W R GRACE & CO Form 10-O July 28, 2017

Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

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

For the Quarterly Period Ended June 30, 2017

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

Commission File Number 1-13953

W. R. GRACE & CO.

(Exact name of registrant as specified in its charter)

65-0773649 Delaware

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

7500 Grace Drive, Columbia, Maryland 21044-4098

(Address of principal executive offices) (Zip Code)

(410) 531-4000

(Registrant's telephone number, including area code)

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 \(\xi\) No o Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, 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 ý No o

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

Accelerated filer o Large accelerated filer ý

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 ý

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes \(\foatsize \) No o

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class Outstanding at July 25, 2017

Common Stock, \$0.01 par value per share 68,226,961 shares

Table of Contents

ТΛ	DΙ	\mathbf{r}	\mathbf{OE}	CC	רואו	$\Gamma\Gamma$	2TV

<u>Part I.</u>	Financia	<u>1 Information</u>	
	<u>Item 1.</u>	Financial Statements (unaudited)	<u>3</u>
		Report of Independent Registered Public Accounting Firm	<u>4</u>
		Consolidated Statements of Operations	3 4 5 6 7 8 9
		Consolidated Statements of Comprehensive Income (Loss)	<u>6</u>
		Consolidated Statements of Cash Flows	<u>7</u>
		Consolidated Balance Sheets	<u>8</u>
		Consolidated Statements of Equity	9
		Notes to Consolidated Financial Statements	
		1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies	<u>10</u>
			<u>13</u>
		<u>3.</u> <u>Debt</u>	<u>13</u>
		4. Fair Value Measurements and Risk	<u>14</u>
		<u>5. Income Taxes</u>	<u>19</u>
		6. Pension Plans and Other Postretirement Benefit Plans	<u>20</u>
		7. Other Balance Sheet Accounts	<u>21</u>
		8. Commitments and Contingent Liabilities	<u>22</u>
		9. Restructuring Expenses and Repositioning Expenses	<u>25</u>
		10. Other (Income) Expense, net	13 14 19 20 21 22 25 25 26
		11. Other Comprehensive Income (Loss)	<u>26</u>
		12. Earnings Per Share	<u>28</u>
		13. Segment Information	<u>28</u>
		14. Unconsolidated Affiliate	<u>30</u>
		15. Discontinued Operations	28 28 30 32 33
	<u>Item 2.</u>	Management's Discussion and Analysis of Financial Condition and Results of Operations	<u>33</u>
		Quantitative and Qualitative Disclosures About Market Risk	<u>51</u>
			<u>51</u>
<u>Part II</u>		<u>formation</u>	
			<u>52</u>
		Risk Factors	<u>52</u>
		<u>Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>52</u>
		Mine Safety Disclosures	5252525252
	<u>Item 6.</u>		<u>52</u>
		<u>Signatures</u>	<u>54</u>

GRACE®, the GRACE® logo and, except as otherwise indicated, the other trademarks, service marks or trade names used in the text of this Report are trademarks, service marks, or trade names of operating units of W. R. Grace & Co. or its subsidiaries and/or affiliates. Unless otherwise indicated, in this Report the terms "Grace," "we," "us," or "our" mean W. R. Grace & Co. and/or its consolidated subsidiaries and affiliates, and the term "the Company" means W. R. Grace & Co. Unless otherwise indicated, the contents of websites mentioned in this report are not incorporated by reference or otherwise made a part of this Report.

The Financial Accounting Standards Board is referred to in this Report as the "FASB." The FASB issues, among other things, Accounting Standards Codifications ("ASC") and Accounting Standards Updates ("ASU").

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

Review by Independent Registered Public Accounting Firm

With respect to the interim consolidated financial statements included in this Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, PricewaterhouseCoopers LLP, the Company's independent registered public accounting firm, has applied limited procedures in accordance with professional auditing standards for a review of such information. Their report on the interim consolidated financial statements, which follows, states that they did not audit and they do not express an opinion on the unaudited interim consolidated financial statements. Accordingly, the degree of reliance on their report on the unaudited interim consolidated financial statements should be restricted in light of the limited nature of the review procedures applied. This report is not considered a "report" within the meaning of Sections 7 and 11 of the Securities Act of 1933, and, therefore, the independent accountants' liability under Section 11 does not extend to it.

Table of Contents

Report of Independent Registered Public Accounting Firm To the Shareholders and Board of Directors of W. R. Grace & Co.:

We have reviewed the accompanying consolidated balance sheet of W. R. Grace & Co. and its subsidiaries as of June 30, 2017, and the related consolidated statements of operations and comprehensive income for the three-month and six-month periods ended June 30, 2017 and 2016 and the consolidated statements of cash flows and equity for the six-month periods ended June 30, 2017 and 2016. These interim financial statements are the responsibility of the Company's management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet as of December 31, 2016, and the related consolidated statements of operations, comprehensive income, equity and of cash flows for the year then ended (not presented herein), and in our report dated February 23, 2017, which included a paragraph describing a change in the manner of accounting for debt issuance costs and stock compensation in 2016, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet as of December 31, 2016, is fairly stated in all material respects in relation to the consolidated balance sheet from which it has been derived.

/s/ PricewaterhouseCoopers LLP Baltimore, Maryland July 28, 2017

W. R. Grace & Co. and Subsidiaries Consolidated Statements of Operations (unaudited)

Consolidated Statements of Operations (unaudited)		
	Three Months	Six Months
	Ended June 30,	Ended June 30,
(In millions, except per share amounts)	2017 2016	2017 2016
Net sales	\$429.5 \$390.5	\$827.5 \$753.3
Cost of goods sold	260.2 217.3	505.0 427.4
Gross profit	169.3 173.2	322.5 325.9
Selling, general and administrative expenses	70.3 66.4	136.8 134.4
Research and development expenses	12.9 12.4	26.1 24.1
Provision for environmental remediation, net	13.2 5.3	13.2 7.5
Equity in earnings of unconsolidated affiliate) (13.1) (9.5)
Restructuring and repositioning expenses	5.4 9.4	7.7 23.0
Interest expense and related financing costs	20.1 19.8	39.6 41.8
Other (income) expense, net	(9.6) 3.1	(11.8) 13.8
Total costs and expenses	106.2 113.8	198.5 235.1
Income (loss) from continuing operations before income taxes	63.1 59.4	124.0 90.8
(Provision for) benefit from income taxes	(19.6) (21.5)	(37.6) (42.7)
Income (loss) from continuing operations	43.5 37.9	86.4 48.1
Income (loss) from discontinued operations, net of income taxes	— 0.6	— (9.3)
Net income (loss)	43.5 38.5	86.4 38.8
Less: Net (income) loss attributable to noncontrolling interests	0.4 0.2	0.4 0.4
Net income (loss) attributable to W. R. Grace & Co. shareholders	\$43.9 \$38.7	\$86.8 \$39.2
Amounts Attributable to W. R. Grace & Co. Shareholders:		
Income (loss) from continuing operations attributable to W. R. Grace & Co.	¢420 ¢201	¢060 ¢40 <i>5</i>
shareholders	\$43.9 \$38.1	\$86.8 \$48.5
Income (loss) from discontinued operations, net of income taxes	— 0.6	— (9.3)
Net income (loss) attributable to W. R. Grace & Co. shareholders	\$43.9 \$38.7	\$86.8 \$39.2
Earnings Per Share Attributable to W. R. Grace & Co. Shareholders		
Basic earnings per share:		
Income (loss) from continuing operations	\$0.64 \$0.54	\$1.27 \$0.69
Income (loss) from discontinued operations, net of income taxes	— 0.01	— (0.13)
Net income (loss)	\$0.64 \$0.55	\$1.27 \$0.56
Weighted average number of basic shares	68.3 70.5	68.3 70.5
Diluted earnings per share:		
Income (loss) from continuing operations	\$0.64 \$0.54	\$1.27 \$0.68
Income (loss) from discontinued operations, net of income taxes	— 0.01	— (0.13)
Net income (loss)	\$0.64 \$0.55	\$1.27 \$0.55
Weighted average number of diluted shares	68.4 70.9	68.5 71.0
Dividends per common share	\$0.21 \$0.17	\$0.42 \$0.17

The Notes to Consolidated Financial Statements are an integral part of these statements.

Table of Contents

W. R. Grace & Co. and Subsidiaries

Consolidated Statements of Comprehensive Income (Loss) (unaudited)

	Three I	Months	Six Mo	onths
	Ended		Ended	
	June 30),	June 30	0,
(In millions)	2017	2016	2017	2016
Net income (loss)	\$43.5	\$38.5	\$86.4	\$38.8
Other comprehensive income (loss):				
Defined benefit pension and other postretirement plans, net of income taxes	(0.4)	(0.4)	(0.7)	(0.7)
Currency translation adjustments	(8.3)	1.3	(9.7)	(4.1)
Gain (loss) from hedging activities, net of income taxes	(0.2)	(0.3)	0.5	(3.3)
Total other comprehensive income (loss) attributable to noncontrolling interests				2.6
Total other comprehensive income (loss)	(8.9)	0.6	(9.9)	(5.5)
Comprehensive income (loss)	34.6	39.1	76.5	33.3
Less: comprehensive (income) loss attributable to noncontrolling interests	0.4	0.2	0.4	(2.2)
Comprehensive income (loss) attributable to W. R. Grace & Co. shareholders	\$35.0	\$39.3	\$76.9	\$31.1

The Notes to Consolidated Financial Statements are an integral part of these statements.

Table of Contents

W. R. Grace & Co. and Subsidiaries

Consolidated Statements of Cash Flows (unaudited)

	Six N Ende		nths une 30,	
(In millions)	2017		2016	
OPERATING ACTIVITIES				
Net income (loss)	\$86.4	1	\$38.8	
Less: loss (income) from discontinued operations	_		9.3	
Income from continuing operations	86.4		48.1	
Reconciliation to net cash provided by (used for) operating activities from cont	tinuing operations:			
Depreciation and amortization	54.2		46.8	
Equity in earnings of unconsolidated affiliate	(13.1))
Dividends received from unconsolidated affiliate	_		16.8	
Costs related to legacy product, environmental and other claims	17.0		11.1	
Cash paid for legacy product, environmental and other claims	(44.2))
Provision for (benefit from) income taxes	37.6		42.7	
Cash paid for income taxes)	(26.8)
Income tax refunds received	29.7		2.3	
Loss on early extinguishment of debt	_		11.1	
Interest expense and related financing costs	39.6		41.8	
Cash paid for interest	(34.3)	(40.6)
Defined benefit pension expense	8.2		5.3	
Cash paid under defined benefit pension arrangements	(7.8)	0.8))
Changes in assets and liabilities, excluding effect of currency translation and ac	equisitions:			
Trade accounts receivable	4.3		37.2	
Inventories	(3.9)	(7.7)
Accounts payable	7.4		7.0	
All other items, net	(9.3)	(34.8)
Net cash provided by (used for) operating activities from continuing operations INVESTING ACTIVITIES	s 140.5	i	136.8	
Capital expenditures	(59.1	,	(57.3	`
Business acquired	(3).1	,	(245.1	
Proceeds from sale of product lines	0.6		11.3	,
Other investing activities	(1.1))
Net cash provided by (used for) investing activities from continuing operations	•		(0.0)	-
FINANCING ACTIVITIES	(3).0	,	(2)1.7	,
Borrowings under credit arrangements	98.8		16.0	
Repayments under credit arrangements	(61.5)	(609.4	
Cash paid for repurchases of common stock	(30.0	-	(35.1	-
Proceeds from exercise of stock options	12.2	,	9.2	,
Dividends paid	(28.7)	(12.0)
Distribution from GCP	_	,	750.0	,
Other financing activities	(4.0))
Net cash provided by (used for) financing activities from continuing operations	· ·	-	116.0	,
Effect of currency exchange rate changes on cash and cash equivalents	3.5	,	1.9	
Increase (decrease) in cash and cash equivalents from continuing operations	71.2		(37.0)
Cash flows from discontinued operations	. 1 . 2			,
Net cash provided by (used for) operating activities	_		23.9	
, , , , , , , , , , , , , , , , , , , ,				

Net cash provided by (used for) investing activities		(9.5)
Net cash provided by (used for) financing activities	_	31.4
Effect of currency exchange rate changes on cash and cash equivalents	_	(1.0)
Increase (decrease) in cash and cash equivalents from discontinued operations	_	44.8
Net increase (decrease) in cash and cash equivalents	71.2	7.8
Less: cash and cash equivalents of discontinued operations	_	(143.4)
Cash and cash equivalents, beginning of period	90.6	329.9
Cash and cash equivalents, end of period	\$161.8	\$194.3
Supplemental disclosure of cash flow information		
Capital expenditures in accounts payable	\$17.8	\$19.7
Net share settled stock option exercises	1.2	\$10.1

The Notes to Consolidated Financial Statements are an integral part of these statements.

Table of Contents

W. R. Grace & Co. and Subsidiaries Consolidated Balance Sheets (unaudited)		D 1 6	2.1
(In millions, except par value and shares)	June 30, 2017	December 3 2016	31,
ASSETS			
Current Assets			
Cash and cash equivalents	\$161.8	\$ 90.6	
Restricted cash and cash equivalents	10.8	10.0	
Trade accounts receivable, less allowance of \$2.4 (2016—\$2.2)	265.0	273.9	
Inventories	236.5	228.0	
Other current assets	41.4	52.3	
Total Current Assets	715.5	654.8	
Properties and equipment, net of accumulated depreciation and amortization of \$1,397.6 (2016—\$1,327.5)	749.7	729.6	
Goodwill	397.5	394.2	
Technology and other intangible assets, net	261.9	269.1	
Deferred income taxes	700.3	709.4	
Investment in unconsolidated affiliate	131.9	117.6	
Other assets	33.1	37.1	
Total Assets	\$2,989.9	\$ 2,911.8	
LIABILITIES AND EQUITY			
Current Liabilities			
Debt payable within one year	\$86.5	\$ 76.5	
Accounts payable	199.9	195.4	
Other current liabilities	183.6	208.9	
Total Current Liabilities	470.0	480.8	
Debt payable after one year	1,516.5	1,507.6	
Underfunded and unfunded defined benefit pension plans	444.2	424.3	
Other liabilities	153.6	126.7	
Total Liabilities	2,584.3	2,539.4	
Commitments and Contingencies—Note 8			
Equity			
Common stock issued, par value \$0.01; 300,000,000 shares authorized; outstanding:	0.7	0.7	
68,226,070 (2016—68,309,431)			
Paid-in capital	474.0	487.3	
Retained earnings	677.3	619.3	
Treasury stock, at cost: shares: 9,230,557 (2016—9,147,196)		(804.9)
Accumulated other comprehensive income (loss)	56.5	66.4	
Total W. R. Grace & Co. Shareholders' Equity	402.4	368.8	
Noncontrolling interests	3.2	3.6	
Total Equity	405.6	372.4	
Total Liabilities and Equity	\$2,989.9	\$ 2,911.8	

The Notes to Consolidated Financial Statements are an integral part of these statements.

Table of Contents

W. R. Grace & Co. and Subsidiaries Consolidated Statements of Equity (unaudited)

	Commor	ı		Accumulated			
	Stock	Retained	Treasury	Other	Nonconti	·011i	nTootal
(In millions)	and	Earnings		Comprehensi	Interests	OII	Equity
	Paid-in	Lamings	Stock	Income	microsis		Equity
	Capital			(Loss)			
Balance, December 31, 2015	\$496.7	\$436.3	\$(658.4)	\$ (66.8)	\$ 4.7		\$212.5
Net income (loss)	_	39.2	_	_	(0.4)	38.8
Repurchase of common stock			(35.1)	_			(35.1)
Stock based compensation	6.5				_		6.5
Exercise of stock options	(10.5)		29.8		_		19.3
Tax benefit related to stock plans		72.3			_		72.3
Shares issued	0.7				_		0.7
Other comprehensive (loss) income				(8.1)	2.6		(5.5)
Cash dividends declared		(12.0)			_		(12.0)
Distribution of GCP		59.9		135.3	(3.7)	191.5
Balance, June 30, 2016	\$493.4	\$595.7	\$(663.7)	\$ 60.4	\$ 3.2		\$489.0
Balance, December 31, 2016	\$488.0	\$619.3	\$(804.9)	\$ 66.4	\$ 3.6		\$372.4
Net income (loss)		86.8			(0.4)	86.4
Repurchase of common stock	_	_	(30.0)	_	_		(30.0)
Payments to taxing authorities in consideration of							
employee tax obligations relative to stock-based	(2.4)	_	_	_	_		(2.4)
compensation arrangements							
Stock based compensation	5.4				_		5.4
Exercise of stock options	(17.0)	_	28.8	_	_		11.8
Shares issued	0.7				_		0.7
Other comprehensive (loss) income	_	_	_	(9.9)	_		(9.9)
Dividends declared		(28.8)	_		_		(28.8)
Balance, June 30, 2017	\$474.7	\$677.3	\$(806.1)	\$ 56.5	\$ 3.2		\$405.6

The Notes to Consolidated Financial Statements are an integral part of these statements.

Notes to Consolidated Financial Statements

1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies

W. R. Grace & Co., through its subsidiaries, is engaged in specialty chemicals and specialty materials businesses on a global basis through two reportable segments: Grace Catalysts Technologies, which includes catalysts and related products and technologies used in refining, petrochemical and other chemical manufacturing applications; and Grace Materials Technologies, which includes specialty materials, including silica-based and silica-alumina-based materials, used in coatings, consumer, industrial, and pharmaceutical applications.

W. R. Grace & Co. conducts all of its business through a single wholly owned subsidiary, W. R. Grace & Co.—Conn. ("Grace—Conn."). Grace—Conn. owns all of the assets, properties and rights of W. R. Grace & Co. on a consolidated basis, either directly or through subsidiaries.

As used in these notes, the term "Company" refers to W. R. Grace & Co. The term "Grace" refers to the Company and/or one or more of its subsidiaries and, in certain cases, their respective predecessors.

Separation Transaction On January 27, 2016, Grace entered into a separation agreement with GCP Applied Technologies Inc., then a wholly-owned subsidiary of Grace ("GCP"), pursuant to which Grace agreed to transfer its Grace Construction Products operating segment and the packaging technologies business of its Grace Materials Technologies operating segment to GCP (the "Separation"). Grace and GCP completed the Separation on February 3, 2016 (the "Distribution Date"), by means of a pro rata distribution to the Company's stockholders of all of the outstanding shares of GCP common stock (the "Distribution"), with one share of GCP common stock distributed for each share of Company common stock held as of the close of business on January 27, 2016. As a result of the Distribution, GCP became an independent public company. GCP's historical financial results through the Distribution Date are reflected in Grace's Consolidated Financial Statements as discontinued operations.

Basis of Presentation The interim Consolidated Financial Statements presented herein are unaudited and should be read in conjunction with the Consolidated Financial Statements presented in the Company's 2016 Annual Report on Form 10-K. Such interim Consolidated Financial Statements reflect all adjustments that, in the opinion of management, are necessary for a fair statement of the results of the interim periods presented; all such adjustments are of a normal recurring nature except for the impacts of adopting new accounting standards as discussed below. All significant intercompany accounts and transactions have been eliminated.

The results of operations for the six-month interim period ended June 30, 2017, are not necessarily indicative of the results of operations to be attained for the year ending December 31, 2017.

Use of Estimates The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements, and the reported amounts of revenues and expenses for the periods presented. Actual amounts could differ from those estimates, and the differences could be material. Changes in estimates are recorded in the period identified. Grace's accounting measurements that are most affected by management's estimates of future events are:

Realization values of net deferred tax assets, which depend on projections of future taxable income (see Note 5);

Pension and postretirement liabilities, which depend on assumptions regarding participant life spans, future inflation, discount rates and total returns on invested funds (see Note 6);

Carrying values of goodwill and other intangible assets, which depend on assumptions of future earnings and cash flows; and

Contingent liabilities, which depend on an assessment of the probability of loss and an estimate of ultimate obligation, such as litigation (see Note 8), income taxes (see Note 5), and environmental remediation (see Note 8).

Reclassifications Certain amounts in prior years' Consolidated Financial Statements have been reclassified to conform to the current year presentation. Such reclassifications have not materially affected previously reported amounts in the Consolidated Financial Statements.

Notes to Consolidated Financial Statements (Continued)

1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies (Continued)

Recently Issued Accounting Standards In May 2014, the FASB issued ASU 2014-09 "Revenue from Contracts with Customers." This update is intended to remove inconsistencies and weaknesses in revenue requirements; provide a more robust framework for addressing revenue issues; improve comparability of revenue recognition practices across entities, industries, jurisdictions and capital markets; provide more useful information to users of financial statements through improved disclosure requirements; and simplify the preparation of financial statements by reducing the number of requirements to which an entity must refer. The new requirements are effective for fiscal years beginning after December 15, 2017, and for interim periods within those fiscal years, with early adoption permitted for fiscal years beginning after December 15, 2016. The standard allows for two methods of adoption: (a) full retrospective adoption, meaning the standard is applied to all periods presented, or (b) modified retrospective adoption, meaning the cumulative effect of applying the new standard is recognized as an adjustment to the opening retained earnings balance. Grace will adopt the standard in the 2018 first quarter. Grace has begun its preliminary assessment and is identifying specific areas of impact on the Consolidated Financial Statements. At this time, Grace cannot reasonably estimate the effect of adoption. Grace has tentatively decided to adopt this standard under the modified retrospective approach and is still evaluating the effect on its financial statements and disclosures. In February 2016, the FASB issued ASU 2016-02 "Leases (Topic 842)." This update is intended to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The core principle of Topic 842 is that a lessee should recognize the assets and liabilities that arise from leases. A lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term, including optional payments where they are reasonably certain to occur. The amendments in this update are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with early adoption permitted. Currently, as a lessee, Grace is a party to a number of leases which, under existing guidance, are classified as operating leases and not recorded on the balance sheet but are expensed as incurred. Under the new standard, many of these leases will be recorded on the Consolidated Balance Sheets. Grace will adopt the standard in 2019 and at this time cannot reasonably estimate the effect of adoption. In November 2016, the FASB issued ASU 2016-18 "Statement of Cash Flows (Topic 230): Restricted Cash," which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The new requirements are effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption permitted. Grace is currently evaluating the timing of adoption and does not expect the update to have a material effect on the Consolidated Financial Statements. As of June 30, 2017, and December 31, 2016, restricted cash included in the Consolidated Balance Sheets was \$10.8 million and \$10.0 million, respectively. In January 2017, the FASB issued ASU 2017-01 "Business Combinations (Topic 805)," which provides a screen to determine when an integrated set of assets and activities is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This screen reduces the number of transactions that need to be further evaluated. If the screen is not met, the amendments in this update (1) require that to be considered a business, a set must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output and (2) remove the evaluation of whether a market participant could replace missing elements. The amendments in this update also narrow the definition of the term "output" so that the term is consistent with how

outputs are described in Topic 606. Public business entities are required to apply the amendments in this update to

annual periods beginning after December 15, 2017, including interim periods within those periods. Early application is permitted. Grace will evaluate the effect of the update at the time of any future acquisition or disposal.

Notes to Consolidated Financial Statements (Continued)

1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies (Continued)

In January 2017, the FASB issued ASU 2017-04 "Intangibles—Goodwill and Other (Topic 350)." This update modifies the concept of impairment from the condition that exists when the carrying amount of goodwill exceeds its implied fair value to the condition that exists when the carrying amount of a reporting unit exceeds its fair value. An entity no longer will determine goodwill impairment by calculating the implied fair value of goodwill by assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination ("Step 2"). Because these amendments eliminate Step 2 from the goodwill impairment test, they should reduce the cost and complexity of evaluating goodwill for impairment. Public business entities are required to adopt the amendments in this update for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. Grace is currently evaluating the timing of adoption and does not expect the update to have a material effect on the Consolidated Financial Statements.

In March 2017, the FASB issued ASU 2017-07 "Compensation—Retirement Benefits (Topic 715)." This update requires that the service cost component of net benefit cost be presented with other compensation costs arising from services rendered. The remaining net benefit cost is either presented as a line item in the statement of operations outside of a subtotal for income from operations, if presented, or disclosed separately. Only the service cost component of net benefit expense can be capitalized. Public business entities are required to adopt the amendments in this update for fiscal years beginning after December 15, 2017. Grace is currently evaluating the update's effect on the Consolidated Financial Statements and will adopt the update in the 2018 first quarter.

In May 2017, the FASB issued ASU 2017-09 "Compensation—Stock Compensation (Topic 718)." This update clarifies the existing definition of the term "modification," which is currently defined as "a change in any of the terms or conditions of a share-based payment award." The update requires entities to account for modifications of share-based payment awards unless the (1) fair value, (2) vesting conditions and (3) classification as an equity instrument or a liability instrument of the modified award are the same as of the original award before modification. Public business entities are required to adopt the amendments in this update for fiscal years and interim periods beginning after December 15, 2017, with early adoption permitted. Grace does not currently have any modifications of share-based awards and will adopt the update when it becomes effective.

Recently Adopted Accounting Standards In July 2015, the FASB issued ASU 2015-11 "Simplifying the Measurement of Inventory." This update is part of the FASB's Simplification Initiative and is also intended to enhance convergence with the International Accounting Standards Board's ("IASB") measurement of inventory. The update requires that inventory be measured at the lower of cost or net realizable value for entities using FIFO (first-in, first-out) or average cost methods. The new requirements are effective for fiscal years beginning after December 15, 2016, and for interim periods within those fiscal years, with early adoption permitted. Grace adopted this update in the first quarter of 2017, and it did not have a material effect on the Consolidated Financial Statements.

In August 2016, the FASB issued ASU 2016-15 "Classification of Certain Cash Receipts and Cash Payments." This update is intended to reduce diversity in practice in how certain cash receipts and cash payments are presented and

update is intended to reduce diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. It addresses eight specific issues. The amendments in this update are effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption permitted. Grace adopted this update in the 2017 second quarter, and it did not have a material effect on the Consolidated Financial Statements.

Notes to Consolidated Financial Statements (Continued)

2. Inventories

Inventories are stated at the lower of cost or net realizable value, and cost is determined using FIFO. Inventories consisted of the following at June 30, 2017, and December 31, 2016:

(In millions)	June 30,	December 31,
(III IIIIIIIIIIIII)	2017	2016
Raw materials	\$ 55.3	\$ 57.7
In process	36.0	33.4
Finished products	123.1	115.8
Other	22.1	21.1
	\$ 236.5	\$ 228.0

3. Debt

Components of Debt

(In millions)	June 30, 2017	December 2016	31,
5.125% senior notes due 2021, net of unamortized debt issuance costs of \$6.6 at June 30, 2017 (2016—\$7.3)	\$693.4	\$ 692.7	
U.S. dollar term loan, net of unamortized debt issuance costs and discounts of \$5.1 at June 30, 2017 (2016—\$5.7)	403.3	402.7	
5.625% senior notes due 2024, net of unamortized debt issuance costs of \$3.7 at June 30, 2017 (2016—\$4.0)	296.3	296.0	
Euro term loan, net of unamortized debt issuance costs and discounts of \$1.1 at June 30, 2017 (2016—\$1.3)	89.9	82.5	
Revolving credit facility	40.0	_	
Debt payable to unconsolidated affiliate	40.0	39.5	
Deferred payment obligation		30.0	
Other borrowings(1)	40.1	40.7	
Total debt	1,603.0	1,584.1	
Less debt payable within one year	86.5	76.5	
Debt payable after one year	\$1,516.5	\$ 1,507.6	
Weighted average interest rates on total debt	4.6 %	4.6	%

⁽¹⁾ Represents borrowings under various lines of credit and other borrowings, primarily by non-U.S. subsidiaries. See Note 4 for a discussion of the fair value of Grace's debt.

The principal maturities of debt outstanding at June 30, 2017, were as follows:

The princi	ipai matum
	(In
	millions)
2017	\$82.4
2018	8.4
2019	7.8
2020	6.6
2021	1,191.7
Thereafter	r306.1
Total debt	\$1,603.0

Notes to Consolidated Financial Statements (Continued)

3. Debt (Continued)

On February 3, 2017, Grace funded the PD trust with \$30.0 million in respect of the deferred payment obligation relating to ZAI PD Claims. (See Note 8.)

As of June 30, 2017, the available credit under the \$300 million revolving credit facility was reduced to \$222.3 million by a \$40.0 million outstanding draw and by outstanding letters of credit.

During the 2016 first quarter, in connection with the Separation, GCP distributed \$750 million to Grace. Grace used \$600 million of those funds to repay \$526.9 million of its U.S. dollar term loan and €67.3 million of its euro term loan. As a result, Grace recorded a loss on early extinguishment of debt of \$11.1 million, which is included in "other (income) expense, net" in the Consolidated Statements of Operations.

4. Fair Value Measurements and Risk

Certain of Grace's assets and liabilities are reported at fair value on a gross basis. ASC 820 "Fair Value Measurements and Disclosures" defines fair value as the value that would be received at the measurement date in the principal or "most advantageous" market. Grace uses principal market data, whenever available, to value assets and liabilities that are required to be reported at fair value.

Grace has identified the following financial assets and liabilities that are subject to the fair value analysis required by ASC 820:

Fair Value of Debt and Other Financial Instruments Debt payable is recorded at carrying value. Fair value is determined based on Level 2 inputs, including expected future cash flows (discounted at market interest rates), estimated current market prices and quotes from financial institutions.

At June 30, 2017, the carrying amounts and fair values of Grace's debt were as follows:

	June 30, 2017		December 31,		
			2016		
(In millions)	Carrying	Fair	Carrying	Fair	
(III IIIIIIIIIIII)	Amount	Value	Amount	Value	
5.125% senior notes due 2021(1)	\$693.4	\$745.4	\$692.7	\$721.3	
U.S. dollar term loan(2)	403.3	402.8	402.7	408.2	
5.625% senior notes due 2024(1)	296.3	318.5	296.0	311.5	
Euro term loan(2)	89.9	89.9	82.5	82.0	
Other borrowings	120.1	120.1	110.2	110.2	
Total debt	\$1,603.0	\$1,676.7	\$1,584.1	\$1,633.2	

Carrying amounts are net of unamortized debt issuance costs of \$6.6 million and \$3.7 million as of June 30, 2017,

Carrying amounts are net of unamortized debt issuance costs and discounts of \$5.1 million and \$1.1 million as of (2) June 30, 2017, and \$5.7 million and \$1.3 million as of December 31, 2016, related to the U.S. dollar term loan and euro term loan, respectively.

At June 30, 2017, the recorded values of other financial instruments such as cash equivalents and trade receivables and payables approximated their fair values, based on the short-term maturities and floating rate characteristics of these instruments.

⁽¹⁾ and \$7.3 million and \$4.0 million as of December 31, 2016, related to the 5.125% senior notes due 2021 and 5.625% senior notes due 2024, respectively.

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

Currency Derivatives Because Grace operates and/or sells to customers in over 60 countries and in 30 currencies, its results are exposed to fluctuations in currency exchange rates. Grace seeks to minimize exposure to these fluctuations by matching sales in volatile currencies with expenditures in the same currencies, but it is not always possible to do so. From time to time, Grace will use financial instruments such as currency forward contracts, options, swaps, or combinations thereof to reduce the risk of certain specific transactions. However, Grace does not have a policy of hedging all exposures, because management does not believe that such a level of hedging would be cost-effective. Forward contracts with maturities of not more than 12 months are used and designated as cash flow hedges of forecasted repayments of intercompany loans. The effective portion of gains and losses on these currency hedges is recorded in "accumulated other comprehensive income (loss)" and reclassified into "other (income) expense" when these derivatives mature.

The valuation of Grace's currency exchange rate forward contracts and swaps is determined using both a market approach and an income approach. Inputs used to value currency exchange rate forward contracts consist of: (1) spot rates, which are quoted by various financial institutions; (2) forward points, which are primarily affected by changes in interest rates; and (3) discount rates used to present value future cash flows, which are based on the London Interbank Offered Rate (LIBOR) curve or overnight indexed swap rates.

Debt and Interest Rate Swap Agreements Grace uses interest rate swaps designated as cash flow hedges to manage fluctuations in interest rates on variable rate debt. The effective portion of gains and losses on these interest rate cash flow hedges is recorded in "accumulated other comprehensive income (loss)" and reclassified into "interest expense and related financing costs" during the hedged interest period.

In connection with its emergence financing, Grace entered into an interest rate swap beginning on February 3, 2015, and maturing on February 3, 2020, fixing the LIBOR component of the interest on \$250 million of Grace's term debt at a rate of 2.393%. The valuation of this interest rate swap is determined using both a market approach and an income approach, using prevailing market interest rates and discount rates to present value future cash flows based on the forward LIBOR yield curves.

The following tables present the fair value hierarchy for financial assets and liabilities measured at fair value on a recurring basis as of June 30, 2017, and December 31, 2016:

Fair Value Measurements at June 30, 2017

	ran v	aruc ivicasu	icincins at ju	nc 50, 2017,	
	Using				
(In millions)	Total	Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservab Inputs (Level 3)	ole
Assets		(==::==)			
Currency derivatives	\$3.6	\$ -	-\$ 3.6	\$	_
Total Assets	\$3.6	\$ -	-\$ 3.6	\$	
Liabilities Interest rate derivatives Currency derivatives	\$5.1 11.6	\$ -	-\$ 5.1 11.6	\$	
Currency derivatives	11.0	_	11.0	_	

Total Liabilities \$16.7 \$ —\$ 16.7 \$ —

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

	Fair Value Measurements at December 31,					
	2016	, Using				
		Quoted				
		Prices in				
		Active	Sig	nificant	G: :C: .	
		Markets Other		ner	Significant	1.
(In millions)	Total	for	Ob	servable	Unobservab	ie
(In millions)		Identical	Inp	outs	Inputs	
		Assets or	(Le	evel 2)	(Level 3)	
		Liabilities				
		(Level 1)				
Assets						
Currency derivatives	\$8.8	\$ -	_\$	8.8	\$	—
Total Assets	\$8.8	\$ -	_\$	8.8	\$	—
Liabilities						
Interest rate derivatives	\$6.0	\$ -	_\$	6.0	\$	—
Currency derivatives	0.9	_	0.9			
Total Liabilities	\$6.9	\$ -	_\$	6.9	\$	—

The following tables present the location and fair values of derivative instruments included in the Consolidated Balance Sheets as of June 30, 2017, and December 31, 2016:

June 30, 2017 (In millions) Derivatives designated as hedging instruments under ASC 815:	Asset Derivatives Balance Sheet Location	Fair Value	Liability Derivatives Balance Sheet Location	Fair Value
Currency contracts	Other current assets	\$ 3.0	Other current liabilities	\$0.4
Interest rate contracts	Other current assets	_	Other current liabilities	1.9
Currency contracts	Other assets		Other liabilities	10.5
Interest rate contracts	Other assets		Other liabilities	3.2
Derivatives not designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	0.6	Other current liabilities	0.7
Total derivatives		\$ 3.6		\$16.7
December 31, 2016 (In millions)	Asset Derivatives Balance Sheet Location	Fair Value	Liability Derivatives Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	\$ 4.0	Other current liabilities	\$ —

Interest rate contracts	Other current assets	_	Other current liabilities	2.8
Currency contracts	Other assets	4.0	Other liabilities	
Interest rate contracts	Other assets		Other liabilities	3.2
Derivatives not designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	0.8	Other current liabilities	0.9
Total derivatives		\$ 8.8		\$ 6.9
16				

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

The following tables present the location and amount of gains and losses on derivative instruments included in the Consolidated Statements of Operations or, when applicable, gains and losses initially recognized in other comprehensive income (loss) ("OCI") for the three and six months ended June 30, 2017 and 2016:

comprehensive income (loss		c three and six months ended june 30, 2017 and 2010.	
Three Months Ended June 30 2017 (In millions)	in OCI on Derivative (Effective Portion)	d Location of Gain (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)	Amount of Gain (Loss) Reclassified from OCI into Income (Effective Portion)
Derivatives in ASC 815 cash relationships:	i now neagin	g	
Interest rate contracts	\$ (1.1	Interest expense	\$ (0.8)
Currency contracts	`	Other expense	(0.1)
Total derivatives	\$ (1.1		\$ (0.9)
Six Months Ended June 30, 2017 (In millions)	Amount of Gain (Loss) Recognized in OCI on Derivatives (Effective Portion)	Location of Gain (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)	Amount of Gain (Loss) Reclassified from OCI into Income (Effective Portion)
Derivatives in ASC 815 cash	flow		
hedging relationships:			
Interest rate contracts	\$ (1.0)	Interest expense	\$ (1.7)
Currency contracts	(0.1)	Other expense	(0.1)
Total derivatives	\$ (1.1)	f	\$ (1.8)
Three Months Ended June 30 2016 (In millions)	Amount o Gain (Loss) Recognize in OCI on Derivative (Effective Portion)	Location of Gain (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)	Amount of Gain (Loss) Reclassified from OCI into Income (Effective Portion)
Derivatives in ASC 815 cash	flow hedgin	g	
relationships:	¢ (1.0	Interest sympass	¢ (1.1)
Interest rate contracts	\$ (1.9 0.2	Other expense	\$ (1.1) (0.1)
Currency contracts Total derivatives	\$ (1.7	Other expense	\$ (1.2)
Total activatives	ψ (1./		ψ (1.2)

Six Months Ended June 30,	Amount of	Location of Gain (Loss) Reclassified from Accumulated OCI	Amount	of
2016	Gain	into Income	Gain (Lo	oss)
(In millions)	(Loss)	(Effective Portion)	Reclassif	fied
	Recognized	1	from OC	Ί
	in OCI on		into Inco	me
	Derivatives		(Effectiv	'e
	(Effective		Portion)	
	Portion)			
Derivatives in ASC 815 cash	ı flow			
hedging relationships:				
Interest rate contracts	\$ (6.4)	Interest expense	\$ (2.1)
Currency contracts	0.1	Other expense	0.4	
Total derivatives	\$ (6.3)		\$ (1.7)
NI II I O				

Net Investment Hedges Grace uses cross-currency swaps as derivative hedging instruments in certain net investment hedges of its non-U.S. subsidiaries. The effective portion of gains and losses attributable to these net investment hedges is recorded net of tax to "currency translation adjustments" within "accumulated other comprehensive income (loss)" to offset the change in the carrying value of the net investment being hedged. Recognition in earnings of amounts previously recorded to "currency translation adjustments" is limited to circumstances such as complete or substantially complete liquidation of the net investment in the hedged foreign operation. At June 30, 2017, the notional amount of €170.0 million of Grace's cross-currency swaps was designated as a hedging instrument of its net investment in its European subsidiaries.

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

Grace also uses foreign currency denominated debt and deferred intercompany royalties as non-derivative hedging instruments in certain net investment hedges. The effective portion of gains and losses attributable to these net investment hedges is recorded to "currency translation adjustments" within "accumulated other comprehensive income (loss)." Recognition in earnings of amounts previously recorded to "currency translation adjustments" is limited to circumstances such as complete or substantially complete liquidation of the net investment in the hedged foreign operation. At June 30, 2017, €80.1 million of Grace's term loan principal was designated as a hedging instrument of its net investment in its European subsidiaries. At June 30, 2017, €45.0 million of Grace's deferred intercompany royalties was designated as a hedging instrument of its net investment in its European subsidiaries.

The following tables present the location and amount of gains and losses on derivative and non-derivative instruments designated as net investment hedges for the three and six months ended June 30, 2017 and 2016. There were no reclassifications of the effective portion of net investment hedges out of OCI and into earnings for the periods presented in the tables below.

Amount of

	Amount of				
	Gain (Loss))			
	Recognized				
The Manual Carlot Lane 20, 2017	in OCI in				
Three Months Ended June 30, 2017	Currency				
(In millions)	Translation	l			
	Adjustment	ts			
	(Effective				
	Portion)				
Derivatives in ASC 815 net investment hedging relationships:	•				
Cross-currency swap	\$ (6.1)			
Non-derivatives in ASC 815 net investment hedging relationships:	`				
Foreign currency denominated debt	\$ (4.9)			
Foreign currency denominated deferred intercompany royalties	(2.9)			
	\$ (7.8)			
	Amount of				
	Gain (Loss))			
	Recognized				
Cir Mantha Endad Ivaa 20, 2017	in OCI in				
Six Months Ended June 30, 2017	Currency				
(In millions)	Translation	l			
	Adjustment	ts			
	(Effective				
	Portion)				
Derivatives in ASC 815 net investment hedging relationships:					
Cross-currency swap	\$ (8.6)			
Non-derivatives in ASC 815 net investment hedging relationships:					
Foreign currency denominated debt	\$ (7.2)			
Foreign currency denominated deferred intercompany royalties	(4.4)			
	\$ (11.6)			

Three Months Ended June 30, 2016
(In millions)
Amount of
Gain (Loss)

Recognized in OCI in Currency Translation Adjustments (Effective Portion)

Derivatives in ASC 815 net investment hedging relationships:

Cross-currency swap \$ 0.1

Non-derivatives in ASC 815 net investment hedging relationships:

Foreign currency denominated debt \$ 0.9

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

Six Months Ended June 30, 2016 (In millions)

Amount of Gain (Loss) Recognized in OCI in Currency Translation Adjustments (Effective Portion)

Derivatives in ASC 815 net investment hedging relationships:

Cross-currency swap

\$ 0.1

Non-derivatives in ASC 815 net investment hedging relationships:

Foreign currency denominated debt

\$ (0.5)

Credit Risk Grace is exposed to credit risk in its trade accounts receivable. Customers in the petroleum refining industry represent the greatest exposure. Grace's credit evaluation policies mitigate credit risk exposures, and it has a history of minimal credit losses. Grace does not generally require collateral for its trade accounts receivable but may require a bank letter of credit in certain instances, particularly when selling to customers in cash-restricted countries. Grace may also be exposed to credit risk in its derivatives contracts. Grace monitors counterparty credit risk and currently does not anticipate nonperformance by counterparties to its derivatives. Grace's derivative contracts are with internationally recognized commercial financial institutions.

5. Income Taxes

The effective tax rate is 32.1% as of June 30, 2017, compared with 35.6% for the year ended December 31, 2016. The 2017 tax rate includes a discrete benefit of \$3.0 million for share-based compensation deductions offset by a charge of \$1.1 million for a tax law change in Tennessee. The 2016 tax rate included \$10.1 million in discrete charges caused by an increase in the valuation allowance on deferred tax assets, partially offset by a discrete benefit of \$6.7 million for share-based compensation deductions.

Grace generated U.S. federal tax deductions relating to its emergence from bankruptcy in 2014. The deductions generated U.S. federal NOLs, which Grace has carried forward and expects to utilize in subsequent years. Under U.S. federal income tax law, a corporation is generally permitted to carry forward NOLs for a 20-year period for deduction against future taxable income. Grace also generated U.S. federal tax deductions of \$30 million upon payment of the ZAI PD obligation in the 2017 first quarter. (See Note 8.)

The following table summarizes the balance of deferred tax assets, net of deferred tax liabilities, at June 30, 2017, of \$697.3 million:

	Deferred		Net
	Tax Asset	Valuation	Deferred
	(Net of	Allowance	Tax
	Liabilities)		Asset
United States—Fed	er\$1627.1	\$ (17.7)	\$ 609.4
United States—Stat	es50.9	(11.2)	39.7
Germany	42.7	_	42.7
Other foreign	8.0	(2.5)	5.5
Total	\$ 728.7	\$ (31.4)	\$ 697.3

Grace will need to generate approximately \$1,700 million of U.S. federal taxable income by 2035 (or approximately \$95 million per year during the carryforward period) to fully realize the U.S. federal net deferred tax assets.

Notes to Consolidated Financial Statements (Continued)

5. Income Taxes (Continued)

The following table summarizes expiration dates in jurisdictions where Grace has, or will have, material tax loss and credit carryforwards:

Expiration Dates

United States—Federal (NOLs 2034 - 2035

United States—Federal (Credit2019 - 2027

United States—States (NOLs) 2017 - 2035

In evaluating its ability to realize its deferred tax assets, Grace considers all reasonably available positive and negative evidence, including recent earnings experience, expectations of future taxable income and the tax character of that income, the period of time over which the temporary differences become deductible and the carryforward and/or carryback periods available to Grace for tax reporting purposes in the related jurisdiction. In estimating future taxable income, Grace relies upon assumptions and estimates about future activities, including the amount of future federal, state and international pretax operating income that Grace will generate; the reversal of temporary differences; and the implementation of feasible and prudent tax planning strategies. Grace records a valuation allowance to reduce deferred tax assets to the amount that it believes is more likely than not to be realized.

6. Pension Plans and Other Postretirement Benefit Plans

Pension Plans The following table presents the funded status of Grace's underfunded and unfunded pension plans:

(In millions)		December	31,
(III IIIIIIIOIIS)	2017	2016	
Underfunded defined benefit pension plans	\$(81.5)	\$ (83.1)
Unfunded defined benefit pension plans	(362.7)	(341.2)
Total underfunded and unfunded defined benefit pension plans	(444.2)	(424.3)
Pension liabilities included in other current liabilities	(15.0)	(14.4)
Net funded status	\$(459.2)	\$ (438.7)

Underfunded plans include a group of advance-funded plans that are underfunded on a projected benefit obligation ("PBO") basis. Unfunded plans include several plans that are funded on a pay-as-you-go basis, and therefore, the entire PBO is unfunded.

Components of Net Periodic Benefit Cost (Income)

•	Three Months Ended June 30,					
	2017		2016			
	Pension	Other Post	Pensio	on	Other Po	ost
(In millions)	U.S. Non-U.S.	Retirement	U.S.	Non-U.S.	Retirem	ent
Service cost	\$4.3 \$ 2.0	\$ —	\$4.4	\$ 1.7	\$ —	
Interest cost	10.5 1.1		10.2	1.3	_	
Expected return on plan assets	(14.4) (0.2)		(14.2)	(0.3)	_	
Amortization of prior service credit	(0.1) —	(0.5)			(0.6))
Amortization of net deferred actuarial loss		0.1		_	0.1	
Curtailment gain				(0.7)	_	
Net periodic benefit cost (income) from continuing operations	\$0.3 \$ 2.9	\$ (0.4)	\$0.4	\$ 2.0	\$ (0.5)

Notes to Consolidated Financial Statements (Continued)

6. Pension Plans and Other Postretirement Benefit Plans (Continued)

	Six Months Ended June 30,						
	2017			2016			
	Pensio	n	Other Post	Pensio	on	Other Po	ost
(In millions)	U.S.	Non-U.S.	Retirement	U.S.	Non-U.S.	Retirem	ent
Service cost	\$8.6	\$ 4.0	\$ —	\$9.4	\$ 3.7	\$ —	
Interest cost	21.0	2.1	_	20.7	3.3	_	
Expected return on plan assets	(28.8)	(0.4)	_	(28.8)	(1.3)	_	
Amortization of prior service credit	(0.2)	_	(1.0)	(0.1)	_	(1.2)
Amortization of net deferred actuarial loss	_		0.2			0.3	
Curtailment gain	_				(0.7)		
Net periodic benefit cost (income)	0.6	5.7	(0.8)	1.2	5.0	(0.9))
Less: discontinued operations	_			(0.5)	(0.2)		
Net periodic benefit cost (income) from continuing operations	\$0.6	\$ 5.7	\$ (0.8)	\$0.7	\$ 4.8	\$ (0.9)

Plan Contributions and Funding Grace intends to satisfy its funding obligations under the U.S. qualified pension plans and to comply with all of the requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"). For ERISA purposes, funded status is calculated on a different basis than under U.S. GAAP. Grace intends to fund non-U.S. pension plans based on applicable legal requirements and actuarial recommendations. Defined Contribution Retirement Plan Grace sponsors a defined contribution retirement plan for its employees in the United States. This plan is qualified under section 401(k) of the U.S. tax code. Currently, Grace contributes an amount equal to 100% of employee contributions, up to 6% of an individual employee's salary or wages. Grace's costs related to this benefit plan for the three and six months ended June 30, 2017, were \$3.0 million and \$5.7 million compared with \$2.7 million and \$5.4 million for the corresponding prior-year periods. U.S. salaried employees and certain U.S. hourly employees that are hired on or after January 1, 2017, and employees in Germany that are hired on or after January 1, 2016, will participate in defined contribution plans instead of defined benefit pension plans.

7. Other Balance Sheet Accounts

(In millions)	June 30,	December 31,
(III IIIIIIIOIIS)	2017	2016
Other Current Liabilities		
Accrued compensation	\$ 39.0	\$ 49.6
Environmental contingencies	26.8	32.5
Deferred revenue	21.2	27.2
Accrued interest	17.0	16.2
Pension liabilities	15.0	14.4
Income taxes payable	8.5	5.7
Other accrued liabilities	56.1	63.3
	\$ 183.6	\$ 208.9

Accrued compensation includes salaries and wages as well as estimated current amounts due under the annual and long-term incentive programs.

Notes to Consolidated Financial Statements (Continued)

7. Other Balance Sheet Accounts (Continued)

(In millions)	June 30, 2017	December 31, 2016
Other Liabilities		
Environmental contingencies	\$41.5	\$ 33.8
Liability to unconsolidated affiliate	27.4	27.0
Asset retirement obligation	8.7	10.2
Postemployment liability	7.0	7.2
Deferred revenue	9.4	2.3
Other noncurrent liabilities	59.6	46.2
	\$ 153.6	\$ 126.7

8. Commitments and Contingent Liabilities

Over the years, Grace operated numerous types of businesses that are no longer part of its business portfolio. As Grace divested or otherwise ceased operating these businesses, it retained certain liabilities and obligations, which we refer to as legacy liabilities. The principal legacy liabilities are product and environmental liabilities. Although the outcome of each of the matters discussed below cannot be predicted with certainty, Grace has assessed its risk and has made accounting estimates as required under U.S. GAAP.

Legacy Product and Environmental Liabilities

Legacy Product Liabilities Grace emerged from an asbestos-related Chapter 11 bankruptcy on February 3, 2014 (the "Effective Date"). Under its plan of reorganization, all pending and future asbestos-related claims are channeled for resolution to either a personal injury trust (the "PI Trust") or a property damage trust (the "PD Trust"). The trusts are the sole recourse for holders of asbestos-related claims. The channeling injunctions issued by the bankruptcy court prohibit holders of asbestos-related claims from asserting such claims directly against Grace.

Grace has satisfied all of its financial obligations to the PI Trust. Grace has contingent financial obligations remaining to the PD Trust. With respect to property damage claims related to Grace's former attic insulation product installed in the U.S. ("ZAI PD Claims"), the PD Trust was funded with \$34.4 million on the Effective Date and \$30.0 million on February 3, 2017. Grace is also obligated to make up to 10 contingent deferred payments of \$8 million per year to the PD Trust in respect of ZAI PD Claims during the 20-year period beginning on the fifth anniversary of the Effective Date, with each such payment due only if the assets of the PD Trust in respect of ZAI PD Claims fall below \$10 million during the preceding year. Grace has not accrued for the 10 additional payments as Grace does not currently believe they are probable. Grace is not obligated to make additional payments to the PD Trust in respect of ZAI PD Claims beyond the payments described above. Grace has satisfied all of its financial obligations with respect to Canadian ZAI PD Claims.

With respect to other asbestos property damage claims ("Other PD Claims"), claims unresolved as of the Effective Date are to be litigated in the bankruptcy court and any future claims are to be litigated in a federal district court, in each case pursuant to procedures approved by the bankruptcy court. To the extent any such Other PD Claims are determined to be allowed claims, they are to be paid in cash by the PD Trust. Grace is obligated to make a payment to the PD Trust every six months in the amount of any Other PD Claims allowed during the preceding six months plus interest (if applicable) and the amount of PD Trust expenses for the preceding six months (the "PD Obligation"). The aggregate amount to be paid under the PD Obligation is not capped and Grace may be obligated to make additional payments to the PD Trust in respect of the PD Obligation. Grace has accrued for those unresolved Other PD Claims that it believes are probable and estimable. Grace has not accrued for other unresolved or unasserted Other PD Claims as it does not believe that payment is probable.

All payments to the PD Trust required after the Effective Date are secured by the Company's obligation to issue 77,372,257 shares of Company common stock to the PD Trust in the event of default, subject to customary anti-dilution provisions.

Notes to Consolidated Financial Statements (Continued)

8. Commitments and Contingent Liabilities (Continued)

This summary of the commitments and contingencies related to the Chapter 11 proceeding does not purport to be complete and is qualified in its entirety by reference to the plan of reorganization and the exhibits and documents related thereto, which have been filed with the SEC.

Legacy Environmental Liabilities Grace is subject to loss contingencies resulting from extensive and evolving federal, state, local and foreign environmental laws and regulations relating to its manufacturing operations. Grace has procedures in place to minimize such contingencies; nevertheless, it has liabilities associated with past operations and additional claims may arise in the future. To address its legacy liabilities, Grace accrues for anticipated costs of response efforts where an assessment has indicated that a probable liability has been incurred and the cost can be reasonably estimated. These accruals do not take into account any discounting for the time value of money. Grace's environmental liabilities are reassessed regularly and adjusted when circumstances become better defined or response efforts and their costs can be better estimated, typically as a matter moves through the life-cycle of environmental investigation and remediation. These liabilities are evaluated based on currently available information, relating to the nature and extent of contamination, risk assessments, feasibility of response actions, and apportionment amongst other potentially responsible parties, all evaluated in light of prior experience.

At June 30, 2017, Grace's estimated liability for legacy environmental response costs totaled \$68.3 million, compared with \$66.3 million at December 31, 2016, and was included in "other current liabilities" and "other liabilities" in the Consolidated Balance Sheets. These amounts are based on agreements in place or on Grace's estimate of costs where no formal remediation plan exists, yet there is sufficient information to estimate response costs.

Vermiculite-Related Matters

Grace purchased a vermiculite mine in Libby, Montana, in 1963 and operated it until 1990. Vermiculite concentrate from the Libby mine was used in the manufacture of attic insulation and other products. Some of the vermiculite ore contained naturally occurring asbestos.

Grace is engaged with the U.S. Environmental Protection Agency (the "EPA") and other federal, state and local governmental agencies in a remedial investigation and feasibility study ("RI/FS") of the Libby mine and the surrounding area. In its 2017 Annual Project Update for the Libby Asbestos Superfund Site, the EPA announced a narrowing of its focus from the former "OU3 Study Area" to a smaller Operable Unit 3 or "OU3." Within this revised area, the RI/FS will determine the specific areas requiring remediation and will identify possible remedial action alternatives. Possible remedial actions within OU3 are wide-ranging, from institutional controls such as land use restrictions, to more active measures involving soil removal, containment projects, or other protective measures. Grace expects the RI/FS and a record of decision to be completed by the end of 2019. When meaningful new information becomes available, Grace will reevaluate estimated liability for the costs for remediation of the mine and surrounding area and adjust its reserves accordingly.

The EPA is also investigating or remediating formerly owned or operated sites that processed Libby vermiculite into finished products. Grace is cooperating with the EPA on these investigation and remediation activities, and has recorded a liability to the extent that its review has indicated that a probable liability has been incurred and the cost is estimable. These liabilities cover the estimated cost of investigations and, to the extent an assessment has indicated that remediation is necessary, the estimable cost of response actions. Response actions typically involve soil excavation and removal, and replacement with clean fill. The EPA may commence additional investigations in the future at other sites that processed Libby vermiculite, but Grace does not believe, based on its knowledge of prior and current operations and site conditions, that liability for remediation at such other sites is probable.

Grace accrued \$4.3 million in the three months ended June 30, 2017 for future costs related to vermiculite-related matters, which reflects provision for an agreed upon remedy at a former vermiculite processing site. Grace's total estimated liability for response costs that are currently estimable for the Libby mine and surrounding area, and at

vermiculite processing sites outside of Libby at June 30, 2017, and December 31, 2016, was \$26.8

Notes to Consolidated Financial Statements (Continued)

8. Commitments and Contingent Liabilities (Continued)

million and \$31.2 million, respectively. It is probable that Grace's ultimate liability for these vermiculite-related matters will exceed current estimates by material amounts.

Non-Vermiculite-Related Matters

Grace accrued \$8.9 million in the three months ended June 30, 2017 for future costs related to non-vermiculite-related matters, \$7.2 million of which was to increase the liability for remediation at a former manufacturing site to maintain ten years of operation and maintenance expenses. At June 30, 2017, and December 31, 2016, Grace's estimated legacy environmental liability for response costs at sites not related to its former vermiculite mining and processing activities was \$41.5 million and \$35.1 million, respectively. This liability relates to Grace's former businesses or operations, including its share of liability at off-site disposal facilities. Grace's estimated liability is based upon regulatory requirements and environmental conditions at each site. As Grace receives new information its estimated liability may change materially.

Commercial and Financial Commitments and Contingencies

Purchase Commitments Grace uses purchase commitments to ensure supply and to minimize the volatility of major components of direct manufacturing costs including natural gas, certain metals, rare earths, and other materials. Such commitments are for quantities that Grace fully expects to use in its normal operations.

Guarantees and Indemnification Obligations Grace is a party to many contracts containing guarantees and indemnification obligations. These contracts primarily consist of:

Product warranties with respect to certain products sold to customers in the ordinary course of business. These warranties typically provide that products will conform to specifications. Grace accrues a warranty liability on a transaction-specific basis depending on the individual facts and circumstances related to each sale.

Performance guarantees offered to customers under certain licensing arrangements. Grace has not established a liability for these arrangements based on past performance.

Licenses of intellectual property by Grace to third parties in which Grace has agreed to indemnify the licensee against third party infringement claims.

Contracts providing for the sale of a former business unit or product line in which Grace has agreed to indemnify the buyer against liabilities related to activities prior to the closing of the transaction, including environmental liabilities. Contracts related to the Separation in which Grace has agreed to indemnify GCP against liabilities related to activities prior to the closing of the transaction, including tax, employee, and environmental liabilities.

Guarantees of real property lease obligations of third parties, typically arising out of (a) leases entered into by former subsidiaries of Grace, or (b) the assignment or sublease of a lease by Grace to a third party.

Financial Assurances Financial assurances have been established for a variety of purposes, including insurance and environmental matters, trade-related commitments and other matters. At June 30, 2017, Grace had gross financial assurances issued and outstanding of \$122.9 million, composed of \$39.5 million of surety bonds issued by various insurance companies and \$83.4 million of standby letters of credit and other financial assurances issued by various banks.

Notes to Consolidated Financial Statements (Continued)

9. Restructuring Expenses and Repositioning Expenses

Restructuring Expenses In the 2017 second quarter, Grace incurred costs from restructuring actions, primarily related to workforce reductions as a result of changes in the business environment and its business structure, which are included in "restructuring and repositioning expenses" in the Consolidated Statements of Operations. Costs in the 2016 first and second quarters primarily related to the exit of certain non-strategic product lines in the Materials Technologies reportable segment.

The following table presents restructuring expenses by reportable segment for the three and six months ended June 30, 2017.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	2017	2016	2017	2016
Catalysts Technologies	\$—	\$0.6	\$0.4	\$1.1
Materials Technologies	0.1	7.3	0.3	15.2
Corporate	1.9	_	4.1	0.1
Total restructuring expenses	\$2.0	\$7.9	\$4.8	\$16.4

These costs are not included in segment operating income. Substantially all costs related to the restructuring programs are expected to be paid by December 31, 2017.

Restructuring Liability	Total
(In millions)	1 Otai
Balance, December 31, 2016	\$9.6
Accruals for severance and other costs	4.4
Payments	(7.2)
Currency translation adjustments and other	0.1
Balance, June 30, 2017	\$6.9

Repositioning Expenses Pretax repositioning expenses included in continuing operations for the three and six months ended June 30, 2017, were \$3.3 million and \$2.8 million compared with \$1.5 million and \$6.6 million for the corresponding prior-year periods. The expenses incurred in 2017 primarily relate to the Separation and third party consulting costs related to productivity initiatives. Substantially all of these costs have been or are expected to be settled in cash.

10. Other (Income) Expense, net

Components of other (income) expense, net are as follows: