CATERPILLAR INC
Form 10-Q
August 02, 2017
Table of Contents

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

FORM 10-Q
[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2017
OR
[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File Number: 1-768
CATERPILLAR INC.
(Exact name of registrant as specified in its charter)

Delaware	37-0602744
(State or other jurisdiction of incorporation)	(IRS Employer I.D. No.)
100 NE Adams Street, Peoria, Illinois	61629
(Address of principal executive offices)	(Zip Code)

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

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 x 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 x No ¨
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	x	Accelerated filer	o
Non-accelerated filer	o	(Do not check if a smaller reporting company)	
		Smaller reporting company	o
		Emerging growth company	o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

At June 30, 2017, 590,972,792 shares of common stock of the registrant were outstanding.

Table of Contents

Table of Contents

* Item omitted because no answer is called for or item is not applicable.

Table of Contents

Part I. FINANCIAL INFORMATION

Item 1. Financial Statements

Caterpillar Inc.
Consolidated Statement of Results of Operations
(Unaudited)
(Dollars in millions except per share data)

	Three Months Ended June 30	
	2017	2016
Sales and revenues:		
Sales of Machinery, Energy & Transportation	$10,639	$9,645
Revenues of Financial Products	692	697
Total sales and revenues	11,331	10,342
Operating costs:		
Cost of goods sold	7,769	7,419
Selling, general and administrative expenses	1,289	1,123
Research and development expenses	453	468
Interest expense of Financial Products	162	148
Other operating (income) expenses	407	399
Total operating costs	10,080	9,557
Operating profit	1,251	785
Interest expense excluding Financial Products	121	130
Other income (expense)	29	84
Consolidated profit before taxes	1,159	739
Provision (benefit) for income taxes	361	184
Profit of consolidated companies	798	555
Equity in profit (loss) of unconsolidated affiliated companies	5	(2)
Profit of consolidated and affiliated companies	803	553
Less: Profit (loss) attributable to noncontrolling interests	1	3
Profit [1]	$802	$550
Profit per common share	$1.36	$0.94
Profit per common share – diluted [2]	$1.35	$0.93
Weighted-average common shares outstanding (millions)		
– Basic	590.2	584.1

– Diluted[2]	595.4	588.6
Cash dividends declared per common share	$1.55	$1.54

[1] Profit attributable to common shareholders.
[2] Diluted by assumed exercise of stock-based compensation awards using the treasury stock method.

See accompanying notes to Consolidated Financial Statements.

3

Table of Contents

Caterpillar Inc.
Consolidated Statement of Comprehensive Income
(Unaudited)
(Dollars in millions)

	Three Months Ended June 30	
	2017	2016
Profit of consolidated and affiliated companies	$803	$553
Other comprehensive income (loss), net of tax:		
Foreign currency translation, net of tax (provision)/benefit of: 2017 - $51; 2016 - $(20)	324	(103)
Pension and other postretirement benefits:		
Current year prior service credit (cost), net of tax (provision)/benefit of: 2017 - $0; 2016 - $0	—	(1)
Amortization of prior service (credit) cost, net of tax (provision)/benefit of: 2017 - $3; 2016 - $6	(4)	(9)
Derivative financial instruments:		
Gains (losses) deferred, net of tax (provision)/benefit of: 2017 - $0; 2016 - $11	—	(18)
(Gains) losses reclassified to earnings, net of tax (provision)/benefit of: 2017 - $(14); 2016 - $(1)	26	1
Available-for-sale securities:		
Gains (losses) deferred, net of tax (provision)/benefit of: 2017 - $(3); 2016 - $(3)	10	10
(Gains) losses reclassified to earnings, net of tax (provision)/benefit of: 2017 - $0; 2016 - $10	—	(20)
Total other comprehensive income (loss), net of tax	356	(140)
Comprehensive income	1,159	413
Less: comprehensive income attributable to the noncontrolling interests	(1)	(3)
Comprehensive income attributable to shareholders	$1,158	$410

See accompanying notes to Consolidated Financial Statements.

Table of Contents

Caterpillar Inc.
Consolidated Statement of Results of Operations
(Unaudited)
(Dollars in millions except per share data)

	Six Months Ended June 30	
	2017	2016
Sales and revenues:		
Sales of Machinery, Energy & Transportation	$19,769	$18,425
Revenues of Financial Products	1,384	1,378
Total sales and revenues	21,153	19,803
Operating costs:		
Cost of goods sold	14,527	14,241
Selling, general and administrative expenses	2,334	2,211
Research and development expenses	871	976
Interest expense of Financial Products	321	300
Other operating (income) expenses	1,432	796
Total operating costs	19,485	18,524
Operating profit	1,668	1,279
Interest expense excluding Financial Products	244	259
Other income (expense)	24	84
Consolidated profit before taxes	1,448	1,104
Provision (benefit) for income taxes	451	276
Profit of consolidated companies	997	828
Equity in profit (loss) of unconsolidated affiliated companies	—	(3)
Profit of consolidated and affiliated companies	997	825
Less: Profit (loss) attributable to noncontrolling interests	3	4
Profit [1]	$994	$821
Profit per common share	$1.69	$1.41
Profit per common share – diluted [2]	$1.67	$1.40
Weighted-average common shares outstanding (millions)		
– Basic	588.8	583.4
– Diluted [2]	594.4	588.2
Cash dividends declared per common share	$1.55	$1.54

[1] Profit attributable to common shareholders.
[2] Diluted by assumed exercise of stock-based compensation awards using the treasury stock method.

See accompanying notes to Consolidated Financial Statements.

Table of Contents

Caterpillar Inc.
Consolidated Statement of Comprehensive Income
(Unaudited)
(Dollars in millions)

	Six Months Ended June 30	
	2017	2016
Profit of consolidated and affiliated companies	$ 997	$ 825
Other comprehensive income (loss), net of tax:		
Foreign currency translation, net of tax (provision)/benefit of: 2017 - $58; 2016 - $12	471	305
Pension and other postretirement benefits:		
Current year prior service credit (cost), net of tax (provision)/benefit of: 2017 - $(4); 2016 - $(69)	8	117
Amortization of prior service (credit) cost, net of tax (provision)/benefit of: 2017 - $4; 2016 - $11	(8)	(19)
Derivative financial instruments:		
Gains (losses) deferred, net of tax (provision)/benefit of: 2017 - $(5); 2016 - $5	10	(9)
(Gains) losses reclassified to earnings, net of tax (provision)/benefit of: 2017 - $(36); 2016 - $(6)	66	10
Available-for-sale securities:		
Gains (losses) deferred, net of tax (provision)/benefit of: 2017 - $(9); 2016 - $(8)	18	16
(Gains) losses reclassified to earnings, net of tax (provision)/benefit of: 2017 - $(1); 2016 - $9	3	(18)
Total other comprehensive income (loss), net of tax	568	402
Comprehensive income	1,565	1,227
Less: comprehensive income attributable to the noncontrolling interests	(3)	(4)
Comprehensive income attributable to shareholders	$ 1,562	$ 1,223

See accompanying notes to Consolidated Financial Statements.

Table of Contents

Caterpillar Inc.
Consolidated Statement of Financial Position
(Unaudited)
(Dollars in millions)

	June 30, 2017	December 31, 2016
Assets		
Current assets:		
Cash and short-term investments	$10,232	$ 7,168
Receivables – trade and other	6,675	5,981
Receivables – finance	8,920	8,522
Prepaid expenses and other current assets	1,776	1,682
Inventories	9,388	8,614
Total current assets	36,991	31,967
Property, plant and equipment – net	14,420	15,322
Long-term receivables – trade and other	940	1,029
Long-term receivables – finance	13,197	13,556
Noncurrent deferred and refundable income taxes	2,866	2,790
Intangible assets	2,232	2,349
Goodwill	6,142	6,020
Other assets	1,722	1,671
Total assets	$78,510	$ 74,704
Liabilities		
Current liabilities:		
Short-term borrowings:		
Machinery, Energy & Transportation	$5	$ 209
Financial Products	6,775	7,094
Accounts payable	5,778	4,614
Accrued expenses	3,211	3,003
Accrued wages, salaries and employee benefits	1,986	1,296
Customer advances	1,533	1,167
Dividends payable	461	452
Other current liabilities	1,787	1,635
Long-term debt due within one year:		
Machinery, Energy & Transportation	5	507
Financial Products	6,592	6,155
Total current liabilities	28,133	26,132
Long-term debt due after one year:		
Machinery, Energy & Transportation	8,815	8,436
Financial Products	15,000	14,382
Liability for postemployment benefits	9,248	9,357
Other liabilities	3,235	3,184
Total liabilities	64,431	61,491
Commitments and contingencies (Notes 10 and 13)		
Shareholders' equity		

Common stock of $1.00 par value:		
Authorized shares: 2,000,000,000		
Issued shares: (6/30/17 and 12/31/16 – 814,894,624) at paid-in amount	5,316	5,277
Treasury stock (6/30/17 – 223,921,832 shares; 12/31/16 – 228,408,600 shares) at cost	(17,307)	(17,478)
Profit employed in the business	27,471	27,377
Accumulated other comprehensive income (loss)	(1,471)	(2,039)
Noncontrolling interests	70	76
Total shareholders’ equity	14,079	13,213
Total liabilities and shareholders’ equity	$78,510	$ 74,704

See accompanying notes to Consolidated Financial Statements.

Table of Contents

Caterpillar Inc.
Consolidated Statement of Changes in Shareholders' Equity
(Unaudited)
(Dollars in millions)

	Common stock	Treasury stock	Profit employed in the business	Accumulated other comprehensive income (loss)	Noncontrolling interests	Total
Six Months Ended June 30, 2016						
Balance at December 31, 2015	$ 5,238	$ (17,640)	$ 29,246	$ (2,035)	$ 76	$ 14,885
Profit of consolidated and affiliated companies	—	—	821	—	4	825
Foreign currency translation, net of tax	—	—	—	305	—	305
Pension and other postretirement benefits, net of tax	—	—	—	98	—	98
Derivative financial instruments, net of tax	—	—	—	1	—	1
Available-for-sale securities, net of tax	—	—	—	(2)	—	(2)
Dividends declared	—	—	(900)	—	—	(900)
Distribution to noncontrolling interests	—	—	—	—	(9)	(9)
Common shares issued from treasury stock for stock-based compensation: 1,909,291	(108)	61	—	—	—	(47)
Stock-based compensation expense	146	—	—	—	—	146
Net excess tax benefits from stock-based compensation	(5)	—	—	—	—	(5)
Other	6	—	—	—	—	6
Balance at June 30, 2016	$ 5,277	$ (17,579)	$ 29,167	$ (1,633)	$ 71	$ 15,303
Six Months Ended June 30, 2017						
Balance at December 31, 2016	$ 5,277	$ (17,478)	$ 27,377	$ (2,039)	$ 76	$ 13,213
Adjustment to adopt stock-based compensation guidance[1]	—	—	15	—	—	15
Balance at January 1, 2017	$ 5,277	$ (17,478)	$ 27,392	$ (2,039)	$ 76	$ 13,228
Profit of consolidated and affiliated companies	—	—	994	—	3	997
Foreign currency translation, net of tax	—	—	—	471	—	471
Pension and other postretirement benefits, net of tax	—	—	—	—	—	—
Derivative financial instruments, net of tax	—	—	—	76	—	76
Available-for-sale securities, net of tax	—	—	—	21	—	21
Change in ownership from noncontrolling interests	4	—	—	—	(3)	1
Dividends declared	—	—	(915)	—	—	(915)
Distribution to noncontrolling interests	—	—	—	—	(6)	(6)
Common shares issued from treasury stock for stock-based compensation: 4,486,768	(88)	171	—	—	—	83
Stock-based compensation expense	117	—	—	—	—	117
Other	6	—	—	—	—	6
Balance at June 30, 2017	$ 5,316	$ (17,307)	$ 27,471	$ (1,471)	$ 70	$ 14,079

[1] See Note 2 for additional information.

See accompanying notes to Consolidated Financial Statements.

Table of Contents

Caterpillar Inc.
Consolidated Statement of Cash Flow
(Unaudited)
(Millions of dollars)

	Six Months Ended June 30	
	2017	2016
Cash flow from operating activities:		
Profit of consolidated and affiliated companies	$997	$825
Adjustments for non-cash items:		
Depreciation and amortization	1,430	1,494
Other	487	368
Changes in assets and liabilities, net of acquisitions and divestitures:		
Receivables – trade and other	(442)	573
Inventories	(688)	305
Accounts payable	1,113	208
Accrued expenses	251	1
Accrued wages, salaries and employee benefits	641	(743)
Customer advances	322	93
Other assets – net	(280)	(127)
Other liabilities – net	90	(193)
Net cash provided by (used for) operating activities	3,921	2,804
Cash flow from investing activities:		
Capital expenditures – excluding equipment leased to others	(371)	(580)
Expenditures for equipment leased to others	(753)	(1,025)
Proceeds from disposals of leased assets and property, plant and equipment	563	383
Additions to finance receivables	(5,264)	(4,643)
Collections of finance receivables	5,508	4,466
Proceeds from sale of finance receivables	83	42
Investments and acquisitions (net of cash acquired)	(21)	(38)
Proceeds from sale of businesses and investments (net of cash sold)	91	—
Proceeds from sale of securities	187	195
Investments in securities	(207)	(243)
Other – net	5	(14)
Net cash provided by (used for) investing activities	(179)	(1,457)
Cash flow from financing activities:		
Dividends paid	(906)	(898)
Distribution to noncontrolling interests	(6)	—
Common stock issued, including treasury shares reissued	83	(47)
Proceeds from debt issued (original maturities greater than three months):		
Machinery, Energy & Transportation	361	1
Financial Products	4,507	2,840
Payments on debt (original maturities greater than three months):		
Machinery, Energy & Transportation	(505)	(7)
Financial Products	(3,720)	(3,324)
Short-term borrowings – net (original maturities three months or less)	(505)	391

Net cash provided by (used for) financing activities	(691)	(1,044)
Effect of exchange rate changes on cash	13	1
Increase (decrease) in cash and short-term investments	3,064	304
Cash and short-term investments at beginning of period	7,168	6,460
Cash and short-term investments at end of period	$10,232	$6,764

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.

Table of Contents

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1.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.

B. Basis of presentation

In the opinion of management, the accompanying unaudited financial statements include all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of (a) the consolidated results of operations for the three and six months ended June 30, 2017 and 2016, (b) the consolidated comprehensive income for the three and six months ended June 30, 2017 and 2016, (c) the consolidated financial position at June 30, 2017 and December 31, 2016, (d) the consolidated changes in shareholders' equity for the six months ended June 30, 2017 and 2016 and (e) the consolidated cash flow for the six months ended June 30, 2017 and 2016. The financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America (U.S. GAAP) and pursuant to the rules and regulations of the Securities and Exchange Commission (SEC).

Interim results are not necessarily indicative of results for a full year. The information included in this Form 10-Q should be read in conjunction with the audited financial statements and notes thereto included in our company's annual report on Form 10-K for the year ended December 31, 2016 (2016 Form 10-K).

The December 31, 2016 financial position data included herein is derived from the audited consolidated financial statements included in the 2016 Form 10-K but does not include all disclosures required by U.S. GAAP. Certain amounts for prior periods have been reclassified to conform to the current period financial statement presentation. See Note 2 for more information.

Unconsolidated Variable Interest Entities (VIEs)

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)	June 30, 2017	December 31, 2016
Receivables - trade and other	$ 81	$ 55
Receivables - finance	178	174
Long-term receivables - finance	229	246
Investments in unconsolidated affiliated companies	38	31
Guarantees	207	210

Total	$ 733	$ 716

10

Table of Contents

In addition, Cat Financial has end-user customers that are VIEs of which we are not the primary beneficiary. Although we have provided financial support to these entities and therefore have a variable interest, we do not have the power to direct the activities that most significantly impact their economic performance. Our maximum exposure to loss from our involvement with these VIEs is limited to the credit risk inherently present in the financial support that we have provided. These risks are evaluated and reflected in our financial statements as part of our overall portfolio of finance receivables and related allowance for credit losses.

2. New accounting guidance

Revenue recognition - In May 2014, the Financial Accounting Standards Board (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. 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 Shareholders' Equity. We will adopt the new guidance effective January 1, 2018. We have substantially completed our evaluation of the impact of the new standard. Under the new guidance, sales of certain turbine machinery units will change to a point-in-time recognition model. Under current guidance, we account for these sales under an over-time model following the percentage-of-completion method as the product is manufactured. In addition, under the new guidance we will begin to recognize an asset for the value of expected replacement part returns. At this time we have not identified any impacts to our financial statements that we believe will be material in the year of adoption. We are finalizing our evaluation of certain revenue streams within our Energy & Transportation and Resource Industries segments and expect that evaluation to be completed during the third quarter of 2017. Based on the current estimated impact to our financial statements, we plan to adopt the new guidance under the modified retrospective approach.

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 was effective January 1, 2017, and was applied prospectively. The adoption did not have a material impact on our financial statements.

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 Consolidated Statement of Financial Position as of the beginning of the year of adoption. The impact on our financial statements at the time of adoption will primarily 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.

Lease accounting – In February 2016, the FASB issued accounting guidance that revises the accounting for leases. Under the new guidance, lessees are required to recognize a right-of-use asset and a lease liability for all leases. The new guidance will continue to classify leases as either financing or operating, with classification affecting the pattern of expense recognition. The accounting applied by a lessor under the new guidance will be substantially equivalent to current lease accounting guidance. The new guidance is effective January 1, 2019, with early adoption permitted. The new standard is required to be applied with a modified retrospective approach to each prior reporting period presented and provides for certain practical expedients. We are in the process of evaluating the effect of the new guidance on our financial statements.

Stock-based compensation – In March 2016, the FASB issued accounting guidance to simplify several aspects of the accounting for share-based payments. The new guidance changes how reporting entities account for certain aspects of share-based payments, including the accounting for income taxes and the classification of the tax impact on the Consolidated Statement of Cash Flow. Under the new guidance all excess tax benefits and deficiencies during the period are recognized in income (rather than equity) on a prospective basis. The guidance removes the requirement to delay recognition of excess tax benefits until it reduces income taxes currently payable. This change was required to be applied on a modified retrospective basis, resulting in a cumulative-effect adjustment to opening retained earnings in the period of adoption. In addition, Cash flows related to excess tax benefits are now included in Cash provided by operating activities and will no longer be separately classified as a financing activity. This change was adopted retrospectively. The guidance was effective January 1, 2017, and did not have a material impact on our financial statements.

Measurement of credit losses on financial instruments – In June 2016, the FASB issued accounting guidance to introduce a new model for recognizing credit losses on financial instruments based on an estimate of current expected credit losses. The new guidance will apply to loans, accounts receivable, trade receivables, other financial assets measured at amortized cost, loan commitments and other off-balance sheet credit exposures. The new guidance will also apply to debt securities and other financial assets measured at fair value through other comprehensive income. The new guidance is effective January 1, 2020, with early adoption permitted beginning January 1, 2019. We are in the process of evaluating the effect of the new guidance on our financial statements.

Classification for certain cash receipts and cash payments – In August 2016, the FASB issued accounting guidance related to the presentation and classification of certain transactions in the statement of cash flows where diversity in practice exists. The guidance is effective January 1, 2018, with early adoption permitted. We do not expect the adoption to have a material impact on our financial statements.

Tax accounting for intra-entity asset transfers – In October 2016, the FASB issued accounting guidance that will require the tax effects of intra-entity asset transfers to be recognized in the period when the transfer occurs. Under current guidance, the tax effects of intra-entity sales of assets are deferred until the transferred asset is sold to a third party or otherwise recovered through use. The new guidance does not apply to intra-entity transfers of inventory. The guidance is effective January 1, 2018, and is required to be applied on a modified retrospective basis through a cumulative effect adjustment to retained earnings as of the beginning of the period of adoption. Based on our current assessment, we do not expect the adoption to have a material impact on our financial statements.

Classification of restricted cash – In November 2016, the FASB issued accounting guidance related to the presentation and classification of changes in restricted cash on the statement of cash flows where diversity in practice exists. The new standard is required to be applied with a retrospective approach. The guidance is effective January 1, 2018, with early adoption permitted. We do not expect the adoption to have a material impact on our financial statements.

Clarification on the definition of a business – In January 2017, the FASB issued accounting guidance to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The guidance is effective January 1, 2018, with early adoption permitted. We adopted the guidance effective January 1, 2017, and the adoption did not have a material impact on our financial statements.

Simplifying the measurement for goodwill – In January 2017, the FASB issued guidance to simplify the accounting for goodwill impairment. The guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The new guidance will be applied prospectively and is effective January 1, 2020, with early adoption permitted beginning January 1, 2017. We adopted the guidance effective January 1, 2017. The adoption did not have a material impact on our financial statements.

Presentation of net periodic pension costs and net periodic postretirement benefit costs – In March 2017, the FASB issued accounting guidance that will require that an employer disaggregate the service cost component from the other components of net benefit cost. Service cost is required to be reported in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net periodic benefit cost are required to be reported outside the subtotal for income from operations. Additionally, only the service cost component of net benefit costs are eligible for capitalization. The guidance is effective January 1, 2018, with early adoption permitted. We will adopt this guidance on January 1, 2018, and apply the presentation changes retrospectively and the capitalization change prospectively. The impact on our financial statements at the time of adoption will primarily be reclassification of other components of net periodic benefit cost outside of Operating profit in the Consolidated Statement of Results of Operations.

Premium amortization on purchased callable debt securities – In March 2017, the FASB issued accounting guidance related to the amortization period for certain purchased callable debt securities held at a premium. Securities held at a premium will be required to be amortized to the earliest call date rather than the maturity date. The new standard is required to be applied with a modified retrospective approach through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The guidance is effective January 1, 2019, with early adoption permitted. We do not expect the adoption to have a material impact on our financial statements.

Clarification on stock-based compensation – In May 2017, the FASB issued accounting guidance to clarify which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. The new standard is required to be applied prospectively. The guidance is effective January 1, 2018, with early adoption permitted. We do not expect the adoption to have a material impact on our financial statements.

3. Stock-based compensation

Accounting for stock-based compensation requires that the cost resulting from all stock-based payments be recognized in the financial statements based on the grant date fair value of the award. Our stock-based compensation primarily consists of stock options, restricted stock units (RSUs), performance-based restricted stock units (PRSUs) and stock-settled stock appreciation rights (SARs).

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." Award terms for awards granted in 2016 allow for immediate vesting upon separation of all outstanding options and RSUs with no requisite service period for employees who meet the criteria for a "Long Service Separation." Compensation expense was fully recognized immediately on the grant date for these employees. Award terms for the 2017 grant allow for continued vesting as of each vesting date specified in the award document for employees who meet the criteria for a "Long Service Separation" and fulfill a requisite service period of six months. Compensation expense for eligible employees for the 2017 grant is recognized over the period from the grant date to the end date of the six-month requisite service period. For employees who become eligible for a "Long Service Separation" subsequent to the end date of the six-month requisite service period and prior to the completion of the vesting period, compensation expense is recognized over the period from the grant date to the date eligibility is achieved.

Prior to 2017, all outstanding PRSU awards granted to employees with a "Long Service Separation" may vest at the end of the performance period based upon achievement of the performance target. For PRSU awards granted in 2017, only a prorated number of shares may vest at the end of the performance period based upon achievement of the performance target, with the proration based upon the number of months of continuous employment during the three-year performance period. Employees with a "Long Service Separation" must also fulfill a six-month requisite service period in order to be eligible for the prorated vesting of outstanding PRSU awards granted in 2017.

During the second quarter of 2017, the 2014 Long-Term Incentive Plan (the Plan) was amended and restated. The Plan initially provided that up to 38,800,000 Common Shares would be reserved for future issuance under the Plan, subject to adjustment in certain events. Upon shareholder approval of the amendment and restatement of the Plan, an additional 36,000,000 Common Shares became available for all awards under the Plan.

We recognized pretax stock-based compensation expense of $68 million and $117 million for the three and six months ended June 30, 2017, respectively and $45 million and $146 million for the three and six months ended June 30, 2016, respectively. The change in stock-based compensation expense was primarily due to the change in award terms for participants that meet the criteria for a "Long Service Separation", as the establishment of the six-month requisite service period results in lower expense in the first quarter (period of grant) and higher expense over the following two quarters.

The following table illustrates the type and fair value of the stock-based compensation awards granted during the six months ended June 30, 2017 and 2016, respectively:

13

Table of Contents

	Six Months Ended June 30, 2017			Six Months Ended June 30, 2016		
	Shares Granted	Weighted-Average Fair Value Per Share	Weighted-Average Grant Date Stock Price	Shares Granted	Weighted-Average Fair Value Per Share	Weighted-Average Grant Date Stock Price
Stock options	2,701,644	$ 25.01	$ 95.66	4,243,272	$ 20.64	$ 74.77
RSUs	906,068	$ 89.76	$ 95.63	1,085,505	$ 68.04	$ 74.77
PRSUs	437,385	$ 86.78	$ 95.66	614,347	$ 64.71	$ 74.77

The following table provides the assumptions used in determining the fair value of the stock-based awards for the six months ended June 30, 2017 and 2016, respectively:

	Grant Year	
	2017	2016
Weighted-average dividend yield	3.42%	3.23%
Weighted-average volatility	29.2%	31.1%
Range of volatilities	22.1-33.0%	22.5-33.4%
Range of risk-free interest rates	0.81-2.35%	0.62-1.73%
Weighted-average expected lives	8 years	8 years

As of June 30, 2017, the total remaining unrecognized compensation expense related to nonvested stock-based compensation awards was $236 million, which will be amortized over the weighted-average remaining requisite service periods of approximately 1.7 years.

4. 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 contracts 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 on the Consolidated Statement of Financial Position 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 (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, on the Consolidated Statement of Financial Position 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 flows from designated derivative financial instruments are classified within the same category as the item being hedged on the Consolidated Statement of Cash Flow. Cash flows from undesignated derivative financial instruments are included in the investing category on the Consolidated Statement of Cash Flow.

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 on the Consolidated Statement of Financial Position and linking cash flow hedges to specific forecasted transactions or variability of cash flow.

Table of Contents

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.

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 June 30, 2017, the maximum term of these outstanding contracts was approximately 51 months.

We generally designate as cash flow hedges at inception of the contract any Australian dollar, Brazilian real, British pound, Canadian dollar, Chinese yuan, euro, Indian rupee, Japanese yen, Mexican peso, Norwegian krona, Singapore dollar 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 June 30, 2017, $4 million of deferred net gains, net of tax, included in equity (AOCI in the Consolidated Statement of Financial Position), are expected to be reclassified to current earnings (Other income (expense) in the Consolidated Statement of Results of Operations) 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 assets and liabilities, and exchange rate risk associated with future transactions denominated in foreign currencies. Our foreign currency forward, option and cross currency contracts are primarily undesignated. We designate fixed-to-fixed cross currency contracts as cash flow hedges to protect against movements in exchange rates on foreign currency fixed rate assets and liabilities.

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 contracts 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 contracts and forward rate agreements to meet that objective. We designate fixed-to-floating interest rate contracts 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.

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 contracts to meet the match-funding objective. We designate fixed-to-floating interest rate contracts as fair value hedges to protect debt against

Table of Contents

changes in fair value due to changes in the benchmark interest rate. We designate most floating-to-fixed interest rate contracts as cash flow hedges to protect against the variability of cash flows due to changes in the benchmark interest rate.

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

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 the Consolidated Statement of Financial Position are as follows:

(Millions of dollars)	Consolidated Statement of Financial Position Location	Asset (Liability) Fair Value June 30, 2017	December 31, 2016
Designated derivatives			
Foreign exchange contracts			
Machinery, Energy & Transportation	Receivables – trade and other	$15	$ 13
Machinery, Energy & Transportation	Accrued expenses	(9)	(93)
Machinery, Energy & Transportation	Other liabilities	(14)	(36)
Financial Products	Long-term receivables – trade and other	6	29
Financial Products	Accrued expenses	(22)	(3)
Interest rate contracts			
Financial Products	Long-term receivables – trade and other	3	4
Financial Products	Accrued expenses	(1)	(1)
		$(22)	$ (87)
Undesignated derivatives			
Foreign exchange contracts			
Machinery, Energy & Transportation	Receivables – trade and other	$25	$ —
Machinery, Energy & Transportation	Accrued expenses	(4)	(30)
Financial Products	Receivables – trade and other	46	39
Financial Products	Accrued expenses	(16)	(4)
Commodity contracts			

Machinery, Energy & Transportation	Receivables – trade and other	6	10
Machinery, Energy & Transportation	Accrued expenses	(1)	—
		$56	$ 15

Table of Contents

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

(Millions of dollars)	June 30, 2017	December 31, 2016
Machinery, Energy & Transportation	$ 2,355	$ 2,530
Financial Products	$ 3,506	$ 2,626

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 the Consolidated Statement of Results of Operations is as follows:

Fair Value Hedges

		Three Months Ended June 30, 2017		Three Months Ended June 30, 2016	
(Millions of dollars)	Classification	Gains (Losses) on Derivatives	Gains (Losses) on Borrowings	Gains (Losses) on Derivatives	Gains (Losses) on Borrowings
Interest rate contracts					
Financial Products	Other income (expense)	$ —	$ —	$ (3)	$ 3
		$ —	$ —	$ (3)	$ 3

		Six Months Ended June 30, 2017		Six Months Ended June 30, 2016	
	Classification	Gains (Losses) on Derivatives	Gains (Losses) on Borrowings	Gains (Losses) on Derivatives	Gains (Losses) on Borrowings
Interest rate contracts					
Financial Products	Other income (expense)	$ (1)	$ 1	$ —	$ (1)
		$ (1)	$ 1	$ —	$ (1)

Table of Contents

Cash Flow Hedges

(Millions of dollars)	Three Months Ended June 30, 2017 Amount of Gains (Losses) Recognized in AOCI (Effective Portion)	Recognized in Earnings Classification of Gains (Losses)	Amount of Gains (Losses) Reclassified from AOCI to Earnings	Recognized in Earnings (Ineffective Portion)
Foreign exchange contracts				
Machinery, Energy & Transportation	$23	Other income (expense)	$ (14)	$ —
Financial Products	(23)	Other income (expense)	(27)	—
Interest rate contracts				
Machinery, Energy & Transportation	—	Interest expense excluding Financial Products	(1)	—
Financial Products	—	Interest expense of Financial Products	2	—
	$—		$ (40)	$ —

	Three Months Ended June 30, 2016 Amount of Gains (Losses) Recognized in AOCI (Effective Portion)	Recognized in Earnings Classification of Gains (Losses)	Amount of Gains (Losses) Reclassified from AOCI to Earnings	Recognized in Earnings (Ineffective Portion)
Foreign exchange contracts				
Machinery, Energy & Transportation	$(22)	Other income (expense)	$ 6	$ —
Financial Products	(6)	Other income (expense)	(6)	—
Interest rate contracts				
Machinery, Energy & Transportation	—	Interest expense excluding Financial Products	(1)	—
Financial Products	(1)	Interest expense of Financial Products	(1)	—
	$(29)		$ (2)	$ —

	Six Months Ended June 30, 2017 Amount of Gains (Losses) Recognized in AOCI	Recognized in Earnings Classification of Gains (Losses)	Amount of Gains (Losses) Reclassified from AOCI to Earnings	Recognized in Earnings (Ineffective Portion)

	(Effective Portion)			
Foreign exchange contracts				
Machinery, Energy & Transportation	$56	Other income (expense)	$ (53)	$ —
Financial Products	(41)	Other income (expense)	(49)	—
Interest rate contracts				
Machinery, Energy & Transportation	—	Interest expense excluding Financial Products	(3)	—
Financial Products	—	Interest expense of Financial Products	3	—
	$15		$ (102)	$ —

	Six Months Ended June 30, 2016			
		Recognized in Earnings		
	Amount of Gains (Losses) Recognized in AOCI (Effective Portion)	Classification of Gains (Losses)	Amount of Gains (Losses) Reclassified from AOCI to Earnings	Recognized in Earnings (Ineffective Portion)
Foreign exchange contracts				
Machinery, Energy & Transportation	$(6)	Other income (expense)	$ (4)	$ —
Financial Products	(6)	Other income (expense)	(6)	—
Interest rate contracts				
Machinery, Energy & Transportation	—	Interest expense excluding Financial Products	(3)	—
Financial Products	(2)	Interest expense of Financial Products	(3)	—
	$(14)		$ (16)	$ —

18

Table of Contents

The effect of derivatives not designated as hedging instruments on the Consolidated Statement of Results of Operations is as follows:

(Millions of dollars)	Classification of Gains (Losses)	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016
Foreign exchange contracts			
Machinery, Energy & Transportation	Other income (expense)	$ 39	$ —
Financial Products	Other income (expense)	17	(24)
Commodity contracts			
Machinery, Energy & Transportation	Other income (expense)	—	6
		$ 56	$ (18)

	Classification of Gains (Losses)	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Foreign exchange contracts			
Machinery, Energy & Transportation	Other income (expense)	$ 52	$ 22
Financial Products	Other income (expense)	10	(28)
Commodity contracts			
Machinery, Energy & Transportation	Other income (expense)	1	6
		$ 63	$ —

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 June 30, 2017 and December 31, 2016, no cash collateral was received or pledged under the master netting agreements.

Table of Contents

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:

June 30, 2017				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
Derivatives						
Machinery, Energy & Transportation	$ 46	$ —	$ 46	$ (24)	$ —	$ 22
Financial Products	55	—	55	(14)	—	41
Total	$ 101	$ —	$ 101	$ (38)	$ —	$ 63

June 30, 2017				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
Derivatives						
Machinery, Energy & Transportation	$ (28)	$ —	$ (28)	$ 24	$ —	$ (4)
Financial Products	(39)	—	(39)	14	—	(25)
Total	$ (67)	$ —	$ (67)	$ 38	$ —	$ (29)

December 31, 2016				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	Financial Instruments	Cash Collateral Received	Net Amount of Assets

			Position			
Derivatives						
Machinery, Energy & Transportation	$ 23	$ —	$ 23	$ (21)	$ —	$ 2
Financial Products	72	—	72	(7)	—	65
Total	$ 95	$ —	$ 95	$ (28)	$ —	$ 67

December 31, 2016				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
Derivatives						
Machinery, Energy & Transportation	$ (159)	$ —	$ (159)	$ 21	$ —	$ (138)
Financial Products	(8)	—	(8)	7	—	(1)
Total	$ (167)	$ —	$ (167)	$ 28	$ —	$ (139)

20

Table of Contents

5. Inventories

Inventories (principally using the last-in, first-out (LIFO) method) are comprised of the following:

(Millions of dollars)	June 30, 2017	December 31, 2016
Raw materials	$ 2,540	$ 2,102
Work-in-process	1,954	1,719
Finished goods	4,690	4,576
Supplies	204	217
Total inventories	$ 9,388	$ 8,614

6. Investments in unconsolidated affiliated companies

Investments in unconsolidated affiliated companies, included in Other assets in the Consolidated Statement of Financial Position, were as follows:

(Millions of dollars)	June 30, 2017	December 31, 2016
Investments in equity method companies	$ 195	$ 192
Plus: Investments in cost method companies	33	57
Total investments in unconsolidated affiliated companies	$ 228	$ 249

In May 2017, we sold our equity interest in IronPlanet Holdings Inc. for $93 million. We recognized a pretax gain of $85 million (included in Other income (expense)) and derecognized the carrying value of our noncontrolling interest, which was included in Other assets in the Consolidated Statement of Financial Position. The gain on the disposal is included as a reconciling item between Segment profit and Consolidated profit before taxes.

7. Intangible assets and goodwill

A. Intangible assets

Intangible assets are comprised of the following:

	June 30, 2017			
(Millions of dollars)	Weighted Amortizable Life (Years)	Gross Carrying Amount	Accumulated Amortization	Net
Customer relationships	15	$2,407	$ (1,026)	$1,381
Intellectual property	11	1,515	(769)	746
Other	13	188	(83)	105
Total finite-lived intangible assets	14	$4,110	$ (1,878)	$2,232
	December 31, 2016			
	Weighted Amortizable	Gross Carrying	Accumulated Amortization	Net

	Life (Years)	Amount		
Customer relationships	15	$2,378	$ (934)	$1,444
Intellectual property	11	1,496	(706)	790
Other	14	192	(77)	115
Total finite-lived intangible assets	14	$4,066	$ (1,717)	$2,349

21

Table of Contents

Amortization expense for the three and six months ended June 30, 2017 was $80 million and $159 million, respectively. Amortization expense for the three and six months ended June 30, 2016 was $82 million and $164 million, respectively. Amortization expense related to intangible assets is expected to be:
(Millions of dollars)

Remaining Six Months of 2017	2018	2019	2020	2021	Thereafter
$160	$315	$310	$298	$281	$868

B. Goodwill

No goodwill was impaired during the three or six months ended June 30, 2017 or 2016.

The changes in carrying amount of goodwill by reportable segment for the six months ended June 30, 2017 were as follows:

(Millions of dollars)	December 31, 2016	Other Adjustments [1]	June 30, 2017
Construction Industries			
Goodwill	$ 296	$ 8	$ 304
Impairments	(22)	—	(22)
Net goodwill	274	8	282
Resource Industries			
Goodwill	4,110	78	4,188
Impairments	(1,175)	—	(1,175)
Net goodwill	2,935	78	3,013
Energy & Transportation			
Goodwill	2,756	35	2,791
All Other [2]			
Goodwill	55	1	56
Consolidated total			
Goodwill	7,217	122	7,339
Impairments	(1,197)	—	(1,197)
Net goodwill	$ 6,020	$ 122	$ 6,142

[1] Other adjustments are comprised primarily of foreign currency translation.
[2] Includes All Other operating segments (See Note 15).

8. Investments in debt and equity 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. In addition, Insurance Services has an equity security investment in a real estate investment trust (REIT) which is recorded at fair value based on the net asset value (NAV) of the investment. These investments are primarily included in Other assets in the Consolidated Statement of Financial Position. Unrealized gains and losses arising from the revaluation of debt and equity securities are included, net of applicable deferred income taxes, in equity (Accumulated other comprehensive income (loss) in the Consolidated Statement of Financial Position). 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 the Consolidated Statement of Results of Operations.

Table of Contents

The cost basis and fair value of debt and equity securities were as follows:

(Millions of dollars)	June 30, 2017 Cost Basis	June 30, 2017 Unrealized Pretax Net Gains (Losses)	June 30, 2017 Fair Value	December 31, 2016 Cost Basis	December 31, 2016 Unrealized Pretax Net Gains (Losses)	December 31, 2016 Fair Value
Government debt						
U.S. treasury bonds	$10	$ —	$10	$9	$ —	$9
Other U.S. and non-U.S. government bonds	46	—	46	60	—	60
Corporate bonds						
Corporate bonds	520	3	523	489	3	492
Asset-backed securities	82	—	82	90	—	90
Mortgage-backed debt securities						
U.S. governmental agency	233	(1)	232	225	(2)	223
Residential	9	—	9	10	—	10
Commercial	26	—	26	36	—	36
Equity securities						
Large capitalization value	282	55	337	280	32	312
Real estate investment trust (REIT)	93	4	97	77	2	79
Smaller company growth	41	20	61	41	15	56
Total	$1,342	$ 81	$1,423	$1,317	$ 50	$1,367

Table of Contents

Available-for-sale investments in an unrealized loss position that are not other-than-temporarily impaired:

	June 30, 2017					
	Less than 12 months [1]		12 months or more [1]		Total	
(Millions of dollars)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Corporate bonds						
Corporate bonds	$146	$ 1	$11	$ —	$157	$ 1
Mortgage-backed debt securities						
U.S. governmental agency	142	2	34	1	176	3
Equity securities						
Large capitalization value	49	5	8	1	57	6
Small company growth	5	1	1	—	6	1
Total	$342	$ 9	$54	$ 2	$396	$ 11

	December 31, 2016					
	Less than 12 months [1]		12 months or more [1]		Total	
(Millions of dollars)	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Corporate bonds						
Corporate bonds	$131	$ 1	$13	$ —	$144	$ 1
Mortgage-backed debt securities						
U.S. governmental agency	167	2	11	—	178	2
Equity securities						
Large capitalization value	68	6	11	2	79	8
Smaller company growth	10	1	3	1	13	2
Total	$376	$ 10	$38	$ 3	$414	$ 13

[1] 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 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 June 30, 2017.

Mortgage-Backed Debt Securities. The unrealized losses on our investments in U.S. government agency 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 the investments before recovery of their amortized cost basis. We do not consider these investments to be other-than-temporarily impaired as of June 30, 2017.

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 June 30, 2017.

24

Table of Contents

The cost basis and fair value of the available-for-sale debt securities at June 30, 2017, 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.

	June 30, 2017	
(Millions of dollars)	Cost Basis	Fair Value
Due in one year or less	$198	$ 199
Due after one year through five years	406	407
Due after five years through ten years	28	28
Due after ten years	26	27
U.S. governmental agency mortgage-backed securities	233	232
Residential mortgage-backed securities	9	9
Commercial mortgage-backed securities	26	26
Total debt securities – available-for-sale	$926	$ 928

Sales of Securities:

	Three Months Ended June 30		Six Months Ended June 30	
(Millions of dollars)	2017	2016	2017	2016
Proceeds from the sale of available-for-sale securities	$98	$146	$187	$195
Gross gains from the sale of available-for-sale securities	$1	$32	$2	$33
Gross losses from the sale of available-for-sale securities	$1	$1	$2	$2

9. Postretirement benefits

A. Pension and postretirement benefit costs

In the first quarter of 2017, we announced the closure of our Gosselies, Belgium, facility. This announcement impacted certain employees that participate in a defined benefit pension plan and resulted in a curtailment and the recognition of termination benefits. In March 2017, we recognized a net loss of $20 million for the curtailment and termination benefits. In addition during the first quarter of 2017, we announced the decision to phase out production at our Aurora, Illinois, facility which resulted in termination benefits of $9 million for certain hourly employees that participate in our U.S. hourly defined benefit pension plan.
See Note 18 for more information on the Gosselies closure.

Table of Contents

(Millions of dollars)	U.S. Pension Benefits		Non-U.S. Pension Benefits		Other Postretirement Benefits	
	June 30		June 30		June 30	
	2017	2016	2017	2016	2017	2016
For the three months ended:						
Components of net periodic benefit cost:						
Service cost	$29	$29	$24	$23	$20	$21
Interest cost	131	130	25	30	32	32
Expected return on plan assets	(183)	(189)	(56)	(59)	(9)	(11)
Amortization of prior service cost (credit) [1]	—	—	(1)	—	(6)	(15)
Net periodic benefit cost (benefit)	(23)	(30)	(8)	(6)	37	27
Curtailments and termination benefits [2]	—	—	—	—	—	—
Total cost (benefit) included in operating profit	$(23)	$(30)	$(8)	$(6)	$37	$27
For the Six months ended:						
Components of net periodic benefit cost:						
Service cost	$58	$59	$47	$46	$39	$41
Interest cost	262	259	50	60	65	65
Expected return on plan assets	(367)	(378)	(113)	(117)	(18)	(22)
Amortization of prior service cost (credit) [1]	—	—	(1)	—	(11)	(30)
Net periodic benefit cost (benefit)	(47)	(60)	(17)	(11)	75	54
Curtailments and termination benefits [2]	9	—	20	—	—	(2)
Total cost (benefit) included in operating profit	$(38)	$(60)	$3	$(11)	$75	$52
Weighted-average assumptions used to determine net cost:						
Discount rate used to measure service cost	4.2 %	4.5 %	2.3 %	2.9 %	3.9 %	4.4 %
Discount rate used to measure interest cost	3.3 %	3.4 %	2.3 %	2.8 %	3.3 %	3.3 %
Expected rate of return on plan assets	6.7 %	6.9 %	5.9 %	6.1 %	7.5 %	7.5 %
Rate of compensation increase	4.0 %	4.0 %	4.0 %	3.5 %	4.0 %	4.0 %

1 Prior service cost (credit) for both pension and other postretirement benefits is 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) is amortized using the straight-line method over the remaining life expectancy of those participants.

2 Curtailments and termination benefits were recognized in Other operating (income) expenses in the Consolidated Statement of Results of Operations.

We made $92 million and $198 million of contributions to our pension and other postretirement plans during the three and six months ended June 30, 2017. We currently anticipate full-year 2017 contributions of approximately $610 million. We made $84 million and $199 million of contributions to our pension and other postretirement plans during the three and six months ended June 30, 2016.

B. Defined contribution benefit costs

Total company costs related to our defined contribution plans were as follows:

	Three Months Ended June 30		Six Months Ended June 30	
(Millions of dollars)	2017	2016	2017	2016
U.S. Plans	$90	$ 67	$170	$152
Non-U.S. Plans	19	17	35	35
	$109	$ 84	$205	$187

26

10. 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.

In 2016, we provided a guarantee to an end user related to the performance of contractual obligations by a Caterpillar dealer. Under the guarantee, which expires in 2025, non-performance by the Caterpillar dealer could require Caterpillar to satisfy the contractual obligations by providing goods, services or financial compensation to the end user up to an annual designated cap.

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. 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.

We have dealer performance guarantees and third party performance guarantees that do not limit potential payment to end users related to indemnities and other commercial contractual obligations. For these unlimited guarantees, we are unable to estimate a maximum potential amount of future payments that could result from claims made.

No significant loss has been experienced or is anticipated under any of these guarantees. At both June 30, 2017 and December 31, 2016, the related liability was $8 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 are as follows:

(Millions of dollars)	June 30, 2017	December 31, 2016
Caterpillar dealer performance guarantees	$ 1,425	$ 1,384
Customer loan guarantees	41	51
Supplier consortium performance guarantee	300	278
Third party logistics business lease guarantees	78	87

Other guarantees	86	56
Total guarantees	$ 1,930	$ 1,856

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

Table of Contents

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 June 30, 2017 and December 31, 2016, the SPC's assets of $1,135 million and $1,088 million, respectively, were primarily comprised of loans to dealers and the SPC's liabilities of $1,135 million and $1,087 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.

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.

(Millions of dollars)	2017
Warranty liability, January 1	$1,258
Reduction in liability (payments)	(401)
Increase in liability (new warranties)	488
Warranty liability, June 30	$1,345

(Millions of dollars)	2016
Warranty liability, January 1	$1,354
Reduction in liability (payments)	(909)
Increase in liability (new warranties)	813
Warranty liability, December 31	$1,258

11. Profit per share

Computations of profit per share:	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions except per share data)	2017	2016	2017	2016
Profit for the	$802	$550	$994	$821

period (A) [1]				
Determination of shares (in millions):				
Weighted-average number of common shares outstanding (B)	590.2	584.1	588.8	583.4
Shares issuable on exercise of stock awards, net of shares assumed to be purchased out of proceeds at average market price	5.2	4.5	5.6	4.8
Average common shares outstanding for fully diluted computation (C) [2]	595.4	588.6	594.4	