

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-Q**

(Mark One)

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

For the quarterly period ended **June 30, 2021**

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 **1-1070**



Olin Corporation

(Exact name of registrant as specified in its charter)

Virginia

(State or other jurisdiction of incorporation or organization)

13-1872319

(I.R.S. Employer Identification No.)

190 Carondelet Plaza, Suite 1530, Clayton, MO

(Address of principal executive offices)

63105

(Zip Code)

(314) 480-1400

(Registrant's telephone number, including area code)

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

Title of each class:

Trading symbol:

Name of each exchange on which registered:

Common Stock, \$1.00 par value per share

OLN

New York Stock Exchange

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

As of June 30, 2021, 160,462,045 shares of the registrant's common stock were outstanding.

TABLE OF CONTENTS FOR FORM 10-Q		Page
<u>Part I — Financial Information</u>		<u>3</u>
Item 1.	Financial Statements	3
	Condensed Balance Sheets	3
	Condensed Statements of Operations	4
	Condensed Statements of Comprehensive Income (Loss)	5
	Condensed Statements of Shareholders' Equity	6
	Condensed Statements of Cash Flows	7
	Notes to Condensed Financial Statements	8
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	29
	Business Background	29
	Executive Summary	30
	Consolidated Results of Operations	31
	Segment Results	33
	Outlook	36
	Environmental Matters	37
	Legal Matters and Contingencies	38
	Liquidity, Investment Activity and Other Financial Data	38
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	42
Item 4.	Controls and Procedures	43
	Cautionary Statement Regarding Forward-Looking Statements	44
<u>Part II — Other Information</u>		<u>46</u>
Item 1.	Legal Proceedings	46
Item 1A.	Risk Factors	46
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	46
Item 3.	Defaults Upon Senior Securities	46
Item 4.	Mine Safety Disclosures	46
Item 5.	Other Information	46
Item 6.	Exhibits	47
SIGNATURES		48

Part I — Financial Information
Item 1. Financial Statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Condensed Balance Sheets
(In millions, except per share data)
(Unaudited)

Assets	<i>June 30, 2021</i>	<i>December 31, 2020</i>	<i>June 30, 2020</i>
Current assets:			
Cash and cash equivalents	\$ 272.8	\$ 189.7	\$ 237.9
Receivables, net	1,033.7	770.9	700.2
Income taxes receivable	62.4	15.1	17.6
Inventories, net	736.5	674.7	619.1
Other current assets	112.7	66.7	42.0
Total current assets	2,218.1	1,717.1	1,616.8
Property, plant and equipment (less accumulated depreciation of \$3,893.8, \$3,719.8 and \$3,484.9)	3,005.6	3,171.0	3,234.9
Operating lease assets, net	370.7	360.7	371.8
Deferred income taxes	111.0	11.2	38.3
Other assets	1,165.9	1,191.3	1,179.7
Intangible assets, net	365.7	399.4	416.9
Goodwill	1,420.2	1,420.2	2,119.7
Total assets	\$ 8,657.2	\$ 8,270.9	\$ 8,978.1
Liabilities and Shareholders' Equity			
Current liabilities:			
Current installments of long-term debt	\$ 1.1	\$ 26.3	\$ 1.8
Accounts payable	806.3	729.2	520.8
Income taxes payable	35.1	10.7	7.7
Current operating lease liabilities	76.9	74.7	77.3
Accrued liabilities	426.3	358.0	318.7
Total current liabilities	1,345.7	1,198.9	926.3
Long-term debt	3,381.8	3,837.5	4,073.9
Operating lease liabilities	299.8	291.6	299.2
Accrued pension liability	683.2	733.3	768.0
Deferred income taxes	521.9	443.2	414.5
Other liabilities	350.1	315.6	307.3
Total liabilities	6,582.5	6,820.1	6,789.2
Commitments and contingencies			
Shareholders' equity:			
Common stock, \$1.00 par value per share: authorized, 240.0 shares; issued and outstanding, 160.5, 158.0 and 157.9 shares	160.5	158.0	157.9
Additional paid-in capital	2,187.9	2,137.8	2,127.0
Accumulated other comprehensive loss	(654.3)	(689.9)	(773.9)
Retained earnings (accumulated deficit)	380.6	(155.1)	677.9
Total shareholders' equity	2,074.7	1,450.8	2,188.9
Total liabilities and shareholders' equity	\$ 8,657.2	\$ 8,270.9	\$ 8,978.1

The accompanying notes to condensed financial statements are an integral part of the condensed financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Condensed Statements of Operations
(In millions, except per share data)
(Unaudited)

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
Sales	\$ 2,221.3	\$ 1,241.2	\$ 4,140.1	\$ 2,666.3
Operating expenses:				
Cost of goods sold	1,712.2	1,235.7	3,136.0	2,609.9
Selling and administration	100.6	99.7	207.5	196.4
Restructuring charges	14.0	1.7	20.9	3.4
Other operating income	0.5	0.1	0.5	0.1
Operating income (loss)	395.0	(95.8)	776.2	(143.3)
Interest expense	65.9	69.4	150.4	132.5
Interest income	—	0.2	0.1	0.3
Non-operating pension income	8.2	4.9	17.5	9.5
Income (loss) before taxes	337.3	(160.1)	643.4	(266.0)
Income tax (benefit) provision	(18.5)	(40.0)	44.0	(65.9)
Net income (loss)	\$ 355.8	\$ (120.1)	\$ 599.4	\$ (200.1)
Net income (loss) per common share:				
Basic	\$ 2.23	\$ (0.76)	\$ 3.77	\$ (1.27)
Diluted	\$ 2.17	\$ (0.76)	\$ 3.69	\$ (1.27)
Average common shares outstanding:				
Basic	159.9	157.9	159.2	157.8
Diluted	163.8	157.9	162.3	157.8

The accompanying notes to condensed financial statements are an integral part of the condensed financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Condensed Statements of Comprehensive Income (Loss)
(In millions)
(Unaudited)

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
Net income (loss)	\$ 355.8	\$ (120.1)	\$ 599.4	\$ (200.1)
Other comprehensive income, net of tax:				
Foreign currency translation adjustments, net	2.4	8.2	(9.0)	(0.8)
Unrealized gains on derivative contracts, net	16.3	30.0	23.3	12.1
Amortization of prior service costs and actuarial losses, net	10.7	9.0	21.3	18.2
Total other comprehensive income, net of tax	29.4	47.2	35.6	29.5
Comprehensive income (loss)	<u>\$ 385.2</u>	<u>\$ (72.9)</u>	<u>\$ 635.0</u>	<u>\$ (170.6)</u>

The accompanying notes to condensed financial statements are an integral part of the condensed financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Condensed Statements of Shareholders' Equity
(In millions, except per share data)
(Unaudited)

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
Common Stock				
Balance at beginning of period	\$ 159.2	\$ 157.8	\$ 158.0	\$ 157.7
Common stock issued for:				
Stock options exercised	1.2	—	2.4	—
Other transactions	0.1	0.1	0.1	0.2
Balance at end of period	<u>\$ 160.5</u>	<u>\$ 157.9</u>	<u>\$ 160.5</u>	<u>\$ 157.9</u>
Additional Paid-In Capital				
Balance at beginning of period	\$ 2,164.3	\$ 2,122.8	\$ 2,137.8	\$ 2,122.1
Common stock issued for:				
Stock options exercised	23.3	—	47.8	0.5
Other transactions	1.2	0.3	2.6	3.1
Stock-based compensation	(0.9)	3.9	(0.3)	1.3
Balance at end of period	<u>\$ 2,187.9</u>	<u>\$ 2,127.0</u>	<u>\$ 2,187.9</u>	<u>\$ 2,127.0</u>
Accumulated Other Comprehensive Loss				
Balance at beginning of period	\$ (683.7)	\$ (821.1)	\$ (689.9)	\$ (803.4)
Other comprehensive income	29.4	47.2	35.6	29.5
Balance at end of period	<u>\$ (654.3)</u>	<u>\$ (773.9)</u>	<u>\$ (654.3)</u>	<u>\$ (773.9)</u>
Retained Earnings (Accumulated Deficit)				
Balance at beginning of period	\$ 56.8	\$ 829.6	\$ (155.1)	\$ 941.1
Net income (loss)	355.8	(120.1)	599.4	(200.1)
Common stock dividends paid	(32.0)	(31.6)	(63.7)	(63.1)
Balance at end of period	<u>\$ 380.6</u>	<u>\$ 677.9</u>	<u>\$ 380.6</u>	<u>\$ 677.9</u>
Total Shareholders' Equity	<u>\$ 2,074.7</u>	<u>\$ 2,188.9</u>	<u>\$ 2,074.7</u>	<u>\$ 2,188.9</u>
Dividends declared per share of common stock	\$ 0.20	\$ 0.20	\$ 0.40	\$ 0.40

The accompanying notes to condensed financial statements are an integral part of the condensed financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Condensed Statements of Cash Flows
(In millions)
(Unaudited)

	<i>Six Months Ended June 30,</i>	
	2021	2020
Operating Activities		
Net income (loss)	\$ 599.4	\$ (200.1)
Adjustments to reconcile net income (loss) to net cash and cash equivalents provided by (used for) operating activities:		
Stock-based compensation	1.3	4.1
Loss on debt extinguishment	38.9	—
Depreciation and amortization	287.2	283.0
Deferred income taxes	(26.8)	(52.1)
Qualified pension plan contributions	(0.6)	(1.2)
Qualified pension plan income	(13.7)	(5.9)
Change in:		
Receivables	(274.5)	64.1
Income taxes receivable/payable	(22.6)	(15.8)
Inventories	(67.6)	75.7
Other current assets	12.0	(18.3)
Accounts payable and accrued liabilities	143.6	(74.9)
Other assets	(2.5)	0.6
Other noncurrent liabilities	32.2	(5.6)
Other operating activities	1.3	1.8
Net operating activities	<u>707.6</u>	<u>55.4</u>
Investing Activities		
Capital expenditures	(86.4)	(166.5)
Payments under ethylene long-term supply contracts	—	(461.0)
Payments under other long-term supply contracts	—	(75.8)
Net investing activities	<u>(86.4)</u>	<u>(703.3)</u>
Financing Activities		
Long-term debt:		
Borrowings	365.0	1,163.2
Repayments	(855.2)	(425.8)
Debt early redemption premiums	(31.0)	—
Stock options exercised	50.2	0.5
Dividends paid	(63.7)	(63.1)
Debt issuance costs	(3.1)	(9.6)
Net financing activities	<u>(537.8)</u>	<u>665.2</u>
Effect of exchange rate changes on cash and cash equivalents	(0.3)	(0.3)
Net increase in cash and cash equivalents	83.1	17.0
Cash and cash equivalents, beginning of year	189.7	220.9
Cash and cash equivalents, end of period	<u>\$ 272.8</u>	<u>\$ 237.9</u>
Cash paid for interest and income taxes:		
Interest, net	<u>\$ 153.5</u>	<u>\$ 122.3</u>
Income taxes, net of refunds	<u>\$ 82.6</u>	<u>\$ 3.1</u>
Non-cash investing activities:		
Decrease in capital expenditures included in accounts payable and accrued liabilities	<u>\$ 26.1</u>	<u>\$ 38.6</u>

The accompanying notes to condensed financial statements are an integral part of the condensed financial statements.

OLIN CORPORATION AND CONSOLIDATED SUBSIDIARIES
Notes to Condensed Financial Statements
(Unaudited)

NOTE 1. DESCRIPTION OF BUSINESS

Olin Corporation (Olin) is a Virginia corporation, incorporated in 1892, having its principal executive offices in Clayton, MO. We are a manufacturer concentrated in three business segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. The Chlor Alkali Products and Vinyls segment manufactures and sells chlorine and caustic soda, ethylene dichloride (EDC) and vinyl chloride monomer, methyl chloride, methylene chloride, chloroform, carbon tetrachloride, perchloroethylene, trichloroethylene, hydrochloric acid, hydrogen, bleach products and potassium hydroxide. The Epoxy segment produces and sells a full range of epoxy materials and precursors, including aromatics (acetone, bisphenol, cumene and phenol), allyl chloride, epichlorohydrin, liquid epoxy resins, solid epoxy resins and downstream products such as converted epoxy resins and additives. The Winchester segment produces and sells sporting ammunition, reloading components, small caliber military ammunition and components, and industrial cartridges.

We have prepared the condensed financial statements included herein, without audit, pursuant to the rules and regulations of the United States (U.S.) Securities and Exchange Commission (SEC). The preparation of the financial statements requires estimates and assumptions that affect amounts reported and disclosed in the financial statements and related notes. In our opinion, these financial statements reflect all adjustments (consisting only of normal accruals), which are necessary to present fairly the results for interim periods. Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations; however, we believe that the disclosures are appropriate. We recommend that you read these condensed financial statements in conjunction with the financial statements, accounting policies and the notes thereto and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2020. Certain reclassifications were made to prior year amounts to conform to the 2021 presentation.

NOTE 2. RECENT ACCOUNTING PRONOUNCEMENTS

In March 2020, the Financial Accounting Standards Board issued Accounting Standards Update (ASU) 2020-04, "Facilitation of the Effects of Reference Rate Reform on Financial Reporting" (ASU 2020-04) which creates a new topic, Accounting Standards Codification (ASC) 848 "Reference Rate Reform." Subsequent to the issuance of ASU 2020-04, ASC 848 was amended by ASU 2021-01, "Scope" which amended and clarified the application and scope of the aforementioned update. This update provides optional guidance to ease the potential accounting burden associated with transition away from reference rates that are expected to be discontinued at the end of 2021, at which time financial institutions will no longer be required to report information that is currently used to determine the London Interbank Offered Rate (LIBOR) and other reference rates. This update allows companies to treat contract amendments to existing contracts for the purpose of establishing a new reference rate as continuations of those contracts without additional analysis, as long as the modification was made to establish a new reference rate. This update applies prospectively to contract modifications. The optional guidance was effective on March 12, 2020 and can be adopted beginning January 1, 2020 or any date thereafter until December 31, 2022, at which time the optional guidance can no longer be applied to contract amendments to existing contracts. We adopted the provisions of this update on January 1, 2020 and will apply this guidance prospectively to contract modifications that are entered into for the purpose of establishing a new reference rate. The adoption of this update did not have a material impact on our consolidated financial statements.

NOTE 3. RESTRUCTURING CHARGES

Olin committed to a productivity initiative to align the organization with our new operating model and improve efficiencies (collectively, Productivity Plan). These actions and related activities were completed during the second quarter of 2021. For both the three and six months ended June 30, 2021, we recorded pretax restructuring charges of \$10.1 million for employee severance and related benefit costs related to these actions. We do not expect to incur additional restructuring charges related to these actions.

On May 18, 2021, we announced that we had made the decision to permanently close approximately 20% of our diaphragm-grade chlor alkali capacity, representing 225,000 tons, at our Plaquemine, LA facility (Plaquemine Plan). The closure was completed in the second quarter of 2021. We expect to incur restructuring charges through 2022 of approximately \$2 million related to this action.

On March 15, 2021, we announced that we had made the decision to permanently close approximately 50% of our diaphragm-grade chlor alkali capacity, representing 200,000 tons, at our McIntosh, AL facility (McIntosh Plan). The closure was completed in the first quarter of 2021. For the three and six months ended June 30, 2021, we recorded pretax restructuring charges of \$0.4 million and \$4.8 million, respectively, for lease and other contract termination costs related to this action. We expect to incur additional restructuring charges through 2022 of approximately \$2 million related to this action.

On January 18, 2021, we announced that we had made the decision to permanently close our trichloroethylene and anhydrous hydrogen chloride liquefaction facilities in Freeport, TX (collectively, Freeport 2021 Plan), before the end of 2021. For the three and six months ended June 30, 2021, we recorded pretax restructuring charges of \$2.8 million and \$4.1 million, respectively, for facility exit costs related to these actions. We expect to incur additional restructuring charges through 2023 of approximately \$25 million related to these actions.

On December 11, 2019, we announced that we had made the decision to permanently close a chlor alkali plant with a capacity of 230,000 tons and our vinylidene chloride (VDC) production facility, both in Freeport, TX (collectively, Freeport 2019 Plan). The VDC facility and related chlor alkali plant were closed during fourth quarter of 2020 and second quarter of 2021, respectively. For the three months ended June 30, 2021 and 2020, we recorded pretax restructuring charges of \$0.4 million and \$0.5 million, respectively, for facility exit costs related to these actions. For the six months ended June 30, 2021 and 2020, we recorded pretax restructuring charges of \$1.2 million and \$0.5 million, respectively, for facility exit costs related to these actions. We expect to incur additional restructuring charges through 2025 of approximately \$45 million related to these actions.

On March 21, 2016, we announced that we had made the decision to close a combined total of 433,000 tons of chlor alkali capacity across three separate locations (collectively, Chlor Alkali 2016 Plan). Associated with this action, we have permanently closed our Henderson, NV chlor alkali plant with 153,000 tons of capacity and have reconfigured the site to manufacture bleach and distribute caustic soda and hydrochloric acid. Also, the capacity of our Niagara Falls, NY chlor alkali plant has been reduced from 300,000 tons to 240,000 tons and the chlor alkali capacity at our Freeport, TX facility was reduced by 220,000 tons. This 220,000 ton reduction was entirely from diaphragm cell capacity. For the three months ended June 30, 2021 and 2020, we recorded pretax restructuring charges of \$0.3 million and \$1.2 million, respectively, for facility exit costs and lease and other contract termination costs related to these actions. For the six months ended June 30, 2021 and 2020, we recorded pretax restructuring charges of \$0.7 million and \$2.9 million, respectively, for facility exit costs, employee severance and related benefit costs and lease and other contract termination costs related to these actions. We expect to incur additional restructuring charges through 2021 of approximately \$2 million related to these capacity reductions.

The following table summarizes the 2021 and 2020 activities by major component of these restructuring actions and the remaining balances of accrued restructuring costs as of June 30, 2021 and 2020:

	<i>Employee severance and related benefit costs</i>	<i>Lease and other contract termination costs</i>	<i>Facility exit costs</i>	<i>Total</i>
	<i>(\$ in millions)</i>			
Balance at January 1, 2020	\$ —	\$ 3.1	\$ —	\$ 3.1
Restructuring charges:				
First quarter	0.1	0.1	1.5	1.7
Second quarter	—	—	1.7	1.7
Amounts utilized	(0.1)	(0.6)	(3.2)	(3.9)
Balance at June 30, 2020	<u>\$ —</u>	<u>\$ 2.6</u>	<u>\$ —</u>	<u>\$ 2.6</u>
Balance at January 1, 2021	\$ 1.8	\$ 1.7	\$ —	\$ 3.5
Restructuring charges:				
First quarter	—	4.6	2.3	6.9
Second quarter	10.1	0.5	3.4	14.0
Amounts utilized	(1.3)	(0.7)	(5.7)	(7.7)
Balance at June 30, 2021	<u>\$ 10.6</u>	<u>\$ 6.1</u>	<u>\$ —</u>	<u>\$ 16.7</u>

The following table summarizes the cumulative restructuring charges of these restructuring actions by major component through June 30, 2021:

	<i>Chlor Alkali Products and Vinyls</i>					<i>Corporate/other</i>	<i>Total</i>
	<i>Plaquemine Plan</i>	<i>McIntosh Plan</i>	<i>Freeport 2021 Plan</i>	<i>Freeport 2019 Plan</i>	<i>Chlor Alkali 2016 Plan</i>	<i>Productivity Plan</i>	
	<i>(\$ in millions)</i>						
Write-off of equipment and facility	\$ —	\$ —	\$ —	\$ 58.9	\$ 78.1	\$ —	\$ 137.0
Employee severance and related benefit costs	—	—	—	2.1	6.7	10.1	18.9
Facility exit costs	—	—	4.1	2.9	52.4	—	59.4
Employee relocation costs	—	—	—	—	1.7	—	1.7
Lease and other contract termination costs	—	4.8	—	—	42.5	—	47.3
Total cumulative restructuring charges	\$ —	\$ 4.8	\$ 4.1	\$ 63.9	\$ 181.4	\$ 10.1	\$ 264.3

As of June 30, 2021, we have incurred cash expenditures of \$110.2 million and non-cash charges of \$137.4 million related to these restructuring actions. The remaining balance of \$16.7 million is expected to be paid out through 2031.

NOTE 4. ACCOUNTS RECEIVABLES

We maintain a \$250.0 million Receivables Financing Agreement (Receivables Financing Agreement) that is scheduled to mature on July 15, 2022. The Receivables Financing Agreement includes a minimum borrowing requirement of 50% of the facility limit or available borrowing capacity, whichever is less. The administrative agent for our Receivables Financing Agreement is PNC Bank, National Association. Under the Receivables Financing Agreement, our eligible trade receivables are used for collateralized borrowings and continue to be serviced by us. In addition, the Receivables Financing Agreement incorporates the secured leverage covenant that is contained in the \$1,615.0 million senior secured credit facility. As of June 30, 2021, \$457.9 million of our trade receivables were pledged as collateral. As of June 30, 2021, we had \$125.0 million drawn with \$125.0 million of additional borrowing capacity available under the Receivables Financing Agreement. As of December 31, 2020 and June 30, 2020, we had \$125.0 million and \$240.7 million, respectively, drawn under the Receivables Financing Agreement.

Olin also has trade accounts receivable factoring arrangements (AR Facilities) and pursuant to the terms of the AR Facilities, certain of our domestic subsidiaries may sell their accounts receivable up to a maximum of \$228.0 million and certain of our foreign subsidiaries may sell their accounts receivable up to a maximum of €35.3 million. We will continue to service the outstanding accounts sold. These receivables qualify for sales treatment under ASC 860 "Transfers and Servicing" and, accordingly, the proceeds are included in net cash provided by operating activities in the condensed statements of cash flows. The following table summarizes the AR Facilities activity:

	<i>June 30,</i>	
	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions)</i>	
Balance at beginning of year	\$ 48.8	\$ 63.1
Gross receivables sold	487.3	457.5
Payments received from customers on sold accounts	(450.4)	(458.9)
Balance at end of period	\$ 85.7	\$ 61.7

The factoring discount paid under the AR Facilities is recorded as interest expense on the condensed statements of operations. The factoring discount was \$0.3 million and \$0.4 million for the three months ended June 30, 2021 and 2020, respectively, and \$0.7 million and \$1.0 million for the six months ended June 30, 2021 and 2020, respectively. The agreements are without recourse and therefore no recourse liability had been recorded as of June 30, 2021, December 31, 2020 or June 30, 2020.

Our condensed balance sheets included an allowance for doubtful accounts receivables of \$12.4 million, \$12.3 million and \$12.5 million and other receivables of \$72.8 million, \$62.4 million and \$87.7 million at June 30, 2021, December 31, 2020 and June 30, 2020, respectively, which were included in receivables, net.

NOTE 5. INVENTORIES

Inventories consisted of the following:

	<i>June 30, 2021</i>	<i>December 31, 2020</i>	<i>June 30, 2020</i>
	<i>(\$ in millions)</i>		
Supplies	\$ 115.0	\$ 113.8	\$ 111.6
Raw materials	145.1	116.3	64.6
Work in process	145.1	133.2	94.0
Finished goods	420.9	359.6	392.7
Inventories excluding LIFO reserve	826.1	722.9	662.9
LIFO reserve	(89.6)	(48.2)	(43.8)
Inventories, net	<u>\$ 736.5</u>	<u>\$ 674.7</u>	<u>\$ 619.1</u>

Inventories are valued at the lower of cost and net realizable value. For U.S. inventories, inventory costs are determined principally by the last-in, first-out (LIFO) method of inventory accounting while for international inventories, inventory costs are determined principally by the first-in, first-out (FIFO) method of inventory accounting. Cost for other inventories has been determined principally by the average-cost method (primarily operating supplies, spare parts and maintenance parts). Elements of costs in inventories included raw materials, direct labor and manufacturing overhead. Inventories under the LIFO method are based on annual estimates of quantities and costs as of year-end; therefore, the condensed financial statements at June 30, 2021 reflect certain estimates relating to inventory quantities and costs at December 31, 2021. The replacement cost of our inventories would have been approximately \$89.6 million, \$48.2 million and \$43.8 million higher than reported at June 30, 2021, December 31, 2020 and June 30, 2020, respectively.

NOTE 6. OTHER ASSETS

Included in other assets were the following:

	<i>June 30, 2021</i>	<i>December 31, 2020</i>	<i>June 30, 2020</i>
	<i>(\$ in millions)</i>		
Supply contracts	\$ 1,091.0	\$ 1,122.9	\$ 1,137.9
Other	74.9	68.4	41.8
Other assets	<u>\$ 1,165.9</u>	<u>\$ 1,191.3</u>	<u>\$ 1,179.7</u>

We have entered into various arrangements for the long-term supply of ethylene and electricity. A payment of \$461.0 million was made during the second quarter of 2020 associated with a previously executed option to reserve additional ethylene at producer economics from The Dow Chemical Company (Dow). The original liability was discounted and recorded at present value as of March 31, 2017. For the six months ended June 30, 2020, \$4.0 million of interest expense was recorded for accretion on the 2020 payment liability discount.

During the six months ended June 30, 2020, a payment of \$75.8 million was made associated with the resolution of a dispute over the allocation to Olin of certain capital costs incurred at our Plaquemine, LA site after the October 5, 2015 closing date of the acquisition from Dow.

Amortization expense of \$17.3 million and \$11.0 million for the three months ended June 30, 2021 and 2020, respectively, and amortization expense of \$34.8 million and \$33.3 million for the six months ended June 30, 2021 and 2020, respectively, was recognized within cost of goods sold related to our long-term supply contracts and is reflected in depreciation and amortization on the condensed statements of cash flows. The long-term supply contracts are monitored for impairment each reporting period.

NOTE 7. GOODWILL AND INTANGIBLE ASSETS

Changes in the carrying value of goodwill were as follows:

	<i>Chlor Alkali Products and Vinyls</i>	<i>Epoxy</i>	<i>Total</i>
	(\$ in millions)		
Balance at January 1, 2020	\$ 1,832.7	\$ 287.0	\$ 2,119.7
Foreign currency translation adjustment	—	—	—
Balance at June 30, 2020	<u>\$ 1,832.7</u>	<u>\$ 287.0</u>	<u>\$ 2,119.7</u>
Balance at January 1, 2021⁽¹⁾	\$ 1,275.3	\$ 144.9	\$ 1,420.2
Foreign currency translation adjustment	—	—	—
Balance at June 30, 2021⁽¹⁾	<u>\$ 1,275.3</u>	<u>\$ 144.9</u>	<u>\$ 1,420.2</u>

(1) The Chlor Alkali Products and Vinyls, Epoxy and total goodwill balances are net of \$557.6 million, \$142.2 million and \$699.8 million of accumulated impairment losses recorded during the third quarter of 2020.

Intangible assets consisted of the following:

	<i>June 30, 2021</i>			<i>December 31, 2020</i>			<i>June 30, 2020</i>		
	<i>Gross Amount</i>	<i>Accumulated Amortization</i>	<i>Net</i>	<i>Gross Amount</i>	<i>Accumulated Amortization</i>	<i>Net</i>	<i>Gross Amount</i>	<i>Accumulated Amortization</i>	<i>Net</i>
	(\$ in millions)								
Customers, customer contracts and relationships	\$ 678.2	\$ (336.3)	\$ 341.9	\$ 681.0	\$ (312.5)	\$ 368.5	\$ 673.3	\$ (285.3)	\$ 388.0
Trade name	—	—	—	—	—	—	7.0	(6.7)	0.3
Acquired technology	94.5	(71.9)	22.6	95.0	(65.3)	29.7	85.1	(57.7)	27.4
Other	1.8	(0.6)	1.2	1.8	(0.6)	1.2	1.8	(0.6)	1.2
Total intangible assets	<u>\$ 774.5</u>	<u>\$ (408.8)</u>	<u>\$ 365.7</u>	<u>\$ 777.8</u>	<u>\$ (378.4)</u>	<u>\$ 399.4</u>	<u>\$ 767.2</u>	<u>\$ (350.3)</u>	<u>\$ 416.9</u>

NOTE 8. EARNINGS PER SHARE

Basic and diluted net income (loss) per share are computed by dividing net income (loss) by the weighted-average number of common shares outstanding. Diluted net income (loss) per share reflects the dilutive effect of stock-based compensation.

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
<i>(In millions, except per share data)</i>				
Computation of Net Income (Loss) per Share				
Net income (loss)	\$ 355.8	\$ (120.1)	\$ 599.4	\$ (200.1)
Basic shares	159.9	157.9	159.2	157.8
Basic net income (loss) per share	\$ 2.23	\$ (0.76)	\$ 3.77	\$ (1.27)
Diluted shares:				
Basic shares	159.9	157.9	159.2	157.8
Stock-based compensation	3.9	—	3.1	—
Diluted shares	163.8	157.9	162.3	157.8
Diluted net income (loss) per share	\$ 2.17	\$ (0.76)	\$ 3.69	\$ (1.27)

The computation of dilutive shares does not include less than 0.1 million and 10.3 million shares for the three months ended June 30, 2021 and 2020, respectively, and 1.1 million and 10.3 million shares for the six months ended June 30, 2021 and 2020, respectively, as their effect would have been anti-dilutive.

NOTE 9. ENVIRONMENTAL

We are party to various government and private environmental actions associated with past manufacturing facilities and former waste disposal sites. Environmental provisions charged to income, which are included in costs of goods sold, were as follows:

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
<i>(\$ in millions)</i>				
Provisions charged to income	\$ 4.7	\$ 2.8	\$ 7.2	\$ 5.4
Recoveries for costs incurred and expensed	—	—	(2.2)	—
Environmental expense	\$ 4.7	\$ 2.8	\$ 5.0	\$ 5.4

Environmental expense for the six months ended June 30, 2021 includes \$2.2 million of insurance recoveries for environmental costs incurred and expensed in prior periods. The condensed balance sheets included reserves for future environmental expenditures to investigate and remediate known sites amounting to \$148.4 million, \$147.2 million and \$138.6 million at June 30, 2021, December 31, 2020 and June 30, 2020, respectively, of which \$129.4 million, \$128.2 million and \$121.6 million, respectively, were classified as other noncurrent liabilities.

Environmental exposures are difficult to assess for numerous reasons, including the identification of new sites, developments at sites resulting from investigatory studies, advances in technology, changes in environmental laws and regulations and their application, changes in regulatory authorities, the scarcity of reliable data pertaining to identified sites, the difficulty in assessing the involvement and financial capability of other Potentially Responsible Parties (PRPs), our ability to obtain contributions from other parties and the lengthy time periods over which site remediation occurs. It is possible that some of these matters (the outcomes of which are subject to various uncertainties) may be resolved unfavorably to us, which could materially adversely affect our financial position or results of operations.

NOTE 10. COMMITMENTS AND CONTINGENCIES

Olin, K.A. Steel Chemicals (a wholly owned subsidiary of Olin) and other caustic soda producers were named as defendants in six purported class action civil lawsuits filed March 22, 25 and 26, 2019 and April 12, 2019 in the U.S. District Court for the Western District of New York on behalf of the respective named plaintiffs and a putative class comprised of all persons and entities who purchased caustic soda in the U.S. directly from one or more of the defendants, their parents, predecessors, subsidiaries or affiliates at any time on or after October 1, 2015. Olin, K.A. Steel Chemicals and other caustic soda producers were also named as defendants in two purported class action civil lawsuits filed July 25 and 29, 2019 in the U.S. District Court for the Western District of New York on behalf of the respective named plaintiffs and a putative class comprised of all persons and entities who purchased caustic soda in the U.S. indirectly from distributors at any time on or after October 1, 2015. The other current defendants in the lawsuits are Occidental Chemical Corporation d/b/a OxyChem, Westlake Chemical Corporation, Shin-Etsu Chemical Co., Ltd., and Formosa Plastics Corporation, U.S.A. The lawsuits allege the defendants conspired to fix, raise, maintain and stabilize the price of caustic soda, restrict domestic (U.S.) supply of caustic soda and allocate caustic soda customers. Plaintiffs seek an unspecified amount of damages and injunctive relief.

Olin, K.A. Steel Chemical, Olin Canada ULC, 3229897 Nova Scotia Co. (wholly owned subsidiaries of Olin) and other alleged caustic soda producers were named as defendants in a proposed class action civil lawsuit filed on October 7, 2020 in the Quebec Superior Court (Province of Quebec) on behalf of the respective named plaintiff and a putative class comprised of all Canadian persons and entities who, between October 1, 2015 and the date of the eventual class action certification, directly or indirectly purchased caustic soda or products containing caustic soda, produced by one or more of the defendants. Olin, K.A. Steel Chemical, Olin Canada ULC, 3229897 Nova Scotia Co. and other alleged caustic soda producers were also named as defendants in a proposed class action civil lawsuit filed November 13, 2020 in the Federal Court of Canada on behalf of the respective named plaintiff and a putative class comprised of all legal persons in Canada who, at any time on or after October 1, 2015 to the present, directly or indirectly purchased caustic soda. The other defendants named in the two Canadian lawsuits are Occidental Petroleum Corporation, Occidental Chemical Corporation, Oxy Canada Sales, Inc., Westlake Chemical Corporation, Axiall Canada, Inc., Shin-Etsu Chemical Co., Ltd., Shintech Incorporated, Formosa Plastics Corporation, and Formosa Plastics Corporation, U.S.A. The lawsuits allege the defendants conspired to fix, raise, maintain control, and stabilize the price of caustic soda, divide and allocate markets, sales, customers and territories, fix, maintain, control, prevent, restrict, lessen or eliminate production and supply of caustic soda, and agree to idle capacity of production and/or refrain from increasing their production capacity. Plaintiffs seek an unspecified amount of damages, including punitive damages.

We believe we have meritorious legal positions and will continue to represent our interests vigorously in this matter. Any losses related to this matter are not currently estimable because of unresolved questions of fact and law, but if resolved unfavorably to Olin, could have a material adverse effect on our financial position, cash flows or results of operations.

We, and our subsidiaries, are defendants in various other legal actions (including proceedings based on alleged exposures to asbestos) incidental to our past and current business activities. As of June 30, 2021, December 31, 2020 and June 30, 2020, our condensed balance sheets included accrued liabilities for these other legal actions of \$12.9 million, \$13.5 million and \$12.4 million, respectively. These liabilities do not include costs associated with legal representation. Based on our analysis, and considering the inherent uncertainties associated with litigation, we do not believe that it is reasonably possible that these other legal actions will materially adversely affect our financial position, cash flows or results of operations.

During the ordinary course of our business, contingencies arise resulting from an existing condition, situation or set of circumstances involving an uncertainty as to the realization of a possible gain contingency. In certain instances such as environmental projects, we are responsible for managing the cleanup and remediation of an environmental site. There exists the possibility of recovering a portion of these costs from other parties. We account for gain contingencies in accordance with the provisions of ASC 450 "Contingencies" and, therefore, do not record gain contingencies and recognize income until it is earned and realizable.

NOTE 11. SHAREHOLDERS' EQUITY

On April 26, 2018, our board of directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to \$500.0 million. This program will terminate upon the purchase of \$500.0 million of our common stock.

There were no shares repurchased for both the three and six months ended June 30, 2021 and 2020. As of June 30, 2021, we had repurchased a total of \$195.9 million of our common stock, representing 10.1 million shares, and \$304.1 million of common stock remained authorized to be repurchased.

We issued 2.4 million and less than 0.1 million shares representing stock options exercised for the six months ended June 30, 2021 and 2020, respectively, with a total value of \$50.2 million and \$0.5 million, respectively.

The following table represents the activity included in accumulated other comprehensive loss:

	<i>Foreign Currency Translation Adjustment (net of taxes)</i>	<i>Unrealized (Losses) Gains on Derivative Contracts (net of taxes)</i>	<i>Pension and Other Postretirement Benefits (net of taxes)</i>	<i>Accumulated Other Comprehensive Loss</i>
	(\$ in millions)			
Balance at January 1, 2020	\$ (8.4)	\$ (13.6)	\$ (781.4)	\$ (803.4)
Unrealized (losses) gains:				
First quarter	(9.0)	(35.1)	—	(44.1)
Second quarter	8.2	29.9	—	38.1
Reclassification adjustments of losses into income:				
First quarter	—	11.6	11.9	23.5
Second quarter	—	9.3	11.6	20.9
Tax benefit (provision):				
First quarter	—	5.6	(2.7)	2.9
Second quarter	—	(9.2)	(2.6)	(11.8)
Net change	(0.8)	12.1	18.2	29.5
Balance at June 30, 2020	<u>\$ (9.2)</u>	<u>\$ (1.5)</u>	<u>\$ (763.2)</u>	<u>\$ (773.9)</u>
Balance at January 1, 2021	<u>\$ 19.4</u>	<u>\$ 21.4</u>	<u>\$ (730.7)</u>	<u>\$ (689.9)</u>
Unrealized (losses) gains:				
First quarter	(11.4)	122.0	—	110.6
Second quarter	2.4	41.8	—	44.2
Reclassification adjustments of (gains) losses into income:				
First quarter	—	(112.8)	13.7	(99.1)
Second quarter	—	(20.4)	13.7	(6.7)
Tax provision:				
First quarter	—	(2.2)	(3.1)	(5.3)
Second quarter	—	(5.1)	(3.0)	(8.1)
Net change	(9.0)	23.3	21.3	35.6
Balance at June 30, 2021	<u>\$ 10.4</u>	<u>\$ 44.7</u>	<u>\$ (709.4)</u>	<u>\$ (654.3)</u>

Net income (loss) and cost of goods sold included reclassification adjustments for realized gains and losses on derivative contracts from accumulated other comprehensive loss.

Net income (loss) and non-operating pension income included the amortization of prior service costs and actuarial losses from accumulated other comprehensive loss.

NOTE 12. SEGMENT INFORMATION

We define segment results as income (loss) before interest expense, interest income, goodwill impairment charges, other operating income (expense), non-operating pension income, other income and income taxes. We have three operating segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. The three operating segments reflect the organization used by our management for purposes of allocating resources and assessing performance. Chlorine used in our Epoxy segment is transferred at cost from the Chlor Alkali Products and Vinyls segment. Sales and profits are recognized in the Chlor Alkali Products and Vinyls segment for all caustic soda generated and sold by Olin. Sales are attributed to geographic areas based on customer location.

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
Sales:	<i>(\$ in millions)</i>			
Chlor Alkali Products and Vinyls	\$ 967.3	\$ 651.2	\$ 1,834.3	\$ 1,411.1
Epoxy	850.0	397.4	1,512.6	874.6
Winchester	404.0	192.6	793.2	380.6
Total sales	<u>\$ 2,221.3</u>	<u>\$ 1,241.2</u>	<u>\$ 4,140.1</u>	<u>\$ 2,666.3</u>
Income (loss) before taxes:				
Chlor Alkali Products and Vinyls	\$ 168.9	\$ (57.0)	\$ 440.0	\$ (91.3)
Epoxy	165.3	(13.0)	230.5	(1.3)
Winchester	109.9	16.0	195.0	26.5
Corporate/other:				
Environmental expense	(4.7)	(2.8)	(5.0)	(5.4)
Other corporate and unallocated costs	(30.9)	(37.4)	(63.9)	(68.5)
Restructuring charges	(14.0)	(1.7)	(20.9)	(3.4)
Other operating income	0.5	0.1	0.5	0.1
Interest expense	(65.9)	(69.4)	(150.4)	(132.5)
Interest income	—	0.2	0.1	0.3
Non-operating pension income	8.2	4.9	17.5	9.5
Income (loss) before taxes	<u>\$ 337.3</u>	<u>\$ (160.1)</u>	<u>\$ 643.4</u>	<u>\$ (266.0)</u>

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
<i>(\$ in millions)</i>				
Sales by geography:				
Chlor Alkali Products and Vinyls				
United States	\$ 713.6	\$ 450.3	\$ 1,290.6	\$ 984.2
Europe	39.4	26.8	68.9	57.0
Other foreign	214.3	174.1	474.8	369.9
Total Chlor Alkali Products and Vinyls	967.3	651.2	1,834.3	1,411.1
Epoxy				
United States	253.6	122.5	411.9	281.3
Europe	403.8	140.4	723.8	334.8
Other foreign	192.6	134.5	376.9	258.5
Total Epoxy	850.0	397.4	1,512.6	874.6
Winchester				
United States	373.6	178.6	738.6	352.7
Europe	6.3	2.3	10.1	4.8
Other foreign	24.1	11.7	44.5	23.1
Total Winchester	404.0	192.6	793.2	380.6
Total				
United States	1,340.8	751.4	2,441.1	1,618.2
Europe	449.5	169.5	802.8	396.6
Other foreign	431.0	320.3	896.2	651.5
Total sales	\$ 2,221.3	\$ 1,241.2	\$ 4,140.1	\$ 2,666.3

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
<i>(\$ in millions)</i>				
Sales by product line:				
Chlor Alkali Products and Vinyls				
Caustic soda	\$ 400.8	\$ 320.2	\$ 747.8	\$ 680.4
Chlorine, chlorine-derivatives and other co-products	566.5	331.0	1,086.5	730.7
Total Chlor Alkali Products and Vinyls	967.3	651.2	1,834.3	1,411.1
Epoxy				
Aromatics and allylics	366.5	167.0	678.5	384.4
Epoxy resins	483.5	230.4	834.1	490.2
Total Epoxy	850.0	397.4	1,512.6	874.6
Winchester				
Commercial	281.5	135.6	542.5	262.7
Military and law enforcement	122.5	57.0	250.7	117.9
Total Winchester	404.0	192.6	793.2	380.6
Total sales	\$ 2,221.3	\$ 1,241.2	\$ 4,140.1	\$ 2,666.3

NOTE 13. STOCK-BASED COMPENSATION

Stock-based compensation granted includes stock options, performance stock awards, restricted stock awards and deferred directors' compensation. Stock-based compensation expense was as follows:

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions)</i>			
Stock-based compensation	\$ 7.2	\$ 4.3	\$ 11.9	\$ 6.3
Mark-to-market adjustments	6.0	(0.1)	14.1	(3.1)
Total expense	\$ 13.2	\$ 4.2	\$ 26.0	\$ 3.2

The fair value of each stock option granted, which typically vests ratably over three years, but not less than one year, was estimated on the date of grant, using the Black-Scholes option-pricing model with the following weighted-average assumptions:

<i>Grant date</i>	<i>2021</i>
Dividend yield	2.76 %
Risk-free interest rate	0.94 %
Expected volatility of Olin common stock	44 %
Expected life (years)	7.0
Weighted-average grant fair value (per option)	\$ 9.91
Weighted-average exercise price	\$ 28.99
Options granted	1,094,700

Dividend yield was based on our current dividend yield as of the option grant date. Risk-free interest rate was based on zero coupon U.S. Treasury securities rates for the expected life of the options. Expected volatility of Olin common stock was based on our historical stock price movements, as we believe that historical experience is the best available indicator of the expected volatility. Expected life of the option grant was based on historical exercise and cancellation patterns, as we believe that historical experience is the best estimate of future exercise patterns.

Performance share awards are denominated in shares of our stock and are paid half in cash and half in stock. Payouts for performance share awards are based on two criteria: (1) 50% of the award is based on Olin's total shareholder returns (TSR) over the applicable three-year performance cycle in relation to the TSR over the same period among a portfolio of public companies which are selected in concert with outside compensation consultants and (2) 50% of the award is based on Olin's net income over the applicable three-year performance cycle in relation to the net income goal for such period as set by the compensation committee of Olin's board of directors. The expense associated with performance shares is recorded based on our estimate of our performance relative to the respective target. The fair value of each performance stock award based on net income was estimated on the date of grant, using the current stock price. The fair value of each performance stock award based on TSR was estimated on the date of grant, using a Monte Carlo simulation model with the following weighted average assumptions:

<i>Grant date</i>	<i>2021</i>
Risk-free interest rate	0.23 %
Expected volatility of Olin common stock	55 %
Expected average volatility of peer companies	50 %
Average correlation coefficient of peer companies	0.50
Expected life (years)	3.0
Grant date fair value (TSR based award)	\$ 39.96
Grant date fair value (net income based award)	\$ 28.99
Awards granted	248,700

Risk-free interest rate was based on zero coupon U.S. Treasury securities rates for the expected life of the performance stock awards. Expected volatility of Olin common stock and peer companies was based on historical stock price movements, as

we believe that historical experience is the best available indicator of the expected volatility. The average correlation coefficient of peer companies was determined based on historical trends of Olin's common stock price compared to the peer companies. Expected life of the performance stock award grant was based on historical exercise and cancellation patterns, as we believe that historical experience is the best estimate of future exercise patterns.

NOTE 14. DEBT

During 2021, activity of our debt outstanding included:

<i>Debt Instrument</i>	<i>Long-term Debt Borrowings (Repayments)</i>		<i>Loss on Debt Extinguishment⁽¹⁾</i>	
	<i>Six Months Ended June 30, 2021</i>		<i>Three Months Ended June 30, 2021</i>	<i>Six Months Ended June 30, 2021</i>
	<i>(\$ in millions)</i>			
Borrowings:				
Senior Secured Term Loans	\$	315.0		
Receivables Financing Agreement		50.0		
Total borrowings	\$	365.0		
Repayments:				
10.00% senior notes due 2025	\$	(500.0)	\$ 11.3	\$ 30.9
9.75% senior notes due 2023		(120.0)	—	3.7
5.625% senior notes due 2029		(26.5)	2.9	2.9
5.00% senior notes due 2030		(8.0)	0.6	0.6
Senior Secured Term Loans		(150.0)	0.6	0.8
Receivables Financing Agreement		(50.0)	—	—
Finance leases		(0.7)	—	—
Total repayments	\$	(855.2)	\$ 15.4	\$ 38.9
Long-term debt repayments, net	\$	(490.2)		

(1) Loss on debt extinguishment is included as interest expense in the condensed statements of operations. The loss includes the payment of bond redemption premiums of \$12.3 million and \$31.0 million for the three and six months ended June 30, 2021, respectively, as well as the write-off of deferred debt issuance costs and recognition of deferred fair value interest rate swap losses of \$3.1 million and \$7.9 million for the three and six months ended June 30, 2021, respectively, associated with the optional prepayment of existing debt. The cash payments related to the early redemption premiums for the debt extinguishments are classified as cash outflows from financing activities on the condensed statement of cash flows for the six months ended June 30, 2021. The condensed statement of cash flows reflects a correction to the loss on debt extinguishment and early redemption premiums from the previously issued condensed statement of cash flows for the three months ended March 31, 2021, which increased cash flows from net operating activities and decreased cash flows from net financing activities by \$18.7 million. During the fourth quarter of 2021, the previously issued statement of cash flows for the year ended December 31, 2020 will reflect the correction of previously presented early redemption premiums, which will increase cash flows from net operating activities and decrease cash flows from net financing activities by \$14.6 million.

On February 24, 2021, we entered into a \$1,615.0 million senior secured credit facility (Senior Secured Credit Facility) that amended our existing \$1,300.0 million senior secured credit facility. The Senior Secured Credit Facility includes a senior secured delayed-draw term loan facility with aggregate commitments of \$315.0 million (Delayed Draw Term Loan), a senior secured term loan facility with aggregate commitments of \$500.0 million (2020 Term Loan and together with the Delayed Draw Term Loan, the Senior Secured Term Loans) and a senior secured revolving credit facility with aggregate commitments in an amount equal to \$800.0 million (Senior Revolving Credit Facility). The maturity date for the Senior Secured Credit Facility is July 16, 2024. The amendment modified the pricing grid for the Senior Secured Credit Facility by reducing applicable interest rates on the borrowings under the facility.

On March 30, 2021, Olin drew the entire \$315.0 million of the Delayed Draw Term Loan and used the proceeds to fund the redemption of the 10.00% senior notes due October 15, 2025. The Senior Secured Term Loans include principal amortization amounts payable beginning June 30, 2021 at a rate of 1.25% per quarter through the end of 2022, increasing to 1.875% per quarter during 2023 and 2.50% per quarter thereafter until maturity. During the six months ended June 30, 2021, we repaid \$150.0 million of the Senior Secured Term Loans, of which \$10.2 million was a required quarterly installment. These repayments eliminated the required quarterly installments of the Senior Secured Term Loans through December 2023. The Senior Revolving Credit Facility includes a \$100.0 million letter of credit subfacility. At June 30, 2021, we had \$799.6 million available under our \$800.0 million Senior Revolving Credit Facility because we had issued \$0.4 million of letters of credit.

Annual maturities of long-term debt at June 30, 2021, including finance lease obligations, are \$0.6 million in 2021, \$326.1 million in 2022, \$1.0 million in 2023, \$735.8 million in 2024, \$503.1 million in 2025 and a total of \$1,848.5 million thereafter.

For the six months ended June 30, 2021, we paid debt issuance costs of \$3.1 million for the amendments to our Senior Secured Credit Facility.

Under the Senior Secured Credit Facility, we may select various floating rate borrowing options. The actual interest rate paid on borrowings under the Senior Secured Credit Facility is based on a pricing grid which is dependent upon the net leverage ratio as calculated under the terms of the applicable facility for the prior fiscal quarter. The Senior Secured Credit Facility includes various customary restrictive covenants, including restrictions related to the ratio of secured debt to earnings before interest expense, taxes, depreciation and amortization (secured leverage ratio) and the ratio of earnings before interest expense, taxes, depreciation and amortization to interest expense (coverage ratio). The calculation of secured debt in our secured leverage ratio excludes borrowings under the Receivables Financing Agreement, up to a maximum of \$250.0 million. As of June 30, 2021, the only secured borrowings included in the secured leverage ratio were \$665.0 million for our Senior Secured Term Loans and \$153.0 million for our Go Zone and Recovery Zone bonds. Compliance with these covenants is determined quarterly. We were in compliance with all covenants and restrictions under all our outstanding credit agreements as of June 30, 2021, and no event of default had occurred that would permit the lenders under our outstanding credit agreements to accelerate the debt if not cured. In the future, our ability to generate sufficient operating cash flows, among other factors, will determine the amounts available to be borrowed under these facilities. As a result of our restrictive covenant related to the secured leverage ratio, the maximum additional borrowings available to us could be limited in the future. The limitation, if an amendment or waiver from our lenders is not obtained, could restrict our ability to borrow the maximum amounts available under the Senior Revolving Credit Facility and the Receivables Financing Agreement. As of June 30, 2021, there were no covenants or other restrictions that limited our ability to borrow.

NOTE 15. CONTRIBUTING EMPLOYEE OWNERSHIP PLAN

The Contributing Employee Ownership Plan (CEOP) is a defined contribution plan available to essentially all domestic employees. We provide a contribution to an individual retirement contribution account maintained with the CEOP equal to an amount of between 5.0% and 7.5% of the employee's eligible compensation. The defined contribution plan expense for the three months ended June 30, 2021 and 2020 was \$8.6 million and \$6.8 million, respectively, and for the six months ended June 30, 2021 and 2020 was \$17.3 million and \$15.0 million, respectively.

Company matching contributions are invested in the same investment allocation as the employee's contribution. Our matching contributions for eligible employees for the three months ended June 30, 2021 and 2020 were \$3.7 million and \$0.7 million, respectively, and for the six months ended June 30, 2021 and 2020 were \$6.9 million and \$1.5 million, respectively. Effective January 1, 2020, we suspended the match on all salaried and non-bargaining hourly employees' contributions, and moved to a discretionary contribution model with contributions contingent upon company-wide financial performance. During 2020, we did not make a discretionary matching contribution. Effective January 1, 2021, we reinstated the match on all salaried and non-bargaining hourly employees' contributions, which provides for a maximum 3.0% matching contribution based on the level of participant contributions.

NOTE 16. PENSION PLANS AND RETIREMENT BENEFITS

We sponsor domestic and foreign defined benefit pension plans for eligible employees and retirees. Most of our domestic employees participate in defined contribution plans. However, a portion of our bargaining hourly employees continue to participate in our domestic qualified defined benefit pension plans under a flat-benefit formula. Our funding policy for the

qualified defined benefit pension plans is consistent with the requirements of federal laws and regulations. Our foreign subsidiaries maintain pension and other benefit plans, which are consistent with local statutory practices.

Our domestic qualified defined benefit pension plan provides that if, within three years following a change of control of Olin, any corporate action is taken or filing made in contemplation of, among other things, a plan termination or merger or other transfer of assets or liabilities of the plan, and such termination, merger, or transfer thereafter takes place, plan benefits would automatically be increased for affected participants (and retired participants) to absorb any plan surplus (subject to applicable collective bargaining requirements).

We also provide certain postretirement healthcare (medical) and life insurance benefits for eligible active and retired domestic employees. The healthcare plans are contributory with participants' contributions adjusted annually based on medical rates of inflation and plan experience.

Components of Net Periodic Benefit (Income) Cost	Pension Benefits		Other Postretirement Benefits	
	Three Months Ended June 30,		Three Months Ended June 30,	
	2021	2020	2021	2020
	(\$ in millions)			
Service cost	\$ 2.8	\$ 2.7	\$ 0.3	\$ 0.4
Interest cost	12.8	18.8	0.3	0.3
Expected return on plans' assets	(35.0)	(35.6)	—	—
Amortization of prior service cost	(0.2)	—	0.1	—
Recognized actuarial loss	13.2	11.1	0.6	0.5
Net periodic benefit (income) cost	\$ (6.4)	\$ (3.0)	\$ 1.3	\$ 1.2

Components of Net Periodic Benefit (Income) Cost	Pension Benefits		Other Postretirement Benefits	
	Six Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(\$ in millions)			
Service cost	\$ 5.8	\$ 5.7	\$ 0.7	\$ 0.7
Interest cost	25.6	37.5	0.6	0.7
Expected return on plans' assets	(71.1)	(71.2)	—	—
Amortization of prior service cost	(0.3)	—	0.1	—
Recognized actuarial loss	26.3	22.3	1.3	1.2
Net periodic benefit (income) cost	\$ (13.7)	\$ (5.7)	\$ 2.7	\$ 2.6

We made cash contributions to our international qualified defined benefit pension plans of \$0.6 million and \$1.2 million for the six months ended June 30, 2021 and 2020, respectively.

NOTE 17. INCOME TAXES

The effective tax rate for the three months ended June 30, 2021 included a benefit from a net decrease in the valuation allowance related to deferred tax assets in foreign jurisdictions, a benefit associated with prior year tax positions, a benefit associated with stock-based compensation and an expense from a change in tax contingencies. These factors resulted in a net \$93.9 million tax benefit. After giving consideration to these items, the effective tax rate for the three months ended June 30, 2021 of 22.4% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income inclusions and foreign income taxes, partially offset by a net decrease in the valuation allowance related to utilization of losses in foreign jurisdictions and favorable permanent salt depletion deductions. The effective tax rate for the three months ended June 30, 2020 of 25.0% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income taxes and favorable permanent salt depletion deductions, partially offset by foreign income inclusions and a net increase in the valuation allowance related to losses in foreign jurisdictions.

The effective tax rate for the six months ended June 30, 2021 included a benefit from a net decrease in the valuation allowance related to deferred tax assets in foreign jurisdictions, a benefit associated with prior year tax positions, a benefit associated with stock-based compensation, an expense from remeasurement of deferred taxes due to an increase in our state effective tax rates and an expense from a change in tax contingencies. These factors resulted in a net \$95.2 million tax benefit. After giving consideration to these items, the effective tax rate for the six months ended June 30, 2021 of 21.6% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income inclusions and foreign income taxes, partially offset by a net decrease in the valuation allowance related to utilization of losses in foreign jurisdictions and favorable permanent salt depletion deductions. The effective tax rate for the six months ended June 30, 2020 of 25.2% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income taxes and favorable permanent salt depletion deductions, partially offset by foreign income inclusions and a net increase in the valuation allowance related to losses in foreign jurisdictions.

During the three months ended June 30, 2021, we released the valuation allowance related to deferred tax assets of our German operations that resulted in a net tax benefit of \$103.8 million. As a result of significant taxable income during the first six months of 2021, our German operations reported cumulative income before tax (adjusted for permanent items) over the previous twelve quarters. Additionally, we project taxable income in our German operations for the remainder of 2021 and we expect that net operating loss carryovers and other deductible amounts in Germany will ultimately be realizable against future income. We concluded, based upon the preponderance of positive evidence over negative evidence and the anticipated ability to use the deferred tax assets, that it was more likely than not that the deferred tax assets in Germany would be realizable due to U.S. GAAP forecasted income. If there are unfavorable changes to actual operating results or to projections of future income, we may determine that it is more likely than not such deferred tax assets may not be realizable.

As of June 30, 2021, we had \$40.8 million of gross unrecognized tax benefits, which would have a net \$40.6 million impact on the effective tax rate, if recognized. As of June 30, 2020, we had \$22.0 million of gross unrecognized tax benefits, of which \$21.8 million would have impacted the effective tax rate, if recognized. The amount of unrecognized tax benefits was as follows:

	<i>June 30,</i>	
	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions)</i>	
Balance at beginning of year	\$ 21.3	\$ 22.8
Increases for prior year tax positions	20.5	—
Decreases for prior year tax positions	(3.8)	(1.8)
Increases for current year tax positions	2.8	1.0
Balance at end of period	<u>\$ 40.8</u>	<u>\$ 22.0</u>

Increases for prior year tax positions primarily are the result of ongoing discussions with tax auditors in a major foreign jurisdiction during the second quarter of 2021. In April 2021, the review of certain U.S. income tax claims by the Internal Revenue Service for the year 2016 was finalized which resulted in a \$3.8 million income tax benefit related to favorable adjustments in uncertain tax positions for prior tax years.

As of June 30, 2021, we believe it is reasonably possible that our total amount of unrecognized tax benefits will decrease by approximately \$15.6 million over the next twelve months. The anticipated reduction primarily relates to settlements with taxing authorities and the expiration of federal, state and foreign statutes of limitation.

We operate globally and file income tax returns in numerous jurisdictions. Our tax returns are subject to examination by various federal, state and local tax authorities. Examinations are ongoing in various states and foreign jurisdictions. We believe we have adequately provided for all tax positions; however, amounts asserted by taxing authorities could be greater than our accrued position. For our primary tax jurisdictions, the tax years that remain subject to examination are as follows:

	<i>Tax Years</i>
U.S. federal income tax	2017 - 2020
U.S. state income tax	2012 - 2020
Canadian federal income tax	2013 - 2020
Brazil	2015 - 2020
Germany	2015 - 2020
China	2014 - 2020
The Netherlands	2015 - 2020

NOTE 18. DERIVATIVE FINANCIAL INSTRUMENTS

We are exposed to market risk in the normal course of our business operations due to our purchases of certain commodities, our ongoing investing and financing activities and our operations that use foreign currencies. The risk of loss can be assessed from the perspective of adverse changes in fair values, cash flows and future earnings. We have established policies and procedures governing our management of market risks and the use of financial instruments to manage exposure to such risks. ASC 815 "Derivatives and Hedging" (ASC 815) requires an entity to recognize all derivatives as either assets or liabilities in the condensed balance sheets and measure those instruments at fair value. In accordance with ASC 815, we designate derivative contracts as cash flow hedges of forecasted purchases of commodities and forecasted interest payments related to variable-rate borrowings and designate certain interest rate swaps as fair value hedges of fixed-rate borrowings. We do not enter into any derivative instruments for trading or speculative purposes.

Energy costs, including electricity and natural gas, and certain raw materials used in our production processes are subject to price volatility. Depending on market conditions, we may enter into futures contracts, forward contracts, commodity swaps and put and call option contracts in order to reduce the impact of commodity price fluctuations. The majority of our commodity derivatives expire within one year.

We actively manage currency exposures that are associated with net monetary asset positions, currency purchases and sales commitments denominated in foreign currencies and foreign currency denominated assets and liabilities created in the normal course of business. We enter into forward sales and purchase contracts to manage currency risk to offset our net exposures, by currency, related to the foreign currency denominated monetary assets and liabilities of our operations. At June 30, 2021, we had outstanding forward contracts to buy foreign currency with a notional value of \$270.8 million and to sell foreign currency with a notional value of \$99.7 million. All of the currency derivatives expire within one year and are for U.S. dollar (USD) equivalents. The counterparties to the forward contracts are large financial institutions; however, the risk of loss to us in the event of nonperformance by a counterparty could be significant to our financial position or results of operations. At December 31, 2020, we had outstanding forward contracts to buy foreign currency with a notional value of \$169.9 million and to sell foreign currency with a notional value of \$113.6 million. At June 30, 2020, we had outstanding forward contracts to buy foreign currency with a notional value of \$176.6 million and to sell foreign currency with a notional value of \$111.7 million.

Cash Flow Hedges

For derivative instruments that are designated and qualify as a cash flow hedge, the change in fair value of the derivative is recognized as a component of other comprehensive income (loss) until the hedged item is recognized in earnings.

We had the following notional amounts of outstanding commodity contracts that were entered into to hedge forecasted purchases:

	<i>June 30, 2021</i>	<i>December 31, 2020</i>	<i>June 30, 2020</i>
	<i>(\$ in millions)</i>		
Natural gas	\$ 57.3	\$ 74.1	\$ 59.3
Ethane	44.8	51.8	48.2
Metals	148.7	88.2	117.6
Total notional	<u>\$ 250.8</u>	<u>\$ 214.1</u>	<u>\$ 225.1</u>

As of June 30, 2021, the counterparties to these commodity contracts were Wells Fargo Bank, N.A., Citibank, N.A., JPMorgan Chase Bank, National Association and Bank of America Corporation, all of which are major financial institutions.

We use cash flow hedges for certain raw material and energy costs such as copper, zinc, lead, ethane, electricity and natural gas to provide a measure of stability in managing our exposure to price fluctuations associated with forecasted purchases of raw materials and energy used in our manufacturing process. At June 30, 2021, we had open derivative contract positions through 2027. If all open futures contracts had been settled on June 30, 2021, we would have recognized a pretax gain of \$59.0 million.

If commodity prices were to remain at June 30, 2021 levels, approximately \$33.6 million of deferred gains, net of tax, would be reclassified into earnings during the next twelve months. The actual effect on earnings will be dependent on actual commodity prices when the forecasted transactions occur.

Fair Value Hedges

We use interest rate swaps as a means of managing interest expense and floating interest rate exposure to optimal levels. For derivative instruments that are designated and qualify as a fair value hedge, the gain or loss on the derivative as well as the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in current earnings. We include the gain or loss on the hedged items (fixed-rate borrowings) in the same line item, interest expense, as the offsetting loss or gain on the related interest rate swaps.

In August 2019, we terminated the interest rate swaps designated as fair value hedges which resulted in a loss of \$2.3 million that was deferred as an offset to the carrying value of the related debt and was subsequently recognized to interest expense. In 2021, we redeemed the 2025 Notes, which resulted in recognition of the outstanding deferred swap loss. For the three months ended June 30, 2021 and June 30, 2020, \$0.6 million and \$0.1 million, respectively, and for the six months ended June 30, 2021 and June 30, 2020, \$1.8 million and \$0.2 million, respectively, of expense was recorded to interest expense on the accompanying condensed statements of operations related to these swap agreements.

Financial Statement Impacts

We present our derivative assets and liabilities in our condensed balance sheets on a net basis whenever we have a legally enforceable master netting agreement with the counterparty to our derivative contracts. We use these agreements to manage and substantially reduce our potential counterparty credit risk.

The following table summarizes the location and fair value of the derivative instruments on our condensed balance sheets. The table disaggregates our net derivative assets and liabilities into gross components on a contract-by-contract basis before giving effect to master netting arrangements:

	<i>June 30, 2021</i>	<i>December 31, 2020</i>	<i>June 30, 2020</i>
	<i>(\$ in millions)</i>		
Asset derivatives:			
Other current assets			
Derivatives designated as hedging instruments:			
Commodity contracts - gains	\$ 45.5	\$ 25.0	\$ 5.1
Commodity contracts - losses	(1.3)	(3.1)	(2.8)
Derivatives not designated as hedging instruments:			
Foreign exchange contracts - gains	—	2.5	5.3
Foreign exchange contracts - losses	—	(0.2)	(2.9)
Total other current assets	44.2	24.2	4.7
Other assets			
Derivatives designated as hedging instruments:			
Commodity contracts - gains	14.9	7.4	3.0
Commodity contracts - losses	—	(0.2)	(0.7)
Total other assets	14.9	7.2	2.3
Total asset derivatives⁽¹⁾	\$ 59.1	\$ 31.4	\$ 7.0
Liability derivatives:			
Accrued liabilities			
Derivatives designated as hedging instruments:			
Commodity contracts - losses	\$ 0.7	\$ 1.4	\$ 8.8
Commodity contracts - gains	(0.7)	(1.3)	(2.4)
Derivatives not designated as hedging instruments:			
Foreign exchange contracts - losses	6.5	—	1.3
Foreign exchange contracts - gains	(0.4)	—	(0.1)
Total accrued liabilities	6.1	0.1	7.6
Other liabilities			
Derivatives designated as hedging instruments:			
Commodity contracts - losses	—	0.8	0.2
Commodity contracts - gains	—	(0.2)	(0.1)
Total other liabilities	—	0.6	0.1
Total liability derivatives⁽¹⁾	\$ 6.1	\$ 0.7	\$ 7.7

(1) Does not include the impact of cash collateral received from or provided to counterparties.

The following table summarizes the effects of derivative instruments on our condensed statements of operations:

	<i>Location of Gain (Loss)</i>	<i>Amount of Gain (Loss)</i>			
		<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
		<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
<i>(\$ in millions)</i>					
Derivatives – Cash Flow Hedges					
Recognized in other comprehensive loss:					
Commodity contracts		\$ 41.8	\$ 29.9	\$ 163.8	\$ (5.2)
Reclassified from accumulated other comprehensive loss into income:					
Commodity contracts	Cost of goods sold	\$ 20.4	\$ (9.3)	\$ 133.2	\$ (20.9)
Derivatives – Fair Value Hedges					
Interest rate contracts	Interest expense	\$ (0.6)	\$ (0.1)	\$ (1.8)	\$ (0.2)
Derivatives Not Designated as Hedging Instruments					
Foreign exchange contracts	Selling and administration	\$ (6.2)	\$ 0.6	\$ (8.2)	\$ 7.1

Credit Risk and Collateral

By using derivative instruments, we are exposed to credit and market risk. If a counterparty fails to fulfill its performance obligations under a derivative contract, our credit risk will equal the fair value gain in a derivative. Generally, when the fair value of a derivative contract is positive, this indicates that the counterparty owes us, thus creating a repayment risk for us. When the fair value of a derivative contract is negative, we owe the counterparty and, therefore, assume no repayment risk. We minimize the credit (or repayment) risk in derivative instruments by entering into transactions with high-quality counterparties. We monitor our positions and the credit ratings of our counterparties, and we do not anticipate non-performance by the counterparties.

Based on the agreements with our various counterparties, cash collateral is required to be provided when the net fair value of the derivatives, with the counterparty, exceeds a specific threshold. If the threshold is exceeded, cash is either provided by the counterparty to us if the value of the derivatives is our asset, or cash is provided by us to the counterparty if the value of the derivatives is our liability. As of June 30, 2021, December 31, 2020 and June 30, 2020, this threshold was not exceeded. In all instances where we are party to a master netting agreement, we offset the receivable or payable recognized upon payment of cash collateral against the fair value amounts recognized for derivative instruments that have also been offset under such master netting agreements.

NOTE 19. FAIR VALUE MEASUREMENTS

Fair value is defined as the price at which an asset could be exchanged in a current transaction between knowledgeable, willing parties or the amount that would be paid to transfer a liability to a new obligor, not the amount that would be paid to settle the liability with the creditor. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. Where observable prices or inputs are not available, valuation models are applied. These valuation techniques involve some level of management estimation and judgment, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity.

Assets and liabilities recorded at fair value in the condensed balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels, defined by ASC 820 "Fair Value Measurements and Disclosures" (ASC 820) are directly related to the amount of subjectivity associated with the inputs to fair valuation of these assets and liabilities, and are as follows:

Level 1 — Inputs were unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2 — Inputs (other than quoted prices included in Level 1) were either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3 — Inputs reflected management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration was given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

We are required to separately disclose assets and liabilities measured at fair value on a recurring basis, from those measured at fair value on a nonrecurring basis. Nonfinancial assets measured at fair value on a nonrecurring basis are intangible assets and goodwill, which are reviewed for impairment annually in the fourth quarter and/or when circumstances or other events indicate that impairment may have occurred.

Determining which hierarchical level an asset or liability falls within requires significant judgment. We evaluate our hierarchy disclosures each quarter. The following table summarizes the assets and liabilities measured at fair value in the condensed balance sheets:

Balance at June 30, 2021	Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
Assets	<i>(\$ in millions)</i>			
Commodity contracts	\$ —	\$ 59.1	\$ —	\$ 59.1
Total Assets	\$ —	\$ 59.1	\$ —	\$ 59.1
Liabilities				
Foreign exchange contracts	\$ —	\$ 6.1	\$ —	\$ 6.1
Total Liabilities	\$ —	\$ 6.1	\$ —	\$ 6.1
Balance at December 31, 2020				
Assets				
Commodity contracts	\$ —	\$ 29.1	\$ —	\$ 29.1
Foreign exchange contracts	—	2.3	—	2.3
Total Assets	\$ —	\$ 31.4	\$ —	\$ 31.4
Liabilities				
Commodity contracts	\$ —	\$ 0.7	\$ —	\$ 0.7
Total Liabilities	\$ —	\$ 0.7	\$ —	\$ 0.7
Balance at June 30, 2020				
Assets				
Commodity contracts	\$ —	\$ 4.6	\$ —	\$ 4.6
Foreign exchange contracts	—	2.4	—	2.4
Total Assets	\$ —	\$ 7.0	\$ —	\$ 7.0
Liabilities				
Commodity contracts	\$ —	\$ 6.5	\$ —	\$ 6.5
Foreign exchange contracts	—	1.2	—	1.2
Total Liabilities	\$ —	\$ 7.7	\$ —	\$ 7.7

Commodity Contracts

Commodity contract financial instruments were valued primarily based on prices and other relevant information observable in market transactions involving identical or comparable assets or liabilities including both forward and spot prices for commodities. We use commodity derivative contracts for certain raw materials and energy costs such as copper, zinc, lead, ethane, electricity and natural gas to provide a measure of stability in managing our exposure to price fluctuations.

Foreign Currency Contracts

Foreign currency contract financial instruments were valued primarily based on relevant information observable in market transactions involving identical or comparable assets or liabilities including both forward and spot prices for currencies. We enter into forward sales and purchase contracts to manage currency risk resulting from purchase and sale commitments denominated in foreign currencies.

Financial Instruments

The carrying values of cash and cash equivalents, accounts receivable and accounts payable approximated fair values due to the short-term maturities of these instruments. Since our long-term debt instruments may not be actively traded, the inputs used to measure the fair value of our long-term debt are based on current market rates for debt of similar risk and maturities and is classified as Level 2 in the fair value measurement hierarchy. As of June 30, 2021, December 31, 2020 and June 30, 2020, the fair value measurements of debt were \$3,669.2 million, \$4,177.2 million and \$4,056.7 million, respectively.

Nonrecurring Fair Value Measurements

In addition to assets and liabilities that are recorded at fair value on a recurring basis, we record assets and liabilities at fair value on a nonrecurring basis as required by ASC 820. There were no assets or liabilities measured at fair value on a nonrecurring basis as of June 30, 2021, December 31, 2020 and June 30, 2020.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Business Background

We are a leading vertically-integrated global manufacturer and distributor of chemical products and a leading United States (U.S.) manufacturer of ammunition. Our operations are concentrated in three business segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. All of our business segments are capital intensive manufacturing businesses. Chlor Alkali Products and Vinyls operating rates are closely tied to the general economy. Each segment has a commodity element to it.

Our Chlor Alkali Products and Vinyls segment is partially a commodity business where all supplier products are similar and price is the major supplier selection criterion. Pricing for these products is subject to a variety of factors, some of which are outside of our control. Our Chlor Alkali Products and Vinyls segment produces some of the most widely used chemicals in the world that can be upgraded into a wide variety of downstream chemical products used in many end-markets. Changes in supply/demand can be abrupt and significant and, given capacity in our Chlor Alkali Products and Vinyls segment, can lead to significant changes in our overall profitability.

The Epoxy segment consumes some products manufactured by the Chlor Alkali Products and Vinyls segment. The Epoxy segment's upstream and midstream products are partially commodity markets. Pricing for these products is subject to a variety of factors, some of which are outside of our control. While competitive differentiation exists through downstream customization and product development opportunities, pricing is extremely competitive with a broad range of competitors across the globe.

Winchester also has a commodity element to its business, but a majority of Winchester ammunition is sold as a branded consumer product where there are opportunities to differentiate certain offerings through innovative new product development and enhanced product performance. While competitive pricing versus other branded ammunition products is important, it is not the only factor in product selection.

Executive Summary

Winter Storm Uri

Olin's Freeport, TX facility was affected by Winter Storm Uri and was forced to halt production due to the lack of electrical power, natural gas, and other raw materials. All of Olin's Freeport operations were impacted. In addition, production at Olin's Plaquemine, LA; St. Gabriel, LA; Oxford, MS; and McIntosh, AL facilities were also negatively impacted. As a result, by February 18, 2021, Olin declared Force Majeure on all chemical product shipments from North America. As of March 31, 2021, our facilities had returned to operation.

The first quarter 2021 included a net pretax favorable impact of \$99.9 million associated with Winter Storm Uri due to Olin's customary financial hedges and contracts maintained to provide protection from rapid and dramatic changes in energy costs, partially offset by unabsorbed fixed manufacturing costs and storm-related maintenance costs. For the six months ended June 30, 2021, Chlor Alkali Products and Vinyls segment results included a favorable impact of \$121.4 million and Epoxy segment results included an unfavorable impact of \$21.5 million associated with Winter Storm Uri.

2021 Overview

Net income for the three and six months ended June 30, 2021 was \$355.8 million and \$599.4 million, respectively, compared to net loss of \$120.1 million and \$200.1 million, respectively, for the comparable prior year periods in 2020. The increase in results from the prior year was due to improved operating results across all our business segments.

Chlor Alkali Products and Vinyls reported segment income of \$168.9 million and \$440.0 million for the three and six months ended June 30, 2021, respectively. Without the impact of Winter Storm Uri, Chlor Alkali Products and Vinyls segment results were higher than in the comparable prior year periods primarily due to higher pricing across all products. During the second quarter, Chlor Alkali Products and Vinyls segment results were negatively impacted by higher raw material and operating costs compared to the prior year period. Chlor Alkali Products and Vinyls segment results included depreciation and amortization expense of \$114.5 million and \$108.5 million for the three months ended June 30, 2021 and 2020, respectively, and \$230.3 million and \$227.0 million for the six months ended June 30, 2021 and 2020, respectively.

Epoxy reported segment income of \$165.3 million and \$230.5 million for the three and six months ended June 30, 2021, respectively. Without Winter Storm Uri, Epoxy segment results were higher than in the comparable prior year periods primarily due to higher product prices, partially offset by higher raw materials costs, primarily benzene and propylene. Epoxy segment results included depreciation and amortization expense of \$20.3 million and \$21.6 million for the three months ended June 30, 2021 and 2020, respectively, and \$42.4 million and \$43.1 million for the six months ended June 30, 2021 and 2020, respectively.

Winchester reported segment income of \$109.9 million and \$195.0 million for the three and six months ended June 30, 2021, respectively. On October 1, 2020, Winchester assumed full management and operational control of the Lake City U.S. Army Ammunition Plant (Lake City) in Independence, MO. Winchester segment results were higher than in the comparable prior year periods primarily due to higher volumes, which includes ammunition produced at Lake City, and higher commercial ammunition pricing. Winchester segment results included depreciation and amortization expense of \$5.5 million and \$4.7 million for the three months ended June 30, 2021 and 2020, respectively, and \$11.1 million and \$9.7 million for the six months ended June 30, 2021 and 2020, respectively.

During the six months ended June 30, 2021, we repaid \$490.2 million of long-term debt. In connection with these financing transactions, we recognized a loss on extinguishment of debt of \$15.4 million and \$38.9 million for the three and six months ended June 30, 2021, respectively, which includes the payment of early redemption premiums of \$12.3 million and \$31.0 million for the three and six months ended June 30, 2021, respectively.

Consolidated Results of Operations

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions, except per share data)</i>			
Sales	\$ 2,221.3	\$ 1,241.2	\$ 4,140.1	\$ 2,666.3
Cost of goods sold	1,712.2	1,235.7	3,136.0	2,609.9
Gross margin	509.1	5.5	1,004.1	56.4
Selling and administration	100.6	99.7	207.5	196.4
Restructuring charges	14.0	1.7	20.9	3.4
Other operating income	0.5	0.1	0.5	0.1
Operating income (loss)	395.0	(95.8)	776.2	(143.3)
Interest expense	65.9	69.4	150.4	132.5
Interest income	—	0.2	0.1	0.3
Non-operating pension income	8.2	4.9	17.5	9.5
Income (loss) before taxes	337.3	(160.1)	643.4	(266.0)
Income tax (benefit) provision	(18.5)	(40.0)	44.0	(65.9)
Net income (loss)	\$ 355.8	\$ (120.1)	\$ 599.4	\$ (200.1)
Net income (loss) per common share:				
Basic	\$ 2.23	\$ (0.76)	\$ 3.77	\$ (1.27)
Diluted	\$ 2.17	\$ (0.76)	\$ 3.69	\$ (1.27)

Three Months Ended June 30, 2021 Compared to Three Months Ended June 30, 2020

Sales for the three months ended June 30, 2021 were \$2,221.3 million compared to \$1,241.2 million in the same period last year, an increase of \$980.1 million, or 79%. Chlor Alkali Products and Vinyls sales increased by \$316.1 million, primarily due to higher pricing across all products and increased volumes. Epoxy sales increased by \$452.6 million, primarily due to higher product prices and increased volumes. Winchester sales increased by \$211.4 million, primarily due to higher commercial and military sales volumes, which included ammunition produced at Lake City, and increased commercial ammunition pricing.

Gross margin increased \$503.6 million for the three months ended June 30, 2021 compared to the prior year. Chlor Alkali Products and Vinyls gross margin increased by \$224.4 million, primarily due to higher pricing and volumes, partially offset by higher raw material and operating costs. Epoxy gross margin increased by \$180.7 million, primarily due to higher product prices and volumes, partially offset by higher costs, primarily raw materials. Winchester gross margin increased by \$100.9 million, primarily due to higher sales volumes, which included ammunition produced at Lake City, and increased commercial ammunition pricing. Gross margin as a percentage of sales increased to 23% in 2021 from 0% in 2020.

Selling and administration expenses for the three months ended June 30, 2021 were \$100.6 million, an increase of \$0.9 million from the prior year. The increase was primarily due to higher variable incentive compensation expense of \$15.0 million, which includes mark-to-market adjustments on stock-based compensation expense, and selling and administration expenses associated with Lake City operations of \$7.2 million. These increases were partially offset by the absence of costs associated with the implementation of new enterprise resource planning, manufacturing and engineering systems, and related infrastructure (Information Technology Project) of \$20.4 million, which was completed in late 2020. Selling and administration expenses as a percentage of sales decreased to 5% in 2021 from 8% in 2020.

Restructuring charges for the three months ended June 30, 2021 and 2020 were \$14.0 million and \$1.7 million, respectively. The increase in charges was primarily due to a productivity initiative to align the organization with our new operating model and improve efficiencies which was completed during the second quarter of 2021.

Interest expense decreased by \$3.5 million for the three months ended June 30, 2021. Interest expense for the three months ended June 30, 2021 included \$12.3 million of bond redemption premiums and \$3.1 million for write-off of deferred debt issuance costs and recognition of deferred fair value interest rate swap losses. Interest expense for the three months ended

June 30, 2020 included \$1.6 million for the write-off of unamortized deferred debt issuance costs. Without these items, interest expense decreased by \$17.3 million, primarily due to lower interest rates and a lower level of debt outstanding.

Non-operating pension income includes all components of pension and other postretirement income (costs) other than service costs. Non-operating pension income increased by \$3.3 million for the three months ended June 30, 2021 compared to the prior year primarily due to a decrease in the discount rate used to determine interest costs.

The effective tax rate for the three months ended June 30, 2021 included a benefit from a net decrease in the valuation allowance related to deferred tax assets in foreign jurisdictions, a benefit associated with prior year tax positions, a benefit associated with stock-based compensation and an expense from a change in tax contingencies. These factors resulted in a net \$93.9 million tax benefit. After giving consideration to these items, the effective tax rate for the three months ended June 30, 2021 of 22.4% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income inclusions and foreign income taxes, partially offset by a net decrease in the valuation allowance related to utilization of losses in foreign jurisdictions and favorable permanent salt depletion deductions. The effective tax rate for the three months ended June 30, 2020 of 25.0% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income taxes and favorable permanent salt depletion deductions, partially offset by foreign income inclusions and a net increase in the valuation allowance related to losses in foreign jurisdictions.

Six Months Ended June 30, 2021 Compared to Six Months Ended June 30, 2020

Sales for the six months ended June 30, 2021 were \$4,140.1 million compared to \$2,666.3 million in the same period last year, an increase of \$1,473.8 million, or 55%. Chlor Alkali Products and Vinyls sales increased by \$423.2 million, primarily due to higher pricing across all products and increased volumes. Epoxy sales increased by \$638.0 million, primarily due to higher product prices and volumes. Our chemicals businesses segment sales volumes in the first quarter 2021 were negatively impacted by Winter Storm Uri. Winchester sales increased by \$412.6 million, primarily due to higher commercial and military sales volumes, which included ammunition produced at Lake City, and increased commercial ammunition pricing.

Gross margin increased \$947.7 million for the six months ended June 30, 2021 compared to the prior year. Chlor Alkali Products and Vinyls gross margin increased by \$529.5 million, primarily due to higher pricing and the effect of Winter Storm Uri. Epoxy gross margin increased by \$235.3 million, primarily due to higher product prices, partially offset by higher raw material costs and the effect of Winter Storm Uri. Winchester gross margin increased by \$181.9 million, primarily due to higher sales volumes, which included ammunition produced at Lake City, and increased commercial ammunition pricing. Gross margin as a percentage of sales increased to 24% in 2021 from 2% in 2020.

Selling and administration expenses for the six months ended June 30, 2021 were \$207.5 million, an increase of \$11.1 million from the prior year. The increase was primarily due to higher variable incentive compensation expense of \$33.5 million, which includes mark-to-market adjustments on stock-based compensation expense, and selling and administration expenses associated with Lake City operations of \$13.8 million. These increases were partially offset by the absence of costs associated with the Information Technology Project of \$35.1 million, which was completed in late 2020. Selling and administration expenses as a percentage of sales decreased to 5% in 2021 from 7% in 2020.

Restructuring charges for the six months ended June 30, 2021 and 2020 were \$20.9 million and \$3.4 million, respectively. The increase in charges was primarily due to a productivity initiative to align the organization with our new operating model and improve efficiencies, which was completed during the second quarter of 2021, and the March 2021 decision to permanently close approximately 50% of our diaphragm-grade chlor alkali capacity, representing 200,000 tons, at our McIntosh, AL facility.

Interest expense increased by \$17.9 million for the six months ended June 30, 2021. Interest expense for the six months ended June 30, 2021 included \$31.0 million of bond redemption premiums and \$7.9 million for write-off of deferred debt issuance costs and recognition of deferred fair value interest rate swap losses. Interest expense for the six months ended June 30, 2020 included \$1.6 million for the write-off of unamortized deferred debt issuance costs and \$4.0 million of accretion expense related to the 2020 ethylene payment discount. Interest expense for the six months ended June 30, 2021 and 2020 was reduced by capitalized interest of \$1.9 million and \$4.2 million, respectively. Without these items, interest expense decreased by \$17.7 million, primarily due to lower interest rates and a lower level of debt outstanding.

Non-operating pension income includes all components of pension and other postretirement income (costs) other than service costs. Non-operating pension income increased by \$8.0 million for the six months ended June 30, 2021 compared to the prior year primarily due to a decrease in the discount rate used to determine interest costs.

The effective tax rate for the six months ended June 30, 2021 included a benefit from a net decrease in the valuation allowance related to deferred tax assets in foreign jurisdictions, a benefit associated with prior year tax positions, a benefit associated with stock-based compensation, an expense from remeasurement of deferred taxes due to an increase in our state effective tax rates and an expense from a change in tax contingencies. These factors resulted in a net \$95.2 million tax benefit. After giving consideration to these items, the effective tax rate for the six months ended June 30, 2021 of 21.6% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income inclusions and foreign income taxes, partially offset by a net decrease in the valuation allowance related to utilization of losses in foreign jurisdictions and favorable permanent salt depletion deductions. The effective tax rate for the six months ended June 30, 2020 included an expense associated with stock-based compensation, an expense associated with prior year tax positions and an expense from a change in tax contingencies. These factors resulted in a net \$1.0 million tax expense. After giving consideration to these items, the effective tax rate for the six months ended June 30, 2020 of 25.2% was higher than the 21% U.S. federal statutory rate primarily due to state taxes, foreign income taxes and favorable permanent salt depletion deductions, partially offset by foreign income inclusions and a net increase in the valuation allowance related to losses in foreign jurisdictions.

Segment Results

We define segment results as income (loss) before interest expense, interest income, goodwill impairment charges, other operating income (expense), non-operating pension income, other income and income taxes. We have three operating segments: Chlor Alkali Products and Vinyls, Epoxy and Winchester. The three operating segments reflect the organization used by our management for purposes of allocating resources and assessing performance. Chlorine used in our Epoxy segment is transferred at cost from the Chlor Alkali Products and Vinyls segment. Sales and profits are recognized in the Chlor Alkali Products and Vinyls segment for all caustic soda generated and sold by Olin.

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions)</i>			
Sales:				
Chlor Alkali Products and Vinyls	\$ 967.3	\$ 651.2	\$ 1,834.3	\$ 1,411.1
Epoxy	850.0	397.4	1,512.6	874.6
Winchester	404.0	192.6	793.2	380.6
Total sales	<u>\$ 2,221.3</u>	<u>\$ 1,241.2</u>	<u>\$ 4,140.1</u>	<u>\$ 2,666.3</u>
Income (loss) before taxes:				
Chlor Alkali Products and Vinyls	\$ 168.9	\$ (57.0)	\$ 440.0	\$ (91.3)
Epoxy	165.3	(13.0)	230.5	(1.3)
Winchester	109.9	16.0	195.0	26.5
Corporate/other:				
Environmental expense ⁽¹⁾	(4.7)	(2.8)	(5.0)	(5.4)
Other corporate and unallocated costs ⁽²⁾	(30.9)	(37.4)	(63.9)	(68.5)
Restructuring charges	(14.0)	(1.7)	(20.9)	(3.4)
Other operating income	0.5	0.1	0.5	0.1
Interest expense ⁽³⁾	(65.9)	(69.4)	(150.4)	(132.5)
Interest income	—	0.2	0.1	0.3
Non-operating pension income	8.2	4.9	17.5	9.5
Income (loss) before taxes	<u>\$ 337.3</u>	<u>\$ (160.1)</u>	<u>\$ 643.4</u>	<u>\$ (266.0)</u>

- Environmental expense for the six months ended June 30, 2021 includes \$2.2 million of insurance recoveries for environmental costs incurred and expensed in prior periods.
- Other corporate and unallocated costs included costs associated with the implementation of the Information Technology Project for the three and six months ended June 30, 2020 of \$20.4 million and \$35.1 million, respectively.
- Interest expense for the three and six months ended June 30, 2021 included a loss on extinguishment of debt of \$15.4 million and \$38.9 million, respectively, which includes bond redemption premiums, write-off of deferred debt issuance costs and recognition of deferred fair value interest rate swap losses associated with the optional prepayment of existing

debt. Interest expense for both the three and six months ended June 30, 2020 included \$1.6 million for write-off of deferred debt issuance costs and for the six months ended June 30, 2020 also included \$4.0 million related to the 2020 ethylene payment discount.

Chlor Alkali Products and Vinyls

Three Months Ended June 30, 2021 Compared to Three Months Ended June 30, 2020

Chlor Alkali Products and Vinyls sales for the three months ended June 30, 2021 were \$967.3 million compared to \$651.2 million for the same period in 2020, an increase of \$316.1 million, or 49%. The sales increase was primarily due to higher pricing across all products and increased volumes. Chlor Alkali Products and Vinyls sales increase was also due to higher VCM sales as a result of our primary VCM contract transitioning from a toll manufacturing arrangement to a direct customer sale agreement beginning on January 1, 2021.

Chlor Alkali Products and Vinyls segment income was \$168.9 million for the three months ended June 30, 2021 compared to segment loss of \$57.0 million for the same period in 2020, an increase of \$225.9 million. The increase in Chlor Alkali Products and Vinyls segment results was primarily due to higher product prices (\$223.9 million) and increased volumes (\$38.6 million). These increases were partially offset by higher raw material and operating costs (\$36.6 million). Chlor Alkali Products and Vinyls segment results included depreciation and amortization expense of \$114.5 million and \$108.5 million for the three months ended June 30, 2021 and 2020, respectively.

Six Months Ended June 30, 2021 Compared to Six Months Ended June 30, 2020

Chlor Alkali Products and Vinyls sales for the six months ended June 30, 2021 were \$1,834.3 million compared to \$1,411.1 million for the same period in 2020, an increase of \$423.2 million, or 30%. The sales increase was primarily due to higher pricing across all product lines. Chlor Alkali Products and Vinyls sales increase was also due to higher VCM sales as a result of our primary VCM contract transitioning from a toll manufacturing arrangement to a direct customer sale agreement beginning on January 1, 2021. These increases were partially offset by lower volumes, which were impacted during the first quarter of 2021 by Winter Storm Uri.

Chlor Alkali Products and Vinyls segment income was \$440.0 million for the six months ended June 30, 2021 compared to segment loss of \$91.3 million for the same period in 2020, an increase of \$531.3 million. The increase in Chlor Alkali Products and Vinyls segment results was primarily due to higher product prices (\$351.1 million), the favorable impact of Winter Storm Uri (\$121.4 million), increased volumes (\$48.8 million) and lower raw material and operating costs (\$10.0 million). The impact of Winter Storm Uri includes a net one-time benefit associated with Olin's customary financial hedges and contracts maintained to provide protection from rapid and dramatic changes in energy costs, partially offset by unabsorbed fixed manufacturing costs and storm-related maintenance costs. Chlor Alkali Products and Vinyls segment results included depreciation and amortization expense of \$230.3 million and \$227.0 million for the six months ended June 30, 2021 and 2020, respectively.

Epoxy

Three Months Ended June 30, 2021 Compared to Three Months Ended June 30, 2020

Epoxy sales for the three months ended June 30, 2021 were \$850.0 million compared to \$397.4 million for the same period in 2020, an increase of \$452.6 million, or 114%. The sales increase was primarily due to higher product prices (\$367.5 million), increased volumes and mix changes (\$46.1 million) and a favorable effect of foreign currency translation (\$39.0 million).

Epoxy segment income was \$165.3 million for the three months ended June 30, 2021 compared to segment loss of \$13.0 million for the same period in 2020, an increase of \$178.3 million. The increase in segment results was primarily due to higher product prices (\$367.5 million) and increased volumes and mix changes (\$13.3 million), partially offset by higher raw material costs (\$180.2 million), primarily benzene and propylene, and higher operating and maintenance turnaround costs (\$22.3 million). A significant percentage of our Euro denominated sales are of products manufactured within Europe. As a result, the impact of foreign currency translation on revenue is primarily offset by the impact of foreign currency translation on raw materials and manufacturing costs also denominated in Euros. Epoxy segment results included depreciation and amortization expense of \$20.3 million and \$21.6 million for the three months ended June 30, 2021 and 2020, respectively.

Six Months Ended June 30, 2021 Compared to Six Months Ended June 30, 2020

Epoxy sales for the six months ended June 30, 2021 were \$1,512.6 million compared to \$874.6 million for the same period in 2020, an increase of \$638.0 million, or 73%. The sales increase was primarily due to higher product prices (\$471.1 million), increased volumes and mix changes (\$100.8 million) and a favorable effect of foreign currency translation (\$66.1 million). Sales volumes in the first quarter 2021 were negatively impacted by Winter Storm Uri.

Epoxy segment income was \$230.5 million for the six months ended June 30, 2021 compared to segment loss of \$1.3 million for the same period in 2020, an increase of \$231.8 million. The increase in segment results was primarily due to higher product prices (\$471.1 million) and increased volumes and mix changes (\$11.4 million), partially offset by higher raw material costs (\$208.8 million), primarily benzene and propylene. Epoxy segment results were also impacted by the unfavorable impact of Winter Storm Uri (\$21.5 million) and higher operating costs (\$20.4 million) compared to the prior year period. The impact of Winter Storm Uri includes unabsorbed fixed manufacturing costs and storm-related maintenance costs. A significant percentage of our Euro denominated sales are of products manufactured within Europe. As a result, the impact of foreign currency translation on revenue is primarily offset by the impact of foreign currency translation on raw materials and manufacturing costs also denominated in Euros. Epoxy segment results included depreciation and amortization expense of \$42.4 million and \$43.1 million for the six months ended June 30, 2021 and 2020, respectively.

Winchester

Three Months Ended June 30, 2021 Compared to Three Months Ended June 30, 2020

Winchester sales were \$404.0 million for the three months ended June 30, 2021 compared to \$192.6 million for the same period in 2020, an increase of \$211.4 million, or 110%. The increase was due to higher ammunition sales to commercial customers (\$145.9 million) and military customers (\$60.0 million), both of which includes ammunition produced at Lake City, and law enforcement agencies (\$5.5 million).

Winchester segment income was \$109.9 million for the three months ended June 30, 2021 compared to \$16.0 million for the same period in 2020, an increase of \$93.9 million. The increase in segment results was due to higher product pricing (\$52.6 million) and increased sales volumes (\$45.1 million), which includes ammunition produced at Lake City, partially offset by higher commodity and operating costs (\$7.6 million). Segment results in 2020 were also impacted by transition costs relating to the Lake City contract (\$3.8 million). Winchester segment income included depreciation and amortization expense of \$5.5 million and \$4.7 million for the three months ended June 30, 2021 and 2020, respectively.

Six Months Ended June 30, 2021 Compared to Six Months Ended June 30, 2020

Winchester sales were \$793.2 million for the six months ended June 30, 2021 compared to \$380.6 million for the same period in 2020, an increase of \$412.6 million, or 108%. The increase was due to higher ammunition sales to commercial customers (\$279.8 million) and military customers (\$124.0 million), both of which includes ammunition produced at Lake City, and law enforcement agencies (\$8.8 million).

Winchester segment income was \$195.0 million for the six months ended June 30, 2021 compared to \$26.5 million for the same period in 2020, an increase of \$168.5 million. The increase in segment results was due to increased sales volumes (\$91.5 million), which includes ammunition produced at Lake City, and higher product pricing (\$84.7 million), partially offset by higher commodity and operating costs (\$14.3 million). Segment results in 2020 were also impacted by transition costs relating to the Lake City contract (\$6.6 million). Winchester segment income included depreciation and amortization expense of \$11.1 million and \$9.7 million for the six months ended June 30, 2021 and 2020, respectively.

Corporate/Other

Three Months Ended June 30, 2021 Compared to Three Months Ended June 30, 2020

For the three months ended June 30, 2021, charges to income for environmental investigatory and remedial activities were \$4.7 million compared to \$2.8 million for the three months ended June 30, 2020. These charges related primarily to expected future investigatory and remedial activities associated with past manufacturing operations and former waste disposal sites.

For the three months ended June 30, 2021, other corporate and unallocated costs were \$30.9 million compared to \$37.4 million for the three months ended June 30, 2020, a decrease of \$6.5 million. The decrease was primarily due to the absence of costs associated with the implementation of the Information Technology Project of \$20.4 million, which was completed in late 2020, partially offset by higher variable incentive compensation costs of \$14.0 million, which includes mark-to-market adjustments on stock-based compensation expense.

Six Months Ended June 30, 2021 Compared to Six Months Ended June 30, 2020

For the six months ended June 30, 2021, charges to income for environmental investigatory and remedial activities were \$5.0 million, which includes \$2.2 million of insurance recoveries for environmental costs incurred and expensed in prior periods. Without these recoveries, charges to income for environmental investigatory and remedial activities for the six months ended June 30, 2021 would have been \$7.2 million, compared to \$5.4 million for the six months ended June 30, 2020. These charges related primarily to expected future investigatory and remedial activities associated with past manufacturing operations and former waste disposal sites.

For the six months ended June 30, 2021, other corporate and unallocated costs were \$63.9 million compared to \$68.5 million for the six months ended June 30, 2020, a decrease of \$4.6 million. The decrease was primarily due to the absence of costs associated with the implementation of the Information Technology Project of \$35.1 million, which was completed in late 2020, partially offset by higher variable incentive compensation costs of \$31.1 million, which includes mark-to-market adjustments on stock-based compensation expense.

Outlook

In 2021, we expect to continue to implement and benefit from Olin's new operating model of optimizing value across our chemicals businesses. Olin drove pricing improvement in the first half of 2021 for chlorine and almost all chlorine derivatives, including epoxy resins, and caustic soda. During 2021, we expect to deliver ECU pricing improvement compared to 2020, partially offset by higher raw material costs, primarily benzene and propylene. In 2021, we expect year over year improvement in both Chlor Alkali Products and Vinyls and Epoxy segment results.

Winchester 2021 segment income is expected to improve from 2020 segment income of \$92.3 million due to higher commercial product pricing and increased sales volumes, which includes ammunition produced at Lake City. During 2020, Winchester segment results included transition costs related to the Lake City contract of \$13.5 million.

Other Corporate and Unallocated costs in 2021 are expected to be lower than the \$154.3 million in 2020, primarily due to 2020 results including \$73.9 million of costs associated with the Information Technology Project. The Information Technology Project was concluded in late 2020. Partially offsetting these lower costs in 2021 will be higher variable incentive costs, including mark-to-market adjustments on stock-based compensation expense.

During 2021, we anticipate environmental expenses in the \$20 million to \$25 million range compared to \$20.9 million in 2020.

We expect non-operating pension income in 2021 to be in the \$30 million to \$35 million range compared to \$18.9 million in 2020. Based on our plan assumptions and estimates, we will not be required to make any cash contributions to our domestic qualified defined benefit pension plan in 2021. We have several international qualified defined benefit pension plans for which we anticipate cash contributions of less than \$5 million in 2021.

In 2021, we currently expect our capital spending to be in the \$200 million range, which would be approximately \$100 million lower than 2020 levels. We expect 2021 depreciation and amortization expense to be in the \$575 million to \$600 million range.

We currently believe the 2021 effective tax rate will be in the 20% to 25% range, excluding the impact of the second quarter 2021 release of the valuation allowance related to deferred tax assets of our German operations. We expect cash taxes will be in the 10% to 15% range, which primarily reflects the utilization of tax loss carryforwards.

Environmental Matters

Environmental provisions charged to income, which are included in costs of goods sold, were as follows:

	<i>Three Months Ended June 30,</i>		<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions)</i>			
Provisions charged to income	\$ 4.7	\$ 2.8	\$ 7.2	\$ 5.4
Recoveries for costs incurred and expensed	—	—	(2.2)	—
Environmental expense	\$ 4.7	\$ 2.8	\$ 5.0	\$ 5.4

Environmental expense for the six months ended June 30, 2021 includes \$2.2 million of insurance recoveries for environmental costs incurred and expensed in prior periods.

Our liabilities for future environmental expenditures were as follows:

	<i>June 30,</i>	
	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions)</i>	
Balance at beginning of year	\$ 147.2	\$ 139.0
Charges to income	7.2	5.4
Remedial and investigatory spending	(6.2)	(5.6)
Foreign currency translation adjustments	0.2	(0.2)
Balance at end of period	\$ 148.4	\$ 138.6

Environmental investigatory and remediation activities spending was associated with former waste disposal sites and past manufacturing operations. Spending in 2021 for investigatory and remedial efforts, the timing of which is subject to regulatory approvals and other uncertainties, is estimated to be approximately \$20 million. Cash outlays for remedial and investigatory activities associated with former waste disposal sites and past manufacturing operations were not charged to income, but instead, were charged to reserves established for such costs identified and expensed to income in prior periods. Associated costs of investigatory and remedial activities are provided for in accordance with generally accepted accounting principles governing probability and the ability to reasonably estimate future costs. Our ability to estimate future costs depends on whether our investigatory and remedial activities are in preliminary or advanced stages. With respect to unasserted claims, we accrue liabilities for costs that, in our experience, we expect to incur to protect our interests against those unasserted claims. Our accrued liabilities for unasserted claims amounted to \$9.0 million at June 30, 2021. With respect to asserted claims, we accrue liabilities based on remedial investigation, feasibility study, remedial action and operation, maintenance and monitoring (OM&M) expenses that, in our experience, we expect to incur in connection with the asserted claims. Required site OM&M expenses are estimated and accrued in their entirety for required periods not exceeding 30 years, which reasonably approximates the typical duration of long-term site OM&M. Charges to income for investigatory and remedial efforts were material to our operating results in 2020 and may be material to our operating results in 2021.

The condensed balance sheets included reserves for future environmental expenditures to investigate and remediate known sites amounting to \$148.4 million, \$147.2 million and \$138.6 million at June 30, 2021, December 31, 2020 and June 30, 2020, respectively, of which \$129.4 million, \$128.2 million and \$121.6 million, respectively, were classified as other noncurrent liabilities. These amounts do not take into account any discounting of future expenditures or any consideration of insurance recoveries or advances in technology. These liabilities are reassessed periodically to determine if environmental circumstances have changed and/or remediation efforts and our estimate of related costs have changed. As a result of these reassessments, future charges to income may be made for additional liabilities.

Environmental exposures are difficult to assess for numerous reasons, including the identification of new sites, developments at sites resulting from investigatory studies, advances in technology, changes in environmental laws and regulations and their application, changes in regulatory authorities, the scarcity of reliable data pertaining to identified sites, the difficulty in assessing the involvement and financial capability of other Potentially Responsible Parties (PRPs), our ability to obtain contributions from other parties and the lengthy time periods over which site remediation occurs. It is possible that some

of these matters (the outcomes of which are subject to various uncertainties) may be resolved unfavorably to us, which could materially adversely affect our financial position or results of operations.

Legal Matters and Contingencies

Discussion of legal matters and contingencies can be referred to under Item 1, within Note 10, "Commitments and Contingencies."

Liquidity, Investment Activity and Other Financial Data

Cash Flow Data

<i>Provided By (Used For)</i>	<i>Six Months Ended June 30,</i>	
	<i>2021</i>	<i>2020</i>
	<i>(\$ in millions)</i>	
Net operating activities	\$ 707.6	\$ 55.4
Capital expenditures	(86.4)	(166.5)
Payments under long-term supply contracts	—	(536.8)
Net investing activities	(86.4)	(703.3)
Long-term debt (repayments) borrowings, net	(490.2)	737.4
Debt early redemption premium	(31.0)	—
Stock options exercised	50.2	0.5
Debt issuance costs	(3.1)	(9.6)
Net financing activities	(537.8)	665.2

Operating Activities

For the six months ended June 30, 2021, cash provided by operating activities increased by \$652.2 million from the six months ended June 30, 2020, primarily due to an increase in operating results, partially offset by working capital increases to support operations. For the six months ended June 30, 2021, working capital increased \$209.1 million compared to a decrease of \$30.8 million for the six months ended June 30, 2020. The working capital increase reflects normal seasonal working capital growth and a higher sales level. Receivables increased by \$274.5 million from December 31, 2020, primarily as a result of higher sales during 2021. For the six months ended June 30, 2021, our days sales outstanding (DSO), which was calculated by dividing period end accounts receivable by average daily sales for the period, improved from the comparable prior year period. Inventories increased by \$67.6 million from December 31, 2020 and accounts payable and accrued liabilities increased \$143.6 million, which were both primarily as a result of increased raw material costs.

Investing Activities

Capital spending of \$86.4 million for the six months ended June 30, 2021 was \$80.1 million lower than the corresponding period in 2020. For the total year 2021, we expect our capital spending to be in the \$200 million range, which would be approximately \$100 million lower than 2020 levels. For the total year 2021, depreciation and amortization expense is forecast to be in the \$575 million to \$600 million range.

During 2017, we began a multi-year implementation of the Information Technology Project. The project standardizes business processes across the Chemicals businesses with the objective of maximizing cost effectiveness, efficiency and control across our global operations. The project was completed in late 2020. Our results for the six months ended June 30, 2020 included \$32.8 million of capital spending and \$35.1 million of expenses associated with this project.

For the six months ended June 30, 2020, a payment of \$461.0 million was made associated with long-term supply contracts to reserve additional ethylene at producer economics from The Dow Chemical Company (Dow) and a payment of \$75.8 million was made associated with the resolution of a dispute over the allocation to Olin of certain capital costs incurred at our Plaquemine, LA site after the October 5, 2015 closing date of the Dow acquisition.

Financing Activities

For the six months ended June 30, 2021, we had long-term debt repayments, net of long-term debt borrowings of \$490.2 million.

During the six months ended June 30, 2021, we repaid \$150.0 million of the Senior Secured Term Loans, of which \$10.2 million was a required quarterly installment. These repayments eliminated the required quarterly installments of the Senior Secured Term Loans through December 2023.

During the six months ended June 30, 2021, we repurchased, through open market transactions, a principal amount of \$26.5 million of the outstanding aggregate principal amount of 5.625% senior notes due August 1, 2029 (2029 Notes) and \$8.0 million of the outstanding aggregate principal amount of 5.00% senior notes due February 1, 2030 (2030 Notes). These actions resulted in a total redemption premium of \$3.1 million for both the three and six months ended June 30, 2021.

On March 31, 2021, Olin redeemed \$315.0 million of the outstanding 10.00% senior notes due October 15, 2025 (Blue Cube 2025 Notes) and on May 14, 2021, Olin redeemed the remaining \$185.0 million of the outstanding Blue Cube 2025 Notes. The Blue Cube 2025 Notes were redeemed at 105.0% of the principal amount of the Blue Cube 2025 Notes, resulting in a redemption premium of \$25.0 million. The Blue Cube 2025 Notes were redeemed by drawing \$315.0 million of the Delayed Draw Term Loan along with utilizing cash on hand.

On January 15, 2021, Olin redeemed the remaining \$120.0 million of the 9.75% senior notes due 2023 (2023 Notes). The 2023 Notes were redeemed at 102.438% of the principal amount of the 2023 Notes, resulting in a redemption premium of \$2.9 million. The remaining 2023 Notes were redeemed by utilizing cash on hand.

For the six months ended June 30, 2020, we had long-term debt borrowings, net of long-term debt repayments of \$737.4 million, which primarily included \$497.5 million from the issuance of the 9.50% senior notes due June 1, 2025 (2025 Notes) and \$240.7 million under our Receivables Financing Agreement.

On May 19, 2020, Olin issued \$500.0 million aggregate principal amount of 9.50% senior notes due June 1, 2025. The 2025 Notes were issued at 99.5% of par value, the discount from which is included within long-term debt in the condensed balance sheet. Interest on the 2025 Notes is payable semi-annually beginning on December 1, 2020. Proceeds from the 2025 Notes were used for general corporate purposes.

For the six months ended June 30, 2021, we paid debt issuance costs of \$3.1 million for the amendments to our Senior Secured Credit Facility. For the six months ended June 30, 2020, we paid debt issuance costs of \$9.6 million for the issuance of the 2025 Notes and amendments to our Senior Secured Credit Facility and Receivables Financing Agreement.

We issued 2.4 million and less than 0.1 million shares representing stock options exercised for the six months ended June 30, 2021 and 2020, respectively, with a total value of \$50.2 million and \$0.5 million, respectively.

The percent of total debt to total capitalization decreased to 62.0% as of June 30, 2021 from 72.7% as of December 31, 2020 as a result of a lower level of debt outstanding and higher shareholders' equity primarily resulting from our operating results.

In the first and second quarters of 2021 and 2020, we paid a quarterly dividend of \$0.20 per share. Dividends paid for the six months ended June 30, 2021 and 2020, were \$63.7 million and \$63.1 million, respectively. On July 22, 2021, our board of directors declared a dividend of \$0.20 per share on our common stock, payable on September 10, 2021 to shareholders of record on August 10, 2021.

The payment of cash dividends is subject to the discretion of our board of directors and will be determined in light of then-current conditions, including our earnings, our operations, our financial condition, our capital requirements and other factors deemed relevant by our board of directors. In the future, our board of directors may change our dividend policy, including the frequency or amount of any dividend, in light of then-existing conditions.

Liquidity and Other Financing Arrangements

Our principal sources of liquidity are from cash and cash equivalents, cash flow from operations and borrowings under our Senior Revolving Credit Facility, Receivables Financing Agreement and AR Facilities. Additionally, we believe that we have access to the high-yield debt and equity markets.

In 2021, we are targeting a reduction in our outstanding debt of approximately \$1.0 billion using cash generated from operations. During 2021, activity of our debt outstanding included:

<i>Debt Instrument</i>	<i>Long-term Debt Borrowings (Repayments)</i>	
	<i>Six Months Ended June 30, 2021</i>	
	<i>(\$ in millions)</i>	
Borrowings:		
Senior Secured Term Loans	\$	315.0
Receivables Financing Agreement		50.0
Total borrowings	\$	365.0
Repayments:		
10.00% senior notes due 2025	\$	(500.0)
9.75% senior notes due 2023		(120.0)
5.625% senior notes due 2029		(26.5)
5.00% senior notes due 2030		(8.0)
Senior Secured Term Loans		(150.0)
Receivables Financing Agreement		(50.0)
Finance leases		(0.7)
Total repayments	\$	(855.2)
Long-term debt repayments, net	\$	(490.2)

On February 24, 2021, we entered into a \$1,615.0 million senior secured credit facility (Senior Secured Credit Facility) that amended our existing \$1,300.0 million senior secured credit facility. The Senior Secured Credit Facility includes a senior delayed-draw term loan facility with aggregate commitments of \$315.0 million (Delayed Draw Term Loan), a senior secured term loan facility with aggregate commitments of \$500.0 million (2020 Term Loan and together with the Delayed Draw Term Loan, the Senior Secured Term Loans) and a senior secured revolving credit facility with aggregate commitments in an amount equal to \$800.0 million (Senior Revolving Credit Facility). The maturity date for the Senior Secured Credit Facility is July 16, 2024. The amendment modified the pricing grid for the Senior Secured Credit Facility by reducing applicable interest rates on the borrowings under the facility.

On March 30, 2021, Olin drew the entire \$315.0 million of the Delayed Draw Term Loan and used the proceeds to fund the redemption of the Blue Cube 2025 Notes. The Senior Secured Term Loans include principal amortization amounts payable beginning June 30, 2021 at a rate of 1.25% per quarter through the end of 2022, 1.875% per quarter during 2023 and 2.50% per quarter thereafter until maturity. During the six months ended June 30, 2021, we repaid \$150.0 million of the Senior Secured Term Loans, of which \$10.2 million was a required quarterly installment. These repayments eliminated the required quarterly installments of the Senior Secured Term Loans through December 2023. The Senior Revolving Credit Facility includes a \$100.0 million letter of credit subfacility. At June 30, 2021, we had \$799.6 million available under our \$800.0 million Senior Revolving Credit Facility because we had issued \$0.4 million of letters of credit.

Under the Senior Secured Credit Facility, we may select various floating-rate borrowing options. The actual interest rate paid on borrowings under the Senior Secured Credit Facility is based on a pricing grid which is dependent upon the net leverage ratio as calculated under the terms of the applicable facility for the prior fiscal quarter. The Senior Secured Credit Facility includes various customary restrictive covenants, including restrictions related to the ratio of secured debt to earnings before interest expense, taxes, depreciation and amortization (secured leverage ratio) and the ratio of earnings before interest expense, taxes, depreciation and amortization to interest expense (coverage ratio). The calculation of secured debt in our secured leverage ratio excludes borrowings under the Receivables Financing Agreement, up to a maximum of \$250.0 million. As of June 30, 2021, the only secured borrowings included in the secured leverage ratio were \$665.0 million for our Senior Secured Term Loans and \$153.0 million for our Go Zone and Recovery Zone bonds. Compliance with these covenants is determined quarterly. We were in compliance with all covenants and restrictions under all our outstanding credit agreements as of June 30, 2021, and no event of default had occurred that would permit the lenders under our outstanding credit agreements to accelerate

the debt if not cured. In the future, our ability to generate sufficient operating cash flows, among other factors, will determine the amounts available to be borrowed under these facilities. As a result of our restrictive covenant related to the secured leverage ratio, the maximum additional borrowings available to us could be limited in the future. The limitation, if an amendment or waiver from our lenders is not obtained, could restrict our ability to borrow the maximum amounts available under the Senior Revolving Credit Facility and the Receivables Financing Agreement. As of June 30, 2021, there were no covenants or other restrictions that limited our ability to borrow.

The overall increase in cash for the six months ended June 30, 2021 primarily reflects our operating results, partially offset by debt repayments, capital spending, and dividends paid. We believe, based on current and projected levels of cash flow from our operations, together with our cash and cash equivalents on hand and the availability to borrow under our Senior Revolving Credit Facility, Receivables Financing Agreement and AR Facilities, we have sufficient liquidity to meet our short-term and long-term needs to make required payments of interest on our debt, fund our operating needs, working capital and our capital expenditure requirements.

On April 26, 2018, our board of directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to \$500.0 million. This program will terminate upon the purchase of \$500.0 million of our common stock. There were no shares repurchased for both the six months ended June 30, 2021 and 2020. As of June 30, 2021, we had repurchased a total of \$195.9 million of our common stock, representing 10.1 million shares, and \$304.1 million of common stock remained authorized to be repurchased.

We maintain a \$250.0 million Receivables Financing Agreement (Receivables Financing Agreement) that is scheduled to mature on July 15, 2022. The Receivables Financing Agreement includes a minimum borrowing requirement of 50% of the facility limit or available borrowing capacity, whichever is less. The administrative agent for our Receivables Financing Agreement is PNC Bank, National Association. Under the Receivables Financing Agreement, our eligible trade receivables are used for collateralized borrowings and continue to be serviced by us. In addition, the Receivables Financing Agreement incorporates the secured leverage covenant that is contained in the \$1,615.0 million senior secured credit facility. As of June 30, 2021, \$457.9 million of our trade receivables were pledged as collateral. As of June 30, 2021, we had \$125.0 million drawn with \$125.0 million of additional borrowing capacity available under the Receivables Financing Agreement. As of December 31, 2020 and June 30, 2020, we had \$125.0 million and \$240.7 million, respectively, drawn under the Receivables Financing Agreement.

Olin also has trade accounts receivable factoring arrangements (AR Facilities) and pursuant to the terms of the AR Facilities, certain of our domestic subsidiaries may sell their accounts receivable up to a maximum of \$228.0 million and certain of our foreign subsidiaries may sell their accounts receivable up to a maximum of €35.3 million. We will continue to service the outstanding accounts sold. These receivables qualify for sales treatment under ASC 860 and, accordingly, the proceeds are included in net cash provided by operating activities in the condensed statements of cash flows. The gross amount of receivables sold for the three months ended June 30, 2021 and 2020 totaled \$487.3 million and \$457.5 million, respectively. The factoring discount paid under the AR Facilities is recorded as interest expense on the condensed statements of operations. The factoring discount was \$0.3 million and \$0.4 million for the three months ended June 30, 2021 and 2020, respectively, and \$0.7 million and \$1.0 million for the six months ended June 30, 2021 and 2020, respectively. The agreements are without recourse and therefore no recourse liability has been recorded as of June 30, 2021, December 31, 2020 and June 30, 2020. As of June 30, 2021, December 31, 2020 and June 30, 2020, \$85.7 million, \$48.8 million and \$61.7 million, respectively, of receivables qualifying for sales treatment were outstanding and will continue to be serviced by us.

At June 30, 2021, we had total letters of credit of \$81.3 million outstanding, of which \$0.4 million were issued under our Senior Revolving Credit Facility. The letters of credit were used to support certain long-term debt, certain workers compensation insurance policies, certain plant closure and post-closure obligations, certain international payment obligations and certain international pension funding requirements.

Our current debt structure is used to fund our business operations. As of June 30, 2021, we had long-term borrowings, including the current installment and finance lease obligations, of \$3,382.9 million, of which \$945.9 million were at variable rates. Included within long-term borrowings on the condensed balance sheets were deferred debt issuance costs and unamortized bond original issue discount. Commitments from banks under our Senior Revolving Credit Facility, Receivables Financing Agreement and AR Facilities are additional sources of liquidity.

On May 14, 2021, following the redemption of the remaining Blue Cube 2025 Notes, all subsidiary guarantees of the 2025 Notes, 5.125% senior notes due 2027, 2029 Notes and 2030 Notes (collectively, the Senior Notes) were released in accordance with the terms of the indentures governing the Senior Notes. Our obligations under the Senior Notes are no longer guaranteed by any of Olin's subsidiaries and there are no outstanding debt securities issued by any of Olin's subsidiaries that are guaranteed by Olin or any other of Olin's subsidiaries.

Off-Balance Sheet Arrangements

Purchasing commitments are utilized in our normal course of business for our projected needs. We have supply contracts with various third parties for certain raw materials including ethylene, electricity, propylene and benzene. These agreements are maintained through long-term cost based contracts that provide us with a reliable supply of key raw materials.

New Accounting Pronouncements

Discussion of new accounting pronouncements can be referred to under Item 1, within Note 2, "Recent Accounting Pronouncements."

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

We are exposed to market risk in the normal course of our business operations due to our purchases of certain commodities, our ongoing investing and financing activities and our operations that use foreign currencies. The risk of loss can be assessed from the perspective of adverse changes in fair values, cash flows and future earnings. We have established policies and procedures governing our management of market risks and the use of financial instruments to manage exposure to such risks.

Energy costs, including electricity and natural gas, and certain raw materials used in our production processes are subject to price volatility. Depending on market conditions, we may enter into futures contracts, forward contracts, commodity swaps and put and call option contracts in order to reduce the impact of commodity price fluctuations. As of June 30, 2021, we maintained open positions on commodity contracts with a notional value totaling \$250.8 million (\$214.1 million at December 31, 2020 and \$225.1 million at June 30, 2020). Assuming a hypothetical 10% increase in commodity prices which are currently hedged, as of June 30, 2021, we would experience a \$25.1 million (\$21.4 million at December 31, 2020 and \$22.5 million at June 30, 2020) increase in our cost of inventory purchased, which would be substantially offset by a corresponding increase in the value of related hedging instruments.

We transact business in various foreign currencies other than the USD which exposes us to movements in exchange rates which may impact revenue and expenses, assets and liabilities and cash flows. Our significant foreign currency exposure is denominated with European currencies, primarily the Euro, although exposures also exist in other currencies of Asia Pacific, Latin America, Middle East and Africa. For all derivative positions, we evaluated the effects of a 10% shift in exchange rates between those currencies and the USD, holding all other assumptions constant. Unfavorable currency movements of 10% would negatively affect the fair values of the derivatives held to hedge currency exposures by \$37.0 million. These unfavorable changes would generally have been offset by favorable changes in the values of the underlying exposures.

We are exposed to changes in interest rates primarily as a result of our investing and financing activities. Our current debt structure is used to fund business operations, and commitments from banks under our Senior Revolving Credit Facility, Receivables Financing Agreement and AR Facilities are additional sources of liquidity. As of June 30, 2021, December 31, 2020 and June 30, 2020, we had long-term borrowings, including current installments and finance lease obligations, of \$3,382.9 million, \$3,863.8 million and \$4,075.7 million, respectively, of which \$945.9 million, \$780.9 million and \$396.6 million at June 30, 2021, December 31, 2020 and June 30, 2020, respectively, were issued at variable rates. Included within long-term borrowings on the condensed balance sheets were deferred debt issuance costs and unamortized bond original issue discount.

Assuming no changes in the \$945.9 million of variable-rate debt levels from June 30, 2021, we estimate that a hypothetical change of 100-basis points in the LIBOR interest rates would impact annual interest expense by \$9.5 million.

Our interest rate swaps increased interest expense by \$0.6 million and \$0.1 million for the three months ended June 30, 2021 and 2020, respectively, and \$1.8 million and \$0.2 million for the six months ended June 30, 2021 and 2020, respectively.

If the actual changes in commodities, foreign currency, or interest pricing is substantially different than expected, the net impact of commodity risk, foreign currency risk, or interest rate risk on our cash flow may be materially different than that disclosed above.

We do not enter into any derivative financial instruments for speculative purposes.

Item 4. Controls and Procedures.

Our chief executive officer and our chief financial officer evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2021. Based on that evaluation, our chief executive officer and chief financial officer have concluded that, as of such date, our disclosure controls and procedures were effective to ensure that information Olin is required to disclose in the reports that it files or submits with the SEC under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, and to ensure that information we are required to disclose in such reports is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

There have been no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2021, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Cautionary Statement Regarding Forward-Looking Statements

This quarterly report on Form 10-Q includes forward-looking statements. These statements relate to analyses and other information that are based on management's beliefs, certain assumptions made by management, forecasts of future results, and current expectations, estimates and projections about the markets and economy in which we and our various segments operate. The statements contained in this quarterly report on Form 10-Q that are not statements of historical fact may include forward-looking statements that involve a number of risks and uncertainties.

We have used the words "anticipate," "intend," "may," "expect," "believe," "should," "plan," "project," "estimate," "forecast," "optimistic," and variations of such words and similar expressions in this quarterly report to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions, which are difficult to predict and many of which are beyond our control. Therefore, actual outcomes and results may differ materially from those matters expressed or implied in such forward-looking statements. We undertake no obligation to update publicly any forward-looking statements, whether as a result of future events, new information or otherwise. The payment of cash dividends is subject to the discretion of our board of directors and will be determined in light of then-current conditions, including our earnings, our operations, our financial conditions, our capital requirements and other factors deemed relevant by our board of directors. In the future, our board of directors may change our dividend policy, including the frequency or amount of any dividend, in light of then-existing conditions.

The risks, uncertainties and assumptions involved in our forward-looking statements, many of which are discussed in more detail in our filings with the SEC, including without limitation the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2020, include, but are not limited to the following:

Business, Industry and Operational Risks

- sensitivity to economic, business and market conditions in the United States and overseas, including economic instability or a downturn in the sectors served by us;
- declines in average selling prices in the chlor alkali industry and the supply/demand balance for our products, including the impact of excess industry capacity or an imbalance in demand for our chlor alkali products;
- unsuccessful implementation of our operating model, which prioritizes Electrochemical Unit (ECU) margins over sales volumes;
- our reliance on a limited number of suppliers for specified feedstock and services and our reliance on third-party transportation;
- failure to control costs or to achieve targeted cost reductions;
- higher-than-expected raw material, energy, transportation and/or logistics costs;
- the occurrence of unexpected manufacturing interruptions and outages, including those occurring as a result of labor disruptions and production hazards;
- the failure or an interruption of our information technology systems;
- our substantial amount of indebtedness and significant debt service obligations;
- the negative impact from the COVID-19 pandemic and the global response to the pandemic;
- weak industry conditions affecting our ability to comply with the financial maintenance covenants in our senior secured credit facility;
- the loss of a substantial customer for either chlorine or caustic soda could cause an imbalance in customer demand for these products;
- failure to attract, retain and motivate key employees;

- risks associated with our international sales and operations, including economic, political or regulatory changes;
- the effects of any declines in global equity markets on asset values and any declines in interest rates or other significant assumptions used to value the liabilities in our pension plan;
- adverse conditions in the credit and capital markets, limiting or preventing our ability to borrow or raise capital;
- our long-range plan assumptions not being realized causing a non-cash impairment charge of long-lived assets;

Legal, Environmental and Regulatory Risks

- new regulations or public policy changes regarding the transportation of hazardous chemicals and the security of chemical manufacturing facilities;
- changes in, or failure to comply with, legislation or government regulations or policies, including changes within the international markets in which we operate;
- unexpected litigation outcomes;
- costs and other expenditures in excess of those projected for environmental investigation and remediation or other legal proceedings; and
- various risks associated with our Lake City U.S. Army Ammunition Plant contract, including performance and compliance with governmental contract provisions.

All of our forward-looking statements should be considered in light of these factors. In addition, other risks and uncertainties not presently known to us or that we consider immaterial could affect the accuracy of our forward-looking statements.

Part II—Other Information**Item 1. Legal Proceedings.**

Not Applicable.

Item 1A. Risk Factors.

Not Applicable.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

(a) Not Applicable.

(b) Not Applicable.

(c)

Issuer Purchases of Equity Securities

<i>Period</i>	<i>Total Number of Shares (or Units) Purchased⁽¹⁾</i>	<i>Average Price Paid per Share (or Unit)</i>	<i>Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs</i>	<i>Maximum Dollar Value of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs</i>
April 1-30, 2021	—	\$—	—	
May 1-31, 2021	—	—	—	
June 1-30, 2021	—	—	—	
Total				304,075,829 ⁽¹⁾

(1) On April 26, 2018, our board of directors authorized a share repurchase program for the purchase of shares of common stock at an aggregate price of up to \$500.0 million. This program will terminate upon the purchase of \$500.0 million of our common stock. Through June 30, 2021, 10,072,741 shares had been repurchased at a total value of \$195,924,171 and \$304,075,829 of common stock remained available for purchase under the program.

Item 3. Defaults Upon Senior Securities.

Not Applicable.

Item 4. Mine Safety Disclosures.

Not Applicable.

Item 5. Other Information.

Not Applicable.

Item 6. Exhibits.

Exhibit	Exhibit Description
31.1	Section 302 Certification Statement of Chief Executive Officer
31.2	Section 302 Certification Statement of Chief Financial Officer
32	Section 906 Certification Statement of Chief Executive Officer and Chief Financial Officer
101.INS	XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the XBRL document)
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded in the Exhibit 101 Interactive Data Files)

*Previously filed as indicated and incorporated herein by reference. Exhibits incorporated by reference are located in SEC file No. 1-1070 unless otherwise indicated.

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.

OLIN CORPORATION
(Registrant)

By: /s/ Todd A. Slater
Vice President and Chief Financial Officer
(Authorized Officer)

Date: July 28, 2021

CERTIFICATIONS

I, Scott Sutton, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Olin Corporation;

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

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

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

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

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

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

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

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of 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: July 28, 2021

/s/ Scott Sutton

Scott Sutton

Chairman, President and Chief Executive Officer

CERTIFICATIONS

I, Todd A. Slater, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Olin Corporation;

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

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

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

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

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

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

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

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of 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: July 28, 2021

/s/ Todd A. Slater

Todd A. Slater

Vice President and Chief Financial Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED

PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Olin Corporation (the "Company") on Form 10-Q for the period ended June 30, 2021 as filed with the Securities and Exchange Commission (the "Report"), I, Scott Sutton, Chairman, President and Chief Executive Officer and I, Todd A. Slater, Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to our knowledge: (1) the Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

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.

/s/ Scott Sutton

Scott Sutton

Chairman, President and Chief Executive Officer

Dated: July 28, 2021

/s/ Todd A. Slater

Todd A. Slater

Vice President and Chief Financial Officer

Dated: July 28, 2021