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 OF 1934**

For the Quarterly Period Ended June 30, 2019

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 1-13953

W R GRACE & CO

(Exact name of registrant as specified in its charter)

Delaware	**65-0773649**
(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)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	GRA	New York Stock Exchange
Preferred Stock Purchase Rights		

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

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

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

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

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

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 31, 2019
Common Stock, $0.01 par value per share	66,735,685 shares

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Unless the context indicates otherwise, in this Report, the terms the "Company," "Grace," "we," "us," or "our" mean (i) W. R. Grace & Co. itself, or (ii) W. R. Grace & Co. and/or one or more of its consolidated subsidiaries and affiliates and, in certain cases, their respective predecessors. Unless otherwise indicated, the contents of websites mentioned in this Report are not incorporated by reference or otherwise made a part of this Report. GRACE®, the GRACE® logo (and any other use of the term "Grace" as a tradename) as well as the other trademarks, service marks, or trade names used in this Report are trademarks, service marks, or trade names of Grace's operating units, except as otherwise indicated herein.

The Financial Accounting Standards Board is referred to in this Report as the "FASB." The FASB issues, among other things, Accounting Standards Codifications (which are referred to herein as "ASC") and Accounting Standards Updates (which are referred to herein as "ASU"). The U.S. Internal Revenue Service is referred to in this Report as the "IRS."

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

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

(In millions, except per share amounts)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Net sales	**$ 513.6**	$ 485.7	**$ 983.1**	$ 917.2
Cost of goods sold	**304.2**	287.0	**585.1**	549.0
Gross profit	**209.4**	198.7	**398.0**	368.2
Selling, general and administrative expenses	**76.3**	80.4	**149.5**	148.8
Research and development expenses	**16.3**	16.1	**33.3**	30.8
Costs related to legacy matters	**1.5**	2.2	**48.4**	4.2
Equity in earnings of unconsolidated affiliate	**(6.0)**	(8.2)	**(10.1)**	(13.6)
Restructuring and repositioning expenses	**6.4**	18.8	**8.7**	24.4
Interest expense and related financing costs	**19.6**	19.9	**39.6**	39.2
Other (income) expense, net	**0.1**	5.9	**(2.1)**	2.6
Total costs and expenses	**114.2**	135.1	**267.3**	236.4
Income (loss) before income taxes	**95.2**	63.6	**130.7**	131.8
(Provision for) benefit from income taxes	**(18.8)**	(25.0)	**(29.7)**	(49.8)
Net income (loss)	**76.4**	38.6	**101.0**	82.0
Less: Net (income) loss attributable to noncontrolling interests	**(0.2)**	0.2	**(0.1)**	0.4
Net income (loss) attributable to W. R. Grace & Co. shareholders	**$ 76.2**	$ 38.8	**$ 100.9**	$ 82.4
Earnings Per Share Attributable to W. R. Grace & Co. Shareholders				
Basic earnings per share:				
Net income (loss)	**$ 1.14**	$ 0.58	**$ 1.51**	$ 1.22
Weighted average number of basic shares	**66.8**	67.3	**66.8**	67.4
Diluted earnings per share:				
Net income (loss)	**$ 1.14**	$ 0.58	**$ 1.51**	$ 1.22
Weighted average number of diluted shares	**67.0**	67.4	**66.9**	67.5
Dividends per common share	**$ 0.27**	$ 0.24	**$ 0.54**	$ 0.48

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

W. R. Grace & Co. and Subsidiaries
Consolidated Statements of Comprehensive Income (Loss) (unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	2019	2018	2019	2018
Net income (loss)	**$ 76.4**	$ 38.6	**$ 101.0**	$ 82.0
Other comprehensive income (loss), net of income taxes:				
Defined benefit pension and other postretirement plans	**(0.1)**	(0.2)	**(0.2)**	(0.4)
Currency translation adjustments	**(6.8)**	37.9	**4.9**	19.7
Gain (loss) from hedging activities	**(6.1)**	(5.2)	**(9.1)**	(3.4)
Total other comprehensive income (loss)	**(13.0)**	32.5	**(4.4)**	15.9
Comprehensive income (loss)	**63.4**	71.1	**96.6**	97.9
Less: comprehensive (income) loss attributable to noncontrolling interests	**(0.2)**	0.2	**(0.1)**	0.4
Comprehensive income (loss) attributable to W. R. Grace & Co. shareholders	**$ 63.2**	$ 71.3	**$ 96.5**	$ 98.3

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

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

(In millions)	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
OPERATING ACTIVITIES		
Net income (loss)	**$ 101.0**	$ 82.0
Reconciliation to net cash provided by (used for) operating activities:		
Depreciation and amortization	**49.8**	50.9
Equity in earnings of unconsolidated affiliate	**(10.1)**	(13.6)
Costs related to legacy matters	**48.4**	4.2
Cash paid for legacy matters	**(7.8)**	(12.6)
Provision for (benefit from) income taxes	**29.7**	49.8
Cash paid for income taxes	**(20.3)**	(16.7)
Income tax refunds received	**7.1**	0.1
Loss on early extinguishment of debt	**—**	4.8
Interest expense and related financing costs	**39.6**	39.2
Cash paid for interest	**(37.9)**	(39.6)
Defined benefit pension expense	**9.4**	7.8
Cash paid under defined benefit pension arrangements	**(8.0)**	(57.9)
Changes in assets and liabilities, excluding effect of currency translation and acquisitions:		
Trade accounts receivable	**(24.2)**	14.8
Inventories	**(37.4)**	(50.8)
Accounts payable	**13.1**	34.0
All other items, net	**(7.5)**	22.6
Net cash provided by (used for) operating activities	**144.9**	119.0
INVESTING ACTIVITIES		
Cash paid for capital expenditures	**(101.5)**	(90.8)
Business acquired, net of cash acquired	**(22.8)**	(420.9)
Other investing activities, net	**(3.0)**	12.7
Net cash provided by (used for) investing activities	**(127.3)**	(499.0)
FINANCING ACTIVITIES		
Borrowings under credit arrangements	**6.9**	983.2
Repayments under credit arrangements	**(12.3)**	(541.8)
Cash paid for debt financing costs	**—**	(11.8)
Cash paid for repurchases of common stock	**(29.8)**	(49.8)
Proceeds from exercise of stock options	**18.0**	6.4
Dividends paid to shareholders	**(36.6)**	(32.4)
Other financing activities, net	**(4.9)**	(3.5)
Net cash provided by (used for) financing activities	**(58.7)**	350.3
Effect of currency exchange rate changes on cash, cash equivalents, and restricted cash	**—**	(1.0)
Net increase (decrease) in cash, cash equivalents, and restricted cash	**(41.1)**	(30.7)
Cash, cash equivalents, and restricted cash, beginning of period	**201.0**	163.5
Cash, cash equivalents, and restricted cash, end of period	**$ 159.9**	$ 132.8
Supplemental disclosure of cash flow information		
Capital expenditures in accounts payable	**$ 34.8**	$ 38.7

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

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W. R. Grace & Co. and Subsidiaries
Consolidated Balance Sheets (unaudited)

(In millions, except par value and shares)	June 30, 2019	December 31, 2018
ASSETS		
Current Assets		
Cash and cash equivalents	**$ 159.5**	$ 200.5
Restricted cash and cash equivalents	**0.4**	0.5
Trade accounts receivable, less allowance of $12.3 (2018—$11.6)	**310.0**	288.5
Inventories	**318.2**	281.1
Other current assets	**219.6**	86.7
Total Current Assets	**1,007.7**	857.3
Properties and equipment, net of accumulated depreciation and amortization of $1,487.8 (2018—$1,482.8)	**1,076.7**	1,011.7
Goodwill	**557.9**	540.4
Technology and other intangible assets, net	**353.9**	356.5
Deferred income taxes	**520.1**	529.4
Investment in unconsolidated affiliate	**165.7**	156.1
Other assets	**44.5**	113.9
Total Assets	**$ 3,726.5**	$ 3,565.3
LIABILITIES AND EQUITY		
Current Liabilities		
Debt payable within one year	**$ 23.0**	$ 22.3
Accounts payable	**270.3**	248.6
Other current liabilities	**386.2**	243.5
Total Current Liabilities	**679.5**	514.4
Debt payable after one year	**1,960.0**	1,961.0
Unfunded defined benefit pension plans	**365.8**	366.0
Underfunded defined benefit pension plans	**68.1**	67.1
Other liabilities	**265.8**	319.8
Total Liabilities	**3,339.2**	3,228.3
Commitments and Contingencies—Note 8		
Equity		
Common stock issued, par value $0.01; 300,000,000 shares authorized; outstanding: 66,719,142 (2018—66,792,968)	**0.7**	0.7
Paid-in capital	**469.3**	481.1
Retained earnings	**741.3**	676.7
Treasury stock, at cost: shares: 10,737,491 (2018—10,663,659)	**(893.7)**	(895.5)
Accumulated other comprehensive income (loss)	**63.5**	67.9
Total W. R. Grace & Co. Shareholders' Equity	**381.1**	330.9
Noncontrolling interests	**6.2**	6.1
Total Equity	**387.3**	337.0
Total Liabilities and Equity	**$ 3,726.5**	$ 3,565.3

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

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

(In millions)	Common Stock and Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interests	Total Equity
Balance, December 31, 2018	**$ 481.8**	**$ 676.7**	**$ (895.5)**	**$ 67.9**	**$ 6.1**	**$ 337.0**
Net income (loss)	—	24.7	—	—	(0.1)	24.6
Repurchase of common stock	—	—	(4.8)	—	—	(4.8)
Payments in consideration of employee tax obligations related to stock-based compensation	(4.3)	—	—	—	—	(4.3)
Stock-based compensation	1.9	—	—	—	—	1.9
Exercise of stock options	(2.2)	—	11.4	—	—	9.2
Shares issued	(7.4)	—	7.1	—	—	(0.3)
Dividends declared	—	(18.1)	—	—	—	(18.1)
Other comprehensive (loss) income	—	—	—	8.6	—	8.6
Balance, March 31, 2019	**$ 469.8**	**$ 683.3**	**$ (881.8)**	**$ 76.5**	**$ 6.0**	**$ 353.8**
Net income (loss)	—	76.2	—	—	0.2	76.4
Repurchase of common stock	—	—	(25.0)	—	—	(25.0)
Payments in consideration of employee tax obligations related to stock-based compensation	(0.6)	—	—	—	—	(0.6)
Stock-based compensation	3.7	—	—	—	—	3.7
Exercise of stock options	(2.4)	—	11.2	—	—	8.8
Shares issued	(0.5)	—	1.9	—	—	1.4
Dividends declared	—	(18.2)	—	—	—	(18.2)
Other comprehensive (loss) income	—	—	—	(13.0)	—	(13.0)
Balance, June 30, 2019	**$ 470.0**	**$ 741.3**	**$ (893.7)**	**$ 63.5**	**$ 6.2**	**$ 387.3**

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

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

(In millions)	Common Stock and Paid-in Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interests	Total Equity
Balance, December 31, 2017	**$ 475.5**	**$ 573.1**	**$ (832.1)**	**$ 39.9**	**$ 6.9**	**$ 263.3**
Net income (loss)	—	43.6	—	—	(0.2)	43.4
Repurchase of common stock	—	—	(35.0)	—	—	(35.0)
Payments in consideration of employee tax obligations related to stock-based compensation	(0.7)	—	—	—	—	(0.7)
Stock-based compensation	3.7	—	—	—	—	3.7
Exercise of stock options	(0.4)	—	1.2	—	—	0.8
Shares issued	(1.3)	—	1.3	—	—	—
Dividends declared	—	(16.2)	—	—	—	(16.2)
Other comprehensive (loss) income	—	—	—	(16.6)	—	(16.6)
Effect of adopting ASC 606	—	3.2	—	—	—	3.2
Balance, March 31, 2018	**$ 476.8**	**$ 603.7**	**$ (864.6)**	**$ 23.3**	**$ 6.7**	**$ 245.9**
Net income (loss)	—	38.8	—	—	(0.2)	38.6
Repurchase of common stock	—	—	(14.8)	—	—	(14.8)
Payments in consideration of employee tax obligations related to stock-based compensation	(2.3)	—	—	—	—	(2.3)
Stock-based compensation	5.9	—	—	—	—	5.9
Exercise of stock options	(3.7)	—	9.0	—	—	5.3
Shares issued	(3.9)	—	4.7	—	—	0.8
Dividends declared	—	(16.3)	—	—	—	(16.3)
Other comprehensive (loss) income	—	—	—	32.5	—	32.5
Effect of adopting ASC 606	—	(0.7)	—	—	—	(0.7)
Balance, June 30, 2018	**$ 472.8**	**$ 625.5**	**$ (865.7)**	**$ 55.8**	**$ 6.5**	**$ 294.9**

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 consumer/pharma, chemical process, and coatings 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.

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 2018 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, 2019, are not necessarily indicative of the results of operations to be attained for the year ending December 31, 2019.

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 amounts 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:

- The effective tax rate and realization values of net deferred tax assets, which depend on projections of future taxable income;
- 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, environmental remediation, and other legacy liabilities (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.

Recently Issued Accounting Standards In August 2018, the FASB issued ASU 2018-14 “Compensation—Retirement Benefits—Defined Benefit Plans—General (Subtopic 715-20).” This update revises disclosure requirements related to defined benefit pension and other postretirement plans. This update is effective for Grace on January 1, 2021, 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.

In June 2016, the FASB issued ASU 2016-13 “Financial Instruments—Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments.” This update requires companies to implement an impairment model based on expected credit losses, rather than probable incurred losses. This update is effective for Grace on January 1, 2020, 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.

Notes to Consolidated Financial Statements (Continued)

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

Recently Adopted Accounting Standards In October 2018, the FASB issued ASU 2018-16 “Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes.” This update permits use of the OIS rate based on SOFR as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815. Grace currently carries debt and derivatives that rely on the London Interbank Offered Rate (“LIBOR”) as a benchmark rate. LIBOR is expected to be phased out as a benchmark rate by the end of 2021. Grace expects its debt and financial instruments to continue to use LIBOR until the rate is no longer available. To the extent LIBOR ceases to exist, Grace may need to renegotiate any credit agreements and/or derivative contracts that utilize LIBOR as a factor in determining the interest rate. Grace adopted this update in the 2019 first quarter, and it had no effect on Grace’s Consolidated Financial Statements.

Leases (Topic 842)

In February 2016, the FASB issued ASU 2016-02 “Leases (Topic 842).” This update requires registrants to recognize lease assets and lease liabilities on the balance sheet and disclose key information about leasing arrangements. A lessee is now required to 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 payments to be made in optional periods where they are reasonably certain to occur. In July 2018, the FASB issued ASU 2018-11 “Leases (Topic 842): Targeted Improvements,” which provided an additional transition method permitting entities to initially apply the new standard at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption.

Grace adopted these standards in the 2019 first quarter under the modified retrospective approach permitted by ASU 2018-11. Under this approach, the cumulative effect of the adoption of the standard is recorded at the effective date, with no changes to prior periods. The adoption did not result in an impact to retained earnings. Grace elected to utilize the package of transition practical expedients provided by the standard, which among other things, permit Grace not to reassess expired or existing contracts and leases. Additionally, Grace elected to use the practical expedient provided in ASU 2018-01 “Leases (Topic 842): Land Easement Practical Expedient for Transition to Topic 842,” which permits Grace to elect not to evaluate under Topic 842 existing or expired land easements not previously accounted for as leases. Prior to the adoption of Topic 842, Grace typically had not evaluated easements for lease accounting. Grace has elected not to recognize in the Consolidated Balance Sheets short-term leases, which are those with an initial term of 12 months or less. Grace has also elected not to separate lease and nonlease components. These elections apply to all asset classes.

Grace leases certain real estate, office space, vehicles, railcars, and plant and office equipment, primarily all of which are accounted for as operating leases. Finance lease costs and sublease income are not material. Many of Grace’s leases contain renewal options, which are exercisable at Grace’s discretion and may be included in lease terms when they are reasonably certain to be exercised. Grace’s lease agreements do not contain material restrictive covenants or material residual value guarantees. Where available, Grace uses the interest rate implicit in the lease to calculate the estimated present value of lease payment obligations. Where such a rate is not available, Grace uses an incremental borrowing rate based on credit-adjusted and term-specific discount rates, using a third-party yield curve.

Adoption of the standard resulted in the recognition of operating lease right-of-use assets, net of accumulated amortization, of $28.1 million and operating lease liabilities of $28.7 million as of June 30, 2019.

(in millions)		Amount	Balance Sheet Location
Operating lease right of use asset	$	28.1	Other assets
Operating lease liability—current		8.6	Other current liabilities
Operating lease liability—noncurrent		20.1	Other liabilities

Notes to Consolidated Financial Statements (Continued)

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

The following table presents Grace's costs and cash flow information related to operating leases.

(In millions)	Three Months Ended June 30, 2019	Six Months Ended June 30, 2019
Operating lease cost	$ 3.1	$ 6.1
Short-term and variable lease cost	4.9	8.3
Total lease cost	**$ 8.0**	**$ 14.4**
Cash payments related to operating leases	$ 3.1	$ 6.1
Right-of-use assets obtained in exchange for new operating lease liabilities	1.2	4.8

The following table presents the weighted average discount rate and weighted average remaining lease term related to Grace's operating leases.

	June 30, 2019
Weighted average discount rate	6.8%
Weighted average remaining lease term	7.5 years

The following maturity analysis presents minimum expected operating lease payments at June 30, 2019.

	(In millions)
2019	$ 5.4
2020	8.6
2021	5.6
2022	3.8
2023	2.3
Thereafter	12.0
Total undiscounted lease payments	**37.7**
Less: imputed interest	9.0
Present value of lease liabilities	**$ 28.7**

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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, 2019, and December 31, 2018:

(In millions)	June 30, 2019	December 31, 2018
Raw materials	**$ 70.0**	$ 56.3
In process	**56.5**	49.1
Finished products	**157.2**	144.5
Other	**34.5**	31.2
Total inventory	**$ 318.2**	$ 281.1

3. Debt

Components of Debt

(In millions)	June 30, 2019	December 31, 2018
2018 U.S. dollar term loan, net of unamortized debt issuance costs of $8.1 (2018—$8.7)	**$ 934.8**	$ 938.9
5.125% senior notes due 2021, net of unamortized debt issuance costs of $3.4 (2018—$4.2)	**696.6**	695.8
5.625% senior notes due 2024, net of unamortized debt issuance costs of $2.7 (2018—$3.0)	**297.3**	297.0
Debt payable to unconsolidated affiliate	**47.4**	48.1
Other borrowings	**6.9**	3.5
Total debt	**1,983.0**	1,983.3
Less debt payable within one year	**23.0**	22.3
Debt payable after one year	**$ 1,960.0**	$ 1,961.0
Weighted average interest rates on total debt	**3.8%**	3.9%

See Note 4 for a discussion of the fair value of Grace's debt.

Grace also maintains a $400 million revolving credit facility. As of June 30, 2019, the available credit under this facility was reduced to $370.6 million by outstanding letters of credit.

The principal maturities of debt outstanding at June 30, 2019, were as follows:

	(In millions)
2019	$ 13.2
2020	19.8
2021	715.0
2022	17.6
2023	16.6
Thereafter	1,200.8
Total debt	$ 1,983.0

Notes to Consolidated Financial Statements (Continued)

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, 2019, and December 31, 2018, the carrying amounts and fair values of Grace's debt were as follows:

	June 30, 2019		December 31, 2018	
(In millions)	**Carrying Amount**	**Fair Value**	**Carrying Amount**	**Fair Value**
2018 U.S. dollar term loan(1)	**$ 934.8**	**$ 932.5**	$ 938.9	$ 914.8
5.125% senior notes due 2021(2)	**696.6**	**723.6**	695.8	697.5
5.625% senior notes due 2024(2)	**297.3**	**321.8**	297.0	301.8
Other borrowings	**54.3**	**54.3**	51.6	51.6
Total debt	**$ 1,983.0**	**$ 2,032.2**	$ 1,983.3	$ 1,965.7

(1) Carrying amounts are net of unamortized debt issuance costs and discounts of $8.1 million and $8.7 million as of June 30, 2019 and December 31, 2018, respectively.

(2) Carrying amounts are net of unamortized debt issuance costs of $3.4 million and $2.7 million as of June 30, 2019, and $4.2 million and $3.0 million as of December 31, 2018, related to the 5.125% senior notes due 2021 and 5.625% senior notes due 2024, respectively.

At June 30, 2019, 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.

Currency Derivatives Because Grace operates and/or sells to customers in over 70 countries and in over 30 currencies, its results are exposed to fluctuations in currency exchange rates. Grace seeks to minimize exposure to these fluctuations by matching sales with expenditures in the same currencies, but it is not always possible to do so. From time to time, Grace uses 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 36 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, net" to offset the remeasurement of the underlying hedged loans. Excluded components (forward points) on these hedges are amortized to income on a systematic basis.

Grace also enters into foreign currency forward contracts and swaps to hedge a portion of its net outstanding monetary assets and liabilities. These forward contracts and swaps are not designated as hedging instruments under applicable accounting guidance, and therefore all changes in their fair value are recorded in "other (income) expense, net," in the Consolidated Statements of Operations. These forward contracts and swaps are intended to offset the foreign currency gains or losses associated with the underlying monetary assets and liabilities.

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

The valuation of Grace's currency exchange rate forward contracts and swaps is determined using an income approach. Inputs used to value currency exchange rate forward contracts and swaps 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. Total notional amounts for forward contracts and swaps outstanding as of June 30, 2019, were $201.1 million.

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

In connection with the 2018 U.S. dollar term loan, Grace entered into cross-currency swaps beginning on April 3, 2018, and maturing on March 31, 2023, to synthetically convert $600.0 million of U.S. dollar-denominated floating rate debt into €490.1 million of euro-denominated debt fixed at 2.0231%. These cross-currency swaps were de-designated and terminated on November 5, 2018, and replaced with new, at-market cross-currency swaps beginning on November 5, 2018, and maturing on March 31, 2023, to synthetically convert $600.0 million of U.S. dollar-denominated floating rate debt into €525.9 million of euro-denominated debt fixed at 1.785%. The valuation of these cross-currency swaps is determined using an income approach, using LIBOR and EURIBOR (Euro Interbank Offered Rate) swap curves, currency basis spreads, and euro/U.S. dollar exchange 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 period.

In connection with its emergence financing, Grace entered into interest rate swaps beginning on February 3, 2015, and maturing on February 3, 2020, fixing the LIBOR component of the interest on $250.0 million of Grace's term debt at a rate of 2.393%. These interest rate swaps were de-designated and terminated in April 2018 in connection with Grace's entry into a new credit agreement.

In connection with the 2018 U.S. dollar term loan, Grace entered into new interest rate swaps beginning on April 3, 2018, and maturing on March 31, 2023, fixing the LIBOR component of the interest on $100.0 million of term debt at 2.775%. The valuation of these interest rate swaps is determined using an income approach, using prevailing market interest rates and discount rates to present value future cash flows based on the forward LIBOR yield curves. Credit risk is also incorporated into derivative valuations.

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

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, 2019, and December 31, 2018:

	Fair Value Measurements at June 30, 2019, Using			
(In millions)	**Total**	**Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Assets				
Currency derivatives	$ 5.4	$ —	$ 5.4	$ —
Total Assets	**$ 5.4**	**$ —**	**$ 5.4**	**$ —**
Liabilities				
Currency derivatives	$ 5.7	$ —	$ 5.7	$ —
Interest rate derivatives	3.7	—	3.7	—
Variable-to-fixed cross-currency derivatives	10.9	—	10.9	—
Total Liabilities	**$ 20.3**	**$ —**	**$ 20.3**	**$ —**

	Fair Value Measurements at December 31, 2018, Using			
(In millions)	**Total**	**Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Assets				
Currency derivatives	$ 3.7	$ —	$ 3.7	$ —
Total Assets	**$ 3.7**	**$ —**	**$ 3.7**	**$ —**
Liabilities				
Currency derivatives	$ 10.5	$ —	$ 10.5	$ —
Interest rate derivatives	0.8	—	0.8	—
Variable-to-fixed cross-currency swaps	3.6	—	3.6	—
Total Liabilities	**$ 14.9**	**$ —**	**$ 14.9**	**$ —**

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4. Fair Value Measurements and Risk (Continued)

The following tables present the location and fair values of derivative instruments included in the Consolidated Balance Sheets as of June 30, 2019, and December 31, 2018:

June 30, 2019 (In millions)	Asset Derivatives Balance Sheet Location	Asset Derivatives Fair Value	Liability Derivatives Balance Sheet Location	Liability Derivatives Fair Value
Derivatives designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	$ 1.9	Other current assets	$ (3.0)
Interest rate contracts	Other current assets	—	Other current liabilities	0.8
Variable-to-fixed cross-currency swaps	Other current assets	—	Other current assets	(11.1)
Currency contracts	Other assets	2.7	Other liabilities	8.7
Interest rate contracts	Other assets	—	Other liabilities	2.9
Variable-to-fixed cross-currency swaps	Other liabilities	—	Other liabilities	22.0
Derivatives not designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	0.9	Other current liabilities	—
Currency contracts	Other current liabilities	(0.1)	Other liabilities	—
Total derivatives		**$ 5.4**		**$ 20.3**

December 31, 2018 (In millions)	Asset Derivatives Balance Sheet Location	Asset Derivatives Fair Value	Liability Derivatives Balance Sheet Location	Liability Derivatives Fair Value
Derivatives designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	$ 2.4	Other current assets	$ (2.9)
Interest rate contracts	Other current assets	—	Other current liabilities	0.1
Variable-to-fixed cross-currency swaps	Other current assets	—	Other current assets	(15.4)
Currency contracts	Other assets	1.3	Other liabilities	12.9
Interest rate contracts	Other assets	—	Other liabilities	0.7
Variable-to-fixed cross-currency swaps	Other assets	—	Other liabilities	19.0
Derivatives not designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	—	Other current assets	(0.1)
Currency contracts	Other current assets	—	Other current liabilities	0.6
Total derivatives		**$ 3.7**		**$ 14.9**

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, 2019 and 2018:

Three Months Ended June 30, 2019 (In millions)	Amount of Gain (Loss) Recognized in OCI on Derivatives	Location of Gain (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain (Loss) Reclassified from OCI into Income
Derivatives in ASC 815 cash flow hedging relationships:			
Interest rate contracts	$ (1.8)	Interest expense	$ —
Currency contracts(1)	(0.8)	Other expense	(1.3)
Variable-to-fixed cross-currency swaps	(2.2)	Interest expense	3.6
Variable-to-fixed cross-currency swaps	(5.4)	Other expense	(5.4)
Total derivatives	**$ (10.2)**		**$ (3.1)**

	Location of Gain (Loss) Recognized in Income on Derivatives	Amount of Gain (Loss) Recognized in Income on Derivatives
Derivatives not designated as hedging instruments under ASC 815:		
Currency contracts	Other expense	**$ 0.1**

(1) Amount of gain (loss) recognized in OCI includes $0.7 million excluded from the assessment of effectiveness for which the difference between changes in fair value and periodic amortization is recorded in OCI.

Three Months Ended June 30, 2018 (In millions)	Amount of Gain (Loss) Recognized in OCI on Derivatives	Location of Gain (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain (Loss) Reclassified from OCI into Income
Derivatives in ASC 815 cash flow hedging relationships:			
Interest rate contracts	$ 0.3	Interest expense	$ 0.1
Currency contracts(1)	10.4	Other expense	10.2
Variable-to-fixed cross-currency swaps	3.1	Interest expense	3.1
Variable-to-fixed cross-currency swaps	18.3	Other expense	29.3
Total derivatives	**$ 32.1**		**$ 42.7**

	Location of Gain (Loss) Recognized in Income on Derivatives	Amount of Gain (Loss) Recognized in Income on Derivatives
Derivatives not designated as hedging instruments under ASC 815:		
Currency contracts	Other expense	**$ (1.3)**

(1) Amount of gain (loss) recognized in OCI includes $0.4 million excluded from the assessment of effectiveness for which the difference between changes in fair value and periodic amortization is recorded in OCI.

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

Six Months Ended June 30, 2019 (In millions)	Amount of Gain (Loss) Recognized in OCI on Derivatives		Location of Gain (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain (Loss) Reclassified from OCI into Income	
Derivatives in ASC 815 cash flow hedging relationships:					
Interest rate contracts	$	(2.9)	Interest expense	$	—
Currency contracts(1)		0.8	Other expense		—
Variable-to-fixed cross-currency swaps		(2.1)	Interest expense		7.2
Variable-to-fixed cross-currency swaps		3.0	Other expense		3.0
Total derivatives	**$**	**(1.2)**		**$**	**10.2**

	Location of Gain (Loss) Recognized in Income on Derivatives	Amount of Gain (Loss) Recognized in Income on Derivatives	
Derivatives not designated as hedging instruments under ASC 815:			
Currency contracts	Other expense	**$**	**0.1**

(1) Amount of gain (loss) recognized in OCI includes $1.4 million excluded from the assessment of effectiveness for which the difference between changes in fair value and periodic amortization is recorded in OCI.

Six Months Ended June 30, 2018 (In millions)	Amount of Gain (Loss) Recognized in OCI on Derivatives		Location of Gain (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain (Loss) Reclassified from OCI into Income	
Derivatives in ASC 815 cash flow hedging relationships:					
Interest rate contracts	$	1.8	Interest expense	$	(0.1)
Currency contracts(1)		3.8	Other expense		4.1
Variable-to-fixed cross-currency swaps		3.1	Interest expense		3.1
Variable-to-fixed cross-currency swaps		18.3	Other expense		29.3
Total derivatives	**$**	**27.0**		**$**	**36.4**

	Location of Gain (Loss) Recognized in Income on Derivatives	Amount of Gain (Loss) Recognized in Income on Derivatives	
Derivatives not designated as hedging instruments under ASC 815:			
Currency contracts	Other expense	**$**	**(2.7)**

(1) Amount of gain (loss) recognized in OCI includes $(0.4) million excluded from the assessment of effectiveness for which the difference between changes in fair value and periodic amortization is recorded in OCI.

Notes to Consolidated Financial Statements (Continued)

4. Fair Value Measurements and Risk (Continued)

The following tables present the total amounts of income and expense line items presented in the Consolidated Statements of Operations in which the effects of cash flow hedges are reported.

	Three Months Ended June 30,			
	2019		2018	
(In millions)	Interest expense	Other income (expense)	Interest expense	Other income (expense)
Total amounts of income and expense line items in the Consolidated Statements of Operations in which the effects of cash flow hedges are recorded	**$ (19.6)**	**$ (0.1)**	$ (19.9)	$ (5.9)
Gain (loss) on cash flow hedging relationships in ASC 815				
Interest rate contracts				
Amount of gain (loss) reclassified from accumulated OCI into income	**$ —**	**$ —**	$ 0.1	$ —
Variable-to-fixed cross-currency swaps				
Amount of gain (loss) reclassified from accumulated OCI into income	**3.6**	**(5.4)**	3.1	29.3
Currency contracts				
Amount of gain (loss) reclassified from accumulated OCI into income	**—**	**(1.3)**	—	10.2
Amount excluded from effectiveness testing recognized in earnings based on amortization approach (included in above)	**—**	**—**	—	0.3

	Six Months Ended June 30,			
	2019		2018	
(In millions)	Interest expense	Other income (expense)	Interest expense	Other income (expense)
Total amounts of income and expense line items in the Consolidated Statements of Operations in which the effects of cash flow hedges are recorded	**$ (39.6)**	**$ 2.1**	$ (39.2)	$ (2.6)
Gain (loss) on cash flow hedging relationships in ASC 815				
Interest rate contracts				
Amount of gain (loss) reclassified from accumulated OCI into income	**$ —**	**$ —**	$ (0.1)	$ —
Variable-to-fixed cross-currency swaps				
Amount of gain (loss) reclassified from accumulated OCI into income	**7.2**	**3.0**	3.1	29.3
Currency contracts				
Amount of gain (loss) reclassified from accumulated OCI into income	**—**	**—**	—	4.1
Amount excluded from effectiveness testing recognized in earnings based on amortization approach (included in above)	**—**	**—**	—	1.1

Net Investment Hedges Grace uses cross-currency swaps as derivative hedging instruments in certain net investment hedges of its non-U.S. subsidiaries. The gains and losses attributable to these net investment hedges, adjusted for the impact of excluded components, are 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. Changes in the fair value of the hedging instrument related to time value, which are excluded from the assessment of hedge effectiveness, are recorded directly to interest expense on a systematic basis. These gains were $0.8 million and $1.6 million for the three and six months ended June 30, 2019 and $0.8 million for the corresponding prior-year periods. At June 30, 2019, 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 has also used foreign currency-denominated debt and deferred intercompany royalties as non-derivative hedging instruments in certain net investment hedges. As of June 30, 2019, Grace's deferred intercompany royalties have been fully amortized and de-designated as a hedging instrument of its net investment in its European subsidiaries. In April 2018, in connection with the Credit Agreement, Grace de-designated and repaid its euro-denominated term loan principal that had been designated as a hedge of its net investment in its European subsidiaries.

The following table presents the amount of gains and losses on derivative and non-derivative instruments designated as net investment hedges, recorded to "currency translation adjustments" within "accumulated other comprehensive income (loss)" for the three and six months ended June 30, 2019 and 2018. There were no reclassifications of the effective portion of net investment hedges out of OCI and into earnings for the periods presented.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2019**	**2018**	**2019**	**2018**
Derivatives in ASC 815 net investment hedging relationships:				
Cross-currency swaps	**$ 0.5**	$ 13.3	**$ 4.3**	$ 2.0
Non-derivatives in ASC 815 net investment hedging relationships:				
Foreign currency denominated debt	**$ —**	$ —	**$ —**	$ (4.4)
Foreign currency denominated deferred intercompany royalties	**—**	1.9	**0.1**	0.2
	$ —	$ 1.9	**$ 0.1**	$ (4.2)

Credit Risk Grace is exposed to credit risk in its trade accounts receivable. 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

Grace's effective tax rates for the six months ended June 30, 2019 and 2018, were 22.7% and 37.8%, respectively. Grace's effective tax rate for the six months ended June 30, 2019, differed from the U.S. federal statutory rate primarily due to income taxed in jurisdictions with higher statutory tax rates than the U.S. and the net impact of the Global Intangible Low-Taxed Income ("GILTI") tax in the U.S., partially offset by discrete benefits related to changes in tax law and to the favorable resolution of uncertain tax positions. Grace's effective tax rate for the six months ended June 30, 2018, was higher than the U.S. federal statutory rate primarily due to the impact of not being able to benefit from certain favorable provisions of GILTI due to the use of net operating loss carryforwards. In 2019, Grace is forecasting sufficient U.S. federal taxable income to partially benefit from these favorable GILTI provisions.

As of June 30, 2019, Grace has $302.8 million in federal tax credit carryforwards before unrecognized tax benefits.

Notes to Consolidated Financial Statements (Continued)

6. Pension Plans and Other Retirement Plans

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

(In millions)	June 30, 2019	December 31, 2018
Overfunded defined benefit pension plans	**$ 6.2**	$ 5.7
Underfunded defined benefit pension plans	**(68.1)**	(67.1)
Unfunded defined benefit pension plans	**(365.8)**	(366.0)
Total underfunded and unfunded defined benefit pension plans	**(433.9)**	(433.1)
Pension liabilities included in other current liabilities	**(14.6)**	(14.7)
Net funded status	**$ (442.3)**	$ (442.1)

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

The following tables present the components of net periodic benefit cost (income).

	Three Months Ended June 30,			
	2019		2018	
(In millions)	U.S.	Non-U.S.	U.S.	Non-U.S.
Service cost	**$ 4.0**	**$ 2.1**	$ 4.9	$ 2.5
Interest cost	**9.5**	**1.4**	10.3	1.2
Expected return on plan assets	**(12.1)**	**(0.2)**	(14.6)	(0.2)
Amortization of prior service credit	**(0.1)**	**—**	(0.1)	—
Net periodic benefit cost (income)	**$ 1.3**	**$ 3.3**	$ 0.5	$ 3.5

	Six Months Ended June 30,			
	2019		2018	
(In millions)	U.S.	Non-U.S.	U.S.	Non-U.S.
Service cost	**$ 7.9**	**$ 4.3**	$ 9.7	$ 4.9
Interest cost	**19.1**	**2.7**	20.6	2.5
Expected return on plan assets	**(24.1)**	**(0.4)**	(29.1)	(0.5)
Amortization of prior service credit	**(0.3)**	**—**	(0.3)	—
Net periodic benefit cost (income)	**$ 2.6**	**$ 6.6**	$ 0.9	$ 6.9

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 cost related to this benefit plan for the three and six months ended June 30, 2019, was $3.6 million and $6.9 million compared with $3.3 million and $6.1 million for the corresponding prior-year periods.

Notes to Consolidated Financial Statements (Continued)

6. Pension Plans and Other Retirement Plans (Continued)

The U.S. salaried pension plan was closed to new entrants after January 1, 2017. U.S. salaried employees and certain U.S. hourly employees hired on or after January 1, 2017, and employees in Germany hired on or after January 1, 2016, will participate in enhanced defined contribution plans instead of defined benefit pension plans.

7. Other Balance Sheet Accounts

(In millions)	June 30, 2019	December 31, 2018
Other Current Assets		
Plant under construction—unconsolidated affiliate (see Note 15)	**$ 143.8**	$ —
Non-trade accounts receivable	**33.2**	37.9
Fair value of currency, interest rate, and commodity contracts (see Note 4)	**17.0**	21.4
Income taxes receivable	**7.2**	10.1
Other current assets	**18.4**	17.3
	$ 219.6	$ 86.7

(In millions)	June 30, 2019	December 31, 2018
Other Current Liabilities		
Liability to unconsolidated affiliate for plant under construction (see Note 15)	**$ 143.8**	$ —
Accrued compensation	**42.1**	62.4
Deferred revenue (see Note 13)	**34.4**	40.6
Environmental contingencies (see Note 8)	**21.1**	19.5
Income taxes payable (see Note 5)	**18.1**	11.3
Pension liabilities (see Note 6)	**14.6**	14.7
Accrued interest (see Note 3)	**13.2**	13.3
Operating lease liabilities (see Note 1)	**8.6**	—
Liability for dam spillway replacement (see Note 8)	**6.0**	—
Other accrued liabilities	**84.3**	81.7
	$ 386.2	$ 243.5

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, 2019		December 31, 2018
Other Liabilities				
Environmental contingencies (see Note 8)	**$**	**99.0**	$	106.9
Liability for dam spillway replacement (see Note 8)		**38.8**		—
Fair value of currency and interest rate contracts (see Note 4)		**33.6**		32.6
Deferred revenue (see Note 13)		**24.3**		29.2
Operating lease liabilities (see Note 1)		**20.1**		—
Retained obligations of divested businesses		**13.3**		10.0
Deferred income taxes		**7.1**		10.9
Asset retirement obligation		**8.1**		8.8
Postemployment liability		**4.5**		4.7
Liability to unconsolidated affiliate for plant under construction (see Note 15)		**—**		98.8
Other noncurrent liabilities		**17.0**		17.9
	$	**265.8**	$	319.8

8. Commitments and Contingent Liabilities

Legacy Matters

Over the years, Grace operated numerous types of businesses that are no longer part of its ongoing operations. As Grace divested or otherwise ceased operating these businesses, it retained certain liabilities and obligations, which Grace refers to as legacy liabilities. These liabilities include product, environmental and other liabilities. Although the outcome of each of the matters discussed below cannot be predicted with certainty, Grace has assessed its risk and has recorded estimated liabilities as required under U.S. GAAP.

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 Zonolite 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. The PD Trust balance was approximately $30 million as of December 31, 2018. Grace expects ZAI PD Claims payments to decline over time but has limited information to estimate the amount and timing of future claims payments. It is reasonably possible that one or more contingent deferred payments will be made in the future. Grace estimates the present value of reasonably possible future payments to range between $0 million and $20 million. Grace has not accrued for any contingent deferred payments as it does not believe that payment is probable. Grace will continue to evaluate new information as it becomes available and will revise its estimate of the amount and timing of future claims payments and any contingent deferred payments at that time.

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.

8. Commitments and Contingent Liabilities (Continued)

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"). Grace has not paid any Other PD Claims since emergence. Annual expenses have been approximately $0.2 million per year. 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.

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 and are readily available on the internet at www.sec.gov.

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, which may be material. 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, 2019, Grace's estimated liability for legacy environmental response costs totaled $120.1 million, compared with $126.4 million at December 31, 2018, 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, known as Operable Unit 3 ("OU3"). The RI/FS will determine the specific areas within OU3 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.

8. Commitments and Contingent Liabilities (Continued)

As part of the RI/FS process, Grace contracted an engineering and consulting firm to develop a range of possible remedial alternatives and associated cost estimates for OU3. Based on this work, Grace recorded a pre-tax charge of $70.0 million in the 2018 third quarter for the estimated costs of remediation of OU3. Grace believes that this amount should provide for a protective remedy meeting the statutory requirements of the Comprehensive Environmental Response, Compensation, and Liability Act.

The estimated costs of remediation are preliminary and consist of several components, each of which may vary significantly as the remedial alternatives are further developed. It is reasonably possible that the ultimate costs of remediation could range between $30 million and $170 million. Grace is working closely with the EPA, and the ultimate remedy will be determined by the EPA after the RI/FS is finalized. Such remedy will be set forth in a Record of Decision ("ROD") that is expected to be issued by the EPA during 2021. Costs associated with the more active remedial alternatives would be expected to be incurred over a decade or more. Grace will reevaluate its estimated liability as remedial alternatives evolve based on further work by the engineering and consulting firm and discussions with the EPA as the RI/FS process moves toward a ROD. Depending on the remedial alternatives that the EPA selects in the ROD, the total cost of remediating OU3 may exceed Grace's current estimate by material amounts.

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 estimated 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's total estimated liability for response costs that are currently estimable for OU3 and vermiculite processing sites outside of Libby at June 30, 2019, and December 31, 2018, was $79.4 million and $81.7 million, respectively. It is possible that Grace's ultimate liability for these vermiculite-related matters will exceed current estimates by material amounts.

Non-Vermiculite-Related Environmental Matters

At June 30, 2019, and December 31, 2018, Grace's estimated legacy environmental liability for response costs at sites not related to its former vermiculite mining and processing activities was $40.7 million and $44.7 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.

Other Legacy Liabilities On April 3, 2019, the Montana Department of Natural Resources and Conservation issued a five-year operating permit for a dam at the Libby mine site. Grace constructed the dam in 1971 to prevent vermiculite ore tailings from moving into nearby creeks and rivers. The permit requires Grace to complete construction of a new spillway before the permit is further renewed in five years. Grace contracted a third-party engineering and consulting firm to develop a range of cost estimates for the project. Based on this work, Grace recorded a pre-tax charge of $45.0 million in the first quarter of 2019 for the estimated costs of the project. These costs are preliminary and may vary significantly as the project progresses. It is reasonably possible that the ultimate costs of this project could range between $25 million and $80 million. Construction of the new spillway is expected to take three to four years.

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.

Notes to Consolidated Financial Statements (Continued)

8. Commitments and Contingent Liabilities (Continued)

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 or spin-off of a former business unit or product line in which Grace has agreed to indemnify the buyer or resulting entity against certain liabilities related to activities prior to the closing of the transaction, including environmental, tax, and employee 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. As of June 30, 2019, Grace had gross financial assurances issued and outstanding of $144.7 million, composed of $68.7 million of surety bonds issued by various insurance companies and $76.0 million of standby letters of credit and other financial assurances issued by various banks.

9. Restructuring Expenses and Repositioning Expenses

Restructuring Expenses Restructuring costs in 2019 primarily related to severance costs pertaining to the idling of our methanol-to-olefins ("MTO") manufacturing facility in China, which were substantially paid by June 30, 2019. Restructuring costs in 2018 primarily related to plant exit costs and severance costs pertaining to sales force reorganization. These costs are included in "restructuring and repositioning expenses" in the Consolidated Statements of Operations, and are not included in segment operating income.

The following table presents restructuring expenses by reportable segment for the three and six months ended June 30, 2019 and 2018.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2019**	**2018**	**2019**	**2018**
Catalysts Technologies	**$ 1.9**	$ 1.0	**$ 2.1**	$ 1.5
Materials Technologies	**0.2**	—	**1.2**	0.4
Corporate	**(0.2)**	—	**(0.3)**	0.1
Total restructuring expenses	**$ 1.9**	$ 1.0	**$ 3.0**	$ 2.0

Notes to Consolidated Financial Statements (Continued)

9. Restructuring Expenses and Repositioning Expenses (Continued)

The following table presents components of the change in the restructuring liability from December 31, 2018, to June 30, 2019.

	(In millions)
Balance, December 31, 2018	$ 10.7
Accruals for severance and other costs	3.0
Payments	(6.3)
Balance, June 30, 2019	**$ 7.4**

Substantially all costs related to the restructuring programs are expected to be paid by December 31, 2021, but could be paid earlier subject to negotiations around certain plant exit costs.

Repositioning Expenses Repositioning expenses for the three and six months ended June 30, 2019, were $4.5 million and $5.7 million compared with $17.8 million and $22.4 million for the corresponding prior-year periods. These expenses primarily related to a multi-year program to transform manufacturing and business processes to extend Grace's competitive advantages and improve its cost position. Substantially all of these expenses have been or are expected to be settled in cash.

10. Other (Income) Expense, net

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

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2019**	**2018**	**2019**	**2018**
Defined benefit pension (income) expense other than service cost	**$ (1.5)**	$ (3.4)	**$ (3.0)**	$ (6.8)
Net (gain) loss on sales of investments and disposals of assets	**0.9**	0.9	**1.4**	1.3
Third-party acquisition-related costs	**1.0**	5.8	**1.3**	6.7
Currency transaction effects	**(0.6)**	(2.0)	**(0.8)**	(2.9)
Loss on early extinguishment of debt	**—**	4.8	**—**	4.8
Other miscellaneous (income) expense	**0.3**	(0.2)	**(1.0)**	(0.5)
Total other (income) expense, net	**$ 0.1**	$ 5.9	**$ (2.1)**	$ 2.6

11. Other Comprehensive Income (Loss)

The following tables present the pre-tax, tax, and after-tax components of Grace's other comprehensive income (loss) for the three and six months ended June 30, 2019 and 2018:

Three Months Ended June 30, 2019 **(In millions)**	**Pre-Tax Amount**	**Tax Benefit/ (Expense)**	**After-Tax Amount**
Defined benefit pension and other postretirement plans:			
Amortization of net prior service credit included in net periodic benefit cost	**$ (0.3)**	**$ 0.1**	**$ (0.2)**
Amortization of net deferred actuarial loss included in net periodic benefit cost	**0.1**	**—**	**0.1**
Benefit plans, net	**(0.2)**	**0.1**	**(0.1)**
Currency translation adjustments	**(6.9)**	**0.1**	**(6.8)**
Gain (loss) from hedging activities	**(8.7)**	**2.6**	**(6.1)**
Other comprehensive income (loss) attributable to W. R. Grace & Co. shareholders	**$ (15.8)**	**$ 2.8**	**$ (13.0)**

Notes to Consolidated Financial Statements (Continued)

11. Other Comprehensive Income (Loss) (Continued)

Six Months Ended June 30, 2019 (In millions)	**Pre-Tax Amount**	**Tax Benefit/ (Expense)**	**After-Tax Amount**
Defined benefit pension and other postretirement plans:			
Amortization of net prior service credit included in net periodic benefit cost	**$ (0.5)**	**$ 0.1**	**$ (0.4)**
Amortization of net deferred actuarial loss included in net periodic benefit cost	**0.2**	**—**	**0.2**
Benefit plans, net	**(0.3)**	**0.1**	**(0.2)**
Currency translation adjustments	**6.0**	**(1.1)**	**4.9**
Gain (loss) from hedging activities	**(13.0)**	**3.9**	**(9.1)**
Other comprehensive income (loss) attributable to W. R. Grace & Co. shareholders	**$ (7.3)**	**$ 2.9**	**$ (4.4)**

Three Months Ended June 30, 2018 (In millions)	**Pre-Tax Amount**	**Tax Benefit/ (Expense)**	**After-Tax Amount**
Defined benefit pension and other postretirement plans:			
Amortization of net prior service credit included in net periodic benefit cost	$ (0.4)	$ 0.1	$ (0.3)
Amortization of net deferred actuarial loss included in net periodic benefit cost	0.1	—	0.1
Benefit plans, net	(0.3)	0.1	(0.2)
Currency translation adjustments	40.6	(2.7)	37.9
Gain (loss) from hedging activities	(8.2)	3.0	(5.2)
Other comprehensive income (loss) attributable to W. R. Grace & Co. shareholders	$ 32.1	$ 0.4	$ 32.5

Six Months Ended June 30, 2018 (In millions)	**Pre-Tax Amount**	**Tax Benefit/ (Expense)**	**After-Tax Amount**
Defined benefit pension and other postretirement plans:			
Amortization of net prior service credit included in net periodic benefit cost	$ (0.8)	$ 0.2	$ (0.6)
Amortization of net deferred actuarial loss included in net periodic benefit cost	0.2	—	0.2
Benefit plans, net	(0.6)	0.2	(0.4)
Currency translation adjustments	19.8	(0.1)	19.7
Gain (loss) from hedging activities	(5.6)	2.2	(3.4)
Other comprehensive income (loss) attributable to W. R. Grace & Co. shareholders	$ 13.6	$ 2.3	$ 15.9

The following tables present the changes in accumulated other comprehensive income (loss), net of tax, for the six months ended June 30, 2019 and 2018:

Six Months Ended June 30, 2019 (In millions)	**Defined Benefit Pension and Other Postretirement Plans**	**Currency Translation Adjustments**	**Gain (Loss) from Hedging Activities**	**Total**
Beginning balance	**$ 0.2**	**$ 76.2**	**$ (8.5)**	**$ 67.9**
Other comprehensive income (loss) before reclassifications	—	4.9	(2.1)	2.8
Amounts reclassified from accumulated other comprehensive income (loss)	(0.2)	—	(7.0)	(7.2)
Net current-period other comprehensive income (loss)	(0.2)	4.9	(9.1)	(4.4)
Ending balance	**$ —**	**$ 81.1**	**$ (17.6)**	**$ 63.5**

Notes to Consolidated Financial Statements (Continued)

11. Other Comprehensive Income (Loss) (Continued)

Six Months Ended June 30, 2018 (In millions)	Defined Benefit Pension and Other Postretirement Plans	Currency Translation Adjustments	Gain (Loss) from Hedging Activities	Total
Beginning balance	**$ 0.9**	**$ 41.6**	**$ (2.6)**	**$ 39.9**
Other comprehensive income (loss) before reclassifications	—	19.7	20.0	39.7
Amounts reclassified from accumulated other comprehensive income (loss)	(0.4)	—	(23.4)	(23.8)
Net current-period other comprehensive income (loss)	(0.4)	19.7	(3.4)	15.9
Ending balance	**$ 0.5**	**$ 61.3**	**$ (6.0)**	**$ 55.8**

Grace is a global enterprise operating in many countries with local currency generally deemed to be the functional currency for accounting purposes. The currency translation amount represents the adjustments necessary to translate the balance sheets valued in local currencies to the U.S. dollar as of the end of each period presented, and to translate revenues and expenses at average exchange rates for each period presented.

See Note 4 for a discussion of hedging activities. See Note 6 for a discussion of pension plans.

12. Earnings Per Share

The following table shows a reconciliation of the numerators and denominators used in calculating basic and diluted earnings per share.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions, except per share amounts)	**2019**	**2018**	**2019**	**2018**
Numerators				
Net income (loss) attributable to W. R. Grace & Co. shareholders	**$ 76.2**	$ 38.8	**$ 100.9**	$ 82.4
Denominators				
Weighted average common shares—basic calculation	**66.8**	67.3	**66.8**	67.4
Dilutive effect of employee stock options	**0.2**	0.1	**0.1**	0.1
Weighted average common shares—diluted calculation	**67.0**	67.4	**66.9**	67.5
Basic earnings per share	**$ 1.14**	$ 0.58	**$ 1.51**	$ 1.22
Diluted earnings per share	**$ 1.14**	$ 0.58	**$ 1.51**	$ 1.22

There were 0.7 million and 0.8 million anti-dilutive options outstanding for the three and six months ended June 30, 2019, compared with 1.4 million and 1.7 million for the corresponding prior-year periods.

On February 8, 2017, the Company announced that its Board of Directors authorized a share repurchase program of up to $250 million. The timing of the repurchases and the actual amount repurchased will depend on a variety of factors, including the market price of the Company's shares, strategic priorities for the deployment of capital, and general market and economic conditions. During the six months ended June 30, 2019 and 2018, the Company repurchased 409,769 shares and 723,441 shares of Company common stock for $29.8 million and $49.8 million, respectively, pursuant to the terms of the share repurchase program. As of June 30, 2019, $109.1 million remained under the current authorization.

Notes to Consolidated Financial Statements (Continued)

13. Revenues

Grace generates revenues from customer arrangements primarily by manufacturing and delivering specialty chemicals, specialty materials and the licensing of technology through its two reportable segments. See Note 14 for additional information about Grace's reportable segments.

Disaggregation of Revenue The following tables present Grace's revenues by geography and product group, within its respective reportable segments, for the three and six months ended June 30, 2019 and 2018.

Three Months Ended June 30, 2019 (In millions)	North America	Europe Middle East Africa (EMEA)	Asia Pacific	Latin America	Total
Refining Catalysts	$ 71.9	$ 73.7	$ 50.1	$ 12.6	$ 208.3
Polyolefin and Chemical Catalysts	52.8	86.2	44.6	3.8	187.4
Total Catalysts Technologies	**124.7**	**159.9**	**94.7**	**16.4**	**395.7**
Coatings	7.0	17.6	9.1	1.9	35.6
Consumer/Pharma	12.6	13.8	6.4	5.0	37.8
Chemical process	9.1	19.7	8.1	1.4	38.3
Other	2.5	3.1	0.4	0.2	6.2
Total Materials Technologies	**31.2**	**54.2**	**24.0**	**8.5**	**117.9**
Total Grace	**$ 155.9**	**$ 214.1**	**$ 118.7**	**$ 24.9**	**$ 513.6**

Six Months Ended June 30, 2019 (In millions)	North America	EMEA	Asia Pacific	Latin America	Total
Refining Catalysts	$ 144.1	$ 140.3	$ 85.8	$ 19.9	$ 390.1
Polyolefin and Chemical Catalysts	98.6	151.1	97.0	8.6	355.3
Total Catalysts Technologies	**242.7**	**291.4**	**182.8**	**28.5**	**745.4**
Coatings	14.0	37.3	18.5	4.0	73.8
Consumer/Pharma	21.9	32.8	10.4	9.7	74.8
Chemical process	18.1	39.6	15.8	3.7	77.2
Other	3.7	7.6	0.4	0.2	11.9
Total Materials Technologies	**57.7**	**117.3**	**45.1**	**17.6**	**237.7**
Total Grace	**$ 300.4**	**$ 408.7**	**$ 227.9**	**$ 46.1**	**$ 983.1**

Three Months Ended June 30, 2018 (In millions)	North America	EMEA	Asia Pacific	Latin America	Total
Refining Catalysts	$ 67.2	$ 61.0	$ 53.4	$ 14.5	$ 196.1
Polyolefin and Chemical Catalysts	51.6	66.6	45.2	4.9	168.3
Total Catalysts Technologies	**118.8**	**127.6**	**98.6**	**19.4**	**364.4**
Coatings	7.7	19.7	11.4	2.4	41.2
Consumer/Pharma	8.9	13.5	5.9	4.7	33.0
Chemical process	10.1	20.9	8.0	2.3	41.3
Other	1.9	3.7	0.2	—	5.8
Total Materials Technologies	**28.6**	**57.8**	**25.5**	**9.4**	**121.3**
Total Grace	**$ 147.4**	**$ 185.4**	**$ 124.1**	**$ 28.8**	**$ 485.7**

Notes to Consolidated Financial Statements (Continued)

13. Revenues (Continued)

Six Months Ended June 30, 2018 (In millions)	**North America**	**EMEA**	**Asia Pacific**	**Latin America**	**Total**
Refining Catalysts	$ 137.1	$ 122.3	$ 92.2	$ 27.9	$ 379.5
Polyolefin and Chemical Catalysts	83.8	125.0	83.2	8.7	300.7
Total Catalysts Technologies	**220.9**	**247.3**	**175.4**	**36.6**	**680.2**
Coatings	14.8	40.2	23.2	$ 4.7	$ 82.9
Consumer/Pharma	16.6	26.7	10.2	9.4	62.9
Chemical process	17.5	41.7	15.2	4.6	79.0
Other	3.6	8.2	0.3	0.1	12.2
Total Materials Technologies	**52.5**	**116.8**	**48.9**	**18.8**	**237.0**
Total Grace	**$ 273.4**	**$ 364.1**	**$ 224.3**	**$ 55.4**	**$ 917.2**

Contract Balances Grace invoices customers for product sales once performance obligations have been satisfied, generally at the point of delivery, at which point payment becomes unconditional. Accordingly, Grace's product sales contracts generally do not give rise to material contract assets or liabilities under ASC 606; however, from time to time certain customers may pay in advance. In the technology licensing business, Grace invoices licensees based on milestones achieved but has obligations to provide services in future periods, which results in contract liabilities.

The following table presents Grace’s deferred revenue balances as of June 30, 2019, and December 31, 2018:

(In millions)	**June 30, 2019**	**December 31, 2018**
Current	**$ 34.4**	$ 40.6
Noncurrent	**24.3**	29.2
Total	**$ 58.7**	$ 69.8

Grace records deferred revenues when cash payments are received or billed and due in advance of performance. The change in deferred revenue reflects cash payments from customers received or due in advance of satisfying performance obligations, offset by $7.0 million and $16.6 million of revenue recognized for the three and six months ended June 30, 2019, that was included in the deferred revenue balance as of December 31, 2018.

The noncurrent portion of deferred revenue will be recognized as performance obligations under the technology licensing agreements are satisfied, which is expected to be over the next four years.

Remaining performance obligations represent the estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied). The aggregate amount of the transaction price allocated to remaining performance obligations for such contracts with a duration of more than one year was approximately $114 million as of June 30, 2019, and includes certain amounts reported as deferred revenue above. In accordance with the available practical expedient, Grace does not disclose information about remaining performance obligations that have original expected durations of one year or less, which generally relate to customer prepayments on product sales and are generally satisfied in less than one year. Grace expects to recognize revenue related to remaining performance obligations over several years, as follows:

13. Revenues (Continued)

Year	Approximate percentage of revenue related to remaining performance obligations recognized
2019	16%
2020	25%
2021	23%
Thereafter through 2027	36%
	100%

For the three and six months ended June 30, 2019 and 2018, revenue recognized from performance obligations related to prior periods was not material. Grace has not capitalized any costs to obtain or fulfill contracts with customers under ASC 606. No material impairment losses have been recognized on any receivables or contract assets arising from contracts with customers.

14. Segment Information

Grace is a global producer of specialty chemicals and specialty materials. Grace's two reportable business segments are Grace Catalysts Technologies and Grace Materials Technologies. Grace Catalysts Technologies includes catalysts and related products and technologies used in refining, petrochemical and other chemical manufacturing applications. Advanced Refining Technologies ("ART"), Grace's joint venture with Chevron Products Company, a division of Chevron U.S.A. Inc. ("Chevron"), is managed in this segment. (See Note 15.) Grace Catalysts Technologies comprises two operating segments, Grace Refining Technologies and Grace Specialty Catalysts, which are aggregated into one reportable segment based upon similar economic characteristics, the nature of the products and production processes, type and class of customer, and channels of distribution. Grace Materials Technologies includes specialty materials, including silica-based and silica-alumina-based materials, used in consumer/pharma, chemical process, and coatings applications. The table below presents information related to Grace's reportable segments. Only those corporate expenses directly related to the reportable segments are allocated for reporting purposes. All remaining corporate items are reported separately and labeled as such.

Grace excludes defined benefit pension expense from the calculation of segment operating income. Grace believes that the exclusion of defined benefit pension expense provides a better indicator of its reportable segment performance as defined benefit pension expense is not managed at a reportable segment level.

Grace defines Adjusted EBIT to be net income attributable to W. R. Grace & Co. shareholders adjusted for interest income and expense; income taxes; costs related to legacy matters; restructuring and repositioning expenses and asset impairments; pension costs other than service and interest costs, expected returns on plan assets, and amortization of prior service costs/credits; gains and losses on sales or exits of businesses, product lines, and certain other investments; third-party acquisition-related costs and the amortization of acquired inventory fair value adjustment; and certain other items that are not representative of underlying trends.

Notes to Consolidated Financial Statements (Continued)

14. Segment Information (Continued)

Reportable Segment Data

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2019**	**2018**	**2019**	**2018**
Net Sales				
Catalysts Technologies	**$ 395.7**	$ 364.4	**$ 745.4**	$ 680.2
Materials Technologies	**117.9**	121.3	**237.7**	237.0
Total	**$ 513.6**	$ 485.7	**$ 983.1**	$ 917.2
Adjusted EBIT				
Catalysts Technologies segment operating income	**$ 125.2**	$ 113.7	**$ 226.6**	$ 205.8
Materials Technologies segment operating income	**24.1**	29.6	**48.1**	53.7
Corporate costs	**(18.0)**	(19.8)	**(34.2)**	(36.4)
Certain pension costs	**(4.6)**	(4.0)	**(9.4)**	(7.8)
Total	**$ 126.7**	$ 119.5	**$ 231.1**	$ 215.3

Corporate costs include corporate support function costs and other corporate costs such as professional fees and insurance premiums. Certain pension costs include only ongoing costs recognized quarterly, which include service and interest costs, expected returns on plan assets, and amortization of prior service costs/credits.

Reconciliation of Reportable Segment Data to Financial Statements Grace Adjusted EBIT for the three and six months ended June 30, 2019 and 2018, is reconciled below to "income (loss) before income taxes" presented in the accompanying Consolidated Statements of Operations.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2019**	**2018**	**2019**	**2018**
Grace Adjusted EBIT	**$ 126.7**	$ 119.5	**$ 231.1**	$ 215.3
Costs related to legacy matters	**(1.5)**	(2.2)	**(48.4)**	(4.2)
Restructuring and repositioning expenses	**(6.4)**	(18.8)	**(8.7)**	(24.4)
Write-off of MTO inventory	**(3.6)**	—	**(3.6)**	—
Third-party acquisition-related costs	**(1.0)**	(5.8)	**(1.3)**	(6.7)
Amortization of acquired inventory fair value adjustment	**—**	(4.6)	**—**	(4.6)
Loss on early extinguishment of debt	**—**	(4.8)	**—**	(4.8)
Interest expense, net	**(19.2)**	(19.5)	**(38.5)**	(38.4)
Net income (loss) attributable to noncontrolling interests	**0.2**	(0.2)	**0.1**	(0.4)
Income (loss) before income taxes	**$ 95.2**	$ 63.6	**$ 130.7**	$ 131.8

Notes to Consolidated Financial Statements (Continued)

14. Segment Information (Continued)

Geographic Area Data The table below presents information related to the geographic areas in which Grace operates. Sales are attributed to geographic areas based on the location to which the product is transported.

(In millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Net Sales				
United States	**$ 140.2**	$ 138.1	**$ 271.8**	$ 250.5
Canada	**15.7**	9.3	**28.6**	22.9
Total North America	**155.9**	147.4	**300.4**	273.4
Europe Middle East Africa	**214.1**	185.4	**408.7**	364.1
Asia Pacific	**118.7**	124.1	**227.9**	224.3
Latin America	**24.9**	28.8	**46.1**	55.4
Total	**$ 513.6**	$ 485.7	**$ 983.1**	$ 917.2

15. Related Party Transactions

Unconsolidated Affiliate Grace accounts for its 50% ownership interest in ART, its joint venture with Chevron, using the equity method of accounting. Grace's investment in ART amounted to $165.7 million and $156.1 million as of June 30, 2019, and December 31, 2018, respectively. The amount of ART's earnings included in "equity in earnings of unconsolidated affiliate" in the accompanying Consolidated Statements of Operations totaled $6.0 million and $10.1 million for the three and six months ended June 30, 2019, compared with $8.2 million and $13.6 million for the corresponding prior-year periods. ART is a private, limited liability company, taxed as a partnership, and accordingly does not have a quoted market price available.

The table below presents summary financial data related to ART's balance sheet and results of operations.

(In millions)	June 30, 2019	December 31, 2018
Summary Balance Sheet information:		
Current assets	**$ 281.3**	$ 307.4
Noncurrent assets	**204.3**	160.2
Total assets	**$ 485.6**	$ 467.6
Current liabilities	**$ 156.9**	$ 158.3
Noncurrent liabilities	**0.3**	0.3
Total liabilities	**$ 157.2**	$ 158.6

(In millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Summary Statement of Operations information:				
Net sales	**$ 120.0**	$ 103.0	**$ 231.5**	$ 188.2
Costs and expenses applicable to net sales	**102.2**	84.0	**199.5**	154.7
Income before income taxes	**12.8**	16.9	**22.5**	28.2
Net income	**12.0**	16.2	**21.2**	27.7

Notes to Consolidated Financial Statements (Continued)

15. Related Party Transactions (Continued)

Grace and ART transact business on a regular basis and maintain several agreements in order to operate the joint venture. These agreements are treated as related party activities with an unconsolidated affiliate. Product manufactured by Grace for ART is accounted for on a net basis, with a mark-up, in “cost of goods sold” in the Consolidated Statements of Operations. Grace also receives reimbursement from ART for fixed costs, research and development, selling, general and administrative services, and depreciation. Grace records reimbursements against the respective line items on Grace’s Consolidated Statement of Operations. The table below presents summary financial data related to transactions between Grace and ART.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2019**	**2018**	**2019**	**2018**
Product manufactured for ART	**$ 59.3**	**$ 58.5**	**$ 126.1**	$ 110.4
Mark-up on product manufactured for ART included as a reduction of Grace’s cost of goods sold	**1.2**	**1.2**	**2.5**	2.2
Charges for fixed costs; research and development; selling, general and administrative services; and depreciation to ART	**12.8**	**10.4**	**25.6**	21.1

The table below presents balances in Grace’s Consolidated Financial Statements related to ART.

(in millions)	**June 30, 2019**	**December 31, 2018**
Accounts receivable	**$ 13.5**	$ 16.2
Current asset	**143.8**	—
Noncurrent asset	**—**	98.8
Accounts payable	**28.6**	32.0
Debt payable within one year	**9.5**	9.8
Debt payable after one year	**37.9**	38.3
Current liability	**143.8**	—
Noncurrent liability	**—**	98.8

The current asset and current liability (which were classified as noncurrent as of December 31, 2018) in the table above represent spending to date related to a residue hydroprocessing catalyst production plant that is under construction in Lake Charles, Louisiana. Grace manages the design and construction of the plant, and the asset will continue to be included in “other current assets” in Grace’s Consolidated Balance Sheets until construction is completed. Grace has likewise recorded a liability for the transfer of the asset to ART upon completion, included in “other current liabilities” in the Consolidated Balance Sheets.

Grace and ART maintain an agreement whereby ART loans Grace funds for maintenance capital expenditures at manufacturing facilities used to produce catalysts for ART. Grace makes principal and interest payments on the loans on a monthly basis. These unsecured loans have repayment terms of up to eight years, unless earlier repayment is demanded by ART. The loans bear interest at the three-month LIBOR plus 1.25%.

Grace and Chevron provide lines of credit in the amount of $15.0 million each at a commitment fee of 0.1% of the credit amount. These agreements have been approved by the ART Executive Committee for renewal until February 2020. No amounts were outstanding at June 30, 2019, and December 31, 2018.

Joint Venture Arrangement In 2018, Grace formed a joint venture in a developing country in Asia. The purpose of the joint venture is to establish a logistics facility and catalyst testing laboratory and to be the exclusive FCC catalysts and additives supplier to certain customers in the country. Grace’s joint venture partner is the parent company of the customers. Grace has an 87.5% ownership interest in the joint venture and consolidates the activities of the entity. Grace’s Consolidated Balance Sheets as of June 30, 2019 and December 31, 2018, include trade accounts receivable of $0.7 million and $3.7 million, respectively, from these customers. Grace’s

15. Related Party Transactions (Continued)

Consolidated Statement of Operations for the three and six months ended June 30, 2019, includes $0.7 million and $3.9 million of revenues from these customers, compared with $3.8 million for each of the corresponding prior-year periods.

16. Acquisitions

Rive Technology, Inc. On June 17, 2019, Grace completed the acquisition of the business and assets of Rive Technology, Inc. for $22.8 million. The business is included in the Refining Technologies operating segment of the Catalysts Technologies reportable segment.

Polyolefin catalysts business of Albemarle Corporation On April 3, 2018, using cash on hand and borrowings under the 2018 U.S. dollar term loan, Grace acquired the assets of the polyolefin catalysts business of Albemarle Corporation. Grace acquired the business for $418.0 million, net of cash acquired and including customary post-closing adjustments. The business is included in the Specialty Catalysts operating segment of the Catalysts Technologies reportable segment. The acquisition is complementary to Grace's existing specialty catalysts business and strengthens Grace's commercial relationships, catalysts technology portfolio, and manufacturing network.

The acquisition purchase price has been allocated to the tangible and identifiable intangible assets and liabilities acquired based on their estimated fair values at the acquisition date in accordance with ASC 805 “Business Combinations.” The excess of the purchase price over the fair value of the tangible and intangible assets acquired was recorded as goodwill. The purchase price allocation has been finalized, and during the measurement period, Grace recorded adjustments related to deferred taxes, working capital, and intangible assets. The goodwill recognized was $140.6 million and is supported by the expected growth and operating synergies that Grace expects to realize from this acquisition. The full amount of goodwill generated will be deductible for U.S. income tax purposes.

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

References

We generally refer to the quarter ended June 30, 2019, as the “second quarter,” the quarter ended June 30, 2018, as the “prior-year quarter,” the quarter ended March 31, 2019, as the “2019 first quarter,” the six months ended June 30, 2019, as the “six months,” and the six months ended June 30, 2018, as the “prior-year period.” Our references to “advanced economies” and “emerging regions” refer to classifications established by the International Monetary Fund. See Analysis of Operations for a discussion of our non-GAAP performance measures.

Results of Operations

Second Quarter Performance Summary

Following is a summary of our financial performance for the second quarter compared with the prior-year quarter.

- Net sales increased 5.7% to $513.6 million.
- Net income attributable to Grace shareholders increased 96.4% to $76.2 million.
- Adjusted EBIT[1] increased 6.0% to $126.7 million.
- Diluted earnings per share increased 96.6% to $1.14 per diluted share.
- Adjusted EPS[1] increased 8.4% to $1.16 per diluted share.

[1] Non-GAAP performance measures further discussed below.

Summary Description of Business

We are engaged in specialty chemicals and specialty materials businesses on a worldwide basis through our two reportable segments.

Grace Catalysts Technologies produces and sells catalysts and related products and technologies used in refining, petrochemical and other chemical manufacturing applications, as follows:

- *Fluid catalytic cracking catalysts,* also called FCC catalysts, that help to “crack” the hydrocarbon chains in distilled crude oil to produce transportation fuels, such as gasoline and diesel fuels, and feeds for production of petrochemicals; and *FCC additives* used to reduce sulfur in gasoline, maximize propylene production from refinery FCC units, and reduce emissions of sulfur oxides, nitrogen oxides, and carbon monoxide from refinery FCC units.
- *Hydroprocessing catalysts (HPC),* most of which are marketed through our Advanced Refining Technologies LLC (“ART”) joint venture with Chevron Products Company (“Chevron”), that are used in process reactors to upgrade heavy oils into lighter, more useful products, enabling less expensive feedstock usage in the petroleum refining process, and to produce products that meet more stringent environmental regulations. (We hold a 50% economic interest in ART, which is not consolidated in our financial statements so ART's sales are excluded from our sales.)
- *Polyolefin catalysts and catalyst supports,* also called specialty catalysts (SC), for the production of polyethylene and polypropylene thermoplastic resins, which can be customized to enhance the performance of a wide range of industrial and consumer end-use applications including high pressure pipe, geomembranes, food packaging, automotive parts, medical devices, and textiles; and *chemical catalysts* used in a variety of petrochemical chain conversions and fine chemical production.
- *Gas-phase polypropylene process technology,* which provides our licensees with a proven, cost-effective, flexible, and reliable capability to manufacture polypropylene products having a wide spectrum of performance attributes, enabling customers to manufacture products for a broad array of end-use applications.

Grace Materials Technologies produces and sells specialty materials, including silica-based and silica-alumina-based materials, used in consumer/pharma, chemical process, and coatings applications, as follows:

- *Consumer/Pharma,* specialized materials used as additives and intermediates for pharmaceuticals, nutraceuticals, beer, toothpaste, food and cosmetic segments.
- *Chemical process,* functional materials for use in plastics, rubber, tire, metal casting, and adsorbent products for petrochemical and natural gas applications.
- *Coatings,* functional additives for wood and architectural coatings that provide surface effects and corrosion protection for metal substrates.

Global Scope

We operate our business on a global scale with approximately 72% of both our annual 2018 sales and our six months sales to customers located outside the United States. We operate and/or sell to customers in over 70 countries and do business in over 30 currencies. We manage our operating segments on a global basis, to serve global markets. Currency fluctuations affect our reported results of operations, cash flows, and financial position.

Analysis of Operations

We have set forth in the table below our key operating statistics with percentage changes for the second quarter and six months compared with the corresponding prior-year periods. Please refer to this Analysis of Operations when reviewing this Management's Discussion and Analysis of Financial Condition and Results of Operations. In the table we present financial information in accordance with U.S. GAAP, as well as the non-GAAP financial information described below. We believe that the non-GAAP financial information provides useful supplemental information about the performance of our businesses, improves period-to-period comparability, and provides clarity on the information our management uses to evaluate the performance of our businesses. In the table, we have provided reconciliations of these non-GAAP financial measures to the most directly comparable financial measure calculated and presented in accordance with U.S. GAAP. The non-GAAP financial measures should not be considered as a substitute for financial measures calculated in accordance with U.S. GAAP, and the financial results calculated in accordance with U.S. GAAP and reconciliations from those results should be evaluated carefully.

We define Adjusted EBIT (a non-GAAP financial measure) to be net income attributable to W. R. Grace & Co. shareholders adjusted for interest income and expense; income taxes; costs related to legacy matters; restructuring and repositioning expenses and asset impairments; pension costs other than service and interest costs, expected returns on plan assets, and amortization of prior service costs/credits; gains and losses on sales and exits of businesses, product lines, and certain other investments; third-party acquisition-related costs and the amortization of acquired inventory fair value adjustment; and certain other items that are not representative of underlying trends.

We define Adjusted EBITDA (a non-GAAP financial measure) to be Adjusted EBIT adjusted for depreciation and amortization.

We define Adjusted EBIT Return On Invested Capital (a non-GAAP financial measure) to be Adjusted EBIT (on a trailing four quarters basis) divided by equity adjusted for debt; underfunded and unfunded defined benefit pension plans; liabilities related to legacy matters; cash, cash equivalents, and restricted cash; net income tax assets; and certain other assets and liabilities.

We define Adjusted Gross Margin (a non-GAAP financial measure) to be gross margin adjusted for pension-related costs included in cost of goods sold, the amortization of acquired inventory fair value adjustment, and write-offs of inventory related to exits of businesses and product lines.

We define Adjusted Earnings Per Share (EPS) (a non-GAAP financial measure) to be diluted EPS adjusted for costs related to legacy matters; restructuring and repositioning expenses and asset impairments; pension costs other than service and interest costs, expected returns on plan assets, and amortization of prior service costs/credits; gains and losses on sales and exits of businesses, product lines and certain other investments; third-party acquisition-related costs and the amortization of acquired inventory fair value adjustment; certain other items that are not representative of underlying trends; certain discrete tax items; and income tax expense related to historical tax attributes.

We define Net Sales, constant currency (a non-GAAP financial measure) to be the period-over-period change in net sales calculated using the foreign currency exchange rates that were in effect during the previous comparable period.

"Legacy matters" include legacy (i) product, (ii) environmental, and (iii) other liabilities, relating to past activities of Grace.

We use Adjusted EBIT as a performance measure in significant business decisions and in determining certain incentive compensation. We use Adjusted EBIT as a performance measure because it provides improved period-to-period comparability for decision making and compensation purposes, and because it better measures the ongoing earnings results of our strategic and operating decisions by excluding the earnings effects of our legacy matters; restructuring and repositioning activities; the effects of acquisitions; and certain other items that are not representative of underlying trends.

We use Adjusted EBITDA, Adjusted EBIT Return On Invested Capital, Adjusted Gross Margin, and Adjusted EPS as performance measures and may use these measures in determining certain incentive compensation. We use Adjusted EBIT Return On Invested Capital in making operating and investment decisions and in balancing the growth and profitability of our operations.

We use Net Sales, constant currency as a performance measure to compare current period financial performance to historical financial performance by excluding the impact of foreign currency exchange rate fluctuations that are not representative of underlying business trends and are largely outside of our control.

Adjusted EBIT, Adjusted EBITDA, Adjusted EBIT Return On Invested Capital, Adjusted Gross Margin, Adjusted EPS, and Net Sales, constant currency are non-GAAP financial measures; do not purport to represent income measures as defined under U.S. GAAP; and should not be used as alternatives to such measures as an indicator of our performance. These measures are provided to investors and others to improve the period-to-period comparability and peer-to-peer comparability of our financial results, and to ensure that investors understand the information we use to evaluate the performance of our businesses. They distinguish the operating results of Grace's current business base from the costs of Grace's legacy matters; restructuring and repositioning activities; and certain other items. These measures may have material limitations due to the exclusion or inclusion of amounts that are included or excluded, respectively, in the most directly comparable measures calculated and presented in accordance with U.S. GAAP, and thus investors and others should review carefully our financial results calculated in accordance with U.S. GAAP.

Adjusted EBIT has material limitations as an operating performance measure because it excludes costs related to legacy matters, and may exclude income and expenses from restructuring, repositioning, and other activities, which historically have been material components of our net income. Adjusted EBITDA also has material limitations as an operating performance measure because it excludes the impact of depreciation and amortization expense. Our business is substantially dependent on the successful deployment of capital, and depreciation and amortization expense is a necessary element of our costs. We compensate for the limitations of these measurements by using these indicators together with net income as measured under U.S. GAAP to present a complete analysis of our results of operations. Adjusted EBIT and Adjusted EBITDA should be evaluated together with net income and net income attributable to Grace shareholders, measured under U.S. GAAP, for a complete understanding of our results of operations.

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Analysis of Operations (In millions, except per share amounts)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	% Change	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018	% Change
Net sales:						
Catalysts Technologies	**$ 395.7**	$ 364.4	8.6 %	**$ 745.4**	$ 680.2	9.6 %
Materials Technologies	**117.9**	121.3	(2.8)%	**237.7**	237.0	0.3 %
Total Grace net sales	**$ 513.6**	$ 485.7	5.7 %	**$ 983.1**	$ 917.2	7.2 %
Net sales by region:						
North America	**$ 155.9**	$ 147.4	5.8 %	**$ 300.4**	$ 273.4	9.9 %
Europe Middle East Africa	**214.1**	185.4	15.5 %	**408.7**	364.1	12.2 %
Asia Pacific	**118.7**	124.1	(4.4)%	**227.9**	224.3	1.6 %
Latin America	**24.9**	28.8	(13.5)%	**46.1**	55.4	(16.8)%
Total net sales by region	**$ 513.6**	$ 485.7	5.7 %	**$ 983.1**	$ 917.2	7.2 %
Performance measures:						
Adjusted EBIT(A):						
Catalysts Technologies segment operating income	**$ 125.2**	$ 113.7	10.1 %	**$ 226.6**	$ 205.8	10.1 %
Materials Technologies segment operating income	**24.1**	29.6	(18.6)%	**48.1**	53.7	(10.4)%
Corporate costs	**(18.0)**	(19.8)	9.1 %	**(34.2)**	(36.4)	6.0 %
Certain pension costs(B)	**(4.6)**	(4.0)	(15.0)%	**(9.4)**	(7.8)	(20.5)%
Adjusted EBIT	**126.7**	119.5	6.0 %	**231.1**	215.3	7.3 %
Costs related to legacy matters	**(1.5)**	(2.2)		**(48.4)**	(4.2)	
Restructuring and repositioning expenses	**(6.4)**	(18.8)		**(8.7)**	(24.4)	
Third-party acquisition-related costs	**(1.0)**	(5.8)		**(1.3)**	(6.7)	
Write-off of MTO inventory(C)	**(3.6)**	—		**(3.6)**	—	
Amortization of acquired inventory fair value adjustment	**—**	(4.6)		**—**	(4.6)	
Loss on early extinguishment of debt	**—**	(4.8)		**—**	(4.8)	
Interest expense, net	**(19.2)**	(19.5)	1.5 %	**(38.5)**	(38.4)	(0.3)%
(Provision for) benefit from income taxes	**(18.8)**	(25.0)	24.8 %	**(29.7)**	(49.8)	40.4 %
Income (loss) attributable to W. R. Grace & Co. shareholders	**$ 76.2**	$ 38.8	96.4 %	**$ 100.9**	$ 82.4	22.5 %
Diluted EPS	**$ 1.14**	$ 0.58	96.6 %	**$ 1.51**	$ 1.22	23.8 %
Adjusted EPS	**$ 1.16**	$ 1.07	8.4 %	**$ 2.09**	$ 1.89	10.6 %

Analysis of Operations (In millions)	Three Months Ended June 30, 2019	2018	% Change	Six Months Ended June 30, 2019	2018	% Change
Adjusted performance measures:						
Gross Margin:						
Catalysts Technologies	**43.8 %**	43.5 %	0.3 pts	**43.2 %**	42.5 %	0.7 pts
Materials Technologies	**36.2 %**	39.9 %	(3.7) pts	**36.3 %**	38.2 %	(1.9) pts
Adjusted Gross Margin	**42.1 %**	42.6 %	(0.5) pts	**41.5 %**	41.4 %	0.1 pts
Amortization of acquired inventory fair value adjustment	**— %**	(1.0)%	1.0 pts	**— %**	(0.5)%	0.5 pts
Write-off of MTO inventory(C)	**(0.7)%**	— %	(0.7) pts	**(0.4)%**	— %	(0.4) pts
Pension costs in cost of goods sold	**(0.6)%**	(0.7)%	0.1 pts	**(0.6)%**	(0.8)%	0.2 pts
Total Grace	**40.8 %**	40.9 %	(0.1) pts	**40.5 %**	40.1 %	0.4 pts
Adjusted EBIT:						
Catalysts Technologies	**$ 125.2**	$ 113.7	10.1 %	**$ 226.6**	$ 205.8	10.1 %
Materials Technologies	**24.1**	29.6	(18.6)%	**48.1**	53.7	(10.4)%
Corporate, pension, and other	**(22.6)**	(23.8)	5.0 %	**(43.6)**	(44.2)	1.4 %
Total Grace	**126.7**	119.5	6.0 %	**231.1**	215.3	7.3 %
Depreciation and amortization:						
Catalysts Technologies	**$ 20.2**	$ 21.3	(5.2)%	**$ 40.7**	$ 40.7	— %
Materials Technologies	**3.6**	3.7	(2.7)%	**7.1**	8.4	(15.5)%
Corporate	**1.1**	0.9	22.2 %	**2.0**	1.8	11.1 %
Total Grace	**24.9**	25.9	(3.9)%	**49.8**	50.9	(2.2)%
Adjusted EBITDA:						
Catalysts Technologies	**$ 145.4**	$ 135.0	7.7 %	**$ 267.3**	$ 246.5	8.4 %
Materials Technologies	**27.7**	33.3	(16.8)%	**55.2**	62.1	(11.1)%
Corporate, pension, and other	**(21.5)**	(22.9)	6.1 %	**(41.6)**	(42.4)	1.9 %
Total Grace	**151.6**	145.4	4.3 %	**280.9**	266.2	5.5 %
Adjusted EBIT margin:						
Catalysts Technologies	**31.6 %**	31.2 %	0.4 pts	**30.4 %**	30.3 %	0.1 pts
Materials Technologies	**20.4 %**	24.4 %	(4.0) pts	**20.2 %**	22.7 %	(2.5) pts
Total Grace	**24.7 %**	24.6 %	0.1 pts	**23.5 %**	23.5 %	0.0 pts
Adjusted EBITDA margin:						
Catalysts Technologies	**36.7 %**	37.0 %	(0.3) pts	**35.9 %**	36.2 %	(0.3) pts
Materials Technologies	**23.5 %**	27.5 %	(4.0) pts	**23.2 %**	26.2 %	(3.0) pts
Total Grace	**29.5 %**	29.9 %	(0.4) pts	**28.6 %**	29.0 %	(0.4) pts

Analysis of Operations (In millions)	Four Quarters Ended June 30, 2019	2018
Calculation of Adjusted EBIT Return On Invested Capital (trailing four quarters):		
Net income (loss) attributable to W. R. Grace & Co. shareholders	**$ 186.1**	$ 6.8
Adjusted EBIT	**472.5**	438.5
Total equity	**387.3**	294.9
Reconciliation to Invested Capital:		
Total debt	**1,983.0**	1,986.6
Underfunded and unfunded defined benefit pension plans	**433.9**	452.2
Liabilities related to legacy matters	**165.5**	61.5
Cash, cash equivalents, and restricted cash	**(159.9)**	(132.8)
Net income tax assets	**(502.1)**	(515.5)
Other items	**18.7**	14.4
Adjusted Invested Capital	**$ 2,326.4**	$ 2,161.3
Return on equity	**48.1%**	2.3%
Adjusted EBIT Return On Invested Capital	**20.3%**	20.3%

Amounts may not add due to rounding.

NM—Not meaningful

(A) Grace's segment operating income includes only Grace's share of income of consolidated and unconsolidated joint ventures.

(B) Certain pension costs include only ongoing costs recognized quarterly, which include service and interest costs, expected returns on plan assets, and amortization of prior service costs/credits. Catalysts Technologies and Materials Technologies segment operating income and corporate costs do not include any amounts for pension expense. Other pension-related costs including annual mark-to-market (MTM) adjustments and actuarial gains and losses are excluded from Adjusted EBIT. These amounts are not used by management to evaluate the performance of Grace's businesses and significantly affect the peer-to-peer and period-to-period comparability of our financial results. Mark-to-market adjustments and actuarial gains and losses relate primarily to changes in financial market values and actuarial assumptions and are not directly related to the operation of Grace's businesses.

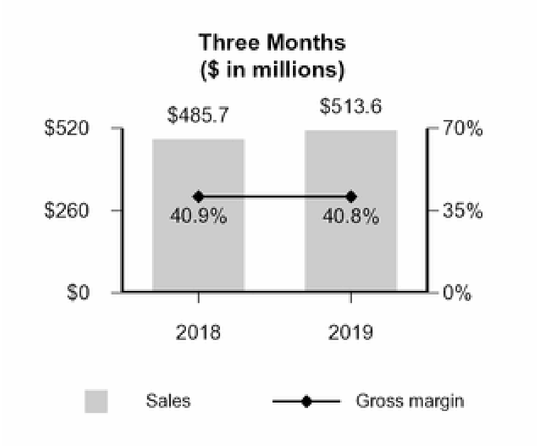
(C) In June 2019, we idled our methanol-to-olefins ("MTO") manufacturing facility in China.

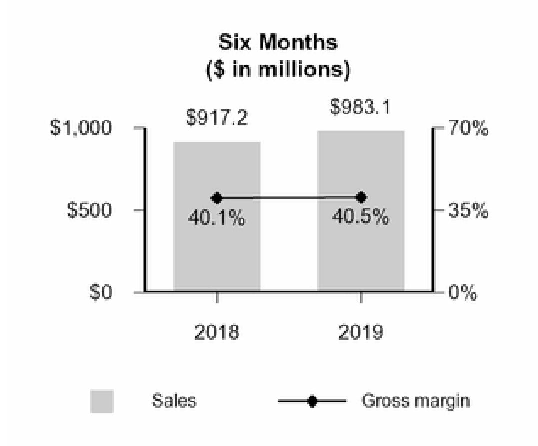
Grace Overview

Following is an overview of our financial performance for the second quarter and six months compared with the corresponding prior-year periods.

Net Sales and Gross Margin

Sales were $513.6 million and $983.1 million for the second quarter and six months, respectively, compared with $485.7 million and $917.2 million for the corresponding prior-year periods. Gross margin was 40.8% and 40.5% for the second quarter and six months, respectively, compared with 40.9% and 40.1% for the corresponding prior-year periods. Adjusted Gross Margin was 42.1% and 41.5% for the second quarter and six months, respectively, compared with 42.6% and 41.4% for the corresponding prior-year periods.





The following tables identify the year-over-year increase or decrease in sales attributable to changes in sales volume and/or mix, product price, and the impact of currency translation.

	Three Months Ended June 30, 2019 as a Percentage Increase (Decrease) from Three Months Ended June 30, 2018			
Net Sales Variance Analysis	**Volume**	**Price**	**Currency Translation**	**Total**
Catalysts Technologies	7.1 %	3.0%	(1.5)%	8.6 %
Materials Technologies	0.2 %	1.8%	(4.8)%	(2.8)%
Net sales	5.3 %	2.7%	(2.3)%	5.7 %
By Region:				
North America	2.8 %	3.0%	— %	5.8 %
Europe Middle East Africa (EMEA)	18.0 %	2.5%	(5.0)%	15.5 %
Asia Pacific	(6.3)%	2.2%	(0.3)%	(4.4)%
Latin America	(12.4)%	4.8%	(5.9)%	(13.5)%

Sales for the second quarter increased 5.7%, up 8.0% on constant currency, compared with the prior-year quarter. Higher sales volumes in Catalysts Technologies were driven by growth in EMEA and North America, partially offset by lower volumes in Asia and Latin America. Sales volumes in Materials Technologies were up driven primarily by growth in the Americas, partially offset by lower sales in EMEA and Asia. Improved pricing benefited both segments and was partially offset by unfavorable currency translation.

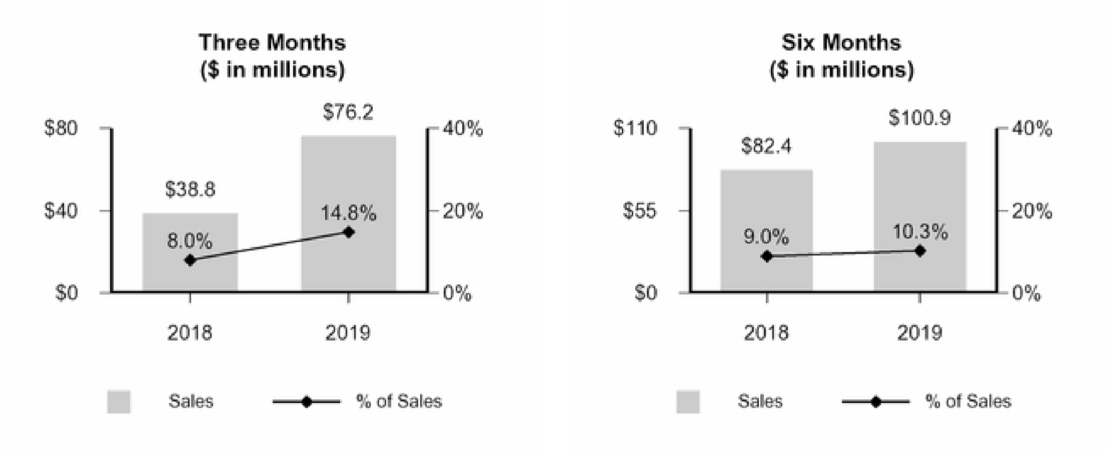
Gross margin decreased 10 basis points to 40.8% for the second quarter. Adjusted Gross Margin decreased 50 basis points to 42.1% for the second quarter. The decreases were primarily due to a difficult comparison to the prior-year quarter in Materials Technologies.

Net Sales Variance Analysis	Six Months Ended June 30, 2019 as a Percentage Increase (Decrease) from Six Months Ended June 30, 2018			
	Volume	Price	Currency Translation	Total
Catalysts Technologies	8.6 %	2.6%	(1.6)%	9.6 %
Materials Technologies	3.1 %	2.1%	(4.9)%	0.3 %
Net sales	7.1 %	2.5%	(2.4)%	7.2 %
By Region:				
North America	6.7 %	3.2%	— %	9.9 %
Europe Middle East Africa	14.8 %	2.4%	(5.0)%	12.2 %
Asia Pacific	1.1 %	0.9%	(0.4)%	1.6 %
Latin America	(17.3)%	6.2%	(5.7)%	(16.8)%

Sales for the six months increased 7.2%, up 9.6% on constant currency, compared with the prior-year period. Higher sales volumes in Catalysts Technologies were driven by specialty catalysts due to growth in EMEA and Asia in the existing businesses as well as the polyolefin catalysts acquisition. Sales volumes in Materials Technologies were up driven by growth in EMEA and the Americas, partially offset by a decline in Asia. Improved pricing benefited both segments and was partially offset by unfavorable currency translation.

Gross margin increased 40 basis points to 40.5% for the six months from 40.1% for the prior-year period. Adjusted Gross Margin increased 10 basis points to 41.5% for the six months from 41.4% for the prior-year period. The increases were primarily due to improved pricing, higher sales volumes, lower depreciation expense, and favorable product and regional mix, partially offset by higher manufacturing costs including a 100 basis point impact related to higher raw materials and energy costs.

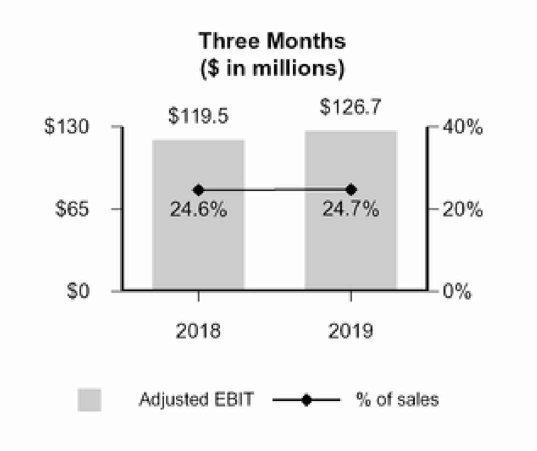
Grace Net Income

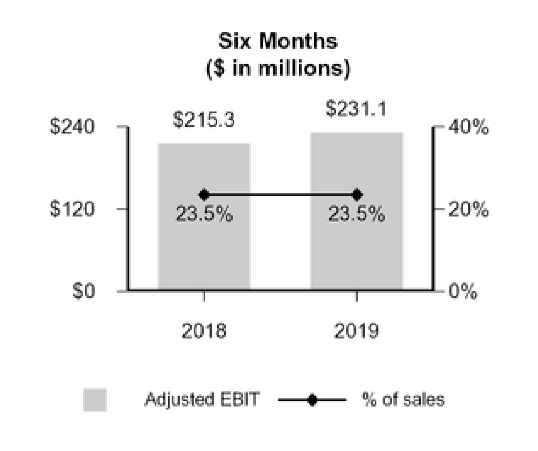


Net income attributable to Grace was $76.2 million for the second quarter, an increase of 96.4% compared with $38.8 million for the prior-year quarter. The increase was primarily due to higher operating income from our Catalysts Technologies segment, lower restructuring and repositioning expenses, and a lower provision for income taxes.

Net income attributable to Grace shareholders was $100.9 million for the six months, an increase of 22.5% compared with $82.4 million for the prior-year period. The increase was primarily due to higher operating income from our Catalysts Technologies segment, a lower provision for income taxes, and lower restructuring and repositioning expenses, partially offset by a $45.0 million charge for the estimated costs of construction of a new dam spillway at our former vermiculite mine site in Libby, Montana.

Adjusted EBIT





Adjusted EBIT was $126.7 million for the second quarter, an increase of 6.0% compared with the prior-year quarter. The increase was primarily due to higher gross profit and lower operating expenses, partially offset by lower income from our ART joint venture and unfavorable currency transaction effects compared with the prior-year quarter.

Adjusted EBIT was $231.1 million for the six months, an increase of 7.3% compared with the prior-year period. The increase was primarily due to higher gross profit including from the polyolefin catalysts acquisition, partially offset by lower income from our ART joint venture, unfavorable currency transaction effects, higher amortization expense, and higher operating expenses.

Adjusted EPS

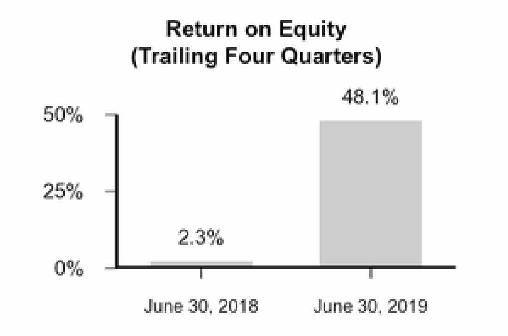
The following tables reconcile our Diluted EPS to our Adjusted EPS:

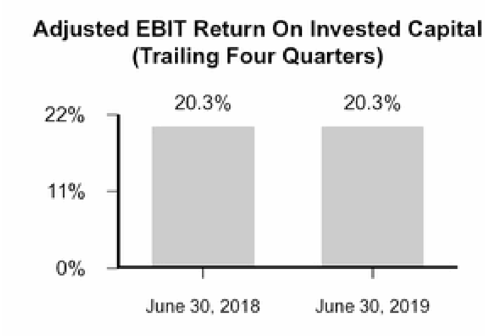
	Three Months Ended June 30,							
	2019				2018			
(In millions, except per share amounts)	**Pre-Tax**	**Tax Effect**	**After-Tax**	**Per Share**	**Pre-Tax**	**Tax Effect**	**After-Tax**	**Per Share**
Diluted earnings per share				**$ 1.14**				$ 0.58
Restructuring and repositioning expenses	**$ 6.4**	**$ 1.1**	**$ 5.3**	**0.08**	$ 18.8	$ 4.6	$ 14.2	0.21
Write-off of MTO inventory	**3.6**	**—**	**3.6**	**0.05**	—	—	—	—
Costs related to legacy matters	**1.5**	**0.4**	**1.1**	**0.02**	2.2	0.6	1.6	0.02
Third-party acquisition-related costs	**1.0**	**0.3**	**0.7**	**0.01**	5.8	1.3	4.5	0.07
Amortization of acquired inventory fair value adjustment	**—**	**—**	**—**	**—**	4.6	1.1	3.5	0.05
Loss on early extinguishment of debt	**—**	**—**	**—**	**—**	4.8	1.1	3.7	0.05
Income tax expense related to historical tax attributes(1)		**(2.3)**	**2.3**	**0.03**		(4.7)	4.7	0.07
Discrete tax items		**11.3**	**(11.3)**	**(0.17)**		(1.1)	1.1	0.02
Adjusted EPS				**$ 1.16**				$ 1.07

(In millions, except per share amounts)	2019 Pre-Tax	2019 Tax Effect	2019 After-Tax	2019 Per Share	2018 Pre-Tax	2018 Tax Effect	2018 After-Tax	2018 Per Share
	Six Months Ended June 30,							
Diluted earnings per share				**$ 1.51**				$ 1.22
Costs related to legacy matters	**$ 48.4**	**$ 13.2**	**$ 35.2**	**0.53**	$ 4.2	$ 1.0	$ 3.2	0.05
Restructuring and repositioning expenses	**8.7**	**1.6**	**7.1**	**0.11**	24.4	5.7	18.7	0.28
Write-off of MTO inventory	**3.6**	**—**	**3.6**	**0.05**	—	—	—	—
Third-party acquisition-related costs	**1.3**	**0.4**	**0.9**	**0.01**	6.7	1.6	5.1	0.08
Amortization of acquired inventory fair value adjustment	**—**	**—**	**—**	**—**	4.6	1.1	3.5	0.05
Loss on early extinguishment of debt	**—**	**—**	**—**	**—**	4.8	1.1	3.7	0.05
Income tax expense related to historical tax attributes(1)		**(2.3)**	**2.3**	**0.03**		(9.4)	9.4	0.14
Discrete tax items		**10.3**	**(10.3)**	**(0.15)**		(1.1)	1.1	0.02
Adjusted EPS				**$ 2.09**				$ 1.89

(1) Our historical tax attribute carryforwards (net operating losses and tax credits) unfavorably affected our tax expense with respect to certain provisions of the Tax Cuts and Jobs Act of 2017 (“TCJA”). To normalize the effective tax rate, an adjustment was made to eliminate the tax expense impact associated with the historical tax attributes.

Return on Equity and Adjusted EBIT Return On Invested Capital





Return on equity for the second quarter was 48.1% on a trailing four quarters basis compared with 2.3% on the same basis as of June 30, 2018. Net income on a trailing four quarters basis as of June 30, 2018, includes charges related to the TCJA recorded in the 2017 fourth quarter. Adjusted EBIT Return On Invested Capital for the second quarter was 20.3% on a trailing four quarters basis, flat compared with such measure calculated on the same basis as of June 30, 2018.

We manage our operations with the objective of maximizing sales, earnings and cash flow over time. Doing so requires that we successfully balance our growth, profitability and working capital and other investments to support sustainable, long-term financial performance. We use Adjusted EBIT Return On Invested Capital as a performance measure in evaluating operating results, in making operating and investment decisions, and in balancing the growth and profitability of our operations.

Grace Value Model

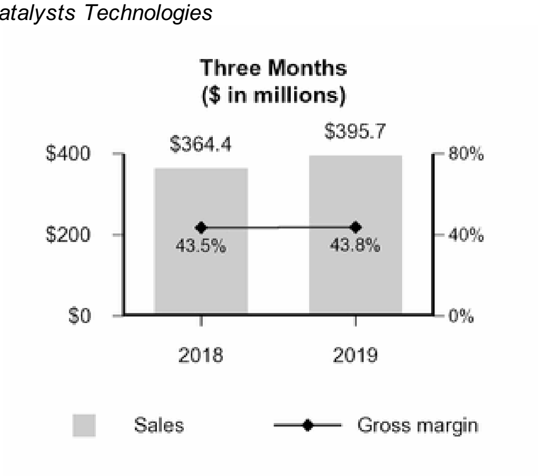
In March 2018, we introduced investors to the Grace Value Model (“GVM”), our framework for creating and delivering value to customers, investors, and employees. At the company level, we create value through our focused portfolio, strong strategic position, and disciplined capital allocation. At the business level, we create value through customer-driven innovation, commercial excellence, and operating excellence. Great talent, our high-performance culture, and integrated business management processes support all of our activities and are a source of competitive advantage.

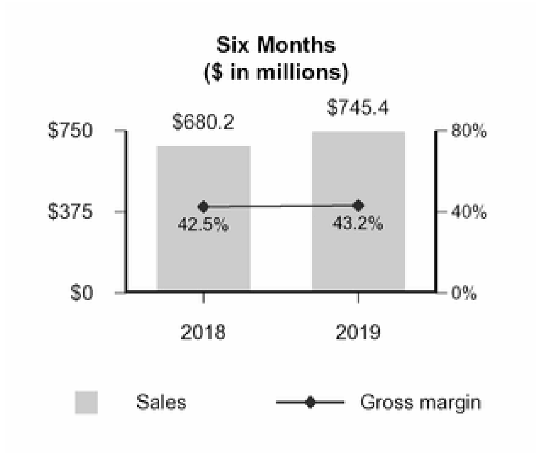
The GVM framework also encompasses our multi-year initiatives to transform our manufacturing and business processes to extend our competitive advantages and improve our cost position. We expect to significantly improve our manufacturing performance, reduce our manufacturing costs, and improve our integrated business management capabilities. We also expect to invest significant capital in our manufacturing plants to accelerate growth and improve manufacturing performance. Our investments in commercial excellence are yielding positive results in account management, pipeline management and conversion, and pricing. Our investments in operating excellence are yielding positive results in operating rates, reliability, and cost reductions.

Segment Overview—Grace Catalysts Technologies

Following is an overview of the financial performance of Catalysts Technologies for the second quarter and six months compared with the corresponding prior-year periods.

Net Sales—Grace Catalysts Technologies

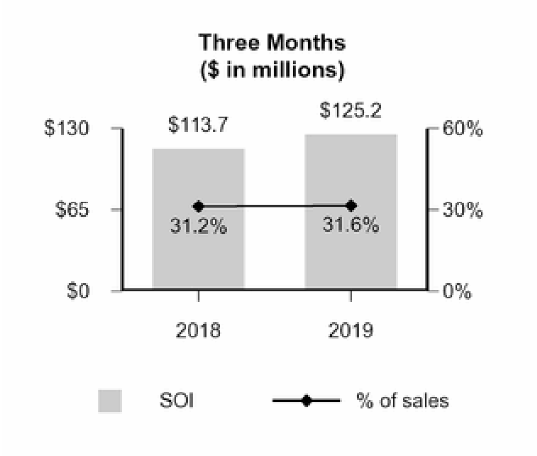


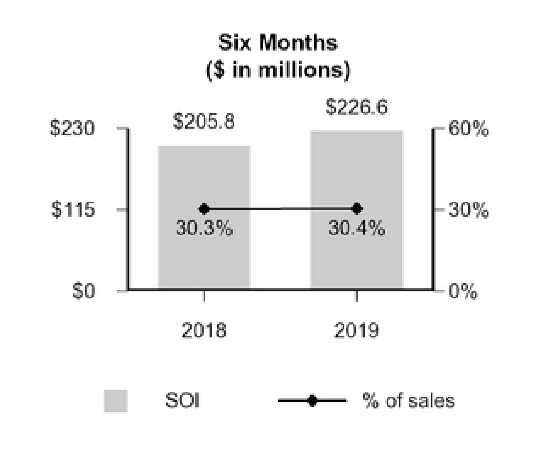


Sales were $395.7 million for the second quarter, an increase of 8.6%, or 10.1% on constant currency, compared with the prior-year quarter. The increase on a constant currency basis was due to higher sales volumes (+7.1%) and improved pricing (+3.0%). Higher sales volumes were driven by growth in EMEA and North America, partially offset by lower volumes in Asia and Latin America. Pricing improved across all regions. Higher sales volumes and improved pricing were partially offset by unfavorable currency translation as the U.S. dollar strengthened against multiple currencies, especially the euro, compared with the prior-year quarter.

Sales were $745.4 million for the six months, an increase of 9.6%, or 11.2% on constant currency, compared with the prior-year period. The increase on a constant currency basis was due to higher sales volumes (+8.6%) and improved pricing (+2.6%). Higher sales volumes were driven primarily by specialty catalysts, which benefited from growth in EMEA and Asia in the existing business as well as the polyolefin catalysts acquisition. Pricing improved across all regions in both refining catalysts and specialty catalysts. Unfavorable currency translation affected both product groups as the U.S. dollar strengthened against multiple currencies, especially the euro, compared with the prior-year period.

Segment Operating Income (SOI) and Margin—Grace Catalysts Technologies





Gross profit was $173.5 million for the second quarter, an increase of 9.5% compared with the prior-year quarter. Gross margin of 43.8% increased 30 basis points from 43.5% for the prior-year quarter. The increase in gross margin was primarily due to favorable product and regional mix, higher sales volumes and improved pricing, partially offset by higher manufacturing costs including an 80 basis point impact related to higher raw materials and energy costs.

Operating income was $125.2 million for the second quarter, an increase of 10.1% compared with the prior-year quarter, primarily due to higher gross profit, partially offset by lower income from our ART joint venture and unfavorable effects of currency exchange rates. The ART joint venture contributed $6.0 million to operating income, a decrease of $2.2 million compared with the prior-year quarter. Operating margin for the second quarter was 31.6%, an increase of 40 basis points compared with the prior-year quarter.

Gross profit was $321.7 million for the six months, an increase of 11.2% compared with the prior-year period. Gross margin of 43.2% increased 70 basis points compared with 42.5% for the prior-year period. The increase in gross margin was primarily due to improved pricing, higher sales volumes including the polyolefin catalysts acquisition, favorable product and regional mix, and lower depreciation expense, partially offset by higher manufacturing costs including a 90 basis point impact related to higher raw materials and energy costs.

Operating income was $226.6 million for the six months, an increase of 10.1% compared with the prior-year period, primarily due to higher gross profit, partially offset by lower income from our ART joint venture, higher operating expenses, and unfavorable effects of currency exchange rates. The ART joint venture contributed $10.1 million to operating income, a decrease of $3.5 million compared with the prior-year period. Operating margin for the six months was 30.4%, an increase of 10 basis points compared with the prior-year period.

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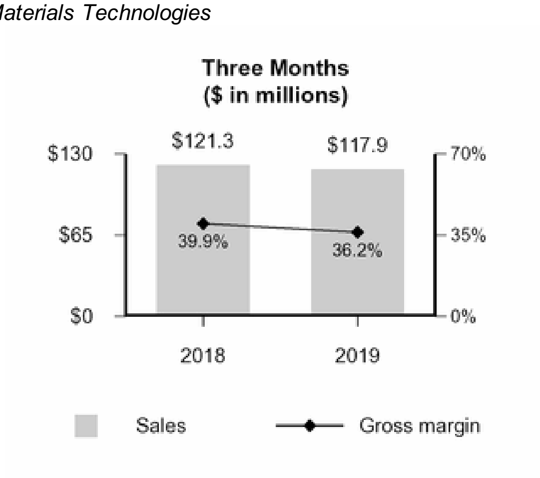
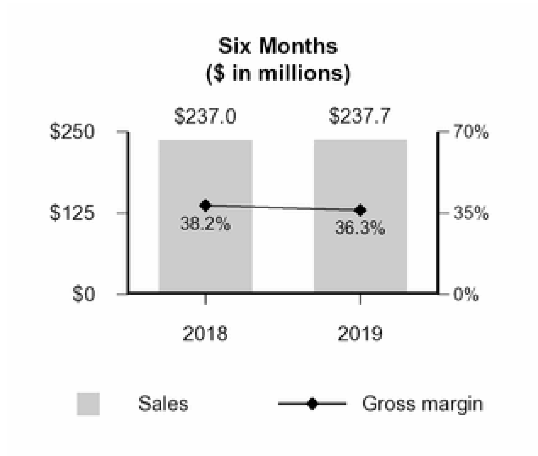
Segment Overview—Grace Materials Technologies

Following is an overview of the financial performance of Materials Technologies for the second quarter and six months compared with the corresponding prior-year periods.

Net Sales—Grace Materials Technologies

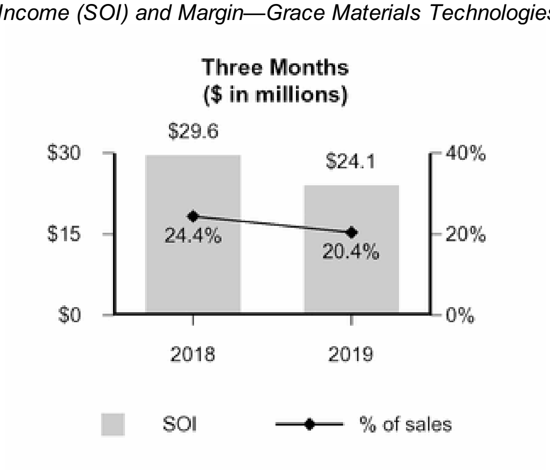


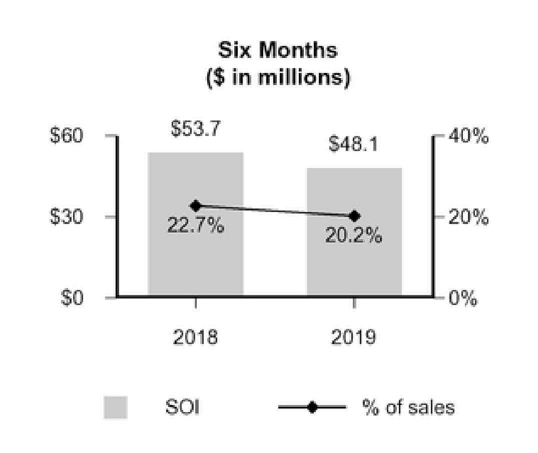


Sales were $117.9 million for the second quarter, a decrease of 2.8%, or an increase of 2.0% on constant currency, compared with the prior-year quarter. The increase on a constant currency basis was due to improved pricing (+1.8%) and higher sales volumes (+0.2%). Pricing improved primarily in EMEA and North America. Higher sales volumes were driven by higher consumer/pharma sales primarily due to higher demand in North America, partially offset by lower coatings sales in EMEA and Asia. The increase in sales was partially offset by unfavorable currency translation as the U.S. dollar strengthened against multiple currencies, especially the euro, compared with the prior-year quarter.

Sales were $237.7 million for the six months, an increase of 0.3%, or 5.2% on constant currency, compared with the prior-year period. The increase on a constant currency basis was due to higher sales volumes (+3.1%) and improved pricing (+2.1%). The increase in sales volumes was primarily driven by higher consumer/pharma sales in EMEA and North America, partially offset by lower coatings sales in Asia. Pricing improved across all regions. The increase in sales volumes was partially offset by unfavorable currency translation as the U.S. dollar strengthened against multiple currencies, especially the euro, compared with the prior-year period. Materials Technologies is our reportable segment most sensitive to changes in the euro.

Segment Operating Income (SOI) and Margin—Grace Materials Technologies





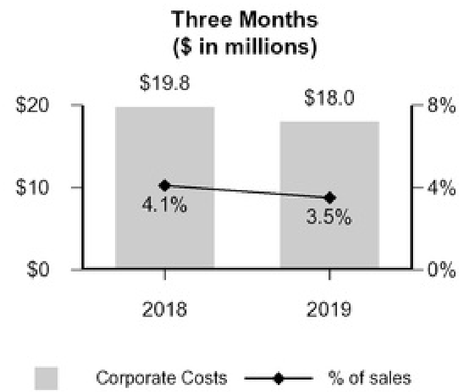
Gross profit was $42.6 million for the second quarter, a decrease of 12.0% compared with the prior-year quarter. Gross margin of 36.2% decreased 370 basis points in a difficult comparison with 39.9% for the prior-year quarter. The decrease in gross margin was primarily due to higher manufacturing costs including 130 basis points of higher costs directly related to a significant manufacturing disruption to one of our silicas plants and 80 basis points related to higher raw materials and energy costs, and unfavorable product and regional mix, partially offset by improved pricing.

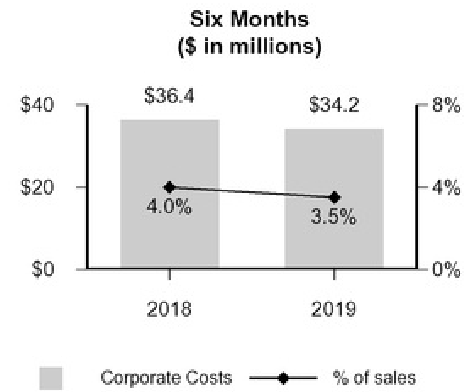
Operating income was $24.1 million for the second quarter, a decrease of 18.6% compared with the prior-year quarter, primarily due to lower gross profit, partially offset by lower operating expenses. Operating margin for the second quarter was 20.4%, a decrease of 400 basis points compared with the prior-year quarter.

Gross profit was $86.2 million for the six months, a decrease of 4.6% compared with the prior-year period. Gross margin of 36.3% decreased 190 basis points compared with the prior-year period. The decrease in gross margin was primarily due to higher manufacturing costs including 120 basis points related to higher raw materials and energy costs and costs directly related to a significant manufacturing disruption to one of our silicas plants, and unfavorable product and regional mix, partially offset by improved pricing and lower depreciation expense.

Operating income was $48.1 million for the six months, a decrease of 10.4% compared with the prior-year period, primarily due to lower gross profit and higher operating expenses. Operating margin for the six months was 20.2%, a decrease of 250 basis points compared with the prior-year period.

Corporate Costs





Corporate costs include corporate functional costs and other corporate costs such as professional fees and insurance premiums. Corporate costs for the second quarter and six months were $18.0 million and $34.2 million, decreases of $1.8 million and $2.2 million, respectively, from the corresponding prior-year periods. The decreases were primarily due to lower accruals for incentive compensation.

Restructuring and Repositioning Expenses

During the second quarter and six months, we incurred $1.9 million and $3.0 million, respectively, of restructuring expenses primarily related to severance costs pertaining to the idling of our methanol-to-olefins (“MTO”) manufacturing facility in China, compared with $1.0 million and $2.0 million, respectively, in the corresponding prior-year periods, which was primarily related to plant exit costs and severance costs pertaining to sales force reorganization. Substantially all costs related to the restructuring programs are expected to be paid by December 31, 2021, but could be paid earlier subject to negotiations around certain plant exit costs.

Pretax repositioning expenses for the second quarter and six months were $4.5 million and $5.7 million, respectively, compared with $17.8 million and $22.4 million, respectively, in the corresponding prior-year periods. Expenses primarily related to a multi-year program to transform manufacturing and business processes to extend our competitive advantages and improve our cost position. Substantially all of these expenses have been or are expected to be settled in cash.

The following table presents the major components of restructuring and repositioning expenses recorded in the second quarter and six months and the corresponding prior-year periods.

	Three Months Ended June 30,		Six Months Ended June 30,	
(in millions)	**2019**	**2018**	**2019**	**2018**
Write-off of plant equipment and engineering costs	**$ —**	$ 9.1	**$ —**	$ 9.1
Third-party costs of manufacturing and business transformation programs	**2.3**	4.9	**3.4**	8.1
Employee severance	**2.4**	2.5	**3.9**	3.7
Other	**1.7**	2.3	**1.4**	3.5
Total restructuring and repositioning expenses	**$ 6.4**	$ 18.8	**$ 8.7**	$ 24.4

Defined Benefit Pension Expense

Certain pension costs for the second quarter and six months were $4.6 million and $9.4 million, respectively, compared with $4.0 million and $7.8 million, respectively, for the corresponding prior-year periods. The increases were primarily due to a decrease in expected return on assets as a result of negative asset returns in 2018, partially offset by a decrease in service cost and interest cost due to an increase in discount rates.

Interest and Financing Expenses

Net interest and financing expenses were $19.2 million for the second quarter, a decrease of 1.5% from the prior-year quarter, and $38.5 million for the six months, an increase of 0.3% compared with the corresponding prior-year period.

Income Taxes

Our effective tax rates for the six months ended June 30, 2019 and 2018, were 22.7% and 37.8%, respectively. Our effective tax rate for the six months differed from the U.S. federal statutory rate primarily due to income taxed in jurisdictions with higher statutory tax rates than the U.S. and the net impact of the Global Intangible Low-Taxed Income (“GILTI”) tax in the U.S., partially offset by discrete benefits related to changes in tax law and to favorable resolution of uncertain tax positions. Our effective tax rate for the prior-year period was higher than the U.S. federal statutory rate primarily due to the impact of not being able to benefit from certain favorable provisions of GILTI due to the use of net operating loss carryforwards. In 2019, we are forecasting sufficient U.S. federal taxable income to partially benefit from these favorable GILTI provisions.

As of June 30, 2019, Grace has $302.8 million in federal tax credit carryforwards before unrecognized tax benefits.

The Tax Cuts and Jobs Act of 2017 imposed a minimum U.S. tax on GILTI. To arrive at the requisite minimum tax on GILTI, the U.S. tax law provides for a deduction that is intended to lower the effective tax rate on the GILTI inclusion and either a deduction for foreign taxes paid or accrued or the ability to utilize foreign tax credits. These benefits are limited if a company does not have sufficient U.S. taxable income. For the six months, Grace was able to partially benefit from the provisions. In 2018, Grace did not have sufficient U.S. taxable income to benefit from the deduction on the GILTI inclusion or to claim foreign tax credits for the GILTI inclusion. We are reflecting the aforementioned benefits in 2019 based on our projections of U.S. federal taxable income. Such projections may change in subsequent quarters, which could change our U.S. GAAP tax expense and net income for 2019.

Financial Condition, Liquidity, and Capital Resources

Following is an analysis of our financial condition, liquidity and capital resources at June 30, 2019.

Our principal uses of cash are generally capital investments and acquisitions; working capital investments; compensation paid to employees, including contributions to our defined benefit pension plans and defined contribution plans; the repayment of debt and interest payments thereon; and the return of cash to shareholders through repurchase of shares and dividends.

On February 8, 2017, we announced that the Board of Directors had authorized a share repurchase program of up to $250 million. Under this program, during the six months we repurchased 409,769 shares of Company common stock for $29.8 million. As of June 30, 2019, $109.1 million remained under the current authorization.

We paid cash dividends of $36.6 million during the six months. On February 8, 2018, we announced that the Board of Directors had approved an increase in the annual dividend rate, to $0.96 per share of Company common stock, effective with the dividend paid March 22, 2018. On February 7, 2019, we announced that the Board of Directors had approved a further increase to $1.08 per share of Company common stock, effective with the dividend paid March 21, 2019.

We believe that the cash we expect to generate during 2019 and thereafter, together with other available liquidity and capital resources, are sufficient to finance our operations, growth strategy, share repurchase program and expected dividend payments, and to meet our debt and pension obligations.

Cash Resources and Available Credit Facilities

At June 30, 2019, we had available liquidity of $568.4 million, consisting of $159.5 million in cash and cash equivalents ($40.9 million in the U.S.), $370.6 million available under our revolving credit facility, and $38.3 million of available liquidity under various non-U.S. credit facilities. The $400 million revolving credit facility includes a $100 million sublimit for letters of credit.

Our non-U.S. credit facilities are extended to various subsidiaries that use them primarily to issue bank guarantees supporting trade activity and to provide working capital during occasional cash shortfalls. We generally renew these credit facilities as they expire.

The following table summarizes our non-U.S. credit facilities as of June 30, 2019:

(In millions)	Maximum Borrowing Amount	Available Liquidity	Expiration Date
China	$ 11.9	$ 9.2	April 3, 2023
Other countries	39.4	29.1	April 3, 2023, as well as open-ended
Total	**$ 51.3**	**$ 38.3**	

Analysis of Cash Flows

The following table summarizes our cash flows for the six months and prior-year period:

	Six Months Ended June 30,	
(In millions)	2019	2018
Net cash provided by (used for) operating activities	**$ 144.9**	$ 119.0
Net cash provided by (used for) investing activities	**(127.3)**	(499.0)
Net cash provided by (used for) financing activities	**(58.7)**	350.3
Effect of currency exchange rate changes on cash, cash equivalents, and restricted cash	**—**	(1.0)
Net increase (decrease) in cash, cash equivalents, and restricted cash	**(41.1)**	(30.7)
Cash, cash equivalents, and restricted cash, beginning of period	**201.0**	163.5
Cash, cash equivalents, and restricted cash, end of period	**$ 159.9**	$ 132.8

Net cash provided by operating activities for the six months was $144.9 million compared with $119.0 million for the prior-year period. The year-over-year change in cash flow was primarily due to higher net income and better inventory performance for the six months, and a $50.0 million accelerated contribution to the U.S. defined benefit pension plans that occurred in the 2018 second quarter, partially offset by higher advance payments from customers and lower accounts receivable in the prior-year period.

Net cash used for investing activities for the six months was $127.3 million compared with $499.0 million for the prior-year period. The year-over-year change in cash flow was primarily due to the purchase of the polyolefin catalysts business of Albemarle Corporation for $420.9 million during the second quarter of 2018. Cash paid for capital expenditures was $101.5 million for the six months compared with $90.8 million for the prior-year period.

Net cash used for financing activities for the six months was $58.7 million compared with cash provided by financing activities of $350.3 million in the prior-year period. The year-over-year change in cash flow was primarily due to the borrowings under the 2018 credit agreement, offset by the repayment of the outstanding 2014 U.S. dollar and euro term loans during the second quarter of 2018.

Debt and Other Contractual Obligations

Total debt outstanding at June 30, 2019, was $1,983.0 million. See Note 8 to the Consolidated Financial Statements for a discussion of Financial Assurances.

Employee Benefit Plans

See Note 6 to the Consolidated Financial Statements for further discussion of Pension Plans and Other Retirement Plans.

Defined Benefit Pension Plans

The following table presents the components of cash contributions for the advance-funded and pay-as-you-go plans:

	Six Months Ended June 30,	
(In millions)	**2019**	**2018**
U.S. advance-funded plans	**$ —**	$ 50.0
U.S. pay-as-you-go plans	**3.6**	3.5
Non-U.S. advance-funded plans	**0.7**	0.5
Non-U.S. pay-as-you-go plans	**3.7**	3.9
Total Cash Contributions	**$ 8.0**	$ 57.9

We intend to fund non-U.S. pension plans based upon applicable legal requirements and actuarial and trustee recommendations. We contributed $4.4 million to these plans during the six months and the prior-year period.

Other Contingencies

See Note 8 to the Consolidated Financial Statements for a discussion of our other contingent matters.

Inflation

We recognize that inflationary pressures may have an adverse effect on us through higher asset replacement costs and higher raw materials and other operating costs. We experienced raw materials cost inflation throughout 2018 and the first half of 2019. We try to minimize these impacts through effective control of operating expenses, productivity improvements, and hedging purchases of certain raw materials, as well as price increases on our products.

Critical Accounting Estimates

See the “Critical Accounting Estimates” heading in Management’s Discussion and Analysis of Financial Condition and Results of Operations in our Form 10-K for the year ended December 31, 2018, for a discussion of our critical accounting estimates, incorporated by reference into Item 7 thereof.

Recent Accounting Pronouncements

See Note 1 to the Consolidated Financial Statements for a discussion of recent accounting pronouncements and their effect on us.

Forward-Looking Statements

This document contains, and our other public communications may contain, forward-looking statements, that is, information related to future, not past, events. Such statements generally include the words “believes,” “plans,” “intends,” “targets,” “will,” “expects,” “suggests,” “anticipates,” “outlook,” “continues,” or similar expressions. Forward-looking statements include, without limitation, expected financial positions; results of operations; cash flows; financing plans; business strategy; operating plans; capital and other expenditures; competitive positions; growth opportunities for existing products; benefits from new technology and cost reduction initiatives, plans and objectives; and markets for securities. For these statements, we claim the protections of the safe harbor for forward-looking statements contained in Section 27A of the Securities Act and Section 21E of the Exchange Act. Like other businesses, we are subject to risks and uncertainties that could cause our actual results to differ materially from our projections or that could cause other forward-looking statements to prove incorrect. Factors that could cause actual results to differ materially from those contained in the forward-looking statements include, without limitation: risks related to foreign operations, especially in emerging regions; the costs and availability of raw materials, energy and transportation; the effectiveness of Grace’s research and development and growth investments; acquisitions and divestitures of assets and businesses; developments affecting Grace’s outstanding indebtedness; developments affecting Grace’s pension obligations; legacy matters (including product, environmental, and other legacy liabilities) relating to past activities of Grace; Grace’s legal and environmental proceedings; environmental compliance costs; the inability to establish or maintain certain business relationships; the inability to hire or retain key personnel; natural disasters such as storms and floods; fires and force majeure events; changes in tax laws and regulations; international trade disputes, tariffs, and sanctions; the potential effects of cyberattacks; and those additional factors set forth in our most recent Annual Report on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K, which have been filed with the Securities and Exchange Commission and are readily available on the internet at www.sec.gov. Our reported results should not be considered as an indication of our future performance. Readers are cautioned not to place undue reliance on our projections and forward-looking statements, which speak only as of the dates those projections and statements are made. We undertake no obligation to release publicly any revision to the projections and forward-looking statements contained in this document, or to update them to reflect events or circumstances occurring after the date of this document.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

With respect to information disclosed in the "Quantitative and Qualitative Disclosures About Market Risk" section of our Annual Report on Form 10-K for the year ended December 31, 2018, more recent numerical measures and other information are available in the "Financial Statements" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of this Report. These more recent measures and information are incorporated herein by reference.

Item 4. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

As of June 30, 2019, Grace carried out an evaluation of the effectiveness of the design and operation of its disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon that evaluation, Grace's Principal Executive Officer and Principal Financial Officer concluded that Grace's disclosure controls and procedures are effective to ensure that information required to be disclosed in Grace's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that material information relating to Grace is made known to management, including Grace's Principal Executive Officer and Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in Grace's internal control over financial reporting during the quarter ended June 30, 2019, that have materially affected, or are reasonably likely to materially affect, Grace's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

Note 8 to the interim Consolidated Financial Statements in Part I of this Report is incorporated herein by reference.

Item 1A. RISK FACTORS

In addition to the other information set forth below and elsewhere in this Report, you should carefully consider the risk factors discussed in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2018, which could materially affect our business, financial condition or future results. The risks described in this Report and in our Annual Report on Form 10-K are not the only risks facing Grace. Additional risks and uncertainties not currently known to us, not currently estimable, or that we currently deem to be immaterial, also may materially adversely affect our business, financial condition or future results. With respect to certain risk factors discussed in our Annual Report on Form 10-K, more recent numerical measures and other information are available in the "Financial Statements" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of this Report, including, without limitation, Note 8 to the interim Consolidated Financial Statements in Part I of this Report. These more recent measures and information are incorporated herein by reference.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Share Repurchase Program

On February 8, 2017, we announced that our Board of Directors had authorized a share repurchase program of up to $250 million. Repurchases under the program may be made through one or more open market transactions at prevailing market prices; unsolicited or solicited privately negotiated transactions; accelerated share repurchase programs; or through any combination of the foregoing; or in such other manner as determined by management. The timing of the repurchases and the actual amount repurchased will depend on a variety of factors, including the market price of the Company's shares, strategic priorities for the deployment of capital, and general market and economic conditions.

The following table presents information regarding the repurchase of Company common stock by or on behalf of Grace or any "affiliated purchaser" of Grace during the three months ended June 30, 2019:

Period	Total number of shares purchased (#)	Average price paid per share ($/share)	Total number of shares purchased as part of publicly announced plans or programs (#)	Approximate dollar value of shares that may yet be purchased under the plans or programs ($ in millions)
4/1/2019 - 4/30/2019	28,445	77.02	28,445	131.9
5/1/2019 - 5/31/2019	233,920	73.39	233,920	114.8
6/1/2019 - 6/30/2019	77,544	72.36	77,544	109.1
Total	339,909	73.46	339,909	

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Item 4. MINE SAFETY DISCLOSURES

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104) is included in Exhibit 95 to this Report.

Item 6. EXHIBITS

In reviewing the agreements included as exhibits to this and other Reports filed by Grace with the Securities and Exchange Commission (the "SEC"), please remember they are included to provide you with information regarding their terms and are not intended to provide any other factual or disclosure information about Grace or other parties to the agreements. The agreements may contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the other parties to the applicable agreement. These representations and warranties:

- Are not statements of fact, but rather are used to allocate risk to one of the parties if the statements prove to be inaccurate;

- May have been qualified by disclosures that were made to the other parties in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement;

- May apply standards of materiality in a way that is different from what may be viewed as material to you or other investors; and

- Were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement and do not reflect more recent developments.

Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. Additional information about Grace may be found elsewhere in this report and Grace's other public filings, which are available without charge through the SEC's website at *http://www.sec.gov.*

The following is a list of Exhibits filed as part of this Quarterly Report on Form 10-Q:

Exhibit No.	Description of Exhibit	Location
3.1	Amended and Restated Certificate of Incorporation	Exhibit 3.01 to Form 8-K (filed 2/07/14) SEC File No.: 001-13953
3.2	Amended and Restated By-laws	Exhibit 3.01 to Form 8-K (filed 1/23/15) SEC File No.: 001-13953
31(i).1	Certification of Periodic Report by Principal Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
31(i).2	Certification of Periodic Report by Principal Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
32	Certification of Periodic Report by Principal Executive Officer and Principal Financial Officer under Section 906 of the Sarbanes-Oxley Act of 2002	Filed herewith
95	Mine Safety Disclosure Exhibit	Filed herewith
101.INS	Inline XBRL Instance Document	The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema	Filed herewith
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase	Filed herewith
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase	Filed herewith
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase	Filed herewith

Exhibit No.	Description of Exhibit	Location
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase	Filed herewith
104	Cover Page Interactive Data File (formatted as Inline XBRL and included in Exhibit 101)	Filed herewith

* Management contracts and compensatory plans, contracts or arrangements required to be filed as exhibits to this Report.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned thereunto duly authorized.

W R GRACE & CO
(Registrant)

Date: August 7, 2019	By:	/s/ HUDSON LA FORCE
		Hudson La Force *President and Chief Executive Officer* *(Principal Executive Officer)*
Date: August 7, 2019	By:	/s/ WILLIAM C. DOCKMAN
		William C. Dockman *Senior Vice President and Chief Financial Officer* *(Principal Financial Officer)*

EXHIBIT 31(i).1

CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Hudson La Force, certify that:

1. I have reviewed this quarterly report on Form 10-Q of W. R. Grace & Co.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2019

/s/ HUDSON LA FORCE

Hudson La Force
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31(i).2

**CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, William C. Dockman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of W. R. Grace & Co.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2019

/s/ WILLIAM C. DOCKMAN

William C. Dockman
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32

CERTIFICATION UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350), the undersigned certifies that (1) this Quarterly Report of W. R. Grace & Co. (the "Company") on Form 10-Q for the period ended June 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (this "Report"), fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and (2) the information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ HUDSON LA FORCE

Hudson La Force
President and Chief Executive Officer
(Principal Executive Officer)

/s/ WILLIAM C. DOCKMAN

William C. Dockman
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

Date: August 7, 2019

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 95

MINE SAFETY DISCLOSURES

The following table provides information about citations, orders and notices issued from the Mine Safety and Health Administration (the "MSHA") under the Federal Mine Safety and Health Act of 1977 (the "Mine Act") during the most recent fiscal quarter.

Mine	§104 S&S* Citations (#)	§104(b) Orders (#)	§104(d) Citations and Orders (#)	§110(b)(2) Violations (#)	§107(a) Orders (#)	Total Dollar Value of MSHA Assessments Proposed ($)	Total Number of Mining-Related Fatalities (#)	Received Written Notice of Pattern of S&S* Violations under §104(e) (yes/no)	Received Notice of Potential to have Pattern of S&S* Violations under §104(e) (yes/no)
Clay Mine Aiken, SC	—	—	—	—	—	242	—	No	No

* S&S refers to violations of mandatory health or safety standards that could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard under §104 of the Mine Act.

The following tables provide information about legal actions before the Federal Mine Safety and Health Review Commission (the "FMSHRC") during the most recent fiscal quarter.

Mine	Pending as of the end of most recent fiscal quarter (#)	Instituted during most recent fiscal quarter (#)	Resolved during most recent fiscal quarter (#)
Clay Mine Aiken, SC	—	—	—

With Respect to Legal Actions Pending as of the end of most recent fiscal quarter						
Mine	Contests of Citations and Orders per Subpart B* (#)	Contests of Proposed Penalties per Subpart C* (#)	Complaints for Compensation per Subpart D* (#)	Complaints of Discharge, Discrimination or Interference per Subpart E* (#)	Applications for Temporary Relief per Subpart F* (#)	Appeals of Judge's Decisions or Orders to the FMSHRC per Subpart H* (#)
Clay Mine Aiken, SC	—	—	—	—	—	—

* 29 CFR part 2700.