<u>\$ 2,917</u>	<u>\$ 4,073</u>

We have three global credit facilities with a syndicate of banks totaling \$10.50 billion (Credit Facility) available in the aggregate to both Caterpillar and Cat Financial for general liquidity purposes. Based on management's allocation decision, which can be revised from time to time, the portion of the Credit Facility available to Machinery, Energy & Transportation as of December 31, 2015 was \$2.75 billion. Our three Global Credit Facilities are:

- The 364-day facility of \$3.15 billion (of which \$0.82 billion is available to Machinery, Energy & Transportation) expires in September 2016.
- The three-year facility, as amended and restated in September 2015, of \$2.73 billion (of which \$0.72 billion is available to Machinery, Energy & Transportation) expires in September 2018.
- The five-year facility, as amended and restated in September 2015, of \$4.62 billion (of which \$1.21 billion is available to Machinery, Energy & Transportation) expires in September 2020.

Other consolidated credit lines with banks as of December 31, 2015 totaled \$3.75 billion. These committed and uncommitted credit lines, which may be eligible for renewal at various future dates or have no specified expiration date, are used primarily by our subsidiaries for local funding requirements. Caterpillar or Cat Financial may guarantee subsidiary borrowings under these lines.

At December 31, 2015, Caterpillar's consolidated net worth was \$19.92 billion, which was above the \$9.00 billion required under the Credit Facility. The consolidated net worth is defined as the consolidated stockholder's equity including preferred stock but excluding the pension and other postretirement benefits balance within Accumulated other comprehensive income (loss).

At December 31, 2015, Cat Financial's covenant interest coverage ratio was 2.05 to 1. This is above the 1.15 to 1 minimum ratio, calculated as (1) profit excluding income taxes, interest expense and net gain/(loss) from interest rate derivatives to

(2) interest expense calculated at the end of each calendar quarter for the rolling four quarter period then most recently ended, required by the Credit Facility.

In addition, at December 31, 2015, Cat Financial's six-month covenant leverage ratio was 7.49 to 1 and year-end covenant leverage ratio was 7.93 to 1. This is below the maximum ratio of debt to net worth of 10 to 1, calculated (1) on a monthly basis as the average of the leverage ratios determined on the last day of each of the six preceding calendar months and (2) at each December 31, required by the Credit Facility.

In the event Caterpillar or Cat Financial does not meet one or more of their respective financial covenants under the Credit Facility in the future (and are unable to obtain a consent or waiver), the syndicate of banks may terminate the commitments allocated to the party that does not meet its covenants. Additionally, in such event, certain of Cat Financial's other lenders under other loan agreements where similar financial covenants or cross default provisions are applicable, may, at their election, choose to pursue remedies under those loan agreements, including accelerating the repayment of outstanding borrowings. At December 31, 2015, there were no borrowings under the Credit Facility.

## 16. Profit per share

<b>Computations of profit per share:</b>			
<b>(Dollars in millions except per share data)</b>			
	<b>2015</b>	<b>2014</b>	<b>2013</b>
Profit for the period (A) <sup>1</sup> .....	<b>\$ 2,102</b>	<b>\$ 3,695</b>	<b>\$ 3,789</b>
Determination of shares (in millions):			
Weighted average number of common shares outstanding (B).....	<b>594.3</b>	617.2	645.2
Shares issuable on exercise of stock awards, net of shares assumed to be purchased out of proceeds at average market price .....	<b>7.0</b>	11.7	13.4
Average common shares outstanding for fully diluted computation (C) <sup>2</sup> .....	<b>601.3</b>	628.9	658.6
Profit per share of common stock:			
Assuming no dilution (A/B) .....	<b>\$ 3.54</b>	\$ 5.99	\$ 5.87
Assuming full dilution (A/C) <sup>2</sup> .....	<b>\$ 3.50</b>	\$ 5.88	\$ 5.75
Shares outstanding as of December 31 (in millions).....	<b>582.3</b>	606.2	637.8
<sup>1</sup> Profit attributable to common stockholders.			
<sup>2</sup> Diluted by assumed exercise of stock-based compensation awards using the treasury stock method.			

SARs and stock options to purchase 22,169,133, 10,266,682 and 10,152,448 common shares were outstanding in 2015, 2014 and 2013, respectively, which were not included in the computation of diluted earnings per share because the effect would have been antidilutive.

In February 2007, the Board of Directors authorized the repurchase of \$7.5 billion of Caterpillar common stock (the 2007 Authorization), and in December 2011, the 2007 Authorization was extended through December 2015. In April 2013, we entered into a definitive agreement with Citibank, N.A. to purchase shares of our common stock under an accelerated stock repurchase transaction (April 2013 ASR Agreement), which was completed in June 2013. In accordance with the terms of the April 2013 ASR Agreement, a total of 11.5 million shares of our common stock were repurchased at an aggregate cost to Caterpillar of \$1.0 billion.

In July 2013, we entered into a definitive agreement with Société Générale to purchase shares of our common stock under an accelerated stock repurchase transaction (July 2013 ASR Agreement), which was completed in September 2013. In accordance with the terms of the July 2013 ASR Agreement, a total of 11.9 million shares of our common stock were repurchased at an aggregate cost to Caterpillar of \$1.0 billion.

In January 2014, we completed the 2007 Authorization and entered into a definitive agreement with Citibank, N.A. to purchase shares of our common stock under an accelerated stock repurchase transaction (January 2014 ASR Agreement), which was completed in March 2014. In accordance with the terms of the January 2014 ASR Agreement, a total of approximately 18.1 million shares of our common stock were repurchased at an aggregate cost to Caterpillar of approximately \$1.7 billion.

In January 2014, the Board approved a new authorization to repurchase up to \$10.0 billion of Caterpillar common stock, which will expire on December 31, 2018. In July 2014, we entered into definitive agreements with Société Générale to purchase shares of our common stock under accelerated stock repurchase transactions (July 2014 ASR Agreements) which were completed in September 2014. In accordance with the terms of the July 2014 ASR Agreements, a total of approximately 23.7 million shares of our common stock were repurchased at an aggregate cost to Caterpillar of \$2.5 billion.

In July 2015, we entered into a definitive agreement with Citibank, N.A. to purchase shares of our common stock under an accelerated stock repurchase transaction (July 2015 ASR Agreement), which was completed in September 2015. Pursuant to the terms of the July 2015 ASR Agreement, a total of approximately 19.6 million shares of our common stock were repurchased at an aggregate cost to Caterpillar of \$1.5 billion. For the year ended December 31, 2015, a total of 25.8 million shares of our common stock were repurchased at an aggregate cost to Caterpillar of \$2.0 billion. Through the end of 2015, approximately \$4.5 billion of the \$10.0 billion authorization was spent.

## 17. Accumulated other comprehensive income (loss)

Comprehensive income and its components are presented in Statement 2. Changes in Accumulated other comprehensive income (loss), net of tax, included in Statement 4, consisted of the following:

(Millions of dollars)	Foreign currency translation	Pension and other postretirement benefits	Derivative financial instruments	Available- for-sale securities	Total
<b>Balance at December 31, 2012</b> .....	\$ 456	\$ (6,914)	\$ (42)	\$ 67	\$ (6,433)
Other comprehensive income (loss) before reclassifications .....	(280)	2,280	(4)	29	2,025
Amounts reclassified from accumulated other comprehensive (income) loss .....	—	482	41	(13)	510
Other comprehensive income (loss) .....	(280)	2,762	37	16	2,535
<b>Balance at December 31, 2013</b> .....	\$ 176	\$ (4,152)	\$ (5)	\$ 83	\$ (3,898)
Other comprehensive income (loss) before reclassifications .....	(1,164)	(1,574)	(118)	24	(2,832)
Amounts reclassified from accumulated other comprehensive (income) loss .....	—	319	4	(24)	299
Other comprehensive income (loss) .....	(1,164)	(1,255)	(114)	—	(2,533)
<b>Balance at December 31, 2014</b> .....	\$ (988)	\$ (5,407)	\$ (119)	\$ 83	\$ (6,431)
Other comprehensive income (loss) before reclassifications .....	(965)	(13)	(19)	(10)	(1,007)
Amounts reclassified from accumulated other comprehensive (income) loss .....	—	389	88	(36)	441
Other comprehensive income (loss) .....	(965)	376	69	(46)	(566)
<b>Balance at December 31, 2015</b> .....	\$ (1,953)	\$ (5,031)	\$ (50)	\$ 37	\$ (6,997)



The effect of the reclassifications out of Accumulated other comprehensive income (loss) on Statement 1 is as follows:

(Millions of dollars)	Classification of income (expense)	Year ended December 31,		
		2015	2014	2013
Pension and other postretirement benefits:				
Amortization of actuarial gain (loss).....	Note 12 <sup>1</sup> .....	\$ (641)	\$ (519)	\$ (781)
Amortization of prior service credit (cost) .....	Note 12 <sup>1</sup> .....	53	38	54
Amortization of transition asset (obligation) ..	Note 12 <sup>1</sup> .....	—	—	(2)
Reclassifications before tax .....		(588)	(481)	(729)
Tax (provision) benefit .....		199	162	247
Reclassifications net of tax .....		\$ (389)	\$ (319)	\$ (482)
Derivative financial instruments:				
Foreign exchange contracts .....	Other income (expense) .....	\$ (127)	\$ 5	\$ (57)
Interest rate contracts .....	Interest expense excluding Financial Products .....	(6)	(5)	—
Interest rate contracts .....	Other income (expense) .....	—	—	(3)
Interest rate contracts .....	Interest expense of Financial Products .....	(6)	(6)	(6)
Reclassifications before tax .....		(139)	(6)	(66)
Tax (provision) benefit .....		51	2	25
Reclassifications net of tax .....		\$ (88)	\$ (4)	\$ (41)
Available-for-sale securities:				
Realized gain (loss) on sale of securities .....	Other income (expense) .....	\$ 56	\$ 35	\$ 19
Tax (provision) benefit .....		(20)	(11)	(6)
Reclassifications net of tax .....		\$ 36	\$ 24	\$ 13
Total reclassifications from Accumulated other comprehensive income (loss) .....		\$ (441)	\$ (299)	\$ (510)

<sup>1</sup> Amounts are included in the calculation of net periodic benefit cost. See Note 12 for additional information.

## 18. Fair value disclosures

### A. Fair value measurements

The guidance on fair value measurements defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. This guidance also specifies a fair value hierarchy based upon the observability of inputs used in valuation techniques. Observable inputs (highest level) reflect market data obtained from independent sources, while unobservable inputs (lowest level) reflect internally developed market assumptions. In accordance with this guidance, fair value measurements are classified under the following hierarchy:

- **Level 1** – Quoted prices for identical instruments in active markets.
- **Level 2** – Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs or significant value-drivers are observable in active markets.
- **Level 3** – Model-derived valuations in which one or more significant inputs or significant value-drivers are unobservable.

When available, we use quoted market prices to determine fair value, and we classify such measurements within Level 1. In some cases where market prices are not available, we make use of observable market based inputs to calculate fair value, in which case the measurements are classified within Level 2. If quoted or observable market prices are not available, fair value is based upon valuations in which one or more significant inputs are unobservable, including internally developed models that use, where possible, current market-based parameters such as interest rates, yield curves and currency rates. These measurements are classified within Level 3.

Fair value measurements are classified according to the lowest level input or value-driver that is significant to the valuation. A measurement may therefore be classified within Level 3 even though there may be significant inputs that are readily observable.

Fair value measurement includes the consideration of nonperformance risk. Nonperformance risk refers to the risk that an obligation (either by a counterparty or Caterpillar) will not be fulfilled. For financial assets traded in an active market (Level 1 and certain Level 2), the nonperformance risk is included in the market price. For certain other financial assets and liabilities (certain Level 2 and Level 3), our fair value calculations have been adjusted accordingly.

#### Available-for-sale securities

Our available-for-sale securities, primarily at Insurance Services, include a mix of equity and debt instruments (see Note 11 for additional information). Fair values for our U.S. treasury bonds and large capitalization value and smaller company growth equity securities are based upon valuations for identical instruments in active markets. The fair value of our investment in a real estate investment trust (REIT) is based on the net asset value (NAV) of the investment. Fair values for other government bonds, corporate bonds and mortgage-backed debt securities are based upon models that take into consideration such market-based factors as recent sales, risk-free yield curves and prices of similarly rated bonds.

#### Derivative financial instruments

The fair value of interest rate swap derivatives is primarily based on models that utilize the appropriate market-based forward swap curves and zero-coupon interest rates to determine discounted cash flows. The fair value of foreign currency and commodity forward, option and cross currency contracts is based on a valuation model that discounts cash flows resulting from the differential between the contract price and the market-based forward rate.

Assets and liabilities measured on a recurring basis at fair value, primarily related to Financial Products, included in Statement 3 as of December 31, 2015 and 2014 are summarized below:

	December 31, 2015			
(Millions of dollars)	Level 1	Level 2	Level 3	Total Assets / Liabilities, at Fair Value
<b>Assets</b>				
Available-for-sale securities				
Government debt				
U.S. treasury bonds .....	\$ 9	\$ —	\$ —	\$ 9
Other U.S. and non-U.S. government bonds .....	—	72	—	72
Corporate bonds				
Corporate bonds .....	—	708	—	708
Asset-backed securities .....	—	129	—	129
Mortgage-backed debt securities				
U.S. governmental agency .....	—	292	—	292
Residential .....	—	12	—	12
Commercial .....	—	61	—	61
Equity securities				
Large capitalization value .....	273	—	—	273
REIT .....	—	—	25	25
Smaller company growth .....	54	—	—	54
Total available-for-sale securities .....	336	1,274	25	1,635
Derivative financial instruments, net .....	—	49	—	49
Total Assets .....	\$ 336	\$ 1,323	\$ 25	\$ 1,684

	December 31, 2014			
(Millions of dollars)	Level 1	Level 2	Level 3	Total Assets / Liabilities, at Fair Value
<b>Assets</b>				
Available-for-sale securities				
Government debt				
U.S. treasury bonds .....	\$ 10	\$ —	\$ —	\$ 10
Other U.S. and non-U.S. government bonds .....	—	94	—	94
Corporate bonds				
Corporate bonds .....	—	693	—	693
Asset-backed securities .....	—	105	—	105
Mortgage-backed debt securities				
U.S. governmental agency .....	—	294	—	294
Residential .....	—	15	—	15
Commercial .....	—	67	—	67
Equity securities				
Large capitalization value .....	233	—	—	233
Smaller company growth .....	43	—	—	43
Total available-for-sale securities .....	286	1,268	—	1,554
Total Assets .....	\$ 286	\$ 1,268	\$ —	\$ 1,554
<b>Liabilities</b>				
Derivative financial instruments, net .....	\$ —	\$ 86	\$ —	\$ 86
Total Liabilities .....	\$ —	\$ 86	\$ —	\$ 86

The fair value of our REIT investment is measured based on NAV, which is considered a Level 3 input. A roll-forward of our REIT investment for the year ended December 31, 2015 is as follows:

(Millions of dollars)	REIT
Balance at December 31, 2014 .....	\$ —
Purchases of securities .....	25
Sale of securities .....	—
Gains (losses) included in Accumulated other comprehensive income (loss) .....	—
Balance at December 31, 2015 .....	<u>\$ 25</u>

In addition to the amounts above, Cat Financial impaired loans are subject to measurement at fair value on a nonrecurring basis and are classified as Level 3 measurements. A loan is considered impaired when management determines that collection of contractual amounts due is not probable. In these cases, an allowance for credit losses may be established based either on the present value of expected future cash flows discounted at the receivables' effective interest rate, or the fair value of the collateral for collateral-dependent receivables. In determining collateral value, Cat Financial estimates the current fair market value of the collateral less selling costs. Cat Financial had impaired loans with a fair value of \$91 million and \$248 million for the years ended December 31, 2015 and 2014, respectively.

## **B. Fair values of financial instruments**

In addition to the methods and assumptions we use to record the fair value of financial instruments as discussed in the Fair value measurements section above, we used the following methods and assumptions to estimate the fair value of our financial instruments:

### Cash and short-term investments

Carrying amount approximated fair value.

### Restricted cash and short-term investments

Carrying amount approximated fair value. Restricted cash and short-term investments are included in Prepaid expenses and other current assets in Statement 3.

### Finance receivables

Fair value was estimated by discounting the future cash flows using current rates, representative of receivables with similar remaining maturities.

### Wholesale inventory receivables

Fair value was estimated by discounting the future cash flows using current rates, representative of receivables with similar remaining maturities.

### Short-term borrowings

Carrying amount approximated fair value.

### Long-term debt

Fair value for fixed and floating rate debt was estimated based on quoted market prices.

### Guarantees

The fair value of guarantees is based upon our estimate of the premium a market participant would require to issue the same guarantee in a stand-alone arms-length transaction with an unrelated party. If quoted or observable market prices are not available, fair value is based upon internally developed models that utilize current market-based assumptions.

Please refer to the table below for the fair values of our financial instruments.

TABLE III—Fair Values of Financial Instruments							
(Millions of dollars)	2015		2014		Fair Value Levels	Reference	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value			
<b>Assets at December 31,</b>							
Cash and short-term investments.....	\$ 6,460	\$ 6,460	\$ 7,341	\$ 7,341	1	Statement 3	
Restricted cash and short-term investments.....	52	52	62	62	1	Statement 3	
Available-for-sale securities.....	1,635	1,635	1,554	1,554	1, 2 & 3	Notes 11 & 19	
Finance receivables—net (excluding finance leases <sup>1</sup> )..	16,515	16,551	16,426	16,159	3	Notes 6 & 19	
Wholesale inventory receivables—net (excluding finance leases <sup>1</sup> ).....	1,821	1,775	1,774	1,700	3	Notes 6 & 19	
Foreign currency contracts—net.....	13	13	—	—	2	Notes 3 & 19	
Interest rate swaps—net.....	48	48	71	71	2	Notes 3 & 19	
<b>Liabilities at December 31,</b>							
Short-term borrowings.....	6,967	6,967	4,708	4,708	1	Note 13	
Long-term debt (including amounts due within one year):							
Machinery, Energy & Transportation.....	9,521	10,691	10,003	11,973	2	Note 14	
Financial Products.....	21,605	21,904	24,574	25,103	2	Note 14	
Foreign currency contracts—net.....	—	—	143	143	2	Notes 3 & 19	
Commodity contracts—net.....	12	12	14	14	2	Notes 3 & 19	
Guarantees.....	12	12	12	12	3	Note 21	

<sup>1</sup> Total excluded items have a net carrying value at December 31, 2015 and 2014 of \$6,452 million and \$7,638 million, respectively.

## 19. Concentration of credit risk

Financial instruments with potential credit risk consist primarily of trade and finance receivables and short-term and long-term investments. Additionally, to a lesser extent, we have a potential credit risk associated with counterparties to derivative contracts.

Trade receivables are primarily short-term receivables from independently owned and operated dealers and customers which arise in the normal course of business. We perform regular credit evaluations of our dealers and customers. Collateral generally is not required, and the majority of our trade receivables are unsecured. We do, however, when deemed necessary, make use of various devices such as security agreements and letters of credit to protect our interests. No single dealer or customer represents a significant concentration of credit risk.

Finance receivables and wholesale inventory receivables primarily represent receivables under installment sales contracts, receivables arising from leasing transactions and notes receivable. We generally maintain a secured interest in the equipment financed. No single customer or dealer represents a significant concentration of credit risk.

Short-term and long-term investments are held with high quality institutions and, by policy, the amount of credit exposure to any one institution is limited. Long-term investments, primarily included in Other assets in Statement 3, are comprised primarily of available-for-sale securities at Insurance Services.

For derivative contracts, collateral is generally not required of the counterparties or of our company. The company generally enters into International Swaps and Derivatives Association (ISDA) master netting agreements within Machinery, Energy & Transportation and Financial Products that permit the net settlement of amounts owed under their respective derivative contracts. Our exposure to credit loss in the event of nonperformance by the counterparties is limited to only those gains that we have recorded, but for which we have not yet received cash payment. The master netting agreements reduce the amount of loss the company would incur should the counterparties fail to meet their obligations. At December 31, 2015 and 2014, the maximum exposure to credit loss was \$105 million and \$128 million, respectively, before the application of any master netting agreements.

Please refer to Note 18 and Table III above for fair value information.

## 20. Operating leases

We lease certain computer and communications equipment, transportation equipment and other property through operating leases. Total rental expense for operating leases was \$371 million, \$391 million and \$436 million for 2015, 2014 and 2013, respectively.

Minimum payments for operating leases having initial or remaining non-cancelable terms in excess of one year are:

Years ended December 31,						
(Millions of dollars)						
2016	2017	2018	2019	2020	Thereafter	Total
\$ 237	\$ 183	\$ 140	\$ 93	\$ 68	\$ 205	\$ 926

## 21. Guarantees and product warranty

### Caterpillar dealer performance guarantees

We have provided an indemnity to a third-party insurance company for potential losses related to performance bonds issued on behalf of Caterpillar dealers. The bonds have varying terms and are issued to insure governmental agencies against nonperformance by certain dealers. We also provided guarantees to third-parties related to the performance of contractual obligations by certain Caterpillar dealers. These guarantees have varying terms and cover potential financial losses incurred by the third-parties resulting from the dealers' nonperformance.

### Customer loan guarantees

We provide loan guarantees to third-party lenders for financing associated with machinery purchased by customers. These guarantees have varying terms and are secured by the machinery. In addition, Cat Financial participates in standby letters of credit issued to third parties on behalf of their customers. These standby letters of credit have varying terms and beneficiaries and are secured by customer assets.

### Supplier consortium performance guarantee

We have provided a guarantee to one of our customers in Brazil related to the performance of contractual obligations by a supplier consortium to which one of our Caterpillar subsidiaries is a member. The guarantee covers potential damages (some of them capped) incurred by the customer resulting from the supplier consortium's non-performance. The guarantee will expire when the supplier consortium performs all its contractual obligations, which is expected to be completed in 2025.

### Third party logistics business lease guarantees

We have provided guarantees to third-party lessors for certain properties leased by a third party logistics business, formerly Caterpillar Logistics Services LCC, in which we sold our 35 percent equity interest in the first quarter of 2015 (see Note 9). The guarantees are for the possibility that the third party logistics business would default on real estate lease payments. The guarantees were granted at lease inception and generally will expire at the end of the lease terms.

No significant loss has been experienced or is anticipated under any of these guarantees. At December 31, 2015 and 2014, the related liability was \$12 million. The maximum potential amount of future payments (undiscounted and without reduction for any amounts that may possibly be recovered under recourse or collateralized provisions) we could be required to make under the guarantees at December 31 are as follows:

<b>(Millions of dollars)</b>	<b>2015</b>	<b>2014</b>
Caterpillar dealer performance guarantees.....	\$ 216	\$ 209
Customer loan guarantees .....	47	49
Supplier consortium performance guarantee .....	286	321
Third party logistics business lease guarantees.....	107	129
Other guarantees.....	25	32
Total guarantees .....	<u>\$ 681</u>	<u>\$ 740</u>

Cat Financial provides guarantees to repurchase certain loans of Caterpillar dealers from a special-purpose corporation (SPC) that qualifies as a variable interest entity. The purpose of the SPC is to provide short-term working capital loans to Caterpillar dealers. This SPC issues commercial paper and uses the proceeds to fund its loan program. Cat Financial has a loan purchase agreement with the SPC that obligates Cat Financial to purchase certain loans that are not paid at maturity. Cat Financial receives a fee for providing this guarantee, which provides a source of liquidity for the SPC. Cat Financial is the primary beneficiary of the SPC as its guarantees result in Cat Financial having both the power to direct the activities that most significantly impact the SPC's economic performance and the obligation to absorb losses, and therefore Cat Financial has consolidated the financial statements of the SPC. As of December 31, 2015 and 2014, the SPC's assets of \$1,211 million and \$1,086 million, respectively, were primarily comprised of loans to dealers, and the SPC's liabilities of \$1,210 million and \$1,085 million, respectively, were primarily comprised of commercial paper. The assets of the SPC are not available to pay Cat Financial's creditors. Cat Financial may be obligated to perform under the guarantee if the SPC experiences losses. No loss has been experienced or is anticipated under this loan purchase agreement.

Cat Financial is party to agreements in the normal course of business with selected customers and Caterpillar dealers in which they commit to provide a set dollar amount of financing on a pre-approved basis. They also provide lines of credit to certain customers and Caterpillar dealers, of which a portion remains unused as of the end of the period. Commitments and lines of credit generally have fixed expiration dates or other termination clauses. It has been Cat Financial's experience that not all commitments and lines of credit will be used. Management applies the same credit policies when making commitments and granting lines of credit as it does for any other financing.

Cat Financial does not require collateral for these commitments/lines, but if credit is extended, collateral may be required upon funding. The amount of the unused commitments and lines of credit for dealers as of December 31, 2015 and 2014 was \$12,920 million and \$12,412 million, respectively. The amount of the unused commitments and lines of credit for customers as of December 31, 2015 and 2014 was \$3,567 million and \$4,005 million, respectively.

Our product warranty liability is determined by applying historical claim rate experience to the current field population and dealer inventory. Generally, historical claim rates are based on actual warranty experience for each product by machine model/engine size by customer or dealer location (inside or outside North America). Specific rates are developed for each product shipment month and are updated monthly based on actual warranty claim experience.

<b>(Millions of dollars)</b>	<b>2015</b>	<b>2014</b>
Warranty liability, January 1.....	\$ 1,426	\$ 1,367
Reduction in liability (payments) .....	(874)	(1,071)
Increase in liability (new warranties) .....	802	1,130 <sup>1</sup>
Warranty liability, December 31.....	<u>\$ 1,354</u>	<u>\$ 1,426</u>

<sup>1</sup> The increase in liability includes approximately \$170 million for changes in estimates for pre-existing warranties due to higher than expected actual warranty claim experience.

## 22. Environmental and legal matters

The Company is regulated by federal, state and international environmental laws governing our use, transport and disposal of substances and control of emissions. In addition to governing our manufacturing and other operations, these laws often impact the development of our products, including, but not limited to, required compliance with air emissions standards



applicable to internal combustion engines. We have made, and will continue to make, significant research and development and capital expenditures to comply with these emissions standards.

We are engaged in remedial activities at a number of locations, often with other companies, pursuant to federal and state laws. When it is probable we will pay remedial costs at a site, and those costs can be reasonably estimated, the investigation, remediation, and operating and maintenance costs are accrued against our earnings. Costs are accrued based on consideration of currently available data and information with respect to each individual site, including available technologies, current applicable laws and regulations, and prior remediation experience. Where no amount within a range of estimates is more likely, we accrue the minimum. Where multiple potentially responsible parties are involved, we consider our proportionate share of the probable costs. In formulating the estimate of probable costs, we do not consider amounts expected to be recovered from insurance companies or others. We reassess these accrued amounts on a quarterly basis. The amount recorded for environmental remediation is not material and is included in Accrued expenses. We believe there is no more than a remote chance that a material amount for remedial activities at any individual site, or at all the sites in the aggregate, will be required.

On January 8, 2015, the Company received a grand jury subpoena from the U.S. District Court for the Central District of Illinois. The subpoena requests documents and information from the Company relating to, among other things, financial information concerning U.S. and non-U.S. Caterpillar subsidiaries (including undistributed profits of non-U.S. subsidiaries and the movement of cash among U.S. and non-U.S. subsidiaries). The Company has received additional subpoenas relating to this investigation requesting additional documents and information relating to, among other things, the purchase and resale of replacement parts by Caterpillar Inc. and non-U.S. Caterpillar subsidiaries, dividend distributions of certain non-U.S. Caterpillar subsidiaries, and Caterpillar SARL and related structures. The Company is cooperating with this investigation. The Company is unable to predict the outcome or reasonably estimate any potential loss; however, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

On September 12, 2014, the SEC notified the Company that it was conducting an informal investigation relating to Caterpillar SARL and related structures. On December 8, 2015, the Company was notified by the SEC that it concluded its investigation relating to Caterpillar SARL and related structures and that it did not intend to recommend an enforcement action.

On September 10, 2014, the SEC issued to Caterpillar a subpoena seeking information concerning the Company's accounting for the goodwill relating to its acquisition of Bucyrus International Inc. in 2011 and related matters. The Company has received additional subpoenas relating to this investigation, and the Company is cooperating with the SEC regarding its ongoing investigation. The Company is unable to predict the outcome or reasonably estimate any potential loss; however, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

On March 20, 2014, Brazil's Administrative Council for Economic Defense (CADE) published a Technical Opinion which named 18 companies and over 100 individuals as defendants, including two subsidiaries of Caterpillar Inc., MGE - Equipamentos e Serviços Ferroviários Ltda. (MGE) and Caterpillar Brasil Ltda. The publication of the Technical Opinion opened CADE's official administrative investigation into allegations that the defendants participated in anticompetitive bid activity for the construction and maintenance of metro and train networks in Brazil. While companies cannot be held criminally liable for anticompetitive conduct in Brazil, criminal charges have been brought against two current employees of MGE and one former employee of MGE involving the same conduct alleged by CADE. The Company has responded to all requests for information from the authorities. The Company is unable to predict the outcome or reasonably estimate the potential loss; however, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

On October 24, 2013, Progress Rail received a grand jury subpoena from the U.S. District Court for the Central District of California. The subpoena requests documents and information from Progress Rail, United Industries Corporation, a wholly-owned subsidiary of Progress Rail, and Caterpillar Inc. relating to allegations that Progress Rail conducted improper or unnecessary railcar inspections and repairs and improperly disposed of parts, equipment, tools and other items. In connection with this subpoena, Progress Rail was informed by the U.S. Attorney for the Central District of California that it is a target of a criminal investigation into potential violations of environmental laws and alleged improper business practices. The Company is cooperating with the authorities and is currently in discussions regarding a potential resolution of the matter. Although the Company believes a loss is probable, we currently believe that this matter will not have a material adverse effect on the Company's consolidated results of operations, financial position or liquidity.

In addition, we are involved in other unresolved legal actions that arise in the normal course of business. The most prevalent of these unresolved actions involve disputes related to product design, manufacture and performance liability (including

claimed asbestos and welding fumes exposure), contracts, employment issues, environmental matters or intellectual property rights. The aggregate range of reasonably possible losses in excess of accrued liabilities, if any, associated with these unresolved legal actions is not material. In some cases, we cannot reasonably estimate a range of loss because there is insufficient information regarding the matter. However, we believe there is no more than a remote chance that any liability arising from these matters would be material. Although it is not possible to predict with certainty the outcome of these unresolved legal actions, we believe that these actions will not individually or in the aggregate have a material adverse effect on our consolidated results of operations, financial position or liquidity.

## **23. Segment information**

### **A. Basis for segment information**

Our Executive Office is comprised of five Group Presidents, a Senior Vice President, an Executive Vice President and a CEO. Group Presidents are accountable for a related set of end-to-end businesses that they manage. The Senior Vice President leads the Caterpillar Enterprise System Group and the Executive Vice President leads the Law and Public Policy Division. The CEO allocates resources and manages performance at the Group President level. As such, the CEO serves as our Chief Operating Decision Maker and operating segments are primarily based on the Group President reporting structure.

Three of our operating segments, Construction Industries, Resource Industries and Energy & Transportation are led by Group Presidents. One operating segment, Financial Products, is led by a Group President who also has responsibility for Corporate Services. Corporate Services is a cost center primarily responsible for the performance of certain support functions globally and to provide centralized services; it does not meet the definition of an operating segment. One Group President leads three smaller operating segments that are included in the All Other operating segments. The Caterpillar Enterprise System Group and Law and Public Policy Division are cost centers and do not meet the definition of an operating segment.

Effective January 1, 2015, responsibility for product management for certain components moved from Resource Industries to Energy & Transportation. Segment information for 2014 and 2013 has been retrospectively adjusted to conform to the 2015 presentation.

### **B. Description of segments**

We have seven operating segments, of which four are reportable segments. Following is a brief description of our reportable segments and the business activities included in the All Other operating segments:

**Construction Industries:** A segment primarily responsible for supporting customers using machinery in infrastructure and building construction applications. Responsibilities include business strategy, product design, product management and development, manufacturing, marketing and sales and product support. The product portfolio includes backhoe loaders, small wheel loaders, small track-type tractors, skid steer loaders, multi-terrain loaders, mini excavators, compact wheel loaders, telehandlers, select work tools, small, medium and large track excavators, wheel excavators, medium wheel loaders, compact track loaders, medium track-type tractors, track-type loaders, motor graders, pipelayers, mid-tier soil compactors and related parts. In addition, Construction Industries has responsibility for an integrated manufacturing cost center. Inter-segment sales are a source of revenue for this segment.

**Resource Industries:** A segment primarily responsible for supporting customers using machinery in mining and quarrying applications. Responsibilities include business strategy, product design, product management and development, manufacturing, marketing and sales and product support. The product portfolio includes large track-type tractors, large mining trucks, hard rock vehicles, longwall miners, electric rope shovels, draglines, hydraulic shovels, track and rotary drills, highwall miners, large wheel loaders, off-highway trucks, articulated trucks, wheel tractor scrapers, wheel dozers, continuous miners, scoops and haulers, hardrock continuous mining systems, select work tools, machinery components, electronics and control systems and related parts. Resource Industries also manages areas that provide services to other parts of the company, including integrated manufacturing and research and development. In addition, segment profit includes the impact from divestiture of portions of the Bucyrus distribution business. Inter-segment sales are a source of revenue for this segment.

**Energy & Transportation :** A segment primarily responsible for supporting customers using reciprocating engines, turbines, diesel-electric locomotives and related parts across industries serving power generation, industrial, oil and gas and transportation applications, including marine and rail-related businesses. Responsibilities include business strategy, product design, product management, development, manufacturing, marketing, sales and product support of turbines, centrifugal gas compressors and related services, reciprocating engine powered generator sets, integrated systems used in the electric power generation industry, reciprocating engines and integrated systems and solutions for the marine and oil and gas industries;

reciprocating engines supplied to the industrial industry as well as Caterpillar machinery; the business strategy, product design, product management, development, manufacturing, remanufacturing, leasing and service of diesel-electric locomotives and components and other rail-related products and services. Inter-segment sales are a source of revenue for this segment.

**Financial Products Segment:** Provides financing to customers and dealers for the purchase and lease of Caterpillar and other equipment, as well as some financing for Caterpillar sales to dealers. Financing plans include operating and finance leases, installment sale contracts, working capital loans and wholesale financing plans. The segment also provides various forms of insurance to customers and dealers to help support the purchase and lease of our equipment.

**All Other operating segments:** Primarily includes activities such as: the remanufacturing of Cat® engines and components and remanufacturing services for other companies as well as the business strategy, product management, development, manufacturing, marketing and product support of undercarriage, specialty products, hardened bar stock components and ground engaging tools primarily for Cat products, paving products, forestry products and industrial and waste products; the product management, development, marketing, sales and product support of on-highway vocational trucks for North America; parts distribution; distribution services responsible for dealer development and administration including a wholly-owned dealer in Japan, dealer portfolio management and ensuring the most efficient and effective distribution of machines, engines and parts. Results for the All Other operating segments are included as a reconciling item between reportable segments and consolidated external reporting.

### C. Segment measurement and reconciliations

There are several methodology differences between our segment reporting and our external reporting. The following is a list of the more significant methodology differences:

- Machinery, Energy & Transportation segment net assets generally include inventories, receivables, property, plant and equipment, goodwill, intangibles, accounts payable and customer advances. Liabilities other than accounts payable and customer advances are generally managed at the corporate level and are not included in segment operations. Financial Products Segment assets generally include all categories of assets.
- Segment inventories and cost of sales are valued using a current cost methodology.
- Goodwill allocated to segments is amortized using a fixed amount based on a 20 year useful life. This methodology difference only impacts segment assets; no goodwill amortization expense is included in segment profit. In addition, only a portion of goodwill for certain acquisitions made in 2011 or later has been allocated to segments.
- The present value of future lease payments for certain Machinery, Energy & Transportation operating leases is included in segment assets. The estimated financing component of the lease payments is excluded.
- Currency exposures for Machinery, Energy & Transportation are generally managed at the corporate level and the effects of changes in exchange rates on results of operations within the year are not included in segment profit. The net difference created in the translation of revenues and costs between exchange rates used for U.S. GAAP reporting and exchange rates used for segment reporting is recorded as a methodology difference.
- Postretirement benefit expenses are split; segments are generally responsible for service and prior service costs, with the remaining elements of net periodic benefit cost included as a methodology difference.
- Machinery, Energy & Transportation segment profit is determined on a pretax basis and excludes interest expense and other income/expense items. Financial Products Segment profit is determined on a pretax basis and includes other income/expense items.

Reconciling items are created based on accounting differences between segment reporting and our consolidated external reporting. Please refer to pages 139 to 144 for financial information regarding significant reconciling items. Most of our reconciling items are self-explanatory given the above explanations. For the reconciliation of profit, we have grouped the reconciling items as follows:

- **Corporate costs:** These costs are related to corporate requirements and strategies that are considered to be for the benefit of the entire organization.

- **Restructuring costs:** Primarily costs for employee separations, long-lived asset impairments and contract terminations. In 2015, restructuring costs also include costs related to our restructuring programs. These costs were primarily for accelerated depreciation and inventory write-downs. A table, Reconciliation of Restructuring costs on page 141, has been included to illustrate how segment profit would have been impacted by the restructuring costs. See Note 26 for more information.
- **Methodology differences:** See previous discussion of significant accounting differences between segment reporting and consolidated external reporting.
- **Timing:** Timing differences in the recognition of costs between segment reporting and consolidated external reporting. For example, certain costs are reported on the cash basis for segment reporting and the accrual basis for consolidated external reporting.

**Segment Information**

(Millions of dollars)

**Reportable Segments:**

	<b>External sales and revenues</b>	<b>Inter- segment sales and revenues</b>	<b>Total sales and revenues</b>	<b>Depreciation and amortization</b>	<b>Segment profit</b>	<b>Segment assets at December 31</b>	<b>Capital expenditures</b>
<b><u>2015</u></b>							
Construction Industries .....	\$ 16,568	\$ 193	\$ 16,761	\$ 481	\$ 1,925	\$ 5,480	\$ 246
Resource Industries .....	7,551	353	7,904	641	(88)	8,602	281
Energy & Transportation.....	17,938	1,800	19,738	645	3,239	8,547	814
Machinery, Energy & Transportation .....	\$ 42,057	\$ 2,346	\$ 44,403	\$ 1,767	\$ 5,076	\$ 22,629	\$ 1,341
Financial Products Segment	3,078	—	3,078	848	809	35,765	1,465
Total .....	<u>\$ 45,135</u>	<u>\$ 2,346</u>	<u>\$ 47,481</u>	<u>\$ 2,615</u>	<u>\$ 5,885</u>	<u>\$ 58,394</u>	<u>\$ 2,806</u>
<b><u>2014</u></b>							
Construction Industries .....	\$ 19,362	\$ 250	\$ 19,612	\$ 522	\$ 2,207	\$ 6,596	\$ 369
Resource Industries .....	8,921	431	9,352	685	404	9,497	277
Energy & Transportation.....	21,727	2,248	23,975	652	4,135	8,470	608
Machinery, Energy & Transportation .....	\$ 50,010	\$ 2,929	\$ 52,939	\$ 1,859	\$ 6,746	\$ 24,563	\$ 1,254
Financial Products Segment	3,313	—	3,313	885	901	37,011	1,634
Total .....	<u>\$ 53,323</u>	<u>\$ 2,929</u>	<u>\$ 56,252</u>	<u>\$ 2,744</u>	<u>\$ 7,647</u>	<u>\$ 61,574</u>	<u>\$ 2,888</u>
<b><u>2013</u></b>							
Construction Industries .....	\$ 18,532	\$ 330	\$ 18,862	\$ 493	\$ 1,374	\$ 7,607	\$ 551
Resource Industries .....	11,805	432	12,237	693	1,572	10,340	499
Energy & Transportation.....	20,155	1,895	22,050	647	3,415	8,542	677
Machinery, Energy & Transportation .....	\$ 50,492	\$ 2,657	\$ 53,149	\$ 1,833	\$ 6,361	\$ 26,489	\$ 1,727
Financial Products Segment	3,224	—	3,224	789	990	36,980	1,806
Total .....	<u>\$ 53,716</u>	<u>\$ 2,657</u>	<u>\$ 56,373</u>	<u>\$ 2,622</u>	<u>\$ 7,351</u>	<u>\$ 63,469</u>	<u>\$ 3,533</u>

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**Reconciliation of Sales and Revenues:**

(Millions of dollars)	<b>Machinery, Energy &amp; Transportation</b>	<b>Financial Products</b>	<b>Consolidating Adjustments</b>	<b>Consolidated Total</b>
<b><u>2015</u></b>				
Total external sales and revenues from reportable segments.....	\$ 42,057	\$ 3,078	\$ —	\$ 45,135
All Other operating segments .....	2,197	—	—	2,197
Other .....	(107)	101	(315) <sup>1</sup>	(321)
Total sales and revenues.....	<u>\$ 44,147</u>	<u>\$ 3,179</u>	<u>\$ (315)</u>	<u>\$ 47,011</u>
<b><u>2014</u></b>				
Total external sales and revenues from reportable segments.....	\$ 50,010	\$ 3,313	\$ —	\$ 53,323
All Other operating segments .....	2,251	—	—	2,251
Other .....	(119)	73	(344) <sup>1</sup>	(390)
Total sales and revenues.....	<u>\$ 52,142</u>	<u>\$ 3,386</u>	<u>\$ (344)</u>	<u>\$ 55,184</u>
<b><u>2013</u></b>				
Total external sales and revenues from reportable segments.....	\$ 50,492	\$ 3,224	\$ —	\$ 53,716
All Other operating segments .....	2,263	—	—	2,263
Other .....	(61)	78	(340) <sup>1</sup>	(323)
Total sales and revenues.....	<u>\$ 52,694</u>	<u>\$ 3,302</u>	<u>\$ (340)</u>	<u>\$ 55,656</u>

<sup>1</sup> Elimination of Financial Products revenues from Machinery, Energy & Transportation.

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**Reconciliation of consolidated profit before taxes:**

(Millions of dollars)	Machinery, Energy & Transportation	Financial Products	Consolidated Total
<b>2015</b>			
Total profit from reportable segments.....	\$ 5,076	\$ 809	\$ 5,885
All Other operating segments .....	779	—	779
Cost centers .....	145	—	145
Corporate costs.....	(1,682)	—	(1,682)
Timing .....	94	—	94
Restructuring costs .....	(891)	(17)	(908)
Methodology differences:			
Inventory/cost of sales.....	(100)	—	(100)
Postretirement benefit expense.....	(386)	—	(386)
Financing costs .....	(524)	—	(524)
Equity in (profit) loss of unconsolidated affiliated companies .....	(3)	—	(3)
Currency .....	(316)	—	(316)
Other income/expense methodology differences .....	(95)	—	(95)
Other methodology differences .....	(64)	30	(34)
Total consolidated profit before taxes.....	<u>\$ 2,033</u>	<u>\$ 822</u>	<u>\$ 2,855</u>
<b>2014</b>			
Total profit from reportable segments.....	\$ 6,746	\$ 901	\$ 7,647
All Other operating segments .....	850	—	850
Cost centers .....	38	—	38
Corporate costs.....	(1,584)	—	(1,584)
Timing .....	(244)	—	(244)
Restructuring costs .....	(441)	—	(441)
Methodology differences:			
Inventory/cost of sales.....	55	—	55
Postretirement benefit expense.....	(411)	—	(411)
Financing costs .....	(502)	—	(502)
Equity in (profit) loss of unconsolidated affiliated companies .....	(8)	—	(8)
Currency .....	(52)	—	(52)
Other income/expense methodology differences .....	(249)	—	(249)
Other methodology differences .....	(24)	8	(16)
Total consolidated profit before taxes.....	<u>\$ 4,174</u>	<u>\$ 909</u>	<u>\$ 5,083</u>
<b>2013</b>			
Total profit from reportable segments.....	\$ 6,361	\$ 990	\$ 7,351
All Other operating segments .....	736	—	736
Cost centers .....	119	—	119
Corporate costs.....	(1,368)	—	(1,368)
Timing .....	116	—	116
Restructuring costs .....	(200)	—	(200)
Methodology differences:			
Inventory/cost of sales.....	(112)	—	(112)
Postretirement benefit expense.....	(685)	—	(685)
Financing costs .....	(469)	—	(469)
Equity in (profit) loss of unconsolidated affiliated companies .....	6	—	6
Currency .....	(110)	—	(110)
Other income/expense methodology differences .....	(238)	—	(238)
Other methodology differences .....	(48)	30	(18)
Total consolidated profit before taxes.....	<u>\$ 4,108</u>	<u>\$ 1,020</u>	<u>\$ 5,128</u>

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**Reconciliation of Restructuring costs:**

As noted above, restructuring costs are a reconciling item between Segment profit and Consolidated profit before taxes. Had we included the amounts in the segments' results, the profit would have been as shown below:

**Reconciliation of Restructuring costs:****(Millions of dollars)**

	Segment profit	Restructuring costs	Segment profit with restructuring costs
<b><u>2015</u></b>			
Construction Industries .....	\$ 1,925	\$ (95)	\$ 1,830
Resource Industries .....	(88)	(305)	(393)
Energy & Transportation .....	3,239	(109)	3,130
Financial Products Segment .....	809	(17)	792
All Other operating segments .....	779	(157)	622
Total .....	<u>\$ 6,664</u>	<u>\$ (683)</u>	<u>\$ 5,981</u>
<b><u>2014</u></b>			
Construction Industries .....	\$ 2,207	\$ (293)	\$ 1,914
Resource Industries .....	404	(72)	332
Energy & Transportation .....	4,135	(31)	4,104
Financial Products Segment .....	901	—	901
All Other operating segments .....	850	(36)	814
Total .....	<u>\$ 8,497</u>	<u>\$ (432)</u>	<u>\$ 8,065</u>
<b><u>2013</u></b>			
Construction Industries .....	\$ 1,374	\$ (33)	\$ 1,341
Resource Industries .....	1,572	(105)	1,467
Energy & Transportation .....	3,415	(32)	3,383
Financial Products Segment .....	990	—	990
All Other operating segments .....	736	(27)	709
Total .....	<u>\$ 8,087</u>	<u>\$ (197)</u>	<u>\$ 7,890</u>



**Reconciliation of Assets:**

(Millions of dollars)	Machinery, Energy & Transportation	Financial Products	Consolidating Adjustments	Consolidated Total
<b>2015</b>				
Total assets from reportable segments.....	\$ 22,629	\$ 35,765	\$ —	\$ 58,394
All Other operating segments.....	2,616	—	—	2,616
Items not included in segment assets: .....				
Cash and short-term investments.....	5,340	—	—	5,340
Intercompany receivables .....	1,087	—	(1,087)	—
Investment in Financial Products.....	3,888	—	(3,888)	—
Income taxes .....	3,775	—	(852)	2,923
Goodwill and intangible assets .....	3,572	—	—	3,572
Property, plant and equipment – net and other assets.....	1,184	—	—	1,184
Operating lease methodology difference.....	(213)	—	—	(213)
Liabilities included in segment assets .....	8,004	—	—	8,004
Inventory methodology differences.....	(2,646)	—	—	(2,646)
Other .....	(566)	(34)	(77)	(677)
Total assets.....	<u>\$ 48,670</u>	<u>\$ 35,731</u>	<u>\$ (5,904)</u>	<u>\$ 78,497</u>
<b>2014</b>				
Total assets from reportable segments.....	\$ 24,563	\$ 37,011	\$ —	\$ 61,574
All Other operating segments.....	2,810	—	—	2,810
Items not included in segment assets: .....				
Cash and short-term investments.....	6,317	—	—	6,317
Intercompany receivables .....	1,185	—	(1,185)	—
Investment in Financial Products.....	4,488	—	(4,488)	—
Income taxes .....	3,627	—	(674)	2,953
Goodwill and intangible assets .....	3,492	—	—	3,492
Property, plant and equipment – net and other assets.....	1,174	—	—	1,174
Operating lease methodology difference.....	(213)	—	—	(213)
Liabilities included in segment assets .....	9,837	—	—	9,837
Inventory methodology differences.....	(2,697)	—	—	(2,697)
Other .....	(395)	(102)	(69)	(566)
Total assets.....	<u>\$ 54,188</u>	<u>\$ 36,909</u>	<u>\$ (6,416)</u>	<u>\$ 84,681</u>
<b>2013</b>				
Total assets from reportable segments.....	\$ 26,489	\$ 36,980	\$ —	\$ 63,469
All Other operating segments.....	2,973	—	—	2,973
Items not included in segment assets: .....				
Cash and short-term investments.....	4,597	—	—	4,597
Intercompany receivables .....	1,219	—	(1,219)	—
Investment in Financial Products.....	4,798	—	(4,798)	—
Income taxes .....	2,541	—	(525)	2,016
Goodwill and intangible assets .....	3,582	—	—	3,582
Property, plant and equipment – net and other assets.....	1,174	—	—	1,174
Operating lease methodology difference.....	(273)	—	—	(273)
Liabilities included in segment assets .....	10,357	—	—	10,357
Inventory methodology differences.....	(2,539)	—	—	(2,539)
Other .....	(214)	(135)	(111)	(460)
Total assets.....	<u>\$ 54,704</u>	<u>\$ 36,845</u>	<u>\$ (6,653)</u>	<u>\$ 84,896</u>

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**Reconciliation of Depreciation and amortization:**

<b>(Millions of dollars)</b>	<b>Machinery, Energy &amp; Transportation</b>	<b>Financial Products</b>	<b>Consolidated Total</b>
<b><u>2015</u></b>			
Total depreciation and amortization from reportable segments.....	\$ 1,767	\$ 848	\$ 2,615
Items not included in segment depreciation and amortization:			
All Other operating segments.....	276	—	276
Cost centers .....	156	—	156
Other .....	(35)	34	(1)
Total depreciation and amortization.....	<u>\$ 2,164</u>	<u>\$ 882</u>	<u>\$ 3,046</u>
<b><u>2014</u></b>			
Total depreciation and amortization from reportable segments.....	\$ 1,859	\$ 885	\$ 2,744
Items not included in segment depreciation and amortization:			
All Other operating segments.....	279	—	279
Cost centers .....	149	—	149
Other .....	(34)	25	(9)
Total depreciation and amortization.....	<u>\$ 2,253</u>	<u>\$ 910</u>	<u>\$ 3,163</u>
<b><u>2013</u></b>			
Total depreciation and amortization from reportable segments.....	\$ 1,833	\$ 789	\$ 2,622
Items not included in segment depreciation and amortization:			
All Other operating segments.....	305	—	305
Cost centers .....	151	—	151
Other .....	(16)	25	9
Total depreciation and amortization.....	<u>\$ 2,273</u>	<u>\$ 814</u>	<u>\$ 3,087</u>

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## Reconciliation of Capital expenditures:

(Millions of dollars)	Machinery, Energy & Transportation	Financial Products	Consolidating Adjustments	Consolidated Total
<b>2015</b>				
Total capital expenditures from reportable segments.....	\$ 1,341	\$ 1,465	\$ —	\$ 2,806
Items not included in segment capital expenditures:				
All Other operating segments .....	276	—	—	276
Cost centers .....	195	—	—	195
Timing .....	37	—	—	37
Other .....	(219)	194	(28)	(53)
Total capital expenditures.....	<u>\$ 1,630</u>	<u>\$ 1,659</u>	<u>\$ (28)</u>	<u>\$ 3,261</u>
<b>2014</b>				
Total capital expenditures from reportable segments.....	\$ 1,254	\$ 1,634	\$ —	\$ 2,888
Items not included in segment capital expenditures:				
All Other operating segments .....	331	—	—	331
Cost centers .....	181	—	—	181
Timing .....	21	—	—	21
Other .....	(146)	183	(79)	(42)
Total capital expenditures.....	<u>\$ 1,641</u>	<u>\$ 1,817</u>	<u>\$ (79)</u>	<u>\$ 3,379</u>
<b>2013</b>				
Total capital expenditures from reportable segments.....	\$ 1,727	\$ 1,806	\$ —	\$ 3,533
Items not included in segment capital expenditures:				
All Other operating segments .....	452	—	—	452
Cost centers .....	191	—	—	191
Timing .....	363	—	—	363
Other .....	(128)	105	(70)	(93)
Total capital expenditures.....	<u>\$ 2,605</u>	<u>\$ 1,911</u>	<u>\$ (70)</u>	<u>\$ 4,446</u>

## Enterprise-wide Disclosures:

### Information about Geographic Areas:

(Millions of dollars)	External sales and revenues <sup>1</sup>			Property, plant and equipment - net December 31,	
	2015	2014	2013	2015	2014
Inside United States .....	\$ 19,218	\$ 21,122	\$ 18,579	\$ 8,842	\$ 8,714
Outside United States .....	27,793	34,062	37,077	7,248	7,863
Total .....	<u>\$ 47,011</u>	<u>\$ 55,184</u>	<u>\$ 55,656</u>	<u>\$ 16,090</u>	<u>\$ 16,577</u>

<sup>1</sup> Sales of Machinery, Energy & Transportation are based on dealer or customer location. Revenues from services provided are based on where service is rendered.

## 24. Acquisitions

### **RDS Manufacturing, Inc.**

In December 2015, we acquired 100 percent of the stock of RDS Manufacturing, Inc. (RDS). RDS, located in Broken Arrow, Oklahoma, is a privately owned manufacturer of highly engineered turbomachinery parts, primarily for the turbine engine and aerospace markets. The acquisition of RDS is expected to help grow our turbine business and deepen our manufacturing expertise. The purchase price, net of \$1 million of acquired cash and \$5 million of trade receivables due from Caterpillar, was approximately \$85 million. We paid \$74 million at closing with an additional \$11 million to be paid in December 2017.

The transaction was financed with available cash. Tangible assets acquired of \$28 million, recorded at their fair values, were primarily inventories of \$12 million and property, plant and equipment of \$16 million. Liabilities assumed as of the acquisition date were \$2 million, which represented their fair values. Goodwill of \$59 million, substantially all of which is deductible for income tax purposes, represented the excess of the consideration transferred over the net assets recognized and represented the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. Factors that contributed to a purchase price resulting in the recognition of goodwill include RDS's strategic fit into our manufacturing and product portfolio and the acquired assembled workforce. The results of the acquired business for the period from the acquisition date are included in the accompanying consolidated financial statements and are reported in the Energy & Transportation segment. Assuming this transaction had been made at the beginning of any period presented, the consolidated pro forma results would not be materially different from reported results.

### **Rail Product Solutions, Inc.**

In October 2015, we acquired 100 percent of the stock in privately owned Rail Product Solutions, Inc. (RPS) from Amsted Rail Company, Inc. RPS is a leading North American provider of mission critical track fastening products and integrated fastening systems. The acquisition of RPS expands our portfolio of track related products and allows us to provide more comprehensive solutions to our customers. The purchase price was approximately \$165 million, consisting of \$166 million paid at closing less an estimated net working capital adjustment of \$1 million anticipated to be finalized in 2016.

The transaction was financed with available cash. Tangible assets acquired of \$41 million, recorded at their fair values, were primarily receivables of \$9 million, inventories of \$6 million, property, plant and equipment of \$17 million and an investment in an unconsolidated affiliated company of \$9 million. Finite-lived intangible assets acquired of \$82 million were primarily customer relationships and are being amortized on a straight-line basis over a weighted average period of approximately 15 years. Liabilities assumed as of the acquisition date were \$11 million, which represented their fair values. Goodwill of \$53 million, substantially all of which is deductible for income tax purposes, represented the excess of the consideration transferred over the net assets recognized and represented the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. Factors that contributed to a purchase price resulting in the recognition of goodwill include RPS's strategic fit into our product and services portfolio and the acquired assembled workforce. The results of the acquired business for the period from the acquisition date are included in the accompanying consolidated financial statements and are reported in the Energy & Transportation segment. Assuming this transaction had been made at the beginning of any period presented, the consolidated pro forma results would not be materially different from reported results.

### **Johan Walter Berg AB**

In September 2013, we acquired 100 percent of the stock of Johan Walter Berg AB (Berg). Berg is a leading manufacturer of mechanically and electrically driven propulsion systems and marine controls for ships. Headquartered in Öckerö Islands, Sweden, Berg has designed and manufactured heavy-duty marine thrusters and controllable pitch propellers since 1929. Its proprietary systems are employed in maritime applications throughout the world that require precise maneuvering and positioning. With the acquisition, Caterpillar will transition from selling only engines and generators to providing complete marine propulsion package systems. The purchase price, net of \$9 million of acquired cash, was approximately \$169 million. The purchase price included contingent consideration, payable in 2016. The contingent consideration was based on the revenues achieved by Berg in the period from January 1, 2013 to December 31, 2015 and had a fair value of approximately \$7 million on the acquisition date. As of December 31, 2015, no payment is expected to be made.

The transaction was financed with available cash. Tangible assets as of the acquisition date were \$82 million, recorded at their fair values, and primarily included cash of \$9 million, receivables of \$13 million, inventories of \$32 million and property, plant and equipment of \$28 million. Finite-lived intangible assets acquired of \$70 million included developed technology, customer relationships and trade names. The finite lived intangible assets are being amortized on a straight-line basis over a

weighted-average amortization period of approximately 11 years. Liabilities assumed as of the acquisition date were \$87 million, recorded at their fair values, and primarily included accounts payable of \$19 million, customer advances of \$31 million and net deferred tax liabilities of \$15 million. Goodwill of \$113 million, non-deductible for income tax purposes, represented the excess of the consideration transferred over the net assets recognized and represented the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. Factors that contributed to a purchase price resulting in the recognition of goodwill include Berg's strategic fit into our product portfolio, the opportunity to provide worldwide support to marine operators for a complete, optimized propulsion package, and the acquired assembled workforce. The results of the acquired business for the period from the acquisition date are included in the accompanying consolidated financial statements and are reported in the Energy & Transportation segment. Assuming this transaction had been made at the beginning of any period presented, the consolidated pro forma results would not be materially different from reported results.

## **25. Divestitures**

### **Bucyrus Distribution Business Divestitures**

In conjunction with our acquisition of Bucyrus in July 2011, we announced our intention to sell the Bucyrus distribution business to Caterpillar dealers that support mining customers around the world in a series of individual transactions. Bucyrus predominantly employed a direct to end customer model to sell and support products. These transitions occurred in phases based on the mining business opportunity within each dealer territory and were substantially complete by the end of 2014.

The portions of the Bucyrus distribution business that were sold did not qualify as discontinued operations because Caterpillar has significant continuing direct cash flows from the Caterpillar dealers after the divestitures. The gain or loss on disposal, along with the continuing operations of these disposal groups, has been reported in the Resource Industries segment. Goodwill was allocated to each disposal group using the relative fair value method. The value of the customer relationship intangibles related to each portion of the Bucyrus distribution business was included in the disposal groups. The disposal groups were recorded at the lower of their carrying value or fair value less cost to sell. In 2014 and 2013, we recorded asset impairment charges of \$4 million and \$11 million respectively, related to disposal groups being sold to Caterpillar dealers. Fair value was determined based upon the negotiated sales price. The impairments were recorded in Other operating (income) expenses and included in the Resource Industries segment. The portions of the distribution business that were sold were not material to our results of operations, financial position or cash flow.

In 2014, we completed 32 sale transactions whereby we sold portions of the Bucyrus distribution business to Caterpillar dealers for an aggregate price of \$199 million. For the full year 2014, after-tax profit was unfavorably impacted by \$22 million as a result of the Bucyrus distribution divestiture activities. This is comprised of \$21 million of income related to sales transactions, a net unfavorable adjustment of \$14 million related to prior sale transactions (both included in Other operating (income) expenses), costs incurred related to the Bucyrus distribution divestiture activities of \$25 million (included in Selling, general and administrative expenses) and income tax of \$4 million.

Assets sold in 2014 included customer relationship intangibles of \$82 million, other assets of \$24 million, which consisted primarily of inventory and fixed assets, and allocated goodwill of \$63 million related to the divested portions of the Bucyrus distribution business.

As part of the 2014 divestitures, Cat Financial provided \$20 million of financing to two of the Caterpillar dealers.

In 2013, we completed 19 sale transactions whereby we sold portions of the Bucyrus distribution business to Caterpillar dealers for an aggregate price of \$467 million. For the full year 2013, after-tax profit was unfavorably impacted by \$39 million as a result of the Bucyrus distribution divestiture activities. This is comprised of \$95 million of income related to sales transactions, a \$34 million unfavorable adjustment due to a change in estimate to increase the reserve for parts returns related to prior sale transactions (both included in Other operating (income) expenses), costs incurred related to the Bucyrus distribution divestiture activities of \$104 million (included in Selling, general and administrative expenses) and an income tax benefit of \$4 million.

Assets sold in 2013 included customer relationship intangibles of \$127 million, other assets of \$65 million, which consisted primarily of inventory and fixed assets, and allocated goodwill of \$56 million related to the divested portions of the Bucyrus distribution business.

As part of the 2013 divestitures, Cat Financial provided \$132 million of financing to five of the Caterpillar dealers.

## 26. Restructuring costs

Our accounting for employee separations is dependent upon how the particular program is designed. For voluntary programs, eligible separation costs are recognized at the time of employee acceptance unless the acceptance requires explicit approval by the Company. For involuntary programs, eligible costs are recognized when management has approved the program, the affected employees have been properly notified and the costs are estimable.

Restructuring costs for 2015, 2014 and 2013 were \$908 million, \$441 million and \$200 million, respectively. The 2015 restructuring costs included \$641 million of employee separation costs, \$127 million of long-lived asset impairments and \$92 million of defined benefit retirement plan curtailment and settlement losses and were recognized in Other operating (income) expense. In addition, in 2015 we incurred costs related to our restructuring programs of \$48 million. These costs were primarily for accelerated depreciation and inventory write-downs and were recognized primarily in Cost of goods sold. The 2014 restructuring costs included \$382 million of employee separation costs, \$48 million of long-lived asset impairments and \$11 million of defined benefit retirement plan curtailment and settlement losses. The 2013 restructuring costs included \$151 million of employee separation costs, \$41 million of long-lived asset impairments and \$8 million of other costs. Restructuring costs for 2014 and 2013 were recognized in Other operating (income) expense.

The restructuring costs in 2015 were primarily related to several restructuring programs across the company. The restructuring costs in 2014 were primarily related to a reduction in workforce at our Gosselies, Belgium, facility. The most significant charges in 2013 were for the restructuring of management and support functions and the closure or downsizing of several facilities related to our mining business.

Restructuring costs are a reconciling item between Segment profit and Consolidated profit before taxes. See Note 23 for more information.

The following table summarizes the 2014 and 2015 employee separation activity:

<b>(Millions of dollars)</b>		<b>Total</b>
Liability balance at December 31, 2013 .....	\$	89
Increase in liability (separation charges) .....		382
Reduction in liability (payments) .....		(289)
Liability balance at December 31, 2014 .....	\$	182
Increase in liability (separation charges) .....		641
Reduction in liability (payments) .....		(340)
Liability balance at December 31, 2015 .....	\$	483

In December 2013, we announced a restructuring plan for our Gosselies, Belgium, facility. This restructuring plan was designed to improve the competitiveness of our European manufacturing footprint and achieve competitiveness in our European operations by refocusing our current Gosselies operations on final machine assembly, test and paint with limited component and fabrication operations. This action includes reshaping our supply base for more efficient sourcing, improving factory efficiencies and workforce reductions and was approved by the Belgian Minister of Employment in February 2014. In 2014, we recognized \$273 million of these separation-related charges. In 2015, we recognized \$24 million of employee separation costs relating to this restructuring plan. We do not expect any further costs associated with this program.

In September 2015, we announced significant restructuring and cost reduction actions to lower our operating costs in response to current economic and business conditions. As part of that announcement, we offered a voluntary retirement enhancement program to qualifying U.S. employees, various voluntary separation programs outside of the U.S. and implemented additional involuntary separation programs throughout the company. We have eliminated approximately 5,000 positions since then, with about 3,000 employees separated by December 31, 2015 and the other 2,100 employees electing to take the voluntary retirement enhancement program in the U.S. and leave the company January 1, 2016. We incurred \$379 million of employee separation costs and \$86 million of defined benefit retirement plan curtailment losses related to these programs. Substantially all of the employee separation costs related to this program are included in the liability balance above and will be paid in the first quarter of 2016. The remaining liability balance as of December 31, 2015 represents costs for other employee separation programs, most of which are expected to be paid in 2016.

The remaining restructuring costs incurred during 2015 were primarily related to closure and consolidation of numerous manufacturing facilities throughout the company.

## 27. Selected quarterly financial results (unaudited)

(Dollars in millions except per share data)	2015 Quarter			
	1st	2nd	3rd	4th
Sales and revenues .....	\$ 12,702	\$ 12,317	\$ 10,962	\$ 11,030
Less: Revenues .....	(741)	(734)	(677)	(712)
Sales .....	11,961	11,583	10,285	10,318
Cost of goods sold .....	8,843	8,762	7,954	8,183
Gross margin .....	3,118	2,821	2,331	2,135
Profit (loss) <sup>1</sup> .....	\$ 1,111	\$ 710	\$ 368	\$ (87) <sup>4</sup>
Profit (loss) per common share .....	\$ 1.84	\$ 1.18	\$ 0.63	\$ (0.15)
Profit (loss) per common share—diluted <sup>2,3</sup> .....	\$ 1.81	\$ 1.16	\$ 0.62	\$ (0.15)
2014 Quarter				
	1st	2nd	3rd	4th
Sales and revenues .....	\$ 13,241	\$ 14,150	\$ 13,549	\$ 14,244
Less: Revenues .....	(748)	(759)	(791)	(744)
Sales .....	12,493	13,391	12,758	13,500
Cost of goods sold .....	9,437	10,197	9,634	10,499
Gross margin .....	3,056	3,194	3,124	3,001
Profit (loss) <sup>1</sup> .....	\$ 922	\$ 999	\$ 1,017	\$ 757
Profit (loss) per common share .....	\$ 1.47	\$ 1.60	\$ 1.66	\$ 1.25
Profit (loss) per common share—diluted <sup>2</sup> .....	\$ 1.44	\$ 1.57	\$ 1.63	\$ 1.23

<sup>1</sup> Profit (loss) attributable to common stockholders.

<sup>2</sup> Diluted by assumed exercise of stock-based compensation awards using the treasury stock method.

<sup>3</sup> In the fourth quarter 2015, the assumed exercise of stock-based compensation awards was not considered because the impact would be anti-dilutive.

<sup>4</sup> The fourth quarter of 2015 includes restructuring costs of \$682 million. See Note 26 for additional information on these costs.

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

Not Applicable.

**Item 9A. Controls and Procedures.****Disclosure Controls and Procedures**

An evaluation was performed under the supervision and with the participation of the company's management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), of the effectiveness of the design and operation of the company's disclosure controls and procedures, as that term is defined in Rule 13a-15(e) under the Exchange Act, as of the end of the period covered by this annual report. Based on that evaluation, the CEO and CFO concluded that the company's disclosure controls and procedures are effective as of the end of the period covered by this annual report.

**Management's Report on Internal Control Over Financial Reporting**

The management of Caterpillar Inc. (company) is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rule 13a-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2015. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework* (2013). Based on our assessment we concluded that, as of December 31, 2015, the company's internal control over financial reporting was effective based on those criteria.

The effectiveness of the company's internal control over financial reporting as of December 31, 2015 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm. Their report appears on page 68 of Part II, Item 8 "Financial Statements and Supplementary Data."

**Changes in Internal Control over Financial Reporting**

During the last fiscal quarter, there has been no significant change in the company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting.

**Item 9B. Other Information.**

Not Applicable.

**PART III****Item 10. Directors, Executive Officers and Corporate Governance.****Identification of Directors and Business Experience**

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.



### **Identification of Executive Officers and Business Experience**

Information required by this Item appears in Item 1C of this Form 10-K.

### **Family Relationships**

There are no family relationships between the officers and directors of the company.

### **Legal Proceedings Involving Officers and Directors**

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.

### **Audit Committee Financial Expert**

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.

### **Identification of Audit Committee**

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.

### **Stockholder Recommendation of Board Nominees**

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.

### **Compliance with Section 16(a) of the Exchange Act**

Information required by this Item relating to compliance with Section 16(a) of the Exchange Act is incorporated by reference from the 2016 Proxy Statement.

### **Code of Ethics**

Our Worldwide Code of Conduct (Code), first published in 1974 and most recently updated in 2015, sets a high standard for honesty and ethical behavior by every employee, including the principal executive officer, principal financial officer, controller and principal accounting officer. The Code is posted on our website at [www.Caterpillar.com/code](http://www.Caterpillar.com/code). To obtain a copy of the Code at no charge, submit a written request to the Corporate Secretary at 100 NE Adams Street, Peoria, IL 61629-6490. We post on our website at [www.Caterpillar.com/code](http://www.Caterpillar.com/code) any required amendments to or waivers granted under our Code pursuant to SEC or New York Stock Exchange disclosure rules.

### **Item 11. Executive Compensation.**

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.

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

Information required by this Item relating to security ownership of certain beneficial owners and management is incorporated by reference from the 2016 Proxy Statement.

Information required by this Item relating to securities authorized for issuance under equity compensation plans is included in the following table:

**Equity Compensation Plan Information**  
(as of December 31, 2015)

Plan category	(a) Number of securities to be issued up on exercise of outstanding options, warrants and rights	(b) Weighted- average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	43,370,568	\$ 77.8419	25,503,631
Equity compensation plans not approved by security holders	N/A	N/A	N/A
<b>Total</b>	<b>43,370,568</b>	<b>\$ 77.8419</b>	<b>25,503,631</b>

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

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.

**Item 14. Principal Accountant Fees and Services.**

Information required by this Item is incorporated by reference from the 2016 Proxy Statement.

## PART IV

### Item 15. Exhibits and Financial Statement Schedules.

#### Exhibits:

- 3.1 Restated Certificate of Incorporation, effective June 13, 2012 (incorporated by reference from Exhibit 3.1 to the Form 10-Q filed for the quarter ended June 30, 2012).
- 3.2 Bylaws amended and restated as of December 9, 2015 (incorporated by reference from Exhibit 3.1 to Form 8-K filed December 10, 2015).
- 4.1 Indenture dated as of May 1, 1987, between Caterpillar Inc. and The First National Bank of Chicago, as Trustee (incorporated by reference from Exhibit 4.1 to Form S-3 (Registration No. 333-22041) filed February 19, 1997).
- 4.2 First Supplemental Indenture, dated as of June 1, 1989, between Caterpillar Inc. and The First National Bank of Chicago, as Trustee (incorporated by reference from Exhibit 4.2 to Form S-3 (Registration No. 333-22041) filed February 19, 1997).
- 4.3 Appointment of Citibank, N.A. as Successor Trustee, dated October 1, 1991, under the Indenture, as supplemented, dated as of May 1, 1987 (incorporated by reference from Exhibit 4.3 to Form S-3 (Registration No. 333-22041) filed February 19, 1997).
- 4.4 Second Supplemental Indenture, dated as of May 15, 1992, between Caterpillar Inc. and Citibank, N.A., as Successor Trustee (incorporated by reference from Exhibit 4.4 to Form S-3 (Registration No. 333-22041) filed February 19, 1997).
- 4.5 Third Supplemental Indenture, dated as of December 16, 1996, between Caterpillar Inc. and Citibank, N.A., as Successor Trustee (incorporated by reference from Exhibit 4.5 to Form S-3 (Registration No. 333-22041) filed February 19, 1997).
- 4.6 Tri-Party Agreement, dated as of November 2, 2006, between Caterpillar Inc., Citibank, N.A. and U.S. Bank National Association appointing U.S. Bank as Successor Trustee under the Indenture dated as of May 1, 1987, as amended and supplemented (incorporated by reference from Exhibit 4.6 to the 2006 Form 10-K).
- 4.8 Form of 1.500% Senior Note due 2017 (incorporated by reference from Exhibit 4.2 to Form 8-K filed June 21, 2012).
- 4.9 Form of 2.600% Senior Note due 2022 (incorporated by reference from Exhibit 4.3 to Form 8-K filed June 21, 2012).
- 4.10 Form of 3.803% Rule 144A Global Debenture due 2042 (incorporated by reference from Exhibit 4.1 to Form 8-K filed August 28, 2012).
- 4.11 Form of 3.803% Regulation S Global Debenture due 2042 (incorporated by reference from Exhibit 4.2 to Form 8-K filed August 28, 2012).
- 4.12 Form of 3.803% Global Debenture due 2042 (incorporated by reference from Exhibit 4.9 to Form S-4 filed on September 7, 2012).
- 4.13 Form of 3.40% Senior Note due 2024 (incorporated by reference from Exhibit 4.1 to Form 8-K filed on May 8, 2014).
- 4.14 Form of 4.30% Senior Note due 2044 (incorporated by reference from Exhibit 4.2 to Form 8-K filed on May 8, 2014).
- 4.15 Form of 4.75% Senior Note due 2064 (incorporated by reference from Exhibit 4.3 to Form 8-K filed on May 8, 2014).
- 10.1 Caterpillar Inc. 1996 Stock Option and Long-Term Incentive Plan amended and restated through fourth amendment, dated December 19, 2008 (incorporated by reference from Exhibit 10.1 to the 2008 Form 10-K).\*
- 10.2 Caterpillar Inc. 2006 Long-Term Incentive Plan as amended and restated through second amendment, dated August 22, 2013 (incorporated by reference from Exhibit 10.6 to Form 10-Q for the quarter ended September 30, 2013).\*
- 10.3 Caterpillar Inc. 2014 Long-Term Incentive Plan, dated June 11, 2014 (incorporated by reference from Exhibit 10.1 to Form 8-K filed June 12, 2014). \*
- 10.4 Caterpillar Inc. Executive Short Term Incentive Plan, dated June 11, 2014 (incorporated by reference from Exhibit 10.2 to Form 8-K filed June 12, 2014). \*
- 10.5 First amendment to the Caterpillar Inc. Executive Short Term Incentive Plan, dated December 10, 2015.\*
- 10.6 Form of Restricted Stock Unit Award under Chairman's Award Program pursuant to the 2006 Long-Term Incentive Plan, dated March 5, 2012 (incorporated by reference from Exhibit 10.3 to the 2012 Form 10-K).\*
- 10.7 Form of Stock Appreciation Rights Award pursuant to the 2006 Long-Term Incentive Plan, dated March 5, 2012 (incorporated by reference from Exhibit 10.4 to the 2012 Form 10-K).\*

- 10.8 Form of Nonqualified Stock Option Award pursuant to the 2006 Long-Term Incentive Plan, dated March 5, 2012 (incorporated by reference from Exhibit 10.5 to the 2012 Form 10-K).\*
- 10.9 Form of Restricted Stock Unit Award pursuant to the 2014 Long-Term Incentive Plan (incorporated by reference from Exhibit 10.8 to the 2014 Form 10-K).\*
- 10.10 Form of Restricted Stock Unit Award for Directors pursuant to the 2014 Long-Term Incentive Plan (incorporated by reference from Exhibit 10.11 to the 2014 Form 10-K).\*
- 10.11 Form of Nonqualified Stock Option Award pursuant to the 2014 Long-Term Incentive Plan (incorporated by reference from Exhibit 10.9 to the 2014 Form 10-K).\*
- 10.12 Form of Nonqualified Stock Option Award pursuant to the 2014 Long-Term Incentive Plan for awards granted after 2015.\*
- 10.13 Form of Performance-Based Restricted Stock Unit Award pursuant to the 2014 Long-Term Incentive Plan (incorporated by reference from Exhibit 10.10 to the 2014 Form 10-K).\*
- 10.14 Form of Performance-Based Restricted Stock Unit Award pursuant to the 2014 Long-Term Incentive Plan for awards granted after 2015.
- 10.15 Caterpillar Inc. Supplemental Retirement Plan (formerly known as the Caterpillar Inc. Supplemental Pension Benefit Plan), as amended and restated through fifth amendment, dated December 10, 2014 (incorporated by reference from Exhibit 10.12 to the 2014 Form 10-K). \*
- 10.16 Sixth amendment to the Caterpillar Inc. Supplemental Retirement Plan, dated December 10, 2015.\*
- 10.17 Caterpillar Inc. Supplemental Employees' Investment Plan, as amended and restated through fifth amendment, dated December 10, 2014 (incorporated by reference from Exhibit 10.13 to the 2014 Form 10-K).\*
- 10.18 Caterpillar Inc. Directors' Deferred Compensation Plan, as amended and restated effective January 1, 2005 (incorporated by reference from Exhibit 10.6 to the 2006 Form 10-K).\*
- 10.19 Caterpillar Inc. Directors' Charitable Award Program, as amended and restated effective April 1, 2008 (incorporated by reference from Exhibit 10.7 to the 2008 Form 10-K).\*
- 10.20 Caterpillar Inc. Deferred Employees' Investment Plan, as amended and restated through fifth amendment, dated December 10, 2014 (incorporated by reference from Exhibit 10.17 to the 2014 Form 10-K).\*
- 10.21 Caterpillar Inc. Supplemental Deferred Compensation Plan, as amended and restated through fourth amendment, dated December 10, 2014 (incorporated by reference from Exhibit 10.18 to the 2014 Form 10-K).\*
- 10.22 Solar Turbines Incorporated Managerial Retirement Objective Plan, as amended and restated through first amendment, dated December 10, 2014 (incorporated by reference from Exhibit 10.19 to the 2014 Form 10-K).\*
- 10.23 Solar Turbines Incorporated Pension Plan for European Foreign Service Employees, as amended and restated through fifth amendment, effective January 1, 2015 (incorporated by reference from Exhibit 10.1 to Form 10-Q for the quarter ended March 31, 2015).\*
- 10.24 Time Share Agreement dated May 6, 2011 (incorporated by reference from Exhibit 10.3 to Form 10-Q for the quarter ended March 31, 2011).\*
- 10.25 Equity Compensation and Supplemental Pension Agreement, dated November 2, 2012, between Caterpillar Inc. and Richard P. Lavin (incorporated by reference from Exhibit 10.1 to Form 8-K filed November 6, 2012).\*
- 10.26 Equity Compensation Agreement, dated December 15, 2014, between Caterpillar Inc. and Stuart L. Levenick (incorporated by reference from Exhibit 10.1 to Form 8-K filed December 18, 2014).\*
- 10.27 Equity Compensation Agreement, dated December 15, 2014, between Caterpillar Inc. and Steven H. Wunning (incorporated by reference from Exhibit 10.2 to Form 8-K filed December 18, 2014).\*
- 10.28 364-Day Credit Agreement dated September 10, 2015 (2015 364-Day Credit Agreement) among the Company, Caterpillar Financial Services Corporation, Caterpillar International Finance Limited, Caterpillar Finance Corporation, certain financial institutions named therein, Citibank, N.A., as Agent, Citibank International Limited, as Local Currency Agent, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Japan Local Currency Agent (incorporated by reference from Exhibit 99.1 to the Company's Current Report on Form 8-K, filed September 16, 2015).
- 10.29 Local Currency Addendum, dated as of September 10, 2015, to the 2015 364-Day Credit Agreement among the Company, Caterpillar Financial Services Corporation, Caterpillar International Finance Limited, the Local Currency Banks named therein, Citibank, N.A. and Citibank International Limited (incorporated by reference from Exhibit 99.2 to the Company's Current Report on Form 8-K, filed September 16, 2015).
- 10.30 Japan Local Currency Addendum, dated as of September 10, 2015, to the 2015 364-Day Credit Agreement among the Company, Caterpillar Financial Services Corporation, Caterpillar Finance Corporation, the Japan Local Currency Banks named therein, Citibank, N.A. and The Bank of Tokyo-Mitsubishi UFJ, Ltd. (incorporated by reference from Exhibit 99.3 to the Company's Current Report on Form 8-K, filed September 16, 2015).

- 10.31 Amended and Restated Credit Agreement (3-Year Facility), dated as of September 10, 2015, by and among the Company, Caterpillar Financial Services Corporation, Caterpillar International Finance Limited and Caterpillar Finance Corporation, the Banks named therein, Local Currency Banks and Japan Local Currency Banks party thereto, Citibank, N.A., as Agent, Citibank International Limited, as Local Currency Agent, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Japan Local Currency Agent (incorporated by reference from Exhibit 99.4 to the Company's Current Report on Form 8-K filed September 16, 2015).
- 10.32 Local Currency Addendum to the 3 Year Facility among the Company, Caterpillar Financial Services Corporation, Caterpillar International Finance Limited, the Local Currency Banks named therein, Citibank, N.A. and Citibank International Limited (incorporated by reference from Exhibit 99.5 to the Company's Current Report on Form 8-K filed September 16, 2015).
- 10.33 Japan Local Currency Addendum to the 3 Year Facility among the Company, Caterpillar Financial Services Corporation, Caterpillar Finance Corporation, the Japan Local Currency Banks named therein, Citibank, N.A. and The Bank of Tokyo-Mitsubishi UFJ, Ltd. (incorporated by reference from Exhibit 99.6 to the Company's Current Report on Form 8-K filed September 16, 2015).
- 10.34 Amended and Restated Credit Agreement (5-Year Facility), dated as of September 10, 2015, by and among the Company, Caterpillar Financial Services Corporation, Caterpillar International Finance Limited and Caterpillar Finance Corporation, the Banks named therein, Local Currency Banks and Japan Local Currency Banks party thereto, Citibank, N.A., as Agent, Citibank International Limited, as Local Currency Agent, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., as Japan Local Currency Agent (incorporated by reference from Exhibit 99.7 to the Company's Current Report on Form 8-K filed September 16, 2015).
- 10.35 Local Currency Addendum to the 5-Year Facility among the Company, Caterpillar Financial Services Corporation, Caterpillar International Finance Limited, the Local Currency Banks named therein, Citibank, N.A. and Citibank International Limited (incorporated by reference from Exhibit 99.8 to the Company's Current Report on Form 8-K, filed September 16, 2015).
- 10.36 Japan Local Currency Addendum to the 5-Year Facility among the Company, Caterpillar Financial Services Corporation, Caterpillar Finance Corporation, the Japan Local Currency Banks named therein, Citibank, N.A. and The Bank of Tokyo-Mitsubishi UFJ, Ltd. (incorporated by reference from Exhibit 99.9 to the Company's Current Report on Form 8-K, filed September 16, 2015).
- 11 Information required to be presented in Exhibit 11 is provided in Note 16 — "Profit per share" of Part II, Item 8 "Financial Statements and Supplementary Data."
- 12 Computation of Ratios of Earnings to Fixed Charges.
- 21 Subsidiaries and Affiliates of the Registrant.
- 23 Consent of Independent Registered Public Accounting Firm.
- 31.1 Certification of Douglas R. Oberhelman, Chairman and Chief Executive Officer of Caterpillar Inc., pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Bradley M. Halverson, Group President and Chief Financial Officer of Caterpillar Inc., pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32 Certification of Douglas R. Oberhelman, Chairman and Chief Executive Officer of Caterpillar Inc. and Bradley M. Halverson, Group President and Chief Financial Officer of Caterpillar Inc., pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS XBRL Instance Document.
- 101.SCH XBRL Taxonomy Extension Schema Document.
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document.
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document.
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document.

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\* Management contracts and compensatory plans and arrangements required to be filed as exhibits pursuant to Item 15 (b) of this report.

Form 10-K

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.

CATERPILLAR INC.

(Registrant)

February 16, 2016

By: /s/ James B. Buda

James B. Buda, Executive Vice President, Law and Public Policy

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 dates indicated.

February 16, 2016

/s/ Douglas R. Oberhelman

(Douglas R. Oberhelman)

Chairman of the Board  
and Chief Executive Officer

February 16, 2016

/s/ Bradley M. Halverson

(Bradley M. Halverson)

Group President and  
Chief Financial Officer

February 16, 2016

/s/ Jananne A. Copeland

(Jananne A. Copeland)

Chief Accounting Officer

February 16, 2016

/s/ David L. Calhoun

(David L. Calhoun)

Director

February 16, 2016	<u>/s/ Daniel M. Dickinson</u> (Daniel M. Dickinson)	Director
February 16, 2016	<u>/s/ Juan Gallardo</u> (Juan Gallardo)	Director
February 16, 2016	<u>/s/ Jesse J. Greene, Jr.</u> (Jesse J. Greene, Jr.)	Director
February 16, 2016	<u>/s/ Jon M. Huntsman, Jr.</u> (Jon M. Huntsman, Jr.)	Director
February 16, 2016	<u>/s/ Dennis A. Muilenburg</u> (Dennis A. Muilenburg)	Director
February 16, 2016	<u>/s/ William A. Osborn</u> (William A. Osborn)	Director
February 16, 2016	<u>/s/ Debra L. Reed</u> (Debra L. Reed)	Director
February 16, 2016	<u>/s/ Edward B. Rust, Jr.</u> (Edward B. Rust, Jr.)	Director
February 16, 2016	<u>/s/ Susan C. Schwab</u> (Susan C. Schwab)	Director
February 16, 2016	<u>/s/ Miles D. White</u> (Miles D. White)	Director

**FIRST AMENDMENT  
TO THE  
CATERPILLAR INC.  
EXECUTIVE SHORT-TERM INCENTIVE PLAN**

Caterpillar Inc. (the “Company”) established the Caterpillar Inc. Executive Short-Term Incentive Plan (the “Plan”) to retain and motivate the Chief Executive Officer and Group Presidents of the Company and other officers of the Company who have been designated to participate in the Plan by providing them with the opportunity to earn incentive payments based upon the extent to which specified performance goals have been achieved or exceeded. The Plan was most recently amended and restated effective June 11, 2014. Pursuant to Section 6.2 of the Plan, the Company has reserved the right to amend the Plan. By this instrument, the Company amends the Plan to rename it the Caterpillar Inc. Executive Annual Incentive Plan.

1. This First Amendment shall be effective as of December 8, 2015.
2. The name of the Plan shall be “Caterpillar Inc. Executive Annual Incentive Plan” and the title on page 1 of the Plan shall be amended accordingly.
3. Section 1.1 of the Plan is hereby amended and restated in its entirety to provide as follows:  
“**1.1 Purposes.** The purpose of the Caterpillar Inc. Executive Annual Incentive Plan, as amended and restated as set forth herein (the “Plan”), is to retain and motivate the Chief Executive Officer and Group Presidents of the Company and such other officers of the Company who have been designated by the Committee to participate in the Plan for a specified Performance Period by providing them with the opportunity to earn incentive payments based upon the extent to which specified performance goals have been achieved or exceeded for the Performance Period. It is intended that amounts payable under this Plan to Participants who are “covered employees” within the meaning of Section 162(m) of the Code will constitute “qualified performance-based compensation” within the meaning of U.S. Treasury regulations promulgated thereunder, and the Plan and the terms of any Awards hereunder shall be so interpreted and construed to the maximum extent possible.”
4. Section 1.2(t) of the Plan is hereby amended and restated in its entirety to provide as follows:



“(t) **“Plan”** shall mean the Caterpillar Inc. Executive Annual Incentive Plan, as amended and restated as set forth herein, or as it may be amended from time to time.”

5. This First Amendment amends only the provisions of the Plan as set forth herein, and those provisions not expressly amended shall be considered in full force and effect. Notwithstanding the foregoing, this First Amendment shall supersede the provisions of the Plan to the extent those provisions are inconsistent with the provisions and the intent of this Second Amendment.

**Caterpillar Inc.**  
**2014 Long-Term Incentive Plan**  
**Nonqualified Stock Option Award Notice**

**[Option Date]**

The Board of Directors of Caterpillar Inc. (the “Company”) has granted you, [Employee Name], [Number] nonqualified stock options (“NQSOs”) on [Option Date] (the “Grant Date”) pursuant to, and subject to the restrictions, terms and conditions set forth in, the Caterpillar Inc. 2014 Long-Term Incentive Plan (the “Plan”) at a price of [Option Price] per share, which is the closing transaction price of a share of Company Common Stock as reported on the New York Stock Exchange on the Grant Date. This Award Notice and the Plan specify the material terms and provisions applicable to such nonqualified stock option award (the “Option Award”). Capitalized terms not defined herein shall have the meanings specified in the Plan.

**Vesting**

The Option Award is subject to a three-year vesting schedule. Except to the extent the NQSOs are forfeited upon your termination of employment, as provided below, one-third of the NQSOs will become vested on the first anniversary of the Grant Date, one-third of the NQSOs will become vested on the second anniversary of the Grant Date, and the final one-third of the NQSOs will become vested on the third anniversary of the Grant Date (each such date, a “Vesting Date”).

If you terminate employment prior to the date the NQSOs have become fully vested for any reason other than Long-Service Separation, Disability, death or in connection with a Change in Control (as described more fully below), the unvested NQSOs will be forfeited. For example, if you quit (but do not meet the requirements for Long-Service Separation at the time you quit) after the first anniversary of the Grant Date but prior to the second anniversary of the Grant Date, you will forfeit two-thirds of the NQSOs. Your Option Award is also subject to certain additional forfeiture conditions set forth in Sections 5.16 and 5.17 of the Plan.

**Exercise of Award**

The Option Award may only be exercised through the Plan’s designated administrator, currently E\*TRADE, or through such other means as the Company may designate. You may exercise the Option Award by providing notice of exercise, in a manner specified by the Company, setting forth the number of shares to be exercised, accompanied by full payment for the shares. The exercise price shall be payable at your election by: (1) tendering cash, (2) tendering previously acquired shares of Company Common Stock, (3) except as may be prohibited by applicable law, a broker-dealer, acceptable to the Company and to whom you submitted an irrevocable notice of exercise, tendering cash, or (4) any combination of (1), (2) and (3).

The Option Award will expire unless exercised by [Expiration Date] (the “Expiration Date”), the tenth anniversary of the Grant Date. If the Expiration Date occurs during any period in which you are prohibited from trading Company Common Stock pursuant to the Company’s insider trading policy or during a period when the exercise of the Option Award would violate applicable securities law (a “Blackout Period”), then the Option Award will not expire on the Expiration Date. Instead, the Option Award will not expire until the date that is 30 days after the expiration of the Blackout Period.

### **Voting Rights**

During the period between the Grant Date and the date you exercise your vested NQSOs and the shares subject to such NQSOs are issued or delivered to you (the “Restriction Period”), you are not entitled to any voting rights with respect to such NQSOs. From and after the date shares are actually issued or delivered, you then will have full voting rights with respect to those shares.

### **Dividends and Other Distributions**

During the Restriction Period, you will not receive or be credited with dividends or any other distributions (e.g., dividend equivalents) with respect to the NQSOs. From and after the date shares are actually issued or delivered, you then will have dividend rights with respect to those shares.

### **Termination of Employment**

Your termination of employment with the Company prior to the date the NQSOs become fully vested will impact the unvested NQSOs as follows:

- **Long-Service Separation**

If your employment with the Company terminates by reason of Long-Service Separation (as defined below), your unvested NQSOs will become fully vested. In such event, your Option Award will remain exercisable until the Expiration Date. For purposes of this Option Award, “Long-Service Separation” means termination of employment after attainment of age 55 with 5 or more years of continuous service with the Company, as determined by the Company in its sole discretion.

- **Disability**

If your employment with the Company terminates by reason of Disability (as defined below), your unvested NQSOs will become fully vested. In such event, your Option Award will remain exercisable until the Expiration Date. For purposes of this Option Award, “Disability” means, unless otherwise provided for in an employment, change in control or similar agreement in effect between you and the Company or a Subsidiary, qualifying for long-term disability benefits under any long-term disability program sponsored by the Company or a Subsidiary in which you participate or, if you do not participate in any such program, your inability to engage in any substantial gainful business activity by reason of any medically determinable physical or mental impairment that can be expected to result in death, or which has lasted or can be expected to last for a continuous period of not less than 12 months, as determined by the Company’s Director of Compensation + Benefits, based upon medical evidence.

- **Death**

If your employment with the Company terminates by reason of death, your unvested NQSOs will become fully vested and your beneficiary or your estate (as applicable) will have until the Expiration Date to exercise the Option Award.

If you die after your termination of employment when the Option Award is otherwise exercisable, the Option Award will remain exercisable by your beneficiary or your estate (as applicable) until; (a) the Expiration Date if your termination of employment was due to Long-Service Separation, Disability or in connection with Change in Control; or (b) the earlier of (1) the Expiration Date, or (2) 38 months following your termination of employment if your termination of employment was for any reason other than Long-Service Separation, Disability or in connection with a Change in Control.

- **Change in Control**

In the event of a Change in Control prior to the date the NQSOs become fully vested pursuant to which your Option Award is effectively continued, assumed or replaced by the surviving or acquiring corporation in such Change in Control (with appropriate adjustments to the number and kind of shares, in each case, that preserve the material terms and conditions of the outstanding Option Award as in effect immediately prior to the Change in Control) and your employment is terminated either by the Company without Cause or by you for Good Reason, as defined in the Plan, within the 24-month period commencing on the date of the Change in Control, your unvested NQSOs will immediately become fully vested. In such event, your Option Award will remain exercisable until the Expiration Date.

- **Cause**

If your employment with the Company is terminated for Cause (as defined in the Plan), all of your unexercised NQSOs associated with the Option Award (whether vested or non-vested) shall expire immediately and all rights thereunder cease upon such termination.

- **Other**

If your employment with the Company terminates prior to the date the NQSOs become fully vested for any reason other than Long-Service Separation, Disability, death, Cause or in connection with a Change in Control, all unvested NQSOs associated with this Option Award shall be immediately forfeited to the Company. In such event, with respect to vested NQSOs, you will have until the earlier of (1) the Expiration Date or (2) the date which is 60 days following the date of your termination of employment to exercise the Option Award.

For purposes of this Option Award, references to employment with the Company shall also mean employment with a Subsidiary. The extent to which you shall be considered employed during any periods during which you are on a leave of absence shall be determined in accordance with Company policy.

**Transferability of Award**

Subject to certain exceptions set forth in the Plan, the Option Award is only exercisable by you (or your beneficiary, estate or representative, as applicable) and may not be assigned, transferred, pledged or hypothecated in any way. The Option Award is not subject to execution, attachment or similar process. Any attempt at such, contrary to the provisions of the Plan, will be null and void and without effect. Note that once your Option Award is exercised and shares of Common Stock are actually issued or delivered, you will have the ability to transfer those shares.

**Designation of Beneficiary**

If you have not done so already, you are encouraged to designate a beneficiary (or beneficiaries) to whom your vested NQSOs under the Plan will be transferred upon your death. If you do not designate a beneficiary, your vested NQSOs will be transferred to your estate.

**Administration of the Plan**

The Option Award shall at all times be subject to the terms and provisions of the Plan and the Plan shall be administered in accordance with the terms of, and as provided in, the Plan. In the event of conflict between the terms and provisions of this Award Notice and the terms and provisions of the Plan, the provisions of the Plan shall control.

**Code Section 409A**

It is intended that this Award Notice and the administration of the Option Award will be exempt from Section 409A of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations promulgated and other official guidance issued thereunder (“Code Section 409A”). The Plan and this Award Notice shall be interpreted and construed on a basis consistent with such intent. Notwithstanding anything contained herein to the contrary, the Committee reserves the right (including the right to delegate such right) to unilaterally amend this Award Notice (and thus the terms of the Option Award) without your consent solely in order to maintain an exclusion from the application of, or to maintain compliance with, Code Section 409A. Your acceptance of this Option Award constitutes acknowledgement and consent to such rights of the Committee.

**Tax Impact**

Please refer to the Plan prospectus and support materials for a general description of the tax consequences of an Option Award. You may also wish to consult with your personal tax advisor regarding how the Option Award impacts your individual tax situation. Nothing contained in this Award Notice or in the Plan prospectus shall be construed as a guarantee of any particular tax effect for any benefits or amounts deferred or paid pursuant to this Award Notice.

**Withholding**

The exercise of an NQSO is a taxable event in many taxing jurisdictions. In some countries, including the United States, the Company is required to withhold taxes upon the taxable event. To satisfy this withholding obligation, the Company will withhold that number of shares that would satisfy the withholding obligation from the shares otherwise to be issued or delivered to you, unless another method of withholding is approved by the Committee. The following conditions apply to such withholding: (a) the value of the shares of Common Stock withheld must equal the minimum withholding obligation; and (b) the value of the shares of Common Stock withheld shall be the Fair Market Value determined as of the exercise date. For this purpose and for all other purposes of this Option Award except the Option price as described above, Fair Market Value shall mean the mean between the high and low prices at which a share of Common Stock of the Company is traded on the New York Stock Exchange.

**Compliance with Securities Laws**

The Company will take steps required to achieve compliance with all applicable United States federal and state securities laws (and other laws, including registration requirements) and with the rules and practices of the stock exchanges upon which the stock of the Company is listed and the Option Award is subject to the requirements of such laws and rules. The Option Award is subject to the condition that if the listing, registration or qualification of the shares of Common Stock subject to the Option Award upon any securities exchange or under any law, or the consent or approval of any governmental body, or the taking of any other action is necessary or desirable as a condition of, or in connection with, the issuance or delivery of shares hereunder, the shares of Common Stock subject to the Option Award shall not be issued or delivered, in whole or in part, unless such listing, registration, qualification, consent, approval or other action shall have been effected or obtained, free of any conditions not acceptable to the Company. The Company agrees to use reasonable efforts to effect or obtain any such listing, registration, qualification, consent, approval or other action.

**Adjustment of Shares**

Provisions are made within the Plan covering the effect of stock dividends, stock splits, changes in par value, changes in kind of stock, sale, merger, recapitalization, reorganization, etc.

**Awards Subject to Forfeiture, Clawback and Setoff**

The Option Award (and its exercise) is subject to certain forfeiture conditions set forth in the Plan, which, in the event such conditions are determined to have occurred, may result in immediate forfeiture and cancellation of your outstanding Option Award or an obligation to repay the Company the total amount of award gain realized upon exercise of your Option Award. Also, the Company generally may deduct from and set off against any amounts the Company owes to you, including amounts payable in connection with this Option Award, such amounts you may owe to the Company.

**Effect on Other Benefits**

The Option Award is not intended to and shall not impact the coverage of or the amount of any other employee benefit plans in which you participate that are sponsored by the Company and any of its Subsidiaries or affiliates.

**Award Confers No Rights to Continued Employment**

In no event shall the granting of the Option Award or its acceptance by you, or any provision of the Award Notice or the Plan, give or be deemed to give you any right to continued employment by the Company, any Subsidiary or any affiliate of the Company or affect in any manner the right of the Company, any Subsidiary or any affiliate of the Company to terminate your employment at any time.

**Decisions of Board or Committee**

The Board or the Committee shall have the right to resolve all questions which may arise in connection with the Option Award. Any interpretation, determination or other action made or taken by the Board or the Committee regarding the Plan or this Option Award shall be final, binding and conclusive.

**Successors**

This Award Notice shall be binding upon and inure to the benefit of any successor or successors of the Company and any person or persons who shall acquire any rights hereunder in accordance with this Award Notice or the Plan.

**Severability**

The invalidity or unenforceability of any particular provision of this Award Notice shall not affect the other provisions hereof and this Award Notice shall be construed in all respects as if such invalid or unenforceable provision was omitted.

**Governing Law**

This Award Notice, the Option Award and all determinations made and actions taken pursuant hereto and thereto, to the extent not governed by the laws of the United States, shall be governed by the laws of the State of Delaware and construed in accordance therewith without giving effect to principles of conflicts of laws.

**Entire Agreement**

This Award Notice and the Plan constitute the entire agreement between you and the Company with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements between you and the Company with respect to the subject matter hereof, and except as provided herein, may not be modified adversely to your interest except by means of a writing signed by you and the Company.

**Acceptance of Award**

You are required to electronically accept this Award Notice within your stock plan account with the Company's stock plan administrator according to the procedures then in effect. Your acceptance of this Award Notice constitutes acknowledgement of receipt of the Plan and this Option Award and consent to the terms of the Plan and this Award Notice as described in the Plan and this Award Notice.

**Notices**

All notices, requests or other communications provided for in this Award Notice shall be made, if to the Company, to Caterpillar Inc., Equity Compensation Administration, 100 N.E. Adams Street, Peoria, IL 61629-4440 (or, if applicable, to any updated address provided by the Company for such purposes), and if to you, to your last known mailing address on file with the Company's stock plan administrator. All notices, requests or other communications provided for in this Award Notice shall be made in writing either (a) by personal delivery, (b) by facsimile or electronic mail with confirmation of receipt, (c) by mailing in the United States mails or (d) by express courier service. The notice, request or other communication shall be deemed to be received upon personal delivery, upon confirmation of receipt of facsimile or electronic mail transmission or upon receipt by the party entitled thereto if by United States mail or express courier service; provided, however, that if a notice, request or other communication sent to the Company is not received during regular business hours, it shall be deemed to be received on the next succeeding business day of the Company.

**Caterpillar Inc.**  
**2014 Long-Term Incentive Plan**  
**Performance-Based Restricted Stock Unit Award Notice**

**[Grant Date]**

The Board of Directors of Caterpillar Inc. (the “Company”) has granted you, [Employee Name], [Number] restricted stock units (“RSUs”) on [Grant Date] (the “Grant Date”) pursuant to, and subject to the restrictions, terms and conditions set forth in, the Caterpillar Inc. 2014 Long-Term Incentive Plan (the “Plan”). This Award Notice and the Plan specify the material terms and provisions applicable to such restricted stock unit award (the “RSU Award”). Capitalized terms not defined herein shall have the meanings specified in the Plan.

**Vesting**

Except to the extent the RSUs are forfeited upon your termination of employment as provided below, the RSU Award will vest on [Ending Date] (the “Vesting Date”) if the Company achieves the performance goal (s) established by the Committee (the “Performance Goals”) for the period beginning on [Beginning Date] and ending on [Ending Date] (the “Performance Period”), as set forth in Appendix A hereto.

As soon as administratively practicable, but not later than two and one-half months after the Vesting Date, the Company shall issue or deliver to you, subject to the achievement of the Performance Goals and the other conditions of this Award Notice, unrestricted shares of Common Stock equal to the number of RSUs that become vested, less any shares withheld to satisfy any applicable income and payroll tax withholding requirements. If you terminate employment prior to the date the RSUs have become fully vested for any reason other than Long-Service Separation, Disability, death or in connection with a Change in Control (as described more fully below), all of the unvested RSUs will be forfeited. Your RSU Award is also subject to certain additional forfeiture conditions set forth in Sections 5.16 and 5.17 of the Plan.

**Voting Rights**

During the period between the Grant Date and the date the RSUs become vested and the shares subject to such RSUs are issued or delivered to you (the “Restriction Period”), you are not entitled to any voting rights with respect to such RSUs. From and after the date shares are actually issued or delivered, you then will have full voting rights with respect to those shares.

**Dividends and Other Distributions**

During the Restriction Period, you will not receive or be credited with dividends or any other distributions (e.g., dividend equivalents) with respect to the RSUs. From and after the date shares are actually issued or delivered, you then will have dividend rights with respect to those shares.

**Termination of Employment**

If your employment with the Company terminates prior to the Vesting Date, all unvested RSUs subject to this RSU Award will lapse and shall be immediately forfeited, except as follows:

- **Long-Service Separation**

If your employment with the Company terminates by reason of Long-Service Separation, the RSU Award will remain outstanding and the RSUs will become vested if and to the extent the Performance Goals are achieved. For purposes of this RSU Award, “Long-Service Separation” means termination of employment for any reason other than for Cause after attainment of age 55 with 5 or more years of continuous service with the Company, as determined by the Company in its sole discretion.



- **Disability**

If your employment with the Company terminates by reason of Disability, the RSU Award will remain outstanding and the RSUs will become vested if and to the extent the Performance Goals are achieved. For purposes of this RSU Award, “Disability” means, unless otherwise provided for in an employment, change in control or similar agreement in effect between you and the Company or a Subsidiary, qualifying for long-term disability benefits under any long-term disability program sponsored by the Company or a Subsidiary in which you participate or, if you do not participate in any such program, your inability to engage in any substantial gainful business activity by reason of any medically determinable physical or mental impairment that can be expected to result in death, or which has lasted or can be expected to last for a continuous period of not less than 12 months, as determined by the Company’s Director of Compensation + Benefits, based upon medical evidence.

- **Death**

If your employment with the Company terminates by reason of death, all of the unvested RSUs will immediately vest. In such case, the Company shall issue or deliver to your beneficiary (or your estate, as applicable), as soon as administratively practicable, but not later than two and one-half months after the date of death and subject to the conditions of this Award Notice, unrestricted shares of Common Stock equal to the number of RSUs that vested, less any shares withheld to satisfy any applicable income and payroll tax withholding requirements.

- **Change in Control**

In the event of a Change in Control prior to the end of the Restriction Period pursuant to which your RSU Award is effectively continued, assumed or replaced by the surviving or acquiring corporation in such Change in Control (with appropriate adjustments to the number and kind of shares, in each case, that preserve the material terms and conditions of the outstanding RSU Award as in effect immediately prior to the Change in Control) and your employment is terminated either by the Company or its successor without Cause or by you for Good Reason, as defined in the Plan, within the 24-month period commencing on the date of the Change in Control, all of the RSUs will immediately become fully vested and shares of Common Stock, less any shares withheld to satisfy any applicable income and payroll tax withholding requirements, will be issued or delivered to you as soon as administratively practicable, but not later than two and one-half months, after your termination of employment.

For purposes of this RSU Award, references to employment with the Company shall also mean employment with a Subsidiary. The extent to which you shall be considered employed during any periods during which you are on a leave of absence shall be determined in accordance with Company policy.

**Transferability of Award**

Subject to certain exceptions set forth in the Plan, the RSU Award may not be assigned, transferred, pledged or hypothecated in any way. The RSU Award is not subject to execution, attachment or similar process. Any attempt at such, contrary to the provisions of the Plan, will be null and void and without effect. Note that once RSUs vest and shares of Common Stock are actually issued or delivered, you will have the ability to transfer those shares.

### **Designation of Beneficiary**

If you have not done so already, you are encouraged to designate a beneficiary (or beneficiaries) to whom your vested benefits under the Plan will be paid upon your death. If you do not designate a beneficiary, vested benefits payable pursuant to the Plan upon your death will be paid to your estate.

### **Administration of the Plan**

The RSU Award shall at all times be subject to the terms and provisions of the Plan and the Plan shall be administered in accordance with the terms of, and as provided in, the Plan. In the event of conflict between the terms and provisions of this Award Notice and the terms and provisions of the Plan, the provisions of the Plan shall control.

### **Code Section 409A**

It is intended that this Award Notice and the administration of the RSU Award comply with Section 409A of the Internal Revenue Code of 1986, as amended, and the Treasury Regulations promulgated and other official guidance issued thereunder (“Code Section 409A”), to the extent applicable. The Plan and this Award Notice shall be interpreted and construed on a basis consistent with such intent. Notwithstanding anything contained herein to the contrary, no shares may be issued or delivered unless in compliance with Code Section 409A to the extent that Code Section 409A applies. To the extent this Award Notice provides for the RSU Award to be settled by reference to your termination of employment, your employment shall be deemed to have terminated upon your “separation from service,” within the meaning of Code Section 409A. The Committee reserves the right (including the right to delegate such right) to unilaterally amend this Award Notice (and thus the terms of the RSU Award) without your consent solely in order to maintain an exclusion from the application of, or to maintain compliance with, Code Section 409A. Your acceptance of this RSU Award constitutes acknowledgement and consent to such rights of the Committee.

### **Tax Impact**

Please refer to the Plan prospectus and support materials for a general description of the tax consequences of an RSU Award. You may also wish to consult with your personal tax advisor regarding how the RSU Award impacts your individual tax situation. Nothing contained in this Award Notice or in the Plan prospectus shall be construed as a guarantee of any particular tax effect for any benefits or amounts deferred or paid pursuant to this Award Notice.

### **Withholding**

The distribution of shares of Common Stock following the vesting of the RSU Award is a taxable event in many taxing jurisdictions. In some countries, including the United States, the Company is required to withhold taxes upon the taxable event. To satisfy this withholding obligation, the Company will withhold that number of shares that would satisfy the withholding obligation from the shares otherwise to be issued or delivered to you, unless otherwise approved by the Committee. The following conditions apply to such withholding: (a) the value of the shares of Common Stock withheld must equal the minimum withholding obligation; and (b) the value of the shares of Common Stock withheld shall be the Fair Market Value determined as of the date the RSUs become vested. For this purpose and for all purposes of this RSU Award, Fair Market Value shall mean the mean between the high and low prices at which a share of Common Stock of the Company is traded on the New York Stock Exchange.

### **Compliance with Securities Laws**

The RSU Award is subject to the condition that if the listing, registration or qualification of the shares of Common Stock subject to the RSU Award upon any securities exchange or under any law, or the consent or approval of any governmental body, or the taking of any other action is necessary or desirable as a condition of, or in connection with, the issuance or delivery of shares hereunder, the shares of Common Stock subject to the RSU Award shall not be issued or delivered, in whole or in part, unless such listing, registration,

qualification, consent, approval or other action shall have been effected or obtained, free of any conditions not acceptable to the Company. The Company agrees to use reasonable efforts to effect or obtain any such listing, registration, qualification, consent, approval or other action.

### **Adjustment of Shares**

Provisions are made within the Plan covering the effect of stock dividends, stock splits, changes in par value, changes in kind of stock, sale, merger, recapitalization, reorganization, etc.

### **Awards Subject to Forfeiture, Clawback and Setoff**

The RSU Award is subject to certain forfeiture conditions set forth in the Plan, which, in the event such conditions are determined to have occurred, may result in immediate forfeiture and cancellation of your outstanding RSU Award or an obligation to repay the Company the total amount of award gain realized upon settlement of your RSU Award. Also, the Company generally may deduct from and set off against any amounts the Company owes to you, including amounts payable in connection with this RSU Award, such amounts you may owe to the Company.

### **Effect on Other Benefits**

The RSU Award is not intended to and shall not impact the coverage of or the amount of any other employee benefit plans in which you participate that are sponsored by the Company or any of its Subsidiaries or affiliates.

### **Award Confers No Rights to Continued Employment**

In no event shall the granting of the RSU Award or its acceptance by you, or any provision of the Award Notice or the Plan, give or be deemed to give you any right to continued employment by the Company, any Subsidiary or any affiliate of the Company or affect in any manner the right of the Company, any Subsidiary or any affiliate of the Company to terminate your employment at any time.

### **Decisions of Board or Committee**

The Board or the Committee shall have the right to resolve all questions which may arise in connection with the RSU Award. Any interpretation, determination or other action made or taken by the Board or the Committee regarding the Plan or this RSU Award shall be final, binding and conclusive.

### **Successors**

This Award Notice shall be binding upon and inure to the benefit of any successor or successors of the Company and any person or persons who shall acquire any rights hereunder in accordance with this Award Notice or the Plan.

### **Severability**

The invalidity or unenforceability of any particular provision of this Award Notice shall not affect the other provisions hereof and this Award Notice shall be construed in all respects as if such invalid or unenforceable provision was omitted.

### **Governing Law**

This Award Notice, the RSU Award and all determinations made and actions taken pursuant hereto and thereto, to the extent not governed by the laws of the United States, shall be governed by the laws of the State of Delaware and construed in accordance therewith without giving effect to principles of conflicts of laws.

### **Entire Agreement**

This Award Notice and the Plan constitute the entire agreement between you and the Company with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements between

you and the Company with respect to the subject matter hereof, and except as provided herein, may not be modified adversely to your interest except by means of a writing signed by you and the Company.

**Acceptance of Award**

You are required to electronically accept this Award Notice within your stock plan account with the Company's stock plan administrator according to the procedures then in effect. Your acceptance of this Award Notice constitutes acknowledgement of receipt of the Plan and this RSU Award and consent to the terms of the Plan and this Award Notice as described in the Plan and this Award Notice.

**Notices**

All notices, requests or other communications provided for in this Award Notice shall be made, if to the Company, to Caterpillar Inc., Equity Compensation Administration, 100 N.E. Adams Street, Peoria, IL 61629-4440 (or, if applicable, to any updated address provided by the Company for such purposes), and if to you, to your last known mailing address on file with the Company's stock plan administrator. All notices, requests or other communications provided for in this Award Notice shall be made in writing either (a) by personal delivery, (b) by facsimile or electronic mail with confirmation of receipt, (c) by mailing in the United States mail or (d) by express courier service. The notice, request or other communication shall be deemed to be received upon personal delivery, upon confirmation of receipt of facsimile or electronic mail transmission or upon receipt by the party entitled thereto if by United States mail or express courier service; provided, however, that if a notice, request or other communication sent to the Company is not received during regular business hours, it shall be deemed to be received on the next succeeding business day of the Company.

**SIXTH AMENDMENT  
TO THE  
CATERPILLAR INC.  
SUPPLEMENTAL RETIREMENT PLAN**

Caterpillar Inc. (the “Company”) sponsors the Caterpillar Inc. Supplemental Retirement Plan (formerly known as the Caterpillar Inc. Supplemental Pension Benefit Plan and hereinafter referred to as the “Plan”). By a document dated December 17, 2007, the Plan was most recently amended and restated effective January 1, 2005. The Plan has been subsequently amended on five separate occasions by documents dated November 1, 2010, July 30, 2012, December 13, 2012, December 5, 2013 and December 10, 2014. Pursuant to Article VII of the Plan, the Company has reserved the right to amend the Plan in whole or in part, at any time. By this instrument, the Company amends the Plan, with the consent of the affected Plan participant, to provide that if the person who occupies the position of Chief Executive Officer of the Company on the effective date hereof terminates employment prior to attainment of age 65 for any reason other than death or disability, the amount payable pursuant to the Plan shall be reduced for early retirement despite the provision of the Caterpillar Inc. Retirement Income Plan that otherwise provides for payment of an unreduced pension upon early retirement on or after the attainment of age 62.

1. This Sixth Amendment shall be effective as of the date of its execution.
2. Section 3.4 of the Plan is amended and restated in its entirety to provide as follows:

**“3.4 Early Retirement Reductions.**

**(a) General.** Benefits determined pursuant to this Article III shall be subject to the same reductions for early commencement as applicable under RIP.

**(b) CEO.** Notwithstanding Section 3.4(a) or anything else herein to the contrary, if the employment of the person who occupied the position of Chief Executive Officer of the Company on the effective date of the Sixth Amendment to the January 1, 2005 restatement (the “CEO”) terminates for any reason other than death or Disability prior to the attainment of age 65, the benefit determined pursuant to this Article III shall be reduced in accordance with the early retirement provisions of RIP but substituting age 65 for age 62. Upon termination of the CEO’s employment due to death or Disability, the benefits determined pursuant to this

Article III for the CEO shall be subject to the same reductions for early retirement as applicable under RIP.”

3. This Sixth Amendment amends only the provisions of the Plan as set forth herein, and those provisions not expressly amended shall be considered in full force and effect. Notwithstanding the foregoing, this Sixth Amendment shall supersede the provisions of the Plan to the extent those provisions are inconsistent with the provisions and the intent of this Sixth Amendment.

**CATERPILLAR INC.  
AND CONSOLIDATED SUBSIDIARIES**

**COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES**  
(Millions of dollars)

**YEARS ENDED DECEMBER 31,**

	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
Earnings <sup>(1)</sup>	\$ 2,855	\$ 5,083	\$ 5,128	\$ 8,236	\$ 6,725
Plus: Interest expense	1,094	1,108	1,192	1,264	1,222
One-third of rental expense <sup>(2)</sup>	124	127	145	158	143
Adjusted Earnings	<u>4,073</u>	<u>6,318</u>	<u>6,465</u>	<u>9,658</u>	<u>8,090</u>
Fixed charges:					
Interest expense <sup>(3)</sup>	1,094	1,108	1,192	1,264	1,222
Capitalized interest	14	13	25	26	18
One-third of rental expense <sup>(2)</sup>	124	127	145	158	143
Total fixed charges	<u>\$ 1,232</u>	<u>\$ 1,248</u>	<u>\$ 1,362</u>	<u>\$ 1,448</u>	<u>\$ 1,383</u>
Ratio of earnings to fixed charges	3.3	5.1	4.7	6.7	5.8

<sup>(1)</sup> Consolidated profit before taxes

<sup>(2)</sup> Considered to be representative of interest factor in rental expense

<sup>(3)</sup> Does not include interest on income taxes and other non-third-party indebtedness

## EXHIBIT 21

**CATERPILLAR INC.**  
**Amended and Restated List of Subsidiaries and Affiliated Companies**  
**(as of December 31, 2015)**

<b>Subsidiaries (51% or more ownership)</b>	
<b><u>Name of Company</u></b>	<b><u>Where Organized</u></b>
Adex Zonex Pte. Ltd.	Singapore
Advanced Tri-Gen Power Systems, LLC	Delaware
Amoixa Limited	Cayman Islands
Anchor Coupling Inc.	Delaware
Ankexin Ex Consulting (Beijing) Co., Ltd.	China
Asia Power Systems (Tianjin) Ltd.	China
AsiaTrak (Tianjin) Ltd.	China
Banco Caterpillar S.A.	Brazil
Broadland Radiators and Heat Exchangers Limited	England and Wales
Bucyrus (Huainan) Machinery Co., Ltd.	China
Bucyrus Australia Surface Pty. Ltd.	Australia
Bucyrus Australia Underground LAD Proprietary Limited	Australia
Bucyrus Equipment, Inc.	Delaware
Bucyrus Europe Holdings, Ltd.	England and Wales
Bucyrus International (Chile) Limitada	Chile
Bucyrus International (Peru) S.A.	Peru
Bucyrus Mining Australia Pty. Ltd.	Australia
Bucyrus Mining China LLC	Delaware
Bucyrus Wisconsin Property, LLC	Delaware
Cat Rental Kyushu Ltd.	Japan
Caterpillar (Africa) (Proprietary) Limited	South Africa
Caterpillar (Bermuda) Holding Company	Bermuda
Caterpillar (China) Financial Leasing Co., Ltd.	China
Caterpillar (China) Investment Co., Ltd.	China
Caterpillar (China) Machinery Components Co., Ltd.	China
Caterpillar (HK) Limited	Hong Kong
Caterpillar (Langfang) Mining Equipment Co., Ltd.	China
Caterpillar (Luxembourg) Investment Co. S.a.r.l.	Luxembourg
Caterpillar (Newberry) LLC	Delaware
Caterpillar (NI) Limited	Northern Ireland
Caterpillar (Qingzhou) Ltd.	China
Caterpillar (Shanghai) Trading Co., Ltd.	China
Caterpillar (Suzhou) Co., Ltd.	China
Caterpillar (Suzhou) Logistics Co., Ltd.	China



Caterpillar (Thailand) Limited	Thailand
Caterpillar (Tongzhou) Co., Ltd.	China
Caterpillar (U.K.) Limited	England and Wales
Caterpillar (Wujiang) Ltd.	China
Caterpillar (Zhengzhou) Ltd.	China
Caterpillar Acquisition Holding Corp.	Delaware
Caterpillar Americas C.V.	Netherlands
Caterpillar Americas Co.	Delaware
Caterpillar Americas Funding Inc.	Delaware
Caterpillar Americas Mexico, S. de R.L. de C.V.	Mexico
Caterpillar Asia Limited	Hong Kong
Caterpillar Asia Pacific L.P.	Bermuda
Caterpillar Asia Pte. Ltd.	Singapore
Caterpillar Belgium S. A.	Belgium
Caterpillar Brasil Comercio de Maquinas e Pecas Ltda.	Brazil
Caterpillar Brasil Ltda.	Brazil
Caterpillar Brazil LLC	Delaware
Caterpillar Castings Kiel GmbH	Germany
Caterpillar Centro de Formacion, S.L.	Spain
Caterpillar China Limited	Hong Kong
Caterpillar Comercial Mexico, S.A. de C.V., SOFOM, E.N.R.	Mexico
Caterpillar Commercial Australia Pty. Ltd.	Australia
Caterpillar Commercial Holding SARL	Switzerland
Caterpillar Commercial LLC	Delaware
Caterpillar Commercial Northern Europe Limited	England and Wales
Caterpillar Commercial S.A.	Belgium
Caterpillar Commercial S.A.R.L.	France
Caterpillar Commercial Services S.A.R.L.	France
Caterpillar Commerciale S.r.L.	Italy
Caterpillar Communications LLC	Delaware
Caterpillar Corporativo Mexico, S. de R.L. de C.V.	Mexico
Caterpillar Credito, S.A. de C.V., SOFOM, E.R.	Mexico
Caterpillar DC Pension Trust Limited	England and Wales
Caterpillar Distribution International LLC	Russia
Caterpillar Distribution Mexico, S. de R.L. de C.V.	Mexico
Caterpillar Distribution Services Europe B.V.B.A.	Belgium
Caterpillar East Japan Ltd.	Japan
Caterpillar East Real Estate Holding Ltd.	Japan
Caterpillar Emissions Solutions Inc.	New Mexico
Caterpillar Energy Solutions Asia Pacific Pte. Ltd.	Singapore
Caterpillar Energy Solutions GmbH	Germany
Caterpillar Energy Solutions Inc.	Delaware
Caterpillar Energy Solutions, S.A.	Spain

Caterpillar Engine Systems Inc.	Delaware
Caterpillar Equipos Mexico, S. de R.L. de C.V.	Mexico
Caterpillar Eurasia LLC	Russia
Caterpillar Finance Corporation	Japan
Caterpillar Finance France S.A.	France
Caterpillar Financial Acquisition Funding LLC	Delaware
Caterpillar Financial Australia Leasing Pty Limited	Australia
Caterpillar Financial Australia Limited	Australia
Caterpillar Financial Commercial Account Corporation	Nevada
Caterpillar Financial Corporacion Financiera, S.A., E.F.C.	Spain
Caterpillar Financial Dealer Funding LLC	Delaware
Caterpillar Financial Funding Corporation	Nevada
Caterpillar Financial Kazakhstan Limited Liability Partnership	Republic of Kazakhstan
Caterpillar Financial Leasing (Shanghai) Co., Ltd.	China
Caterpillar Financial New Zealand Limited	New Zealand
Caterpillar Financial Nordic Services AB	Sweden
Caterpillar Financial Nova Scotia Corporation	Nova Scotia
Caterpillar Financial OOO	Russia
Caterpillar Financial Receivables Corporation	Nevada
Caterpillar Financial Renting, S.A.	Spain
Caterpillar Financial SARL	Switzerland
Caterpillar Financial Services (Dubai) Limited	United Arab Emirates
Caterpillar Financial Services (Ireland) plc	Ireland
Caterpillar Financial Services (UK) Limited	England
Caterpillar Financial Services Argentina S.A.	Argentina
Caterpillar Financial Services Asia Pte. Ltd.	Singapore
Caterpillar Financial Services Belgium S.P.R.L.	Belgium
Caterpillar Financial Services Corporation	Delaware
Caterpillar Financial Services CR, s.r.o.	Czech Republic
Caterpillar Financial Services GmbH	Germany
Caterpillar Financial Services Leasing ULC	Alberta
Caterpillar Financial Services Limited Les Services Financiers Caterpillar Limitee	Canada
Caterpillar Financial Services Malaysia Sdn Bhd	Malaysia
Caterpillar Financial Services Netherlands B.V.	Netherlands
Caterpillar Financial Services Norway AS	Norway
Caterpillar Financial Services Philippines Inc.	Philippines
Caterpillar Financial Services Poland Sp. z o.o.	Poland
Caterpillar Financial UK Acquisition Funding Partners	England and Wales
Caterpillar Financial Ukraine LLC	Ukraine
Caterpillar Fluid Systems S.r.l.	Italy
Caterpillar Fomento Comercial Ltda.	Brazil
Caterpillar Forest Products Inc.	Delaware

Caterpillar France S.A.S.	France
Caterpillar GB, L.L.C.	Delaware
Caterpillar Global Mining America LLC	Delaware
Caterpillar Global Mining Colombia S.A.S.	Colombia
Caterpillar Global Mining Czech Republic, a.s.	Czech Republic
Caterpillar Global Mining Equipamentos De Mineracao do Brasil Ltda.	Brazil
Caterpillar Global Mining Equipment LLC	Delaware
Caterpillar Global Mining Europe GmbH	Germany
Caterpillar Global Mining Expanded Products Pty Ltd	Australia
Caterpillar Global Mining Field Services LLC	Delaware
Caterpillar Global Mining Germany Holdings GmbH	Germany
Caterpillar Global Mining Highwall Miners LLC	Delaware
Caterpillar Global Mining HMS GmbH	Germany
Caterpillar Global Mining Holdings GmbH	Germany
Caterpillar Global Mining Hong Kong AFC Manufacturing Holding Co., Limited	Hong Kong
Caterpillar Global Mining Hong Kong Limited	Hong Kong
Caterpillar Global Mining LLC	Delaware
Caterpillar Global Mining Mexico LLC	Delaware
Caterpillar Global Mining Mexico S. de R.L. de C.V.	Mexico
Caterpillar Global Mining Polska Sp. z.o.o.	Poland
Caterpillar Global Mining Pty. Ltd.	Australia
Caterpillar Global Mining SARL	Switzerland
Caterpillar Global Mining Services Mexico S. de R.L. de C.V.	Mexico
Caterpillar Global Mining U.S. Parts LLC	Delaware
Caterpillar Global Mining Virginia LLC	Virginia
Caterpillar Global Services LLC	Delaware
Caterpillar Group Services S.A.	Belgium
Caterpillar Holding (France) S.A.S.	France
Caterpillar Holding Germany GmbH	Germany
Caterpillar Holding Ltd.	Bermuda
Caterpillar Hungary Components Manufacturing Ltd.	Hungary
Caterpillar Hydraulics Italia S.r.l.	Italy
Caterpillar Impact Products Limited	England and Wales
Caterpillar India Private Limited	India
Caterpillar Industrias Mexico, S. de R.L. de C.V.	Mexico
Caterpillar Insurance Co. Ltd.	Bermuda
Caterpillar Insurance Company	Missouri
Caterpillar Insurance Holdings Inc.	Delaware
Caterpillar Insurance Services Corporation	Tennessee
Caterpillar International Finance Limited	Ireland
Caterpillar International Finance Luxembourg Holding S.a.r.l.	Luxembourg
Caterpillar International Finance Luxembourg, S.a.r.l.	Luxembourg
Caterpillar International Investments Coöperatie U.A.	Netherlands

Caterpillar International Ltd.	Bermuda
Caterpillar International Luxembourg I S.a.r.l.	Luxembourg
Caterpillar International Luxembourg II S.a.r.l.	Luxembourg
Caterpillar International Product SARL	Switzerland
Caterpillar International Services Corporation	Nevada
Caterpillar International Services del Peru S.A.	Peru
Caterpillar Investment Limited	Ireland
Caterpillar Investment One SARL	Switzerland
Caterpillar Investment Two SARL	Switzerland
Caterpillar Investments	England and Wales
Caterpillar IPX LLC	Delaware
Caterpillar IRB LLC	Delaware
Caterpillar Japan Ltd.	Japan
Caterpillar Latin America Services de Mexico, S. de R.L. de C.V.	Mexico
Caterpillar Latin America Services de Panama, S. de R.L.	Panama
Caterpillar Latin America Services, S.R.L.	Costa Rica
Caterpillar Latin America Servicios de Chile Limitada	Chile
Caterpillar Latin America Support Services, S. DE R.L.	Panama
Caterpillar Leasing (Thailand) Limited	Thailand
Caterpillar Leasing Chile, S.A.	Chile
Caterpillar Leasing GmbH (Leipzig)	Germany
Caterpillar Leasing Operativo Limitada	Chile
Caterpillar Life Insurance Company	Missouri
Caterpillar Logistics (Shanghai) Co. Ltd.	China
Caterpillar Logistics (UK) Limited	England and Wales
Caterpillar Logistics Inc.	Delaware
Caterpillar Logistics ML Services France S.A.S.	France
Caterpillar Logistics Services (Tianjin) Ltd.	China
Caterpillar Logistics Services China Limited	Hong Kong
Caterpillar Luxembourg Group S.a.r.l.	Luxembourg
Caterpillar Luxembourg LLC	Delaware
Caterpillar Luxembourg S.a.r.l.	Luxembourg
Caterpillar Marine Asia Pacific Pte. Ltd.	Singapore
Caterpillar Marine Asset Intelligence LLC	Delaware
Caterpillar Marine Power UK Limited	England and Wales
Caterpillar Marine Trading (Shanghai) Co., Ltd.	China
Caterpillar Maroc SARL	Morocco
Caterpillar Materiels Routiers SAS	France
Caterpillar Mexico, S.A. de C.V.	Mexico
Caterpillar Mining Canada ULC	Canada
Caterpillar Mining Chile Servicios Limitada	Chile
Caterpillar Motoren (Guangdong) Co. Ltd.	China
Caterpillar Motoren GmbH & Co. KG	Germany

Caterpillar Motoren Henstedt-Ulzburg GmbH	Germany
Caterpillar Motoren Rostock GmbH	Germany
Caterpillar Motoren Verwaltungs-GmbH	Germany
Caterpillar North America C.V.	Netherlands
Caterpillar NZ Funding Parent Limited	Bermuda
Caterpillar of Australia Pty. Ltd.	Australia
Caterpillar of Canada Corporation	Canada
Caterpillar of Delaware, Inc.	Delaware
Caterpillar Operator Training Ltd.	Japan
Caterpillar Overseas Credit Corporation SARL	Switzerland
Caterpillar Overseas Investment Holding SARL	Switzerland
Caterpillar Overseas Limited	England and Wales
Caterpillar Overseas SARL	Switzerland
Caterpillar Panama Services S.A.	Panama
Caterpillar Paving Products Inc.	Oklahoma
Caterpillar Paving Products Xuzhou Ltd.	China
Caterpillar Pension Trust Limited	England and Wales
Caterpillar Poland Sp. z o.o.	Poland
Caterpillar Power Generation Systems (Bangladesh) Limited	Bangladesh
Caterpillar Power Generations Systems (Chile) SpA	Chile
Caterpillar Power Generations Systems L.L.C.	Delaware
Caterpillar Power Systems Inc.	Delaware
Caterpillar Power Ventures Corporation	Delaware
Caterpillar Power Ventures International, Ltd.	Bermuda
Caterpillar Precision Seals Korea	Rep. of South Korea
Caterpillar Prodotti Stradali S.r.l.	Italy
Caterpillar Product Development SARL	Switzerland
Caterpillar Product Services Corporation	Missouri
Caterpillar Propulsao Maritima do Brasil LTDA	Brazil
Caterpillar Propulsion AB	Sweden
Caterpillar Propulsion Singapore Pte. Ltd.	Singapore
Caterpillar Propulsion International Trading (Shanghai) Co. Ltd.	China
Caterpillar Propulsion Istanbul Makina Ticaret Limited Sirketi	Turkey
Caterpillar Propulsion Italy S.R.L.	Italy
Caterpillar Propulsion Namibia (Proprietary) Limited	Namibia
Caterpillar Propulsion Production Pte. Ltd.	Singapore
Caterpillar Propulsion Pte. Ltd.	Singapore
Caterpillar Propulsion Spain, S.L.	Spain
Caterpillar Propulsion Production AB	Sweden
Caterpillar Propulsion Sweden AB	Sweden
Caterpillar Propulsion Technology AB	Sweden
Caterpillar R&D Center (China) Co., Ltd.	China
Caterpillar Ramos Arizpe LLC	Delaware

Caterpillar Ramos Arizpe Servicios S.A. de C.V.	Mexico
Caterpillar Ramos Arizpe, S. de R.L. de C.V.	Mexico
Caterpillar Reman Powertrain Indiana LLC	Delaware
Caterpillar Remanufacturing Drivetrain LLC	Delaware
Caterpillar Remanufacturing Services (Shanghai) Co., Ltd.	China
Caterpillar Remanufacturing Services Chaumont France	France
Caterpillar Remanufacturing Services Radom Poland	Poland
Caterpillar Renting France S.A.S.	France
Caterpillar Reynosa, S.A. de C.V.	Mexico
Caterpillar Sales Inc.	Delaware
Caterpillar SARL	Switzerland
Caterpillar Senegal SARL	Senegal
Caterpillar Services Germany GmbH	Germany
Caterpillar Services Limited	Delaware
Caterpillar Servicios Limitada	Chile
Caterpillar Servicios Mexico, S. de R.L. de C.V.	Mexico
Caterpillar Servizi Italia Srl	Italy
Caterpillar Shrewsbury Limited	England and Wales
Caterpillar Sistemas De Geracao De Energia Do Brasil Ltda.	Brazil
Caterpillar Skinningrove Limited	England and Wales
Caterpillar Solution Engineering Ltd.	Japan
Caterpillar Southern Africa (Pty) Ltd.	South Africa
Caterpillar Special Services Belgium S.P.R.L.	Belgium
Caterpillar Switchgear Holding Inc.	Georgia
Caterpillar Tianjin Ltd.	China
Caterpillar Tohoku Ltd.	Japan
Caterpillar Torreon S. de R.L. de C.V.	Mexico
Caterpillar Tosno, L.L.C.	Russia
Caterpillar Transmissions France S.A.R.L.	France
Caterpillar Tunnelling Canada Corporation	Canada
Caterpillar Tunnelling Canada Holdings Ltd.	Ontario
Caterpillar Tunnelling Europe Limited	England and Wales
Caterpillar UK Acquisition Partners LP	England and Wales
Caterpillar UK Employee Trust Limited	England and Wales
Caterpillar UK Engines Company Limited	England and Wales
Caterpillar UK Group Limited	England and Wales
Caterpillar UK Holdings Limited	England and Wales
Caterpillar Undercarriage (Xuzhou) Co. Ltd.	China
Caterpillar Underground Mining Pty. Ltd.	Australia
Caterpillar Used Equipment Services Inc.	Delaware
Caterpillar Used Equipment Services International SARL	Switzerland
Caterpillar Venture Capital Inc.	Delaware
Caterpillar West Japan Ltd.	Japan

Caterpillar West Real Estate Holding Ltd.	Japan
Caterpillar Work Tools B.V.	Netherlands
Caterpillar Work Tools, Inc.	Kansas
Caterpillar World Trading Corporation	Delaware
Caterpillar Xuzhou Ltd.	China
Centre de Distribution de Wallonie SPRL	Belgium
Chemetron-Railway Canada Corporation	Ontario
Chemetron-Railway Products, Inc.	Delaware
EDC European Excavator Design Center Beteiligungs-GmbH	Germany
EDC European Excavator Design Center GmbH & Co. KG	Germany
Electro-Motive Canada Co.	Canada
Electro-Motive Diesel and Locomotive Company (Proprietary) Limited	South Africa
Electro-Motive Diesel International Corp.	Delaware
Electro-Motive Diesel Limited	England and Wales
Electro-Motive Diesel, Inc.	Delaware
Electro-Motive Locomotive Technologies LLC	Russia
Electro-Motive Maintenance Operations Pty Ltd	Australia
Electro-Motive Maintenance Services, S.A. de C.V.	Mexico
Electro-Motive Technical Consulting Co. (Beijing) Ltd.	China
EMC Holding Corp.	Delaware
EMD International Holdings, Inc.	Delaware
EMD Locomotive Company de Mexico, S.A. de C.V.	Mexico
EMD Locomotivas do Brasil Ltd.	Brazil
EMD Locomotive Maintenance de Mexico, S.A. de C.V.	Mexico
EMD Locomotive Technologies Private Limited	India
Energy Services International Limited	Bermuda
Equipment Assurance Limited	Cayman Islands
Equipos de Acuna, S.A. de C.V.	Mexico
ERA Mining Machinery Limited	Cayman Islands
Erduosi Siwei Dibite Mechanical and Electrical Equipment Co., Ltd.	China
ESRG Commercial Services, LLC	Virginia
ESRG Government Services, LLC	Delaware
ESRG IP, LLC	Virginia
F. Perkins Limited	England and Wales
FG Wilson (Engineering) Limited	England and Wales
GB Holdco (China), Inc.	Delaware
GFCM Servicios, S.A. de C.V.	Mexico
Haynes Corporation	Florida
Hong Kong Siwei Holdings Limited	Hong Kong
Hypac (Tianjin) International Trading Company Limited	China
Hypac Holdings LLC	Delaware
Inmobiliaria Conek, S.A.	Mexico
Kentuckiana Railcar Repair & Storage Facility, LLC	Indiana

Locomotoras Progress Mexico, S. de R.L. de C.V.	Mexico
Magnum Power Products, LLC	Delaware
MaK Americas Inc.	Illinois
Mec-Track S.r.l.	Italy
Metalmark Financial Services Limited	England and Wales
MGE Equipamentos e Servicos Ferroviarios Ltda.	Brazil
Motoren Steffens GmbH	Germany
MWM (Beijing) Co., Ltd.	China
MWM Austria GmbH	Austria
MWM Benelux B.V.	Netherlands
MWM Energy Australia Pty Ltd	Australia
MWM Energy Hungaria Kft.	Hungary
MWM France S.A.S.	France
MWM Latin America Solucoes Energeticas Ltda.	Brazil
MWM Real Estate GmbH	Germany
OOO Bucyrus Service	Russia
OpenAero, LLC	Virginia
Overseas Rail Holdings, B.V.	Netherlands
P. T. Caterpillar Finance Indonesia	Indonesia
P. T. Solar Services Indonesia	Indonesia
PEPR Inc.	Canada
Perkins Engines (Asia Pacific) Pte Ltd	Singapore
Perkins Engines Company Limited	England and Wales
Perkins Engines, Inc.	Maryland
Perkins Group Limited	England and Wales
Perkins Holdings Limited LLC	Delaware and England and Wales
Perkins India Private Limited	India
Perkins International Inc.	Delaware
Perkins Limited	England
Perkins Motores do Brasil Ltda.	Brazil
Perkins Power Systems Technology (Wuxi) Co., Ltd.	China
Perkins Shibaura Engines (Wuxi) Co., Ltd.	China
Perkins Shibaura Engines Limited	England and Wales
Perkins Shibaura Engines LLC	Delaware
Perkins Technology Inc.	Delaware
Progress Metal Reclamation Company	Kentucky
Progress Rail Canada Corporation	Canada
Progress Rail Equipment Leasing Corporation	Michigan
Progress Rail Holdings, Inc.	Alabama
Progress Rail Inspection & Information Systems GmbH	Germany
Progress Rail Inspection & Information Systems S.r.l.	Italy
Progress Rail Leasing Canada Corporation	Delaware



Progress Rail Leasing Corporation	Delaware
Progress Rail Leasing de Mexico, S. de R.L. de C.V.	Mexico
Progress Rail Locacao de Locomotivas Ltda.	Brazil
Progress Rail Manufacturing Corporation	Delaware
Progress Rail Raceland Corporation	Delaware
Progress Rail Services Corporation	Alabama
Progress Rail Services de Mexico S.A. de C.V.	Mexico
Progress Rail Services Holdings Corp.	Delaware
Progress Rail Services LLC	Delaware
Progress Rail Services UK Limited	England and Wales
Progress Rail Switching Services LLC	Delaware
Progress Rail Transcanada Corporation	Nova Scotia
Progress Rail Wildwood, LLC	Florida
PT. Bucyrus Indonesia	Indonesia
PT. Caterpillar Indonesia	Indonesia
PT. Caterpillar Indonesia Batam	Indonesia
PT. Caterpillar Remanufacturing Indonesia	Indonesia
Pyroban (Suzhou) Safety Systems Co., Ltd.	China
Pyroban Benelux B.V.	Netherlands
Pyroban Envirosafe Limited	England and Wales
Pyroban France SARL	France
Pyroban Group Limited	England and Wales
Pyroban Limited	England and Wales
Pyropress Engineering Company Limited (The)	England and Wales
Pyrrha Investments B.V.	Netherlands
Pyrrha Investments Limited	England and Wales
Rail Product Solutions LLC	Delaware
Railcar, Ltd.	Georgia
S & L Railroad, LLC	Nebraska
SCM Singapore Holdings Pte. Ltd.	Singapore
Servicios Administrativos Progress S. de R.L. de C.V.	Mexico
Servicios de Turbinas Solar, S. de R.L. de C.V.	Mexico
Servicios Ejecutivos Progress S. de R.L. de C.V.	Mexico
Solar Turbines (Beijing) Trading & Services Co., Ltd.	China
Solar Turbines (Thailand) Ltd.	Thailand
Solar Turbines Canada Ltd./Ltee.	Canada
Solar Turbines Central Asia Limited Liability Partnership	Kazakhstan
Solar Turbines CIS Limited Liability Company	Russia
Solar Turbines EAME s.r.o.	Czech Republic
Solar Turbines Egypt L.L.C.	Egypt
Solar Turbines Europe S.A.	Belgium
Solar Turbines Incorporated	Delaware
Solar Turbines India Private Limited	India

Solar Turbines International Company	Delaware
Solar Turbines Malaysia Sdn Bhd	Malaysia
Solar Turbines Middle East Limited	Jebel Ali Free Zone
Solar Turbines Services Company	California
Solar Turbines Services Nigeria Limited	Nigeria
Solar Turbines Services of Argentina S.R.L.	Argentina
Solar Turbines Trinidad & Tobago Limited	Trinidad and Tobago
Solar Turbines West-Africa SARL	Gabon
SPL Software Alliance LLC	Delaware
Tangshan DBT Machinery Co., Ltd.	China
Tecnologia Modificada, S.A. de C.V.	Mexico
Tokyo Rental Ltd.	Japan
Turbinas Solar de Colombia S. A.	Colombia
Turbinas Solar de Venezuela, C.A.	Venezuela
Turbinas Solar S.A. de C.V.	Mexico
Turbo Tecnologia de Reparaciones S.A. de C.V.	Mexico
Turbomach Endustriyel Gaz Turbinleri Sanayi Ve Ticaret Limited	Turkey
Turbomach France SARL	France
Turbomach GmbH	Germany
Turbomach Netherlands B.V.	Netherlands
Turbomach Pakistan (Private) Limited	Pakistan
Turbomach S.A., Unipersonal	Spain
Turbomach S.r.L.	Italy
Turbomach SA	Switzerland
Turbomach Sp. Z o.o.	Poland
Turner Powertrain Systems Limited	England and Wales
UK Hose Assembly Limited	England and Wales
Underground Imaging Technologies LLC	Delaware
United Industries Corporation	Kentucky
VALA (UK) LP	England and Wales
VALA Inc.	Delaware
VALA LLC	Delaware
Vasky Energy Ltd.	British Virgin Islands
Veratech Holding B.V.	Netherlands
West Virginia Auto Shredding Inc.	West Virginia
Western Gear Machinery LLC	Delaware
Wisconsin Holdings Pty. Ltd.	Australia
Zeit Comercia e Montagem de Equipamentos Electronicos Ltda.	Brazil
Zhengzhou Siwei Marco Automatic Control System Co., Ltd.	China
Zhengzhou Siwei Mechanical and Electrical Equipment Sales Co., Ltd.	China
Zhengzhou Siwei Xingyang Machinery Manufacturing Co., Ltd.	China

Affiliated Companies (50% and less ownership)	
<u>Name of Company</u>	<u>Where Organized</u>
10G LLC	Delaware
Advanced Filtration Systems Inc.	Delaware
AFSI Europe s.r.o.	Czech Republic
AP Operation & Maintenance Limited	Channel Islands
Atlas Heavy Engineering Pty Ltd	Australia
Black Horse LLC	Delaware
Caterpillar Trimble Control Technologies LLC	Delaware
CSSC Motoren Anquig-Kiel Co., Ltd.	China
Datong Tongbi Machinery Company Limited	China
Electro-Motive Diesel Africa Proprietary Limited	South Africa
Evercompounds LLC	Delaware
Heavy Haul Track Systems Joint Venture	Australia
Intelligent Switchgear Organization LLC	Delaware
Leading Edge Hydraulic Systems Co., Ltd.	China
Mitsubishi Caterpillar Forklift Asia Pte. Ltd.	Singapore
Shanxi Xishan Siwei Mechanical & Electrical Equipment Manufacturing Co., Ltd.	China
Suzhou Liaoan Machinery Co., Ltd.	China
Terex NHL Mining Equipment Co. Ltd.	China
Turboservices SDN BHD	Malaysia
Vector Hydraulics Private Limited	India
VirtualSite Solutions LLC	Delaware
Xi'an FC Intelligence Transmission Co., Ltd.	China

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-207735), Form S-4 (Nos. 333-183774, 333-121003) and Form S-8 (Nos. 2-97450, 333-196711, 333-37353, 33-8003, 333-03609, 333-41464, 333-98197, 333-115837, 333-32853, 333-32851, 333-111355, 333-128342, 333-133275, 333-133266, 333-133265, 333-141548, 333-170405, 333-170403, 333-170399, 333-168894, 333-168868, 333-135467, 333-168867, 333-186742, 333-186744, 333-192766) of Caterpillar Inc. of our report dated February 16, 2016 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

*/s/ PricewaterhouseCoopers LLP*

Peoria, Illinois  
February 16, 2016

## SECTION 302 CERTIFICATION

I, Douglas R. Oberhelman, certify that:

1. I have reviewed this annual report on Form 10-K of Caterpillar Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 16, 2016

/s/ Douglas R. Oberhelman  
(Douglas R. Oberhelman)

Chairman of the Board and  
Chief Executive Officer

## SECTION 302 CERTIFICATION

I, Bradley M. Halverson, certify that:

1. I have reviewed this annual report on Form 10-K of Caterpillar Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 16, 2016

/s/ Bradley M. Halverson

(Bradley M. Halverson)

Group President and  
Chief Financial Officer

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

In connection with the annual report of Caterpillar Inc. (the “Company”) on Form 10-K for the period ending December 31, 2015 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of our knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities and Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 16, 2016

/s/ Douglas R. Oberhelman  
(Douglas R. Oberhelman)

Chairman of the Board and  
Chief Executive Officer

February 16, 2016

/s/ Bradley M. Halverson  
(Bradley M. Halverson)

Group President and  
Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Caterpillar Inc. and will be retained by Caterpillar Inc. and furnished to the Securities and Exchange Commission or its staff upon request.