

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q

- QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended
September 30, 2022
Or
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number: 001-32410



CELANESE CORPORATION

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

98-0420726

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

222 W. Las Colinas Blvd., Suite 900N

Irving, TX 75039-5421

(Address of Principal Executive Offices and zip code)

(972) 443-4000

(Registrant's telephone number, including area code)

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

<u>Title of Each Class</u>	<u>Trading Symbol(s)</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, par value \$0.0001 per share	CE	The New York Stock Exchange
1.125% Senior Notes due 2023	CE /23	The New York Stock Exchange
1.250% Senior Notes due 2025	CE /25	The New York Stock Exchange
4.777% Senior Notes due 2026	CE /26A	The New York Stock Exchange
2.125% Senior Notes due 2027	CE /27	The New York Stock Exchange
0.625% Senior Notes due 2028	CE /28	The New York Stock Exchange
5.337% Senior Notes due 2029	CE /29A	The 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, 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

The number of outstanding shares of the registrant's common stock, \$0.0001 par value, as of October 28, 2022 was 108,428,071.

CELANESE CORPORATION AND SUBSIDIARIES

Form 10-Q

For the Quarterly Period Ended September 30, 2022

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Item 1. Financial Statements

CELANESE CORPORATION AND SUBSIDIARIES
UNAUDITED INTERIM CONSOLIDATED STATEMENTS OF OPERATIONS

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
	(In \$ millions, except share and per share data)			
Net sales	2,301	2,266	7,325	6,262
Cost of sales	(1,755)	(1,551)	(5,329)	(4,301)
Gross profit	546	715	1,996	1,961
Selling, general and administrative expenses	(184)	(165)	(555)	(463)
Amortization of intangible assets	(10)	(6)	(32)	(17)
Research and development expenses	(25)	(21)	(75)	(63)
Other (charges) gains, net	(15)	—	(15)	3
Foreign exchange gain (loss), net	(2)	2	(4)	2
Gain (loss) on disposition of businesses and assets, net	(2)	11	7	6
Operating profit (loss)	308	536	1,322	1,429
Equity in net earnings (loss) of affiliates	73	44	189	110
Non-operating pension and other postretirement employee benefit (expense) income	25	37	74	113
Interest expense	(154)	(21)	(237)	(70)
Refinancing expense	—	(9)	—	(9)
Interest income	34	2	36	7
Dividend income - equity investments	30	35	103	114
Other income (expense), net	5	(2)	4	(3)
Earnings (loss) from continuing operations before tax	321	622	1,491	1,691
Income tax (provision) benefit	(127)	(102)	(351)	(303)
Earnings (loss) from continuing operations	194	520	1,140	1,388
Earnings (loss) from operation of discontinued operations	—	(17)	(8)	(24)
Income tax (provision) benefit from discontinued operations	(1)	4	1	6
Earnings (loss) from discontinued operations	(1)	(13)	(7)	(18)
Net earnings (loss)	193	507	1,133	1,370
Net (earnings) loss attributable to noncontrolling interests	(2)	(1)	(6)	(4)
Net earnings (loss) attributable to Celanese Corporation	191	506	1,127	1,366
Amounts attributable to Celanese Corporation				
Earnings (loss) from continuing operations	192	519	1,134	1,384
Earnings (loss) from discontinued operations	(1)	(13)	(7)	(18)
Net earnings (loss)	191	506	1,127	1,366
Earnings (loss) per common share - basic				
Continuing operations	1.77	4.70	10.47	12.35
Discontinued operations	(0.01)	(0.12)	(0.07)	(0.16)
Net earnings (loss) - basic	1.76	4.58	10.40	12.19
Earnings (loss) per common share - diluted				
Continuing operations	1.76	4.67	10.39	12.28
Discontinued operations	(0.01)	(0.11)	(0.07)	(0.16)
Net earnings (loss) - diluted	1.75	4.56	10.32	12.12
Weighted average shares - basic	108,428,982	110,532,051	108,336,574	112,101,651
Weighted average shares - diluted	109,065,970	111,044,558	109,158,832	112,699,297

See the accompanying notes to the unaudited interim consolidated financial statements.

CELANESE CORPORATION AND SUBSIDIARIES
UNAUDITED INTERIM CONSOLIDATED STATEMENTS OF
COMPREHENSIVE INCOME (LOSS)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
	(In \$ millions)			
Net earnings (loss)	193	507	1,133	1,370
Other comprehensive income (loss), net of tax				
Foreign currency translation gain (loss)	(49)	(15)	(201)	(12)
Gain (loss) on cash flow hedges	(11)	(15)	30	16
Pension and postretirement benefits	—	—	2	(4)
Total other comprehensive income (loss), net of tax	(60)	(30)	(169)	—
Total comprehensive income (loss), net of tax	133	477	964	1,370
Comprehensive (income) loss attributable to noncontrolling interests	(2)	(1)	(6)	(4)
Comprehensive income (loss) attributable to Celanese Corporation	131	476	958	1,366

See the accompanying notes to the unaudited interim consolidated financial statements.

CELANESE CORPORATION AND SUBSIDIARIES
UNAUDITED CONSOLIDATED BALANCE SHEETS

	As of September 30, 2022	As of December 31, 2021
	(In \$ millions, except share data)	
ASSETS		
Current Assets		
Cash and cash equivalents	9,671	536
Trade receivables - third party and affiliates	1,120	1,161
Non-trade receivables, net	492	506
Inventories	1,723	1,524
Other assets	186	80
Total current assets	<u>13,192</u>	<u>3,807</u>
Investments in affiliates	954	823
Property, plant and equipment (net of accumulated depreciation - 2022: \$3,475; 2021: \$3,484)	4,089	4,193
Operating lease right-of-use assets	246	236
Deferred income taxes	222	248
Other assets	695	521
Goodwill	1,294	1,412
Intangible assets, net	645	735
Total assets	<u><u>21,337</u></u>	<u><u>11,975</u></u>
LIABILITIES AND EQUITY		
Current Liabilities		
Short-term borrowings and current installments of long-term debt - third party and affiliates	977	791
Trade payables - third party and affiliates	1,128	1,160
Other liabilities	555	473
Income taxes payable	128	81
Total current liabilities	<u>2,788</u>	<u>2,505</u>
Long-term debt, net of unamortized deferred financing costs	11,360	3,176
Deferred income taxes	640	555
Uncertain tax positions	314	280
Benefit obligations	489	558
Operating lease liabilities	205	200
Other liabilities	247	164
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock, \$0.01 par value, 100,000,000 shares authorized (2022 and 2021: 0 issued and outstanding)	—	—
Common stock, \$0.0001 par value, 400,000,000 shares authorized (2022: 170,090,785 issued and 108,386,739 outstanding; 2021: 169,760,024 issued and 108,023,735 outstanding)	—	—
Treasury stock, at cost (2022: 61,704,046 shares; 2021: 61,736,289 shares)	(5,492)	(5,492)
Additional paid-in capital	356	333
Retained earnings	10,584	9,677
Accumulated other comprehensive income (loss), net	(498)	(329)
Total Celanese Corporation stockholders' equity	<u>4,950</u>	<u>4,189</u>
Noncontrolling interests	344	348
Total equity	<u>5,294</u>	<u>4,537</u>
Total liabilities and equity	<u><u>21,337</u></u>	<u><u>11,975</u></u>

See the accompanying notes to the unaudited interim consolidated financial statements.

CELANESE CORPORATION AND SUBSIDIARIES
UNAUDITED INTERIM CONSOLIDATED STATEMENTS OF EQUITY

	Three Months Ended September 30,			
	2022		2021	
	Shares	Amount	Shares	Amount
	(In \$ millions, except share data)			
Common Stock				
Balance as of the beginning of the period	108,346,035	—	111,115,442	—
Purchases of treasury stock	—	—	(1,938,179)	—
Stock awards	40,704	—	3,060	—
Balance as of the end of the period	<u>108,386,739</u>	<u>—</u>	<u>109,180,323</u>	<u>—</u>
Treasury Stock				
Balance as of the beginning of the period	61,704,046	(5,492)	58,601,877	(4,993)
Purchases of treasury stock, including related fees	—	—	1,938,179	(300)
Balance as of the end of the period	<u>61,704,046</u>	<u>(5,492)</u>	<u>60,540,056</u>	<u>(5,293)</u>
Additional Paid-In Capital				
Balance as of the beginning of the period		344		292
Stock-based compensation, net of tax		12		21
Balance as of the end of the period		<u>356</u>		<u>313</u>
Retained Earnings				
Balance as of the beginning of the period		10,466		8,797
Net earnings (loss) attributable to Celanese Corporation		191		506
Common stock dividends		(73)		(76)
Balance as of the end of the period		<u>10,584</u>		<u>9,227</u>
Accumulated Other Comprehensive Income (Loss), Net				
Balance as of the beginning of the period		(438)		(298)
Other comprehensive income (loss), net of tax		(60)		(30)
Balance as of the end of the period		<u>(498)</u>		<u>(328)</u>
Total Celanese Corporation stockholders' equity		<u>4,950</u>		<u>3,919</u>
Noncontrolling Interests				
Balance as of the beginning of the period		345		359
Net earnings (loss) attributable to noncontrolling interests		2		1
Distributions to noncontrolling interests		(3)		(8)
Balance as of the end of the period		<u>344</u>		<u>352</u>
Total equity		<u>5,294</u>		<u>4,271</u>

See the accompanying notes to the unaudited interim consolidated financial statements.

CELANESE CORPORATION AND SUBSIDIARIES
UNAUDITED INTERIM CONSOLIDATED STATEMENTS OF EQUITY

	Nine Months Ended September 30,			
	2022		2021	
	Shares	Amount	Shares	Amount
	(In \$ millions, except share data)			
Common Stock				
Balance as of the beginning of the period	108,023,735	—	114,168,464	—
Purchases of treasury stock	—	—	(5,332,727)	—
Stock awards	363,004	—	344,586	—
Balance as of the end of the period	<u>108,386,739</u>	<u>—</u>	<u>109,180,323</u>	<u>—</u>
Treasury Stock				
Balance as of the beginning of the period	61,736,289	(5,492)	55,234,515	(4,494)
Purchases of treasury stock, including related fees	—	—	5,332,727	(800)
Issuance of treasury stock under stock plans	(32,243)	—	(27,186)	1
Balance as of the end of the period	<u>61,704,046</u>	<u>(5,492)</u>	<u>60,540,056</u>	<u>(5,293)</u>
Additional Paid-In Capital				
Balance as of the beginning of the period		333		257
Stock-based compensation, net of tax		23		56
Balance as of the end of the period		<u>356</u>		<u>313</u>
Retained Earnings				
Balance as of the beginning of the period		9,677		8,091
Net earnings (loss) attributable to Celanese Corporation		1,127		1,366
Common stock dividends		(220)		(230)
Balance as of the end of the period		<u>10,584</u>		<u>9,227</u>
Accumulated Other Comprehensive Income (Loss), Net				
Balance as of the beginning of the period		(329)		(328)
Other comprehensive income (loss), net of tax		(169)		—
Balance as of the end of the period		<u>(498)</u>		<u>(328)</u>
Total Celanese Corporation stockholders' equity		<u>4,950</u>		<u>3,919</u>
Noncontrolling Interests				
Balance as of the beginning of the period		348		369
Net earnings (loss) attributable to noncontrolling interests		6		4
Distributions to noncontrolling interests		(10)		(21)
Balance as of the end of the period		<u>344</u>		<u>352</u>
Total equity		<u>5,294</u>		<u>4,271</u>

See the accompanying notes to the unaudited interim consolidated financial statements.

CELANESE CORPORATION AND SUBSIDIARIES
UNAUDITED INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS

	Nine Months Ended September 30,	
	2022	2021
	(In \$ millions)	
Operating Activities		
Net earnings (loss)	1,133	1,370
Adjustments to reconcile net earnings (loss) to net cash provided by (used in) operating activities		
Asset impairments	12	2
Depreciation, amortization and accretion	318	278
Pension and postretirement net periodic benefit cost	(63)	(102)
Pension and postretirement contributions	(34)	(36)
Deferred income taxes, net	14	9
(Gain) loss on disposition of businesses and assets, net	(6)	(7)
Stock-based compensation	47	76
Undistributed earnings in unconsolidated affiliates	(56)	(48)
Other, net	8	21
Operating cash provided by (used in) discontinued operations	(25)	14
Changes in operating assets and liabilities		
Trade receivables - third party and affiliates, net	(61)	(402)
Inventories	(321)	(207)
Other assets	26	(150)
Trade payables - third party and affiliates	97	259
Other liabilities	189	96
Net cash provided by (used in) operating activities	1,278	1,173
Investing Activities		
Capital expenditures on property, plant and equipment	(400)	(304)
Acquisitions, net of cash acquired	(14)	(15)
Proceeds from sale of businesses and assets, net	16	22
Proceeds from sale of marketable securities	—	500
Other, net	(30)	(36)
Net cash provided by (used in) investing activities	(428)	167
Financing Activities		
Net change in short-term borrowings with maturities of 3 months or less	(249)	17
Repayments of short-term borrowings	—	(6)
Proceeds from long-term debt	9,019	991
Repayments of long-term debt	(21)	(778)
Purchases of treasury stock, including related fees	(17)	(803)
Common stock dividends	(220)	(230)
Distributions to noncontrolling interests	(10)	(21)
Settlement of forward-starting interest rate swaps	—	(72)
Issuance cost of bridge facility	(63)	—
Other, net	(93)	(41)
Net cash provided by (used in) financing activities	8,346	(943)
Exchange rate effects on cash and cash equivalents	(61)	(12)
Net increase (decrease) in cash and cash equivalents	9,135	385
Cash and cash equivalents as of beginning of period	536	955
Cash and cash equivalents as of end of period	9,671	1,340

See the accompanying notes to the unaudited interim consolidated financial statements.

CELANESE CORPORATION AND SUBSIDIARIES
NOTES TO THE UNAUDITED INTERIM CONSOLIDATED FINANCIAL STATEMENTS

1. Description of the Company and Basis of Presentation

Description of the Company

Celanese Corporation and its subsidiaries (collectively, the "Company") is a global chemical and specialty materials company. The Company produces high performance engineered polymers that are used in a variety of high-value applications, as well as acetyl products, which are intermediate chemicals, for nearly all major industries. The Company also engineers and manufactures a wide variety of products essential to everyday living. The Company's broad product portfolio serves a diverse set of end-use applications including automotive, chemical additives, construction, consumer and industrial adhesives, consumer and medical, energy storage, filtration, food and beverage, paints and coatings, paper and packaging, performance industrial and textiles.

Definitions

In this Quarterly Report on Form 10-Q ("Quarterly Report"), the term "Celanese" refers to Celanese Corporation, a Delaware corporation, and not its subsidiaries. The term "Celanese U.S." refers to the Company's subsidiary, Celanese US Holdings LLC, a Delaware limited liability company, and not its subsidiaries.

Basis of Presentation

The unaudited interim consolidated financial statements for the three and nine months ended September 30, 2022 and 2021 contained in this Quarterly Report were prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for all periods presented and include the accounts of the Company, its majority owned subsidiaries over which the Company exercises control and, when applicable, variable interest entities in which the Company is the primary beneficiary. The unaudited interim consolidated financial statements and other financial information included in this Quarterly Report, unless otherwise specified, have been presented to separately show the effects of discontinued operations.

In the opinion of management, the accompanying unaudited consolidated balance sheets and related unaudited interim consolidated statements of operations, comprehensive income (loss), cash flows and equity include all adjustments, consisting only of normal recurring items necessary for their fair presentation in conformity with U.S. GAAP. Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted in accordance with rules and regulations of the Securities and Exchange Commission ("SEC"). These unaudited interim consolidated financial statements should be read in conjunction with the Company's consolidated financial statements as of and for the year ended December 31, 2021, filed on February 10, 2022 with the SEC as part of the Company's Annual Report on Form 10-K.

Operating results for the three and nine months ended September 30, 2022 are not necessarily indicative of the results to be expected for the entire year.

In the ordinary course of business, the Company enters into contracts and agreements relative to a number of topics, including acquisitions, dispositions, joint ventures, supply agreements, product sales and other arrangements. The Company endeavors to describe those contracts or agreements that are material to its business, results of operations or financial position. The Company may also describe some arrangements that are not material but in which the Company believes investors may have an interest or which may have been included in a Form 8-K filing. Investors should not assume the Company has described all contracts and agreements relative to the Company's business in this Quarterly Report.

For those consolidated ventures in which the Company owns or is exposed to less than 100% of the economics, the outside stockholders' interests are shown as noncontrolling interests.

Estimates and Assumptions

The preparation of unaudited interim consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the unaudited interim consolidated financial statements and the reported amounts of Net sales, expenses and allocated charges during the reporting period. Significant estimates pertain to impairments of goodwill, intangible assets and other long-lived assets, purchase price allocations, restructuring costs and other (charges) gains, net, income taxes, pension

and other postretirement benefits, asset retirement obligations, environmental liabilities and loss contingencies, among others. Actual results could differ from those estimates.

2. Recent Accounting Pronouncements

There are no recent Accounting Standard Updates issued by the Financial Accounting Standards Board which are expected to materially impact the Company's financial position, operating results or financial disclosures.

3. Acquisitions, Dispositions and Plant Closures

Acquisitions

In December 2021, the Company acquired the Santoprene™ thermoplastic vulcanizates ("TPV") elastomers business of Exxon Mobil Corporation ("Santoprene") for a purchase price of \$1.15 billion in an all-cash transaction. The Company acquired the Santoprene™, Dytron™ and Geolast™ trademarks and product portfolios, customer and supplier contracts and agreements, both production facilities producing TPV, the TPV intellectual property portfolio with associated technical and R&D assets and employees of the TPV elastomer business. The acquisition of Santoprene substantially strengthens the Company's existing elastomers portfolio, allowing the Company to bring a wider range of functionalized solutions into targeted growth areas including future mobility, medical and sustainability. The acquisition was accounted for as a business combination and the acquired operations are included in the Engineered Materials segment. The Company allocated the purchase price of the acquisition to identifiable assets acquired and liabilities assumed based on their estimated fair values as of the acquisition date. The purchase price allocation was based upon preliminary information and is subject to change if additional information about the facts and circumstances that existed at the acquisition date becomes available. The Company is in the ongoing process of conducting a valuation of the assets acquired and liabilities assumed related to the acquisition, including deferred taxes. The final fair value of the net assets acquired may result in adjustments to these assets and liabilities, including goodwill. During the measurement period, there were no adjustments that materially impacted the Company's goodwill initially recorded.

On February 17, 2022, the Company signed a definitive agreement to acquire a majority of the Mobility & Materials business of DuPont de Nemours, Inc. (the "M&M Acquisition") for a purchase price of \$11.0 billion, subject to certain adjustments, in an all-cash transaction. The Company will acquire a global production network of 29 facilities, including compounding and polymerization, customer and supplier contracts and agreements, an intellectual property portfolio including approximately 850 patents with associated technical and R&D assets, and expects to acquire approximately 5,000 employees across the manufacturing, technical, and commercial organizations. The acquired operations will be included in the Engineered Materials segment. The Company closed on the M&M Acquisition on November 1, 2022. See [Note 19](#) for further information.

In connection with the planned M&M Acquisition, also on February 17, 2022, the Company entered into a bridge facility commitment letter with Bank of America, N.A. ("Bank of America") pursuant to which Bank of America has committed to provide, subject to the terms and conditions set forth therein, a 364-day \$11.0 billion senior unsecured bridge term loan facility (the "Bridge Facility"). Subsequently, commitments in respect of the Bridge Facility were syndicated to additional financial institutions as contemplated thereby.

On March 18, 2022, Celanese, Celanese U.S. and certain subsidiaries entered into a term loan credit agreement (the "March 2022 Term Loan Credit Agreement"), pursuant to which lenders have committed to provide a tranche of delayed-draw term loans due 364 days from issuance in an amount equal to \$500 million and a tranche of delayed-draw term loans due 5 years from issuance in an amount equal to \$1.0 billion. On September 16, 2022, Celanese, Celanese U.S. and certain subsidiaries entered into an additional term loan credit agreement (the "September 2022 Term Loan Credit Agreement" and, together with the March 2022 Term Loan Credit Agreement, the "Term Loan Credit Agreements"), pursuant to which lenders have committed to provide delayed-draw term loans due 3 years from issuance in an amount equal to \$750 million (the term loans represented by the Term Loan Credit Agreements collectively, the "Term Loan Facility").

Amounts outstanding under the 364-day tranche of the Term Loan Facility will accrue interest at a rate equal to Secured Overnight Financing Rate with an interest period of one or three months ("Term SOFR") plus a margin of 1.00% to 2.00% per annum, or the base rate plus a margin of 0.00% to 1.00%, in each case, based on the Company's senior unsecured debt rating. Amounts outstanding under the 5-year tranche of the Term Loan Facility and 3-year tranche of the Term Loan Facility will accrue interest at a rate equal to Term SOFR plus a margin of 1.125% to 2.125% per annum, or the base rate plus a margin of 0.125% to 1.125%, in each case, based on the Company's senior unsecured debt rating.

The Term Loan Credit Agreements contain certain covenants described in [Note 7](#).

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The entry into the Term Loan Credit Agreements and offerings of USD- and euro-denominated notes reduced availability under the Bridge Facility to zero and the Company terminated the Bridge Facility. See [Note 7](#) for further information.

The Term Loan Facility, subject to the terms and conditions set forth in the Term Loan Credit Agreements, together with the Acquisition Notes (as defined and described in [Note 7](#)) and additional debt financing, will be available to finance the M&M Acquisition, and to pay fees and expenses related thereto. The Term Loan Facility is guaranteed by Celanese and domestic subsidiaries representing substantially all of the Company's U.S. assets and business operations (the "Subsidiary Guarantors").

During the nine months ended September 30, 2022, the Company paid \$66 million in fees related to the Bridge Facility commitment, amortizing these fees to interest expense in the nine months ended September 30, 2022.

Korea Engineering Plastics Co. Restructuring

On April 1, 2022, the Company completed the restructuring of Korea Engineering Plastics Co. ("KEPCO"), a joint venture owned 50% by the Company and 50% by Mitsubishi Gas Chemical Company, Inc. KEPCO was first formed in 1987 to manufacture and market polyoxymethylene ("POM") in Asia, with a particular focus on serving domestic demand in South Korea. KEPCO will now focus solely on manufacturing and supplying high quality products to its stockholders, who will independently market them globally. As part of the restructuring of KEPCO, the Company paid KEPCO \$5 million and will pay 5 equal annual installments of €24 million on October 1 of each year beginning in 2022. This resulted in an increase to the Company's investment in KEPCO of \$134 million. The Company's joint venture partner will be making similar payments to KEPCO. The restructuring did not result in a change in ownership percentage of KEPCO, nor a change in control, and KEPCO will continue to be accounted for as an equity method investment.

Plant Closures

• ***Silao, Mexico***

In September 2022, the Company announced that it will cease manufacturing operations at the engineered materials compounding facility in Silao, Mexico by the end of 2022, with decommissioning taking place in 2023.

The exit and shutdown costs related to this closure are as follows:

	Nine Months Ended September 30, 2022
	(In \$ millions)
Asset impairments ⁽¹⁾	(8)
Restructuring ⁽¹⁾	(3)
Accelerated amortization expense	(3)
Total	(14)

⁽¹⁾ Included in Other (charges) gains, net in the unaudited interim consolidated statement of operations ([Note 18](#)).

The Company expects to incur additional exit and shutdown costs related to Silao, Mexico of approximately \$13 million through 2023.

4. Inventories

	As of September 30, 2022	As of December 31, 2021
	(In \$ millions)	
Finished goods	1,115	1,014
Work-in-process	81	75
Raw materials and supplies	527	435
Total	1,723	1,524

5. Goodwill and Intangible Assets, Net

Goodwill

	Engineered Materials	Acetate Tow	Acetyl Chain	Total
	(In \$ millions)			
As of December 31, 2021	1,030	149	233	1,412
Acquisitions (Note 3)	(5)	—	—	(5) ⁽¹⁾
Exchange rate changes	(80)	(2)	(31)	(113)
As of September 30, 2022 ⁽²⁾	945	147	202	1,294

⁽¹⁾ Related to the acquisition of Santoprene.

⁽²⁾ There were no accumulated impairment losses as of September 30, 2022.

The Company assesses the recoverability of the carrying amount of its reporting unit goodwill either qualitatively or quantitatively annually during the third quarter of its fiscal year using June 30 balances or whenever events or changes in circumstances indicate that the carrying amount of the asset may not be fully recoverable. In connection with the Company's annual goodwill impairment assessment, the Company did not record an impairment loss to goodwill during the nine months ended September 30, 2022 as the estimated fair value for each of the Company's reporting units exceeded the carrying amount of the underlying assets by a substantial margin.

Intangible Assets, Net

Finite-lived intangible assets are as follows:

	Licenses	Customer- Related Intangible Assets	Developed Technology	Covenants Not to Compete and Other	Total
	(In \$ millions)				
Gross Asset Value					
As of December 31, 2021	45	996	45	55	1,141
Acquisitions (Note 3)	—	9	—	—	9 ⁽¹⁾
Accumulated impairment losses	—	(4)	—	—	(4)
Exchange rate changes	(3)	(96)	(2)	(1)	(102)
As of September 30, 2022	42	905	43	54	1,044
Accumulated Amortization					
As of December 31, 2021	(41)	(543)	(42)	(39)	(665)
Amortization	—	(29)	(2)	(1)	(32)
Accumulated impairment losses	—	2	—	—	2
Exchange rate changes	4	54	2	1	61
As of September 30, 2022	(37)	(516)	(42)	(39)	(634)
Net book value	5	389	1	15	410

⁽¹⁾ Represents intangible assets related to the acquisition of Santoprene.

Indefinite-lived intangible assets are as follows:

	Trademarks and Trade Names
	(In \$ millions)
As of December 31, 2021	259
Exchange rate changes	(24)
As of September 30, 2022	<u>235</u>

The Company assesses the recoverability of the carrying amount of its indefinite-lived intangible assets either qualitatively or quantitatively annually during the third quarter of its fiscal year using June 30 balances or whenever events or changes in circumstances indicate that the carrying amount of the assets may not be fully recoverable. In connection with the Company's annual indefinite-lived intangible assets impairment assessment, the Company did not record an impairment loss to indefinite-lived intangible assets during the nine months ended September 30, 2022 as the estimated fair value of each of the Company's indefinite-lived intangible assets exceeded the carrying value of the underlying assets by a substantial margin.

During the nine months ended September 30, 2022, the Company did not renew or extend any intangible assets.

Estimated amortization expense for the succeeding five fiscal years is as follows:

	(In \$ millions)
2023	39
2024	39
2025	39
2026	39
2027	38

6. Current Other Liabilities

	As of September 30, 2022	As of December 31, 2021
	(In \$ millions)	
Benefit obligations (Note 8)	26	26
Customer rebates	61	96
Derivatives (Note 12)	36	5
Interest (Note 7)	115	30
Legal (Note 14)	11	33
Operating leases	43	37
Restructuring (Note 18)	3	7
Salaries and benefits	108	135
Sales and use tax/foreign withholding tax payable	39	27
Other	113	77
Total	<u>555</u>	<u>473</u>

7. Debt

	As of September 30, 2022	As of December 31, 2021
(In \$ millions)		
Short-Term Borrowings and Current Installments of Long-Term Debt - Third Party and Affiliates		
Current installments of long-term debt	962	527
Short-term borrowings, including amounts due to affiliates ⁽¹⁾	15	64
Revolving credit facility ⁽²⁾	—	200
Total	977	791

⁽¹⁾ The weighted average interest rate was 3.0% and 0.2% as of September 30, 2022 and December 31, 2021, respectively.

⁽²⁾ The weighted average interest rate was 0.0% and 1.4% as of September 30, 2022 and December 31, 2021, respectively.

	As of September 30, 2022	As of December 31, 2021
(In \$ millions)		
Long-Term Debt		
Senior unsecured notes due 2022, interest rate of 4.625%	500	500
Senior unsecured notes due 2023, interest rate of 1.125%	438	509
Senior unsecured notes due 2024, interest rate of 3.500%	499	499
Senior unsecured notes due 2024, interest rate of 5.900%	2,000	—
Senior unsecured notes due 2025, interest rate of 1.250%	292	339
Senior unsecured notes due 2025, interest rate of 6.050%	1,750	—
Senior unsecured notes due 2026, interest rate of 1.400%	400	400
Senior unsecured notes due 2026, interest rate of 4.777%	975	—
Senior unsecured notes due 2027, interest rate of 2.125%	485	564
Senior unsecured notes due 2027, interest rate of 6.165%	2,000	—
Senior unsecured notes due 2028, interest rate of 0.625%	487	566
Senior unsecured notes due 2029, interest rate of 5.337%	488	—
Senior unsecured notes due 2029, interest rate of 6.330%	750	—
Senior unsecured notes due 2032, interest rate of 6.379%	1,000	—
Pollution control and industrial revenue bonds due at various dates through 2030, interest rates ranging from 4.05% to 5.00%	164	166
Bank loans due at various dates through 2026 ⁽¹⁾	4	6
Obligations under finance leases due at various dates through 2054	166	173
Subtotal	12,398	3,722
Unamortized debt issuance costs ⁽²⁾	(76)	(19)
Current installments of long-term debt	(962)	(527)
Total	11,360	3,176

⁽¹⁾ The weighted average interest rate was 1.3% and 1.3% as of September 30, 2022 and December 31, 2021, respectively.

⁽²⁾ Related to the Company's long-term debt, excluding obligations under finance leases.

Senior Credit Facilities

On March 18, 2022, Celanese, Celanese U.S. and certain subsidiaries entered into a new revolving credit agreement (the "New Revolving Credit Agreement" and, together with the Term Loan Credit Agreements, the "Credit Agreements") consisting of a \$1.75 billion senior unsecured revolving credit facility (with a letter of credit sublimit), maturing in 2027. The proceeds of a \$365 million borrowing under the new senior unsecured revolving credit facility were used to repay and terminate the

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Company's existing revolving credit facility. The Credit Agreements are guaranteed by Celanese, Celanese U.S. and the Subsidiary Guarantors. The Subsidiary Guarantors are listed in [Exhibit 22.1](#) to this Quarterly Report.

The Credit Agreements contain certain covenants, including the maintenance of certain financial ratios (subject to adjustment following the M&M Acquisition and certain other qualifying acquisitions, as set forth in the Credit Agreements), events of default and change of control provisions.

The Company's debt balances and amounts available for borrowing under its new senior unsecured revolving credit facility are as follows:

	As of September 30, 2022
	(In \$ millions)
Revolving Credit Facility	
Borrowings outstanding ⁽¹⁾	—
Available for borrowing ⁽²⁾	1,750

⁽¹⁾ The Company borrowed \$365 million under its new senior unsecured revolving credit facility to repay and terminate its previous unsecured revolving credit facility and repaid \$365 million under its new senior unsecured revolving credit facility during the nine months ended September 30, 2022. The Company borrowed \$165 million and repaid \$365 million under its previous unsecured revolving credit facility during the three months ended March 31, 2022.

⁽²⁾ The margin for borrowings under the senior unsecured revolving credit facility was 1.00% to 2.00% above certain interbank rates at current Company credit ratings.

On November 1, 2022, the Company borrowed \$300 million under its senior unsecured revolving credit facility for general corporate purposes, reducing availability of borrowings under the facility to \$1.45 billion.

Senior Notes

The Company has outstanding senior unsecured notes, issued in public offerings registered under the Securities Act of 1933 ("Securities Act"), as amended (collectively, the "Senior Notes"). The Senior Notes were issued by Celanese U.S. and are guaranteed on a senior unsecured basis by Celanese and the Subsidiary Guarantors. Celanese U.S. may redeem some or all of each of the Senior Notes, prior to their respective maturity dates, at a redemption price of 100% of the principal amount, plus a "make-whole" premium as specified in the applicable indenture, plus accrued and unpaid interest, if any, to the redemption date.

On July 14, 2022, Celanese U.S. completed an offering of \$7.5 billion aggregate principal amount of notes of various maturities in a public offering registered under the Securities Act (the "Acquisition USD Notes"). On July 19, 2022, Celanese U.S. completed an offering of €1.5 billion in aggregate principal amount of euro-denominated senior unsecured notes due in 2026 and 2029 in a public offering registered under the Securities Act (collectively, the "Acquisition Euro Notes" and together with the Acquisition USD Notes, the "Acquisition Notes"). Certain of the Acquisition Notes were issued at a discount to par, which will be amortized to Interest expense in the consolidated statement of operations over the terms of the applicable Acquisition Notes. Fees and expenses of the offering of the Acquisition Notes, inclusive of underwriting discounts, were \$65 million.

Accounts Receivable Purchasing Facility

In June 2021, the Company entered into an amendment to the amended and restated receivables purchase agreement (the "Amended Receivables Purchase Agreement") under its U.S. accounts receivable purchasing facility among certain of the Company's subsidiaries, its wholly-owned, "bankruptcy remote" special purpose subsidiary ("SPE") and certain global financial institutions ("Purchasers"). The Amended Receivables Purchase Agreement extends the term of the accounts receivable purchasing facility such that the SPE may sell certain receivables until June 18, 2024. Under the Amended Receivables Purchase Agreement, transfers of U.S. accounts receivable from the SPE are treated as sales and are accounted for as a reduction in accounts receivable because the agreement transfers effective control over and risk related to the U.S. accounts receivable to the SPE. The Company and related subsidiaries have no continuing involvement in the transferred U.S. accounts receivable, other than collection and administrative responsibilities and, once sold, the U.S. accounts receivable are no longer available to satisfy creditors of the Company or the related subsidiaries in the event of bankruptcy. These sales are transacted at 100% of the face value of the relevant U.S. accounts receivable, resulting in derecognition of the U.S. accounts receivables from the Company's unaudited consolidated balance sheet. The Company de-recognized \$802 million and \$1.1 billion of accounts receivable under this agreement for the nine months ended September 30, 2022 and twelve months ended December 31, 2021, respectively, and collected \$802 million and \$1.1 billion of accounts receivable sold under this agreement during the same periods. Unsold U.S. accounts receivable of \$130 million were pledged by the SPE as collateral to the Purchasers as of September 30, 2022.

Factoring and Discounting Agreements

The Company has factoring agreements in Europe and Singapore with financial institutions to sell 100% and 90% of certain accounts receivable, respectively, on a non-recourse basis. These transactions are treated as sales and are accounted for as reductions in accounts receivable because the agreements transfer effective control over and risk related to the receivables to the buyer. The Company has no continuing involvement in the transferred receivables, other than collection and administrative responsibilities and, once sold, the accounts receivable are no longer available to satisfy creditors in the event of bankruptcy. The Company de-recognized \$228 million and \$230 million of accounts receivable under these factoring agreements for the nine months ended September 30, 2022 and twelve months ended December 31, 2021, respectively, and collected \$234 million and \$185 million of accounts receivable sold under these factoring agreements during the same periods.

In March 2021, the Company entered into an agreement in Singapore with a financial institution to discount, on a non-recourse basis, documentary credits or other documents recorded as accounts receivable. These transactions are treated as a sale and are accounted for as a reduction in accounts receivable because the agreement transfers effective control over and risk related to the receivables to the buyer. The Company has no continuing involvement in the transferred receivables and, once sold, the accounts receivable are no longer available to satisfy creditors in the event of bankruptcy. The Company de-recognized \$41 million and \$70 million of accounts receivable under this agreement for the nine months ended September 30, 2022 and twelve months ended December 31, 2021, respectively.

Covenants

The Company's material financing arrangements contain customary covenants, including the maintenance of certain financial ratios (subject to adjustment following certain qualifying acquisitions, as set forth in the Credit Agreements), events of default and change of control provisions. Failure to comply with these covenants, or the occurrence of any other event of default, could result in acceleration of the borrowings and other financial obligations. The Company is in compliance with all of the covenants related to its debt agreements as of September 30, 2022.

8. Benefit Obligations

The components of net periodic benefit cost are as follows:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2022		2021		2022		2021	
	Pension Benefits	Post-retirement Benefits	Pension Benefits	Post-retirement Benefits	Pension Benefits	Post-retirement Benefits	Pension Benefits	Post-retirement Benefits
	(In \$ millions)							
Service cost	3	1	3	—	10	1	10	1
Interest cost	17	—	13	1	50	1	40	1
Expected return on plan assets	(42)	—	(51)	—	(125)	—	(154)	—
Total	<u>(22)</u>	<u>1</u>	<u>(35)</u>	<u>1</u>	<u>(65)</u>	<u>2</u>	<u>(104)</u>	<u>2</u>

Benefit obligation funding is as follows:

	As of September 30, 2022	Total Expected 2022
	(In \$ millions)	
Cash contributions to defined benefit pension plans	17	24
Benefit payments to nonqualified pension plans	15	19
Benefit payments to other postretirement benefit plans	2	4

The Company's estimates of its U.S. defined benefit pension plan contributions reflect the provisions of the Pension Protection Act of 2006.

Pension and postretirement benefit plan balances recognized in the unaudited consolidated balance sheets consist of:

	As of September 30, 2022		As of December 31, 2021	
	Pension Benefits	Post-retirement Benefits	Pension Benefits	Post-retirement Benefits
	(In \$ millions)			
Noncurrent Other assets	288	—	221	—
Current Other liabilities	(22)	(4)	(22)	(4)
Benefit obligations	(439)	(45)	(504)	(47)
Net amount recognized	<u>(173)</u>	<u>(49)</u>	<u>(305)</u>	<u>(51)</u>

9. Environmental

The Company is subject to environmental laws and regulations worldwide that impose limitations on the discharge of pollutants into the air and water, establish standards for the treatment, storage and disposal of solid and hazardous wastes, and impose record keeping and notification requirements. Failure to timely comply with these laws and regulations may expose the Company to penalties. The Company believes that it is in substantial compliance with all applicable environmental laws and regulations and engages in an ongoing process of updating its controls to mitigate compliance risks. The Company is also subject to retained environmental obligations specified in various contractual agreements arising from the divestiture of certain businesses by the Company or one of its predecessor companies.

The components of environmental remediation liabilities are as follows:

	As of September 30, 2022	As of December 31, 2021
	(In \$ millions)	
Demerger obligations (Note 14)	20	24
Divestiture obligations (Note 14)	13	14
Active sites	11	8
U.S. Superfund sites	11	12
Other environmental remediation liabilities	2	2
Total	<u>57</u>	<u>60</u>

Remediation

Due to its industrial history and through retained contractual and legal obligations, the Company has the obligation to remediate specific areas on its own sites as well as on divested, demerger, orphan or U.S. Superfund sites (as defined below). In addition, as part of the demerger agreement between the Company and Hoechst AG ("Hoechst"), a specified portion of the responsibility for environmental liabilities from a number of Hoechst divestitures was transferred to the Company ([Note 14](#)). Certain of these sites, at which the Company maintains continuing involvement, were and continue to be designated as discontinued operations when closed. The Company provides for such obligations when the event of loss is probable and reasonably estimable. The Company believes that environmental remediation costs will not have a material adverse effect on the financial position of the Company, but may have a material adverse effect on the results of operations or cash flows in any given period.

U.S. Superfund Sites

In the U.S., the Company may be subject to substantial claims brought by U.S. federal or state regulatory agencies or private individuals pursuant to statutory authority or common law. In particular, the Company has a potential liability under the U.S. Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, and related state laws (collectively referred to as "Superfund") for investigation and cleanup costs at certain sites. At most of these sites, numerous companies, including the Company, or one of its predecessor companies, have been notified that the U.S. Environmental Protection Agency ("EPA"), state governing bodies or private individuals consider such companies to be potentially responsible parties ("PRP") under Superfund or related laws. The proceedings relating to these sites are in various stages. The cleanup process has not been completed at most sites, and the status of the insurance coverage for some of these proceedings is uncertain. Consequently, the Company cannot accurately determine its ultimate liability for investigation or cleanup costs at these sites.

As events progress at each site for which it has been named a PRP, the Company accrues any probable and reasonably estimable liabilities. In establishing these liabilities, the Company considers the contaminants of concern, the potential impact thereof, the relationship of the contaminants of concern to its current and historic operations, its shipment of waste to a site, its percentage of total waste shipped to the site, the types of wastes involved, the conclusions of any studies, the magnitude of any remedial actions that may be necessary and the number and viability of other PRPs. Often the Company joins with other PRPs to sign joint defense agreements that settle, among PRPs, each party's percentage allocation of costs at the site. Although the ultimate liability may differ from the estimate, the Company routinely reviews the liabilities and revises the estimate, as appropriate, based on the most current information available.

One such site is the Diamond Alkali Superfund Site, which is comprised of a number of sub-sites, including the Lower Passaic River Study Area ("LPRSA"), which is the lower 17-mile stretch of the Passaic River ("Lower Passaic River Site"), and the Newark Bay Area. The Company and 70 other companies are parties to a May 2007 Administrative Order on Consent with the EPA to perform a Remedial Investigation/Feasibility Study ("RI/FS") at the Lower Passaic River Site in order to identify the levels of contaminants and potential cleanup actions, including the potential migration of contaminants between the LPRSA and the Newark Bay Area.

In March 2016, the EPA issued its final Record of Decision concerning the remediation of the lower 8.3 miles of the Lower Passaic River Site ("Lower 8.3 Miles"). Pursuant to the EPA's Record of Decision, the Lower 8.3 Miles must be dredged bank to bank and an engineered cap must be installed at an EPA estimated cost of approximately \$1.4 billion. In September 2021, the EPA issued a Record of Decision selecting an interim remedial plan for the upper 9 miles of the Lower Passaic River ("Upper 9 Miles"). Pursuant to the EPA's Record of Decision, targeted dredging will be conducted in the Upper 9 Miles to address surface sediments with elevated contamination followed by the installation of an engineered cap at an EPA estimated cost of \$441 million.

The Company owned and/or operated facilities in the vicinity of the Lower 8.3 Miles, but has found no evidence that it contributed any of the contaminants of concern to the Passaic River. In June 2018, Occidental Chemical Corporation ("OCC"), the successor to the Diamond Alkali Company, sued a subsidiary of the Company and 119 other parties alleging claims for joint and several damages, contribution and declaratory relief under Section 107 and 113 of Superfund for costs to clean up the LPRSA portion of the Diamond Alkali Superfund Site, Occidental Chemical Corporation v. 21st Century Fox America, Inc., et al, No. 2:18-CV-11273-JLL-JAD (U.S. District Court New Jersey), alleging that each of the defendants owned or operated a facility that contributed contamination to the LPRSA. With respect to the Company, the OCC lawsuit is limited to the former Celanese facility that Essex County, New Jersey has agreed to indemnify the Company for and does not change the Company's estimated liability for LPRSA cleanup costs. The Company is vigorously defending these matters and currently estimates that its ultimate allocable share of the cleanup costs with respect to the Lower Passaic River Site is less than 1%. In February 2022, the EPA and a subgroup of defendants in the litigation, including Celanese, reached a settlement in principle with respect to the liability of those defendants for the LPRSA, which will not be material to the Company's results of operations, cash flows or financial position. The Company expects the settlement will be memorialized in a Consent Decree lodged with the U.S. District Court for the District of New Jersey prior to the end of the calendar year.

Other Environmental Matters

In April 2022, a methanol leak on a pipeline to our Bishop, Texas facility was discovered. The release has been contained, the leak has been repaired and the pipeline has resumed operation. The Company promptly disclosed the incident to state and federal authorities, including the Texas Commission on Environmental Quality and the EPA, and are cooperating in ongoing remediation activities. While the Company has not received a notice of violation nor been assessed any fines or penalties to date, the Company recorded a reserve in Other current liabilities based on anticipated clean-up costs and possible penalties to state or federal authorities. The Company does not believe that resolution of this matter will have a material impact on our financial condition or results of operations.

10. Stockholders' Equity

Common Stock

The Company's Board of Directors follows a policy of declaring, subject to legally available funds, a quarterly cash dividend on each share of the Company's Common Stock, par value \$0.0001 per share ("Common Stock"), unless the Company's Board of Directors, in its sole discretion, determines otherwise. The amount available to the Company to pay cash dividends is not currently restricted by its existing senior credit facility and its indentures governing its senior unsecured notes. Any decision to declare and pay dividends in the future will be made at the discretion of the Company's Board of Directors and will depend on, among other things, the results of operations, cash requirements, financial condition, contractual restrictions and other factors that the Company's Board of Directors may deem relevant.

The Company declared a quarterly cash dividend of \$0.70 per share on its Common Stock on October 19, 2022, amounting to \$76 million. The cash dividend will be paid on November 14, 2022 to holders of record as of October 31, 2022.

Treasury Stock

The Company's Board of Directors authorizes repurchases of Common Stock from time to time. These authorizations give management discretion in determining the timing and conditions under which shares may be repurchased. This repurchase program does not have an expiration date.

	Nine Months Ended September 30,		Total From February 2008 Through September 30, 2022
	2022	2021	
Shares repurchased	—	5,332,727	69,324,429
Average purchase price per share	\$ —	\$ 150.02	\$ 83.71
Shares repurchased (in \$ millions)	\$ —	\$ 800	\$ 5,803
Aggregate Board of Directors repurchase authorizations during the period (in \$ millions)	\$ —	\$ 1,000	\$ 6,866

The purchase of treasury stock reduces the number of shares outstanding. The repurchased shares may be used by the Company for compensation programs utilizing the Company's stock and other corporate purposes. The Company accounts for treasury stock using the cost method and includes treasury stock as a component of stockholders' equity.

Other Comprehensive Income (Loss), Net

	Three Months Ended September 30,					
	2022			2021		
	Gross Amount	Income Tax (Provision) Benefit	Net Amount	Gross Amount	Income Tax (Provision) Benefit	Net Amount
	(In \$ millions)					
Foreign currency translation gain (loss)	3	(52)	(49)	(6)	(9)	(15)
Gain (loss) on cash flow hedges	(15)	4	(11)	1	(16)	(15)
Total	(12)	(48)	(60)	(5)	(25)	(30)

	Nine Months Ended September 30,					
	2022			2021		
	Gross Amount	Income Tax (Provision) Benefit	Net Amount	Gross Amount	Income Tax (Provision) Benefit	Net Amount
	(In \$ millions)					
Foreign currency translation gain (loss)	(119)	(82)	(201)	3	(15)	(12)
Gain (loss) on cash flow hedges	37	(7)	30	41	(25)	16
Pension and postretirement benefits gain (loss)	2	—	2	(4)	—	(4)
Total	(80)	(89)	(169)	40	(40)	—

Adjustments to Accumulated other comprehensive income (loss), net, are as follows:

	Foreign Currency Translation Gain (Loss)	Gain (Loss) on Cash Flow Hedges (Note 12)	Pension and Postretirement Benefits Gain (Loss) (Note 8)	Accumulated Other Comprehensive Income (Loss), Net
	(In \$ millions)			
As of December 31, 2021	(271)	(43)	(15)	(329)
Other comprehensive income (loss) before reclassifications	(119)	54	2	(63)
Amounts reclassified from accumulated other comprehensive income (loss)	—	(17)	—	(17)
Income tax (provision) benefit	(82)	(7)	—	(89)
As of September 30, 2022	(472)	(13)	(13)	(498)

11. Income Taxes

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
	(In percentages)			
Effective income tax rate	40	16	24	18

The effective income tax rate for the three and nine months ended September 30, 2022, was higher compared to the same periods in 2021, primarily due to increases in valuation allowances on U.S. foreign tax credit carryforwards due to revised forecasts of foreign sourced income and expenses during the carryforward period and increases in tax reserves related to ongoing income tax examinations, each during the three months ended September 30, 2022, and increased year to date earnings in high taxed jurisdictions for the nine months ended September 30, 2022.

In December 2017, the Tax Cuts and Jobs Act (the "TCJA") was enacted and was effective January 1, 2018. The U.S. Treasury has issued various final and proposed regulatory packages supplementing the TCJA provisions since 2018, which the Company does not expect to have a material impact on current or future income tax expense.

In December 2021, the U.S. Treasury and the IRS released final regulations addressing various aspects of the foreign tax credit regime. The regulation was published in the federal register on January 4, 2022, and became effective in the nine months ended September 30, 2022. The final regulations included guidance with respect to the definition of foreign income taxes, the eligibility of foreign taxes for the foreign tax credit, and the allocation and apportionment of interest expense. The impact of the retroactive effect of the interest expense apportionment rules for the 2020 and 2021 tax years was not material to the Company's results of operations.

In August of 2022, the Inflation Reduction Act (the "IRA") was enacted and included a 1% excise tax on share repurchases in excess of \$1 million, and a corporate minimum tax of 15% on adjusted book earnings. The corporate minimum tax paid is creditable in future years to the extent that regular tax liability exceeds the minimum tax in any given year. The Company does not expect these provisions will have a material impact to future income tax expense. The IRA also provides various beneficial credits for energy efficient related manufacturing, transportation and fuels, hydrogen/carbon recapture, and renewable energy, which the Company is evaluating in regard to planned projects.

The Company will continue to monitor the expected impacts of any new guidance on the Company's filing positions and will record the impacts as discrete income tax expense adjustments in the period the guidance is finalized or becomes effective.

Due to the TCJA and uncertainty as to future foreign source income, the Company previously recorded a valuation allowance on a substantial portion of its foreign tax credits. The Company is currently evaluating tax planning strategies that would allow utilization of the Company's foreign tax credit carryforwards. Implementation of these strategies in future periods could reduce the level of valuation allowance that is needed, thereby decreasing the Company's effective tax rate.

The Company's tax returns are under joint audit for the years 2013 through 2015 by the United States, Netherlands and Germany (the "Authorities"). In September 2021, the Company received a draft joint audit report proposing adjustments to transfer pricing and the reallocation of income between the related jurisdictions. The Authorities also propose to apply these adjustments to open tax years through 2019. The Company is engaged in discussions with the Authorities to evaluate the proposals. During the three months ended September 30, 2022, the Company recorded additional tax reserves of \$25 million for years prior to 2022 based on unilateral discussions with one of the relevant authorities. The Company is currently evaluating all additional potential remedies.

As of September 30, 2022, the Company believes that an adequate provision for income taxes has been made for all open tax years related to the joint examination. However, the outcome of tax audits cannot be predicted with certainty. If any issues raised by the Authorities are resolved in a manner inconsistent with the Company's expectations or the Company is unsuccessful in defending its position, the Company could be required to adjust its provision for income taxes in the period such resolution occurs. If required, any such adjustments could be material to the statements of operations and cash flows in the period(s) recorded.

In addition, the Company's income tax returns in Mexico are under audit for the years 2017 and 2018, and in Canada for the years 2016 through 2018. On January 14, 2022, the Mexico tax authorities issued preliminary findings for disallowance of operating expenses on several of the applicable tax returns. The Company has analyzed the preliminary findings and does not

expect any material impact to income tax expense. Related to Canada, the Company is discussing preliminary findings with the Canadian authorities and does not expect a material impact to income tax expense.

12. Derivative Financial Instruments

Derivatives Designated As Hedges

Net Investment Hedges

The total notional amount of foreign currency denominated debt and cross-currency swaps designated as net investment hedges are as follows:

	As of September 30, 2022	As of December 31, 2021
	(In € millions)	
Total	6,017	1,653

Concurrently with the offering of the Acquisition USD Notes ([Note 7](#)), the Company entered into cross-currency swaps to effectively convert \$2.0 billion and \$500 million of the Acquisition USD Notes into a euro-denominated borrowing at prevailing euro interest rates, maturing on July 15, 2027 and July 15, 2032, respectively. The swaps and €1.5 billion of the Acquisition Euro Notes qualify and have been designated as net investment hedges of the Company's foreign currency exchange rate exposure on the net investments of certain of its euro-denominated subsidiaries.

Derivatives Not Designated As Hedges

Foreign Currency Forwards and Swaps

Gross notional values of the foreign currency forwards and swaps not designated as hedges are as follows:

	As of September 30, 2022	As of December 31, 2021
	(In \$ millions)	
Total	686	663

Information regarding changes in the fair value of the Company's derivative and non-derivative instruments is as follows:

	Gain (Loss) Recognized in Other Comprehensive Income (Loss)		Gain (Loss) Recognized in Earnings (Loss)		Statement of Operations Classification
	Three Months Ended September 30,				
	2022	2021	2022	2021	
(In \$ millions)					
Designated as Cash Flow Hedges					
Commodity swaps	(9)	10	11	(1)	Cost of sales
Interest rate swaps	—	(7)	(1)	(1)	Interest expense
Foreign currency forwards	2	—	—	—	Cost of sales
Total	<u>(7)</u>	<u>3</u>	<u>10</u>	<u>(2)</u>	
Designated as Net Investment Hedges					
Foreign currency denominated debt (Note 2)	148	37	—	—	N/A
Cross-currency swaps	90	10	—	—	N/A
Total	<u>238</u>	<u>47</u>	<u>—</u>	<u>—</u>	
Not Designated as Hedges					
Foreign currency forwards and swaps	—	—	(8)	(2)	Foreign exchange gain (loss), net; Other income (expense), net
Total	<u>—</u>	<u>—</u>	<u>(8)</u>	<u>(2)</u>	
	Gain (Loss) Recognized in Other Comprehensive Income (Loss)		Gain (Loss) Recognized in Earnings (Loss)		Statement of Operations Classification
	Nine Months Ended September 30,				
	2022	2021	2022	2021	
(In \$ millions)					
Designated as Cash Flow Hedges					
Commodity swaps	50	33	22	(1)	Cost of sales
Interest rate swaps	—	10	(5)	(1)	Interest expense
Foreign currency forwards	2	—	—	—	Cost of sales
Total	<u>52</u>	<u>43</u>	<u>17</u>	<u>(2)</u>	
Designated as Net Investment Hedges					
Foreign currency denominated debt (Note 2)	269	72	—	—	N/A
Cross-currency swaps	117	21	—	—	N/A
Total	<u>386</u>	<u>93</u>	<u>—</u>	<u>—</u>	
Not Designated as Hedges					
Foreign currency forwards and swaps	—	—	(12)	(6)	Foreign exchange gain (loss), net; Other income (expense), net
Total	<u>—</u>	<u>—</u>	<u>(12)</u>	<u>(6)</u>	

See [Note 13](#) for additional information regarding the fair value of the Company's derivative instruments.

Certain of the Company's commodity swaps, interest rate swaps, cross-currency swaps and foreign currency forwards and swaps permit the Company to net settle all contracts with the counterparty through a single payment in an agreed upon currency in the event of default or early termination of the contract, similar to a master netting arrangement.

Information regarding the gross amounts of the Company's derivative instruments and the amounts offset in the unaudited consolidated balance sheets is as follows:

	As of September 30, 2022	As of December 31, 2021
	(In \$ millions)	
Derivative Assets		
Gross amount recognized	227	40
Gross amount offset in the consolidated balance sheets	—	—
Net amount presented in the consolidated balance sheets	227	40
Gross amount not offset in the consolidated balance sheets	2	2
Net amount	225	38
	As of September 30, 2022	As of December 31, 2021
	(In \$ millions)	
Derivative Liabilities		
Gross amount recognized	36	5
Gross amount offset in the consolidated balance sheets	—	—
Net amount presented in the consolidated balance sheets	36	5
Gross amount not offset in the consolidated balance sheets	2	2
Net amount	34	3

13. Fair Value Measurements

The Company's financial assets and liabilities are measured at fair value on a recurring basis as follows:

Derivative financial instruments include interest rate swaps, commodity swaps, cross-currency swaps and foreign currency forwards and swaps and are valued in the market using discounted cash flow techniques. These techniques incorporate Level 1 and Level 2 fair value measurement inputs such as interest rates and foreign currency exchange rates. These market inputs are utilized in the discounted cash flow calculation considering the instrument's term, notional amount, discount rate and credit risk. Significant inputs to the derivative valuation for interest rate swaps, commodity swaps, cross-currency swaps and foreign currency forwards and swaps are observable in the active markets and are classified as Level 2 in the fair value measurement hierarchy.

	Fair Value Measurement			Balance Sheet Classification
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total	
(In \$ millions)				
As of September 30, 2022				
Derivatives Designated as Cash Flow Hedges				
Commodity swaps	—	16	16	Current Other assets
Commodity swaps	—	43	43	Noncurrent Other assets
Foreign currency forwards and swaps	—	1	1	Current Other assets
Derivatives Designated as Net Investment Hedges				
Cross-currency swaps	—	77	77	Current Other assets
Cross-currency swaps	—	84	84	Noncurrent Other assets
Derivatives Not Designated as Hedges				
Foreign currency forwards and swaps	—	6	6	Current Other assets
Total assets	—	227	227	
Derivatives Designated as Cash Flow Hedges				
Commodity swaps	—	(3)	(3)	Current Other liabilities
Derivatives Designated as Net Investment Hedges				
Cross-currency swaps	—	(27)	(27)	Current Other liabilities
Derivatives Not Designated as Hedges				
Foreign currency forwards and swaps	—	(6)	(6)	Current Other liabilities
Total liabilities	—	(36)	(36)	

	Fair Value Measurement			Balance Sheet Classification
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total	
(In \$ millions)				
As of December 31, 2021				
Derivatives Designated as Cash Flow Hedges				
Commodity swaps	—	8	8	Current Other assets
Commodity swaps	—	23	23	Noncurrent Other assets
Derivatives Designated as Net Investment Hedges				
Cross-currency swaps	—	2	2	Current Other assets
Cross-currency swaps	—	5	5	Noncurrent Other assets
Derivatives Not Designated as Hedges				
Foreign currency forwards and swaps	—	2	2	Current Other assets
Total assets	—	40	40	
Derivatives Designated as Net Investment Hedges				
Cross-currency swaps	—	(2)	(2)	Current Other liabilities
Derivatives Not Designated as Hedges				
Foreign currency forwards and swaps	—	(3)	(3)	Current Other liabilities
Total liabilities	—	(5)	(5)	

Carrying values and fair values of financial instruments that are not carried at fair value are as follows:

	Fair Value Measurement			Total
	Carrying Amount	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)	
(In \$ millions)				
As of September 30, 2022				
Equity investments without readily determinable fair values	170	—	—	—
Insurance contracts in nonqualified trusts	24	24	—	24
Long-term debt, including current installments of long-term debt	12,398	11,467	166	11,633
As of December 31, 2021				
Equity investments without readily determinable fair values	170	—	—	—
Insurance contracts in nonqualified trusts	28	28	—	28
Long-term debt, including current installments of long-term debt	3,722	3,639	173	3,812

In general, the equity investments included in the table above are not publicly traded and their fair values are not readily determinable. The Company believes the carrying values approximate fair value. Insurance contracts in nonqualified trusts consist of long-term fixed income securities, which are valued using independent vendor pricing models with observable inputs in the active market and therefore represent a Level 2 fair value measurement. The fair value of long-term debt is based on valuations from third-party banks and market quotations and is classified as Level 2 in the fair value measurement hierarchy. The fair value of obligations under finance leases, which are included in long-term debt, is based on lease payments and discount rates, which are not observable in the market and therefore represents a Level 3 fair value measurement.

As of September 30, 2022, and December 31, 2021, the fair values of cash and cash equivalents, receivables, marketable securities, trade payables, short-term borrowings and the current installments of long-term debt approximate carrying values due to the short-term nature of these instruments. Cash and cash equivalents includes \$2.9 billion of U.S. treasury bills purchased during the three months ended September 30, 2022, which will be held to maturity. Unrealized gains and losses on the U.S. treasury bills were not significant as of September 30, 2022 and therefore, the amortized cost of the U.S. treasury bills approximated their fair value. These items have been excluded from the table with the exception of the current installments of long-term debt.

14. Commitments and Contingencies

Commitments

Guarantees

The Company has agreed to guarantee or indemnify third parties for environmental and other liabilities pursuant to a variety of agreements, including asset and business divestiture agreements, leases, settlement agreements and various agreements with affiliated companies. Although many of these obligations contain monetary and/or time limitations, others do not provide such limitations.

The Company has accrued for all probable and reasonably estimable losses associated with all known matters or claims. These known obligations include the following:

- **Demerger Obligations**

In connection with the Hoechst demerger, the Company agreed to indemnify Hoechst, and its legal successors, for various liabilities under the demerger agreement, including for environmental liabilities associated with contamination arising either from environmental damage in general ("Category A") or under 19 divestiture agreements entered into by Hoechst prior to the demerger ("Category B") ([Note 9](#)).

The Company's obligation to indemnify Hoechst, and its legal successors, is capped under Category B at €250 million. If and to the extent the environmental damage should exceed €750 million in aggregate, the Company's obligation to indemnify Hoechst and its legal successors applies, but is then limited to 33.33% of the remediation cost without further limitations. Cumulative payments under the divestiture agreements as of September 30, 2022 are \$106 million. Though the Company is significantly under its obligation cap under Category B, most of the divestiture agreements have become time barred and/or any notified environmental damage claims have been partially settled.

The Company has also undertaken in the demerger agreement to indemnify Hoechst and its legal successors for (i) 33.33% of any and all Category A liabilities that result from Hoechst being held as the responsible party pursuant to public law or current or future environmental law or by third parties pursuant to private or public law related to contamination and (ii) liabilities that Hoechst is required to discharge, including tax liabilities, which are associated with businesses that were included in the demerger but were not demerged due to legal restrictions on the transfers of such items. These indemnities do not provide for any monetary or time limitations. The Company has not been requested by Hoechst to make any payments in connection with this indemnification. Accordingly, the Company has not made any payments to Hoechst and its legal successors.

Based on the Company's evaluation of currently available information, including the lack of requests for indemnification, the Company cannot estimate the remaining demerger obligations, if any, in excess of amounts accrued.

- ***Divestiture Obligations***

The Company and its predecessor companies agreed to indemnify third-party purchasers of former businesses and assets for various pre-closing conditions, as well as for breaches of representations, warranties and covenants. Such liabilities also include environmental liability, product liability, antitrust and other liabilities. These indemnifications and guarantees represent standard contractual terms associated with typical divestiture agreements and, other than environmental liabilities, the Company does not believe that they expose the Company to significant risk ([Note 9](#)).

The Company has divested numerous businesses, investments and facilities through agreements containing indemnifications or guarantees to the purchasers. Many of the obligations contain monetary and/or time limitations, which extend through 2037. The aggregate amount of outstanding indemnifications and guarantees provided for under these agreements is \$125 million as of September 30, 2022. Other agreements do not provide for any monetary or time limitations.

Based on the Company's evaluation of currently available information, including the number of requests for indemnification or other payment received by the Company, the Company cannot estimate the remaining divestiture obligations, if any, in excess of amounts accrued.

- ***Purchase Obligations***

In the normal course of business, the Company enters into various purchase commitments for goods and services. The Company maintains a number of "take-or-pay" contracts for purchases of raw materials, utilities and other services. Certain of the contracts contain a contract termination buy-out provision that allows for the Company to exit the contracts for amounts less than the remaining take-or-pay obligations. Additionally, the Company has other outstanding commitments representing maintenance and service agreements, energy and utility agreements, consulting contracts and software agreements. As of September 30, 2022, the Company had unconditional purchase obligations of \$4.0 billion, which extend through 2042.

- ***Contingencies***

The Company is involved in legal and regulatory proceedings, lawsuits, claims and investigations incidental to the normal conduct of business, relating to such matters as product liability, land disputes, insurance coverage disputes, contracts, employment, antitrust or competition compliance, intellectual property, personal injury and other actions in tort, workers' compensation, chemical exposure, asbestos exposure, taxes, trade compliance, acquisitions and divestitures, claims of current and legacy stockholders, past waste disposal practices and release of chemicals into the environment. The Company is actively defending those matters where the Company is named as a defendant and, based on the current facts, does not believe the outcomes from these matters would be material to the Company's results of operations, cash flows or financial position.

15. Segment Information

	Engineered Materials	Acetate Tow	Acetyl Chain	Other Activities	Eliminations	Consolidated
(In \$ millions)						
Three Months Ended September 30, 2022						
Net sales	929	135	1,274	—	(37) ⁽¹⁾	2,301
Other (charges) gains, net (Note 18)	(14)	—	—	(1)	—	(15)
Operating profit (loss)	114	(3)	315	(118)	—	308
Equity in net earnings (loss) of affiliates	69	—	1	3	—	73
Depreciation and amortization	43	10	43	4	—	100
Capital expenditures	34	9	65	15	—	123 ⁽²⁾
Three Months Ended September 30, 2021						
Net sales	684	128	1,489	—	(35) ⁽¹⁾	2,266
Other (charges) gains, net (Note 18)	—	—	1	(1)	—	—
Operating profit (loss)	91	12	517	(84)	—	536
Equity in net earnings (loss) of affiliates	39	—	1	4	—	44
Depreciation and amortization	35	10	44	4	—	93
Capital expenditures	36	10	73	4	—	123 ⁽²⁾

⁽¹⁾ Includes intersegment sales primarily related to the Acetyl Chain.

⁽²⁾ Includes a decrease in accrued capital expenditures of \$16 million and an increase of \$21 million for the three months ended September 30, 2022 and 2021, respectively.

	Engineered Materials	Acetate Tow	Acetyl Chain	Other Activities	Eliminations	Consolidated
(In \$ millions)						
Nine Months Ended September 30, 2022						
Net sales	2,787	379	4,268	—	(109) ⁽¹⁾	7,325
Other (charges) gains, net (Note 18)	(14)	—	—	(1)	—	(15)
Operating profit (loss)	404	—	1,243	(325)	—	1,322
Equity in net earnings (loss) of affiliates	171	—	8	10	—	189
Depreciation and amortization	134	31	130	14	—	309
Capital expenditures	99	26	205	39	—	369 ⁽²⁾
As of September 30, 2022						
Goodwill and intangible assets, net	1,544	152	243	—	—	1,939
Total assets	5,672	1,202	4,307	10,156	—	21,337
Nine Months Ended September 30, 2021						
Net sales	2,011	385	3,954	—	(88) ⁽¹⁾	6,262
Other (charges) gains, net (Note 18)	6	—	1	(4)	—	3
Operating profit (loss)	344	52	1,284	(251)	—	1,429
Equity in net earnings (loss) of affiliates	96	—	5	9	—	110
Depreciation and amortization	105	29	128	12	—	274
Capital expenditures	92	31	171	15	—	309 ⁽²⁾
As of December 31, 2021						
Goodwill and intangible assets, net	1,714	154	279	—	—	2,147
Total assets	5,363	1,098	4,428	1,086	—	11,975

⁽¹⁾ Includes intersegment sales primarily related to the Acetyl Chain.

⁽²⁾ Includes a decrease in accrued capital expenditures of \$31 million and an increase of \$5 million for the nine months ended September 30, 2022 and 2021, respectively.

16. Revenue Recognition

The Company has certain contracts that represent take-or-pay revenue arrangements in which the Company's performance obligations extend over multiple years. As of September 30, 2022, the Company had \$1.3 billion of remaining performance obligations related to take-or-pay contracts. The Company expects to recognize approximately \$86 million of its remaining performance obligations as Net sales in 2022, \$348 million in 2023, \$351 million in 2024 and the balance thereafter.

Contract Balances

Contract liabilities primarily relate to advances or deposits received from the Company's customers before revenue is recognized. These amounts are recorded as deferred revenue and are included in Current and Noncurrent Other liabilities in the unaudited consolidated balance sheets.

The Company does not have any material contract assets as of September 30, 2022.

Disaggregated Revenue

In general, the Company's business segmentation is aligned according to the nature and economic characteristics of its products and customer relationships and provides meaningful disaggregation of each business segment's results of operations.

The Company manages its Engineered Materials business segment through its project management pipeline, which is comprised of a broad range of projects which are solutions-based and are tailored to each customers' unique needs. Projects are identified and selected based on success rate and may involve a number of different polymers per project for use in multiple end-use applications. Therefore, the Company is agnostic toward products and end-use markets for the Engineered Materials business segment.

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Within the Acetate Tow business segment, the Company's primary product is acetate tow, which is managed through contracts with a few major tobacco companies and accounts for a significant amount of filters used in cigarette production worldwide.

The Company manages its Acetyl Chain business segment by leveraging its ability to sell chemicals externally to end-use markets or downstream to its emulsion polymers, redispersible powders and ethylene vinyl acetate ("EVA") polymers businesses. Decisions to sell externally and geographically or downstream and along the Acetyl Chain are based on market demand, trade flows and maximizing the value of its chemicals. Therefore, the Company's strategic focus is on executing within this integrated chain model and less on driving product-specific revenue.

Further disaggregation of Net sales by business segment and geographic destination is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
(In \$ millions)				
Engineered Materials				
North America	292	194	865	546
Europe and Africa	355	282	1,112	882
Asia-Pacific	256	185	733	518
South America	26	23	77	65
Total	929	684	2,787	2,011
Acetate Tow				
North America	24	24	75	77
Europe and Africa	65	64	181	204
Asia-Pacific	44	39	118	99
South America	2	1	5	5
Total	135	128	379	385
Acetyl Chain				
North America	437	405	1,262	1,046
Europe and Africa	396	458	1,417	1,188
Asia-Pacific	357	540	1,354	1,530
South America	47	51	126	102
Total ⁽¹⁾	1,237	1,454	4,159	3,866

⁽¹⁾ Excludes intersegment sales of \$37 million and \$35 million for the three months ended September 30, 2022 and 2021, respectively. Excludes intersegment sales of \$109 million and \$88 million for the nine months ended September 30, 2022 and 2021, respectively.

17. Earnings (Loss) Per Share

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
(In \$ millions, except share data)				
Amounts attributable to Celanese Corporation				
Earnings (loss) from continuing operations	192	519	1,134	1,384
Earnings (loss) from discontinued operations	(1)	(13)	(7)	(18)
Net earnings (loss)	191	506	1,127	1,366
Weighted average shares - basic	108,428,982	110,532,051	108,336,574	112,101,651
Incremental shares attributable to equity awards ⁽¹⁾	636,988	512,507	822,258	597,646
Weighted average shares - diluted	109,065,970	111,044,558	109,158,832	112,699,297

⁽¹⁾ Excludes 181,027 and 0 equity award shares for the three months ended September 30, 2022 and 2021, respectfully, as their effect would have been antidilutive. Excludes 149,272 and 67 equity award shares for the nine months ended September 30, 2022 and 2021, respectfully, as their effect would have been antidilutive.

18. Other (Charges) Gains, Net

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
(In \$ millions)				
Restructuring	(3)	(1)	(3)	(5)
Asset impairments	(12)	—	(12)	(2)
Plant/office closures	—	1	—	10
Total	(15)	—	(15)	3

19. Subsequent Events

On November 1, 2022, the Company completed the M&M Acquisition pursuant to a definitive agreement entered into on February 17, 2022 between the Company and DuPont de Nemours, Inc. The M&M Acquisition was completed for \$11.0 billion in cash, subject to transaction adjustments (the "Purchase Price"). The acquired operations will be included in the Engineered Materials segment ([Note 3](#)). The Company has not presented a purchase price allocation related to the fair values of assets acquired and liabilities assumed because the initial accounting for the acquisition was incomplete as of the issuance date of the financial statements. The Purchase Price was funded using net proceeds from the sale of the Acquisition Notes, the Term Loan Facility and cash on hand.

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

In this Quarterly Report on Form 10-Q ("Quarterly Report"), the term "Celanese" refers to Celanese Corporation, a Delaware corporation, and not its subsidiaries. The terms the "Company," "we," "our" and "us," refer to Celanese and its subsidiaries on a consolidated basis. The term "Celanese U.S." refers to the Company's subsidiary, Celanese US Holdings LLC, a Delaware limited liability company, and not its subsidiaries.

The following discussion should be read in conjunction with the Celanese Corporation and Subsidiaries consolidated financial statements as of and for the year ended December 31, 2021 filed on February 10, 2022 with the Securities and Exchange Commission ("SEC") as part of the Company's Annual Reporting on Form 10-K ("2021 Form 10-K") and the unaudited interim consolidated financial statements and notes to the unaudited interim consolidated financial statements, which are prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

Investors are cautioned that the forward-looking statements contained in this section and other parts of this Quarterly Report involve both risk and uncertainty. Several important factors could cause actual results to differ materially from those anticipated by these statements. Many of these statements are macroeconomic in nature and are, therefore, beyond the control of management. See "Forward-Looking Statements" below and at the beginning of our 2021 Form 10-K.

Forward-Looking Statements

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") and other parts of this Quarterly Report contain certain forward-looking statements and information relating to us that are based on the beliefs of our management as well as assumptions made by, and information currently available to, us. Generally, words such as "believe," "expect," "intend," "estimate," "anticipate," "project," "plan," "may," "can," "could," "might," and "will," and similar expressions, as they relate to us are intended to identify forward-looking statements. These statements reflect our current views and beliefs with respect to future events at the time that the statements are made, are not historical facts or guarantees of future performance and involve risks and uncertainties that are difficult to predict and many of which are outside of our control. Further, certain forward-looking statements are based upon assumptions as to future events that may not prove to be accurate. All forward-looking statements made in this Quarterly Report are made as of the date hereof, and the risk that actual results will differ materially from expectations expressed in this Quarterly Report will increase with the passage of time. We undertake no obligation, and disclaim any duty, to publicly update or revise any forward-looking statements, whether as a result of new information, future events, changes in our expectations or otherwise.

Risk Factors

See *Part I - Item 1A. Risk Factors* of our 2021 Form 10-K for a description of certain risk factors that you should consider which could significantly affect our financial results. In addition, the following factors, among others, could cause our actual results to differ materially from those results, performance or achievements that may be expressed or implied by such forward-looking statements:

- changes in general economic, business, political and regulatory conditions in the countries or regions in which we operate;
- volatility or changes in the price and availability of raw materials and energy, particularly changes in the demand for, supply of, and market prices of ethylene, methanol, natural gas, wood pulp and fuel oil and the prices for electricity and other energy sources;
- the length and depth of product and industry business cycles particularly in the automotive, electrical, textiles, electronics and construction industries;
- the ability to pass increases in raw material prices, logistics costs and other costs on to customers or otherwise improve margins through price increases;
- the accuracy or inaccuracy of our beliefs or assumptions regarding anticipated benefits of the acquisition (the "M&M Acquisition") by us of the majority of the Mobility & Materials business (the "M&M Business") of DuPont de Nemours, Inc. ("DuPont"), including as a result of the performance of the M&M Business between signing and closing of the M&M Acquisition;
- the possibility that we will not be able to realize anticipated improvements in the M&M Business's financial performance – including optimizing pricing, currency mix and inventory – or realize the anticipated benefits of the M&M Acquisition, including synergies and growth opportunities, within the anticipated timeframe or at all, whether as a result of difficulties

- arising from the operation or integration of the M&M Business or other unanticipated delays, costs, inefficiencies or liabilities;
- increased commercial, legal or regulatory complexity of entering into, or expanding our exposure to, certain end markets and geographies;
 - risks in the global economy and equity and credit markets and their potential impact on our ability to pay down debt in the future and/or refinance at suitable rates, in a timely manner, or at all;
 - diversion of management's attention from ongoing business operations and opportunities and other disruption caused by the M&M Acquisition and the integration processes and their impact on our existing business and relationships;
 - risks and costs associated with increased leverage from the M&M Acquisition, including increased interest expense and potential reduction of business and strategic flexibility;
 - the ability to maintain plant utilization rates and to implement planned capacity additions, expansions and maintenance;
 - the ability to reduce or maintain current levels of production costs and to improve productivity by implementing technological improvements to existing plants;
 - increased price competition and the introduction of competing products by other companies;
 - the ability to identify desirable potential acquisition targets and to complete and integrate acquisition or investment transactions, including obtaining regulatory approvals, consistent with our strategy;
 - market acceptance of our technology;
 - compliance and other costs and potential disruption or interruption of production or operations due to accidents, interruptions in sources of raw materials, transportation, logistics or supply chain disruptions, cybersecurity incidents, terrorism or political unrest, public health crises (including, but not limited to, the COVID-19 pandemic), or other unforeseen events or delays in construction or operation of facilities, including as a result of geopolitical conditions, the occurrence of acts of war (such as the Russia-Ukraine conflict) or terrorist incidents or as a result of weather, natural disasters, or other crises;
 - the ability to obtain governmental approvals and to construct facilities on terms and schedules acceptable to us;
 - changes in applicable tariffs, duties and trade agreements, tax rates or legislation throughout the world including, but not limited to, adjustments, changes in estimates or interpretations or the resolution of tax examinations or audits that may impact recorded or future tax impacts and potential regulatory and legislative tax developments in the United States and other jurisdictions;
 - changes in the degree of intellectual property and other legal protection afforded to our products or technologies, or the theft of such intellectual property;
 - potential liability for remedial actions and increased costs under existing or future environmental, health and safety regulations, including those relating to climate change;
 - the extent to which resurgences or variants of COVID-19 may adversely impact the economic environment, market demand, our operations, availability and cost of transportation and materials, the labor supply and pace of economic recovery;
 - potential liability resulting from pending or future claims or litigation, including investigations or enforcement actions, or from changes in the laws, regulations or policies of governments or other governmental activities, in the countries in which we operate;
 - changes in currency exchange rates and interest rates; and
 - various other factors, both referenced and not referenced in this Quarterly Report.

Many of these factors are macroeconomic in nature and are, therefore, beyond our control. COVID-19 and responses to the pandemic by governments and businesses, have significantly increased financial, economic and cost volatility and uncertainty, exacerbating the risks and potential impact of these factors. Should one or more of these risks or uncertainties materialize, affect us in ways or to an extent that we currently do not expect or consider to be significant, or should underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from those described in this Quarterly Report as anticipated, believed, estimated, expected, intended, planned or projected. We neither intend nor assume any obligation to update these forward-looking statements, which speak only as of their dates.

Overview

We are a global chemical and specialty materials company. We are a leading global producer of high performance engineered polymers that are used in a variety of high-value applications, as well as one of the world's largest producers of acetyl products, which are intermediate chemicals, for nearly all major industries. As a recognized innovator in the chemicals industry, we engineer and manufacture a wide variety of products essential to everyday living. Our broad product portfolio serves a diverse set of end-use applications including automotive, chemical additives, construction, consumer and industrial adhesives, consumer and medical, energy storage, filtration, food and beverage, paints and coatings, paper and packaging, performance industrial and textiles. Our products enjoy leading global positions due to our differentiated business models, large global production capacity, operating efficiencies, proprietary technology and competitive cost structures.

Our large and diverse global customer base primarily consists of major companies across a broad array of industries. We hold geographically balanced global positions and participate in diversified end-use applications. We combine a demonstrated track record of execution, strong performance built on differentiated business models and a clear focus on growth and value creation. Known for operational excellence, reliability and execution of our business strategies, we partner with our customers around the globe to deliver best-in-class technologies and solutions.

On February 17, 2022, we signed a definitive agreement to acquire a majority of the Mobility & Materials business of DuPont de Nemours, Inc. See [Note 3 - Acquisitions, Dispositions and Plant Closures](#) in the accompanying unaudited interim consolidated financial statements for further information. We closed on the M&M Acquisition on November 1, 2022. See [Note 19 - Subsequent Events](#) in the accompanying unaudited interim consolidated financial statements for further information.

Results of Operations
Financial Highlights

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2022	2021	Change	2022	2021	Change
(unaudited)						
(In \$ millions, except percentages)						
Statement of Operations Data						
Net sales	2,301	2,266	35	7,325	6,262	1,063
Gross profit	546	715	(169)	1,996	1,961	35
Selling, general and administrative ("SG&A") expenses	(184)	(165)	(19)	(555)	(463)	(92)
Other (charges) gains, net	(15)	—	(15)	(15)	3	(18)
Operating profit (loss)	308	536	(228)	1,322	1,429	(107)
Equity in net earnings (loss) of affiliates	73	44	29	189	110	79
Non-operating pension and other postretirement employee benefit (expense) income	25	37	(12)	74	113	(39)
Interest expense	(154)	(21)	(133)	(237)	(70)	(167)
Interest income	34	2	32	36	7	29
Dividend income - equity investments	30	35	(5)	103	114	(11)
Earnings (loss) from continuing operations before tax	321	622	(301)	1,491	1,691	(200)
Earnings (loss) from continuing operations	194	520	(326)	1,140	1,388	(248)
Earnings (loss) from discontinued operations	(1)	(13)	12	(7)	(18)	11
Net earnings (loss)	193	507	(314)	1,133	1,370	(237)
Net earnings (loss) attributable to Celanese Corporation	191	506	(315)	1,127	1,366	(239)
Other Data						
Depreciation and amortization	100	93	7	309	274	35
SG&A expenses as a percentage of Net sales	8.0 %	7.3 %		7.6 %	7.4 %	
Operating margin ⁽¹⁾	13.4 %	23.7 %		18.0 %	22.8 %	
Other (charges) gains, net						
Restructuring	(3)	(1)	(2)	(3)	(5)	2
Asset impairments	(12)	—	(12)	(12)	(2)	(10)
Plant/office closures	—	1	(1)	—	10	(10)
Total Other (charges) gains, net	(15)	—	(15)	(15)	3	(18)

⁽¹⁾ Defined as Operating profit (loss) divided by Net sales.

	As of September 30, 2022	As of December 31, 2021
	(unaudited)	
(In \$ millions)		
Balance Sheet Data		
Cash and cash equivalents	9,671	536
Short-term borrowings and current installments of long-term debt - third party and affiliates	977	791
Long-term debt, net of unamortized deferred financing costs	11,360	3,176
Total debt	12,337	3,967

Factors Affecting Business Segment Net Sales

The percentage increase (decrease) in Net sales attributable to each of the factors indicated for each of our business segments is as follows:

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021

	Volume	Price	Currency (unaudited) (In percentages)	Other	Total
Engineered Materials	23	25	(12)	—	36
Acetate Tow	(3)	8	—	—	5
Acetyl Chain	(13)	2	(3)	—	(14)
Total Company	(2)	9	(5)	—	2

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021

	Volume	Price	Currency (unaudited) (In percentages)	Other	Total
Engineered Materials	22	25	(8)	—	39
Acetate Tow	(7)	5	—	—	(2)
Acetyl Chain	(4)	14	(2)	—	8
Total Company	4	17	(4)	—	17

Consolidated Results

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021

Net sales increased \$35 million, or 2%, for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher pricing in all of our segments, primarily driven by our Engineered Materials segment due to higher raw material costs, higher energy costs and product mix; and
- higher volume in our Engineered Materials segment, primarily in elastomers related to our acquisition of the Santoprene™ thermoplastic vulcanizates elastomers business of Exxon Mobil Corporation ("Santoprene");

partially offset by:

- lower volume in our Acetyl Chain segment due to decreased demand primarily in Asia and Europe; and
- an unfavorable currency impact resulting from a weaker euro relative to the U.S. dollar.

Selling, general and administrative expenses increased \$19 million, or 12%, for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher functional and project spending of \$51 million in Other Activities;

partially offset by:

- lower incentive compensation cost.

Operating profit decreased \$228 million, or 43%, for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher raw material and energy costs across all of our segments;

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- lower Net sales in our Acetyl Chain segment; and
- higher spending in our Engineered Materials segment as a result of our acquisition of Santoprene, as well as plant operating and administrative expenses;

partially offset by:

- higher Net sales in our Engineered Materials segment.

Equity in net earnings (loss) of affiliates increased \$29 million for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- an increase in equity investment in earnings of \$39 million from our Ibn Sina strategic affiliate, primarily as a result of tighter market conditions and stronger demand.

Our effective income tax rate for the three months ended September 30, 2022 was 40% compared to 16% for the same period in 2021. The higher effective income tax rate was primarily due to increases in valuation allowances on U.S. foreign tax credit carryforwards due to revised forecasts of foreign sourced income and expenses during the carryforward period and increases in tax reserves related to ongoing income tax examinations. See [Note 11 - Income Taxes](#) in the accompanying unaudited interim consolidated financial statements for further information.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021

Net sales increased \$1.1 billion, or 17%, for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher pricing in all of our segments, primarily driven by our Acetyl Chain segment due to tighter market conditions as a result of increased customer demand in the Western Hemisphere and supply constraints across most regions, as well as our Engineered Materials segment due to higher raw material costs, energy costs and product mix; and
- higher volume in our Engineered Materials segment, primarily in elastomers related to our acquisition of Santoprene;

partially offset by:

- an unfavorable currency impact resulting from a weaker euro relative to the U.S. dollar; and
- lower volume in our other segments, primarily driven by our Acetyl Chain segment due to decreased demand predominantly in Asia.

Selling, general and administrative expenses increased \$92 million, or 20%, for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher functional and project spending of \$117 million in Other Activities.

Operating profit decreased \$107 million, or 7%, for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher raw material and energy costs across all of our segments; and
- higher spending across most of our segments, primarily driven by our Engineered Materials segment as a result of our acquisition of Santoprene, as well as plant operating and administrative expenses;

partially offset by:

- higher Net sales across most of our segments.

Non-operating pension and other postretirement employee benefit income decreased \$39 million, or 35%, for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- lower expected return on plan assets and higher interest cost.

Equity in net earnings (loss) of affiliates increased \$79 million for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- an increase in equity investment in earnings of \$76 million from our Ibn Sina strategic affiliate, primarily as a result of tighter market conditions and stronger demand.

Our effective income tax rate for the nine months ended September 30, 2022 was 24% compared to 18% for the same period in 2021. The higher effective income tax rate was primarily due to increases in valuation allowances on U.S. foreign tax credit carryforwards due to revised forecasts of foreign sourced income and expenses during the carryforward period and increases in tax reserves related to ongoing income tax examinations and increased earnings in high tax jurisdictions. See [Note 11 - Income Taxes](#) in the accompanying unaudited interim consolidated financial statements for further information.

Business Segments

Engineered Materials

	Three Months Ended September 30,		Change	% Change	Nine Months Ended September 30,		Change	% Change
	2022	2021			2022	2021		
(unaudited)								
(In \$ millions, except percentages)								
Net sales	929	684	245	35.8 %	2,787	2,011	776	38.6 %
Net Sales Variance								
Volume	23 %				22 %			
Price	25 %				25 %			
Currency	(12)%				(8)%			
Other	— %				— %			
Other (charges) gains, net	(14)	—	(14)	(100.0)%	(14)	6	(20)	(333.3)%
Operating profit (loss)	114	91	23	25.3 %	404	344	60	17.4 %
Operating margin	12.3 %	13.3 %			14.5 %	17.1 %		
Equity in net earnings (loss) of affiliates	69	39	30	76.9 %	171	96	75	78.1 %
Depreciation and amortization	43	35	8	22.9 %	134	105	29	27.6 %

Our Engineered Materials segment includes our engineered materials business, our food ingredients business and certain strategic affiliates. Our engineered materials business develops, produces and supplies a broad portfolio of high performance specialty polymers for automotive and medical applications, as well as industrial products and consumer electronics. Together with our strategic affiliates, our engineered materials business is a leading participant in the global specialty polymers industry. Our food ingredients business is a leading global supplier of acesulfame potassium for the food and beverage industry and is a leading producer of food protection ingredients, such as potassium sorbate and sorbic acid.

The pricing of products within the Engineered Materials segment is primarily based on the value of the material we produce and is generally independent of changes in the cost of raw materials, but may be impacted during periods of inflation and increased costs. Therefore, in general, margins may expand or contract in response to changes in raw material costs. We attempt to address increases in raw material costs through appropriate pricing actions.

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021

Net sales increased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher pricing for most of our products, primarily due to higher raw material costs, higher energy costs and product mix; and
- higher volume, primarily in elastomers related to our acquisition of Santoprene;

partially offset by:

- an unfavorable currency impact resulting from a weaker euro relative to the U.S. dollar.

Operating profit increased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher Net sales;

largely offset by:

- higher raw material costs for most of our products and increased sourcing costs as a result of higher logistical costs and global shipping constraints;
- higher energy costs of \$66 million, primarily for steam;

- higher spending of \$37 million, primarily as a result of our acquisition of Santoprene, as well as plant operating and administrative expenses; and
- an unfavorable impact of \$14 million to Other (charges) gains, net. During the three months ended September 30, 2022, we recorded an \$8 million long-lived asset impairment loss related to certain fixed and intangible assets used in manufacturing operations in Silao, Mexico in the current year. See [Note 3 - Acquisitions, Dispositions and Plant Closures](#) in the accompanying unaudited interim consolidated financial statements for further information.

Equity in net earnings (loss) of affiliates increased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- an increase in equity investment in earnings of \$39 million from our Ibn Sina strategic affiliate, primarily as a result of tighter market conditions and stronger demand.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021

Net sales increased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher pricing for most of our products, primarily due to higher raw material costs, higher energy costs and product mix; and
- higher volume, primarily in elastomers related to our acquisition of Santoprene;

partially offset by:

- an unfavorable currency impact resulting from a weaker euro relative to the U.S. dollar.

Operating profit increased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher Net sales;

largely offset by:

- higher raw material costs for all of our products and increased sourcing costs as a result of higher logistical costs and global shipping constraints;
- higher energy costs of \$146 million, primarily for steam;
- higher spending of \$113 million, primarily as a result of our acquisition of Santoprene, as well as plant operating and administrative expenses; and
- an unfavorable impact of \$20 million to Other (charges) gains, net. During the nine months ended September 30, 2021, we recorded a \$9 million gain on the termination of our Ferrara Marconi, Italy office lease, which did not recur in the current year. During the nine months ended September 30, 2022, we recorded an \$8 million long-lived asset impairment loss related to certain fixed and intangible assets used in manufacturing operations in Silao, Mexico in the current year.

Equity in net earnings (loss) of affiliates increased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- an increase in equity investment in earnings of \$76 million from our Ibn Sina strategic affiliate, primarily as a result of tighter market conditions and stronger demand.

Acetate Tow

	Three Months Ended September 30,		Change	% Change	Nine Months Ended September 30,		Change	% Change
	2022	2021			2022	2021		
	(unaudited)							
	(In \$ millions, except percentages)							
Net sales	135	128	7	5.5 %	379	385	(6)	(1.6)%
Net Sales Variance								
<i>Volume</i>	(3)%				(7)%			
<i>Price</i>	8 %				5 %			
<i>Currency</i>	— %				— %			
<i>Other</i>	— %				— %			
Operating profit (loss)	(3)	12	(15)	(125.0)%	—	52	(52)	(100.0)%
Operating margin	(2.2)%	9.4 %			— %	13.5 %		
Dividend income - equity investments	30	34	(4)	(11.8)%	102	112	(10)	(8.9)%
Depreciation and amortization	10	10	—	— %	31	29	2	6.9 %

Our Acetate Tow segment serves consumer-driven applications. We are a leading global producer and supplier of acetate tow and acetate flake, primarily used in filter products applications.

The pricing of products within the Acetate Tow segment is sensitive to demand and is primarily based on the value of the product we produce. Many sales in this business are conducted under contracts with pricing for one or more years. As a result, margins may expand or contract in response to changes in market conditions over these similar periods, and we may be unable to adjust pricing due to other factors, such as the intense level of competition in the industry.

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021

Net sales increased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher pricing, primarily due to higher raw material and energy costs.

Operating profit decreased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher energy costs of \$10 million, primarily related to natural gas pricing; and
- higher raw material costs of \$7 million as a result of cost inflation and global shipping constraints;

partially offset by:

- higher Net sales.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021

Net sales decreased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- lower acetate tow volume primarily related to dynamic market conditions, as well as supply constraints and shipping vessel disruptions;

partially offset by:

- higher pricing, primarily due to higher raw material and energy costs.

Operating profit decreased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher energy costs of \$34 million, primarily related to natural gas pricing;
- higher raw material costs of \$20 million as a result of cost inflation and global shipping constraints; and
- lower Net sales.

Acetyl Chain

	Three Months Ended September 30,			% Change	Nine Months Ended September 30,			% Change
	2022	2021	Change		2022	2021	Change	
(unaudited)								
(In \$ millions, except percentages)								
Net sales	1,274	1,489	(215)	(14.4)%	4,268	3,954	314	7.9 %
Net Sales Variance								
Volume	(13)%				(4)%			
Price	2 %				14 %			
Currency	(3)%				(2)%			
Other	— %				— %			
Operating profit (loss)	315	517	(202)	(39.1)%	1,243	1,284	(41)	(3.2)%
Operating margin	24.7 %	34.7 %			29.1 %	32.5 %		
Depreciation and amortization	43	44	(1)	(2.3)%	130	128	2	1.6 %

Our Acetyl Chain segment includes the integrated chain of our intermediate chemistry, emulsion polymers, ethylene vinyl acetate ("EVA") polymers and redispersible powders ("RDP") businesses. Our intermediate chemistry business produces and supplies acetyl products, including acetic acid, vinyl acetate monomer ("VAM"), acetic anhydride and acetate esters. These products are generally used as starting materials for colorants, paints, adhesives, coatings and pharmaceuticals. It also produces organic solvents and intermediates for pharmaceutical, agricultural and chemical products. Our emulsion polymers business is a leading global producer of vinyl acetate-based emulsions and develops products and application technologies to improve performance, create value and drive innovation in applications such as paints and coatings, adhesives, construction, glass fiber, textiles and paper. Our EVA polymers business is a leading North American manufacturer of a full range of specialty EVA resins and compounds, as well as select grades of low-density polyethylene. Our EVA polymers products are used in many applications, including flexible packaging films, lamination film products, hot melt adhesives, automotive parts and carpeting. Our RDP business is a leading manufacturer of redispersible polymer powders, sold under the Elotex® brand. The business produces polymer emulsions which are converted into powdered thermoplastic resin materials. RDP products are used in a variety of applications in the mortar industry, including decorative mortar, exterior insulation and finish systems, gypsum-based materials, plaster and render, self-leveling floor systems, skim coat and tile adhesives.

The pricing of products within the Acetyl Chain is influenced by industry utilization rates and changes in the cost of raw materials. Therefore, in general, there is a directional correlation between these factors and our Net sales for most Acetyl Chain products. This impact to pricing typically lags changes in raw material costs over months or quarters.

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021

Net sales decreased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- lower volume for most of our products due to decreased demand primarily in Asia and Europe;
- lower pricing for acid, primarily due to weaker economic conditions particularly in China; and
- an unfavorable currency impact resulting from a weaker euro relative to the U.S. dollar;

partially offset by:

- higher pricing for most of our other products, primarily due to tighter market conditions as a result of increased customer demand in the Western Hemisphere and supply constraints across most regions.

Operating profit decreased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- lower Net sales;

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- higher raw material and sourcing costs, primarily for methanol and carbon monoxide due to stronger demand and tighter market conditions, as well as higher distribution costs due to global shipping constraints; and
- higher energy costs of \$27 million, primarily due to price increases for natural gas and electricity.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021

Net sales increased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher pricing for most of our products, primarily due to tighter market conditions as a result of increased customer demand in the Western Hemisphere and supply constraints across most regions; and
- higher volume, primarily for VAM due to lower competitor utilization in the Western Hemisphere;

partially offset by:

- lower volume for most of our other products due to decreased demand, primarily in Asia; and
- an unfavorable currency impact resulting from a weaker euro relative to the U.S. dollar.

Operating profit decreased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher raw material and sourcing costs, primarily for methanol, carbon monoxide and ethylene due to stronger demand and tighter market conditions, as well as higher distribution costs due to global shipping constraints;
- higher energy costs of \$62 million, primarily due to price increases for natural gas and electricity; and
- higher spending of \$49 million, primarily as a result of increased plant operating and maintenance expenses;

largely offset by:

- higher Net sales.

Other Activities

	Three Months Ended September 30,			% Change	Nine Months Ended September 30,			% Change
	2022	2021	Change		2022	2021	Change	
	(unaudited)							
	(In \$ millions, except percentages)							
Operating profit (loss)	(118)	(84)	(34)	(40.5)%	(325)	(251)	(74)	(29.5)%
Non-operating pension and other postretirement employee benefit (expense) income	25	37	(12)	(32.4)%	74	113	(39)	(34.5)%

Other Activities primarily consists of corporate center costs, including administrative activities such as finance, information technology and human resource functions, interest income and expense associated with financing activities and results of our captive insurance companies. Other Activities also includes the components of net periodic benefit cost (interest cost, expected return on assets and net actuarial gains and losses) for our defined benefit pension plans and other postretirement plans not allocated to our business segments.

Three Months Ended September 30, 2022 Compared to Three Months Ended September 30, 2021

Operating loss increased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher functional and project spending of \$51 million;

partially offset by:

- lower incentive compensation cost.

Non-operating pension and other postretirement employee benefit income decreased for the three months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- lower expected return on plan assets and higher interest cost.

Nine Months Ended September 30, 2022 Compared to Nine Months Ended September 30, 2021

Operating loss increased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- higher functional and project spending of \$117 million;

partially offset by:

- lower incentive compensation cost.

Non-operating pension and other postretirement employee benefit income decreased for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- lower expected return on plan assets and higher interest cost.

Liquidity and Capital Resources

Our primary sources of liquidity are cash generated from operations, available cash and cash equivalents, dividends from our portfolio of strategic investments and available borrowings under our senior unsecured revolving credit facility. As of September 30, 2022, we have \$1.75 billion available for borrowing under our senior unsecured revolving credit facility, if required, in meeting our working capital needs and other contractual obligations. In addition, we held cash and cash equivalents of \$9.7 billion as of September 30, 2022. We are actively managing our business to maintain cash flow, and we believe that liquidity from the above-referenced sources will be sufficient to meet our operational and capital investment needs and financial obligations for the foreseeable future.

On February 17, 2022, we signed a definitive agreement to acquire a majority of the Mobility & Materials business of DuPont de Nemours, Inc. (the "M&M Acquisition") for a purchase price of \$11.0 billion, subject to certain adjustments, in an all-cash transaction. For further information regarding the acquisition and related financing transactions, see *Debt and Other Obligations* in this [Liquidity and Capital Resources](#) and [Note 3 - Acquisitions, Dispositions and Plant Closures](#) in the accompanying unaudited interim consolidated financial statements. We closed on the M&M Acquisition on November 1, 2022. See [Note 19 - Subsequent Events](#) in the accompanying unaudited interim consolidated financial statements for further information.

Our incurrence of debt to finance the purchase price for the M&M Acquisition has increased our leverage and will increase, as of the closing of the M&M Acquisition, our ratio of indebtedness to consolidated EBITDA as set forth in our senior unsecured credit facilities. We believe that cash flows from our operations, together with cash generation, synergy opportunities from the M&M Acquisition and cost reduction initiatives, will support our deleveraging efforts over the next few years. In furtherance of these deleveraging efforts, we have paused our share repurchase program, reevaluated and reduced our anticipated 2022 capital expenditures by approximately \$50 million and are in the process of evaluating additional cash generation opportunities which may include the opportunistic disposition or monetization of product or business lines or other assets. We are committed to rapid deleveraging and to maintaining our investment grade debt rating.

While our contractual obligations, commitments and debt service requirements over the next several years are significant, we continue to believe we will have available resources to meet our liquidity requirements, including debt service, for the next twelve months. If our cash flow from operations is insufficient to fund our debt service and other obligations, we may be required to use other means available to us such as increasing our borrowings, reducing or delaying capital expenditures, seeking additional capital or seeking to restructure or refinance our indebtedness. There can be no assurance, however, that we will continue to generate cash flows at or above current levels.

We continue to prioritize those projects expected to drive productivity in the near term and expect capital expenditures to be approximately \$550 million in 2022, primarily due to certain investments in growth opportunities and productivity improvements. In Engineered Materials, our planned expansion of the compounding capacity at our facilities in China is experiencing some delays due to certain permitting issues. In the Acetyl Chain, our planned expansion of (1) the capacity of our vinyl acetate ethylene ("VAE") and emulsions plants in Nanjing, China, (2) the capacity of our vinyl acetate monomer ("VAM") plant in Bay City, Texas and (3) the sustainable production of methanol at our Fairway joint venture in Clear Lake, Texas using captured carbon dioxide as feedstock, are on schedule. Lastly, our planned acetic acid expansion in Clear Lake, Texas and our VAE emulsion plant expansion in Frankfurt, Germany, are still in construction and on schedule. We continue to see the incremental capacity from investments made in recent years strengthen our manufacturing network reliability to best serve our customers.

On a stand-alone basis, Celanese and its immediate 100% owned subsidiary, Celanese U.S., have no independent external operations of their own. Accordingly, they generally depend on the cash flow of their subsidiaries and their ability to pay dividends and make other distributions to Celanese and Celanese U.S. in order to meet their obligations, including their obligations under senior credit facilities and senior notes, and to pay dividends on our Common Stock.

We are subject to capital controls and exchange restrictions imposed by the local governments in certain jurisdictions where we operate, such as China, India and Indonesia. Capital controls impose limitations on our ability to exchange currencies, repatriate earnings or capital, lend via intercompany loans or create cross-border cash pooling arrangements. Our largest exposure to a country with capital controls is in China. Pursuant to applicable regulations, foreign-invested enterprises in China may pay dividends only out of their accumulated profits, if any, determined in accordance with Chinese accounting standards and regulations. In addition, the Chinese government imposes certain currency exchange controls on cash transfers out of China, puts certain limitations on duration, purpose and amount of intercompany loans, and restricts cross-border cash pooling. While it is possible that future tightening of these restrictions or application of new similar restrictions could impact us, these limitations do not currently restrict our operations.

We remain in compliance with the financial covenants under our senior unsecured credit facilities and expect to remain in compliance based on our current expectation of future results of operations. If our actual future results of operations differ materially from these expectations, we may be required to seek an amendment or waiver of such covenants which may increase our borrowing costs under those debt instruments.

Cash Flows

Cash and cash equivalents increased \$9.1 billion to \$9.7 billion as of September 30, 2022 compared to December 31, 2021. As of September 30, 2022, \$825 million of the \$9.7 billion of cash and cash equivalents was held by our foreign subsidiaries. Under the TCJA, we have incurred a prior year charge associated with the deemed repatriation of previously unremitted foreign earnings, including foreign held cash. These funds are largely accessible without additional material tax consequences, if needed in the U.S., to fund operations.

• Net Cash Provided by (Used in) Operating Activities

Net cash provided by operating activities increased \$105 million to \$1.3 billion for the nine months ended September 30, 2022 compared to the same period in 2021, primarily due to:

- a decrease in VAT taxes receivable primarily due to the receipt of refunds during the nine months ended September 30, 2022;
- a payment for the European Commission settlement of \$100 million, which did not recur in the current year; and
- favorable trade working capital of \$65 million, primarily due to a decrease in trade receivables and trade payables, partially offset by an increase in inventory. Trade receivables decreased primarily as a result of the timing of trade receivable collections during the nine months ended September 30, 2022 and trade payables decreased as a result of the timing of settlement of trade payables. Inventory increased primarily as a result of higher costs for raw materials during the nine months ended September 30, 2022;

partially offset by:

- a decrease in Net earnings.

• Net Cash Provided by (Used in) Investing Activities

Net cash used in investing activities increased \$595 million to \$428 million for the nine months ended September 30, 2022 compared to net cash provided by investing activities of \$167 million for the same period in 2021, primarily due to:

- proceeds from the sale of marketable securities of \$500 million, which did not recur in the current year; and
- an increase of \$96 million in capital expenditures during the nine months ended September 30, 2022.

• Net Cash Provided by (Used in) Financing Activities

Net cash provided by financing activities increased \$9.3 billion to \$8.3 billion for the nine months ended September 30, 2022 compared to net cash used in financing activities of \$943 million for the same period in 2021, primarily due to:

- an increase in net proceeds of long-term debt of \$8.8 billion, primarily due to the issuance of senior unsecured notes consisting of \$2.0 billion in principal amount of 5.900% notes due July 5, 2024, \$1.75 billion in principal amount of 6.050% notes due March 15, 2025, \$2.0 billion in principal amount of 6.165% notes due July 15, 2027, \$750 million in principal amount of 6.330% notes due July 15, 2029 and \$1.0 billion in principal amount of 6.379% notes due July 15, 2032 (collectively, the "Acquisition USD Notes"), as well as senior unsecured notes consisting of €1.0 billion in principal amount of 4.777% notes due July 19, 2026 and €500 million in principal amount of 5.337% notes due January 19, 2029 (collectively, the "Acquisition Euro Notes" and, together with the Acquisition USD Notes, the "Acquisition Notes"), partially offset by the maturity of the 5.875% senior unsecured notes ("5.875% Notes") which were repaid during the nine months ended September 30, 2021;
- a decrease in share repurchases of our Common Stock of \$786 million during the nine months ended September 30, 2022; and

- settlement of a forward-starting interest rate swap of \$72 million, which did not recur in the current year;

partially offset by:

- a decrease in net borrowings on short-term debt of \$260 million, primarily due to borrowing under the senior unsecured revolving credit facility to repay the 5.875% Notes which matured during the nine months ended September 30, 2021; and
- a payment of \$63 million during the nine months ended September 30, 2022 for fees related to a bridge facility commitment letter with Bank of America, N.A. ("Bank of America") pursuant to which Bank of America has committed to provide, subject to the terms and conditions set therein, a 364-day \$11.0 billion senior unsecured bridge term loan facility (the "Bridge Facility").

Debt and Other Obligations

On March 18, 2022, we entered into a term loan credit agreement (the "March 2022 Term Loan Credit Agreement"), pursuant to which lenders have committed to provide a tranche of delayed-draw term loans due 364 days from issuance in an amount equal to \$500 million and a tranche of delayed-draw term loans due 5 years from issuance in an amount equal to \$1.0 billion. On September 16, 2022, Celanese, Celanese U.S. and certain subsidiaries entered into an additional term loan credit agreement (the "September 2022 Term Loan Credit Agreement" and, together with the March 2022 Term Loan Credit Agreement, the "Term Loan Credit Agreements"), pursuant to which lenders have committed to provide delayed-draw term loans due 3 years from issuance in an amount equal to \$750 million (the term loans represented by the Term Loan Credit Agreements collectively, the "Term Loan Facility"). The Term Loan Facility is guaranteed by Celanese and domestic subsidiaries representing substantially all of our U.S. assets and business operations.

On March 18, 2022, we entered into a new revolving credit agreement (the "New Revolving Credit Agreement" and, together with the Term Loan Credit Agreements the "Credit Agreements") consisting of a \$1.75 billion senior unsecured revolving credit facility (with a letter of credit sublimit), maturing in 2027. The proceeds of a \$365 million borrowing under the new senior unsecured revolving credit facility were used to repay and terminate our existing revolving credit facility.

On July 14, 2022 and July 19, 2022, Celanese U.S. completed the offerings of the Acquisition USD Notes and Acquisition Euro Notes, respectively. Fees and expenses of the offering of the Acquisition Notes, inclusive of underwriting discounts, were \$65 million.

The entry into the Term Loan Credit Agreements and the offerings of the Acquisition Notes reduced availability under the Bridge Facility to zero, and we terminated the Bridge Facility. During the nine months ended September 30, 2022, the Company paid \$66 million in fees related to the Bridge Facility commitment, amortizing these fees to interest expense.

The Term Loan Facility, subject to the terms and conditions set forth in the Term Loan Credit Agreements, together with the Acquisition Notes and additional debt financing, will be available to finance the M&M Acquisition, and to pay fees and expenses related thereto.

On November 1, 2022, we borrowed \$300 million under our senior unsecured revolving credit facility for general corporate purposes, reducing availability of borrowings under the facility to \$1.45 billion.

See [Note 3 - Acquisitions, Dispositions and Plant Closures](#) and [Note 7 - Debt](#) in the accompanying unaudited interim consolidated financial statements for further information.

There have been no material changes to our debt or other obligations described in our 2021 Form 10-K other than those disclosed above and in [Note 7 - Debt](#) in the accompanying unaudited interim consolidated financial statements.

Accounts Receivable Purchasing Facility

In June 2021, we entered into an amendment to the amended and restated receivables purchase agreement under our U.S. accounts receivable purchasing facility among certain of our subsidiaries, our wholly-owned, "bankruptcy remote" special purpose subsidiary ("SPE") and certain global financial institutions ("Purchasers"). We de-recognized \$802 million and \$1.1 billion of accounts receivable under this agreement for the nine months ended September 30, 2022 and twelve months ended December 31, 2021, respectively, and collected \$802 million and \$1.1 billion of accounts receivable sold under this agreement during the same periods. Unsold U.S. accounts receivable of \$130 million were pledged by the SPE as collateral to the Purchasers as of September 30, 2022.

Factoring and Discounting Agreements

We have factoring agreements in Europe and Singapore with financial institutions to sell 100% and 90% of certain accounts receivable, respectively, on a non-recourse basis. We de-recognized \$228 million and \$230 million of accounts receivable under these factoring agreements for the nine months ended September 30, 2022 and twelve months ended December 31, 2021, respectively, and collected \$234 million and \$185 million of accounts receivable sold under these factoring agreements during the same periods.

In March 2021, we entered into an agreement in Singapore with a financial institution to discount, on a non-recourse basis, documentary credits or other documents recorded as accounts receivable. We de-recognized \$41 million and \$70 million of accounts receivable under this agreement for the nine months ended September 30, 2022 and twelve months ended December 31, 2021, respectively.

See [Note 7 - Debt](#) in the accompanying unaudited interim consolidated financial statements for further information.

Guarantor Financial Information

We have outstanding senior unsecured notes, issued in public offerings registered under the Securities Act of 1933, as amended (collectively, the "Senior Notes"). The Senior Notes were issued by Celanese U.S. ("Issuer") and are guaranteed by Celanese Corporation ("Parent Guarantor") and the Subsidiary Guarantors (collectively the "Obligor Group"). See [Note 7 - Debt](#) in the accompanying unaudited interim consolidated financial statements for further information. The Issuer and Subsidiary Guarantors are 100% owned subsidiaries of the Parent Guarantor. The Subsidiary Guarantors are listed in [Exhibit 22.1](#) to this Quarterly Report.

The Parent Guarantor and the Subsidiary Guarantors have guaranteed the Senior Notes on a full and unconditional, joint and several, senior unsecured basis. The guarantees are subject to certain customary release provisions, including that a Subsidiary Guarantor will be released from its respective guarantee in specified circumstances, including (i) the sale or transfer of all of its assets or capital stock; (ii) its merger or consolidation with, or transfer of all or substantially all of its assets to, another person; or (iii) its ceasing to be a majority-owned subsidiary of the Issuer in connection with any sale of its capital stock or other transaction. Additionally, a Subsidiary Guarantor will be released from its guarantee of the Senior Notes at such time that it ceases to guarantee the Issuer's obligations under the Credit Agreements (subject to the satisfaction of customary document delivery requirements). The obligations of the Subsidiary Guarantors under their guarantees are limited as necessary to prevent such guarantees from constituting a fraudulent conveyance or fraudulent transfer under applicable law.

The Parent Guarantor and the Issuer are holding companies that conduct substantially all of their operations through their subsidiaries, which own substantially all of our consolidated assets. The Parent Guarantor has no material assets other than the stock of its immediate 100% owned subsidiary, the Issuer. The principal source of cash to pay the Parent Guarantor's and the Issuer's obligations, including obligations under the Senior Notes and the guarantee of the Issuer's obligations under the Credit Agreement, is the cash that our subsidiaries generate from their operations. Each of the Subsidiary Guarantors and our non-guarantor subsidiaries is a distinct legal entity and, under certain circumstances, applicable country or state laws, regulatory limitations and terms of other debt instruments may limit our subsidiaries' ability to distribute cash to the Issuer and the Parent Guarantor.

For cash management purposes, we transfer cash among the Parent Guarantor, Issuer, Subsidiary Guarantors and non-guarantors through intercompany financing arrangements, contributions or declaration of dividends between the respective parent and its subsidiaries. While the non-guarantor subsidiaries do not guarantee the Issuer's obligations under our outstanding debt, the transfer of cash under these activities facilitates the ability of the recipient to make specified third-party payments for principal and interest on the Senior Notes, Credit Agreement, other outstanding debt, Common Stock dividends and Common Stock repurchases.

The summarized financial information of the Obligor Group is presented below on a combined basis after the elimination of: (i) intercompany transactions among such entities and (ii) equity in earnings from and investments in the non-guarantor subsidiaries. Transactions with, and amounts due to or from, non-guarantor subsidiaries and affiliates are separately disclosed.

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	Nine Months Ended September 30, 2022
	(In \$ millions) (unaudited)
Net sales to third parties	1,550
Net sales to non-guarantor subsidiaries	743
Total net sales	2,293
Gross profit	379
Earnings (loss) from continuing operations	(218)
Net earnings (loss)	(222)
Net earnings (loss) attributable to the Obligor Group	(222)

	As of September 30, 2022	As of December 31, 2021
	(In \$ millions) (unaudited)	
Receivables from non-guarantor subsidiaries	511	624
Other current assets	10,139	1,236
Total current assets	10,650	1,860
Goodwill	578	578
Other noncurrent assets	2,892	2,584
Total noncurrent assets	3,470	3,162
Current liabilities due to non-guarantor subsidiaries	3,097	2,493
Current liabilities due to affiliates	15	64
Other current liabilities	1,721	1,347
Total current liabilities	4,833	3,904
Noncurrent liabilities due to non-guarantor subsidiaries	2,316	2,348
Other noncurrent liabilities	11,902	3,610
Total noncurrent liabilities	14,218	5,958

Share Capital

We declared a quarterly cash dividend of \$0.70 per share on our Common Stock on October 19, 2022, amounting to \$76 million.

There have been no material changes to our share capital described in our 2021 Form 10-K other than those disclosed above and in [Note 10 - Stockholders' Equity](#) in the accompanying unaudited interim consolidated financial statements.

Contractual Obligations

We have not entered into any material off-balance sheet arrangements.

Except as otherwise described in this report, there have been no material revisions outside the ordinary course of business to our contractual obligations as described in our 2021 Form 10-K.

Tax Return Audits

Our tax returns are under joint audit for the years 2013 through 2015 by the United States, Netherlands and Germany (the "Authorities"). In September 2021, we received a draft joint audit report proposing adjustments to transfer pricing and the reallocation of income between the related jurisdictions. The Authorities also propose to apply these adjustments to open tax years through 2019. We are engaged in discussions with the Authorities to evaluate the proposals. During the three months ended September 30, 2022, we recorded additional tax reserves of \$25 million for years prior to 2022 based on unilateral discussions with one of the relevant authorities. We are currently evaluating all additional potential remedies. See [Note 11 - Income Taxes](#) in the accompanying unaudited interim consolidated financial statements for further information.

Business Environment

We continue to experience significant cost inflation, inflationary pressure and supply disruptions related to the sourcing of raw materials, energy, logistics and labor in 2022. We continue to closely monitor the impact of, and responses to, COVID-19 variants, including government imposed lockdowns in China and elsewhere, and geopolitical effects on demand conditions and the supply chain. Demand conditions across certain regions in the Western Hemisphere and China have deteriorated, creating uncertainty, impacting consumer activity and driving customer destocking. Average prices of energy feedstocks, particularly natural gas, which are a significant input and source of energy for our manufacturing operations, have continued to increase in the Western Hemisphere and particularly in Europe. We also experienced cost pressure on raw material inputs. We have continued pricing actions intended to offset these inflationary headwinds. Continued moderation of acetyls pricing is expected to trend to more normalized levels through the end of 2022. We expect that sourcing costs and inflationary pressures will continue to be significant across the business throughout the rest of the year.

We continue to monitor and respond to the situation in Ukraine. While the conflict has not had a material impact on our business, financial condition or results of operations to date, we have experienced shortages in materials and increased costs for transportation, energy and raw materials as well as other supply chain challenges, particularly in Europe, due in part to the effects of the conflict, and government responses thereto, including sanctions, on the global economy. We continue to monitor these developments.

Following Russia's invasion, we have suspended sales into Russia, Belarus and the sanctioned regions of Ukraine. Revenue from these countries and regions constituted less than 1% of our consolidated Net sales in fiscal year 2021 and we have no manufacturing assets in these countries or regions.

We do not currently expect the situation to result in a material impact on our business or financial results, but the full impact of the conflict remains uncertain and will depend on future geopolitical and economic developments that are impossible to predict. Potential risks we may face include increased volatility in capital and commodity markets, rapid changes to sanctions, continued supply chain and transportation disruptions, exacerbation of inflationary conditions, impacts to consumer or business sentiment and an increased risk of cyber security incidents as well as the impacts referenced above.

Critical Accounting Policies and Estimates

Our unaudited interim consolidated financial statements are based on the selection and application of significant accounting policies. The preparation of unaudited interim consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the unaudited interim consolidated financial statements and the reported amounts of Net sales, expenses and allocated charges during the reporting period. Actual results could differ from those estimates. However, we are not currently aware of any reasonably likely events or circumstances that would result in materially different results.

We describe our significant accounting policies in Note 2 - Summary of Accounting Policies, of the Notes to the Consolidated Financial Statements included in our 2021 Form 10-K. We discuss our critical accounting policies and estimates in MD&A in our 2021 Form 10-K.

Recent Accounting Pronouncements

See [Note 2 - Recent Accounting Pronouncements](#) in the accompanying unaudited interim consolidated financial statements included in this Quarterly Report for information regarding recent accounting pronouncements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Market risk for the Company has not changed materially from the foreign exchange, interest rate and commodity risks disclosed in Item 7A. Quantitative and Qualitative Disclosures about Market Risk in our 2021 Form 10-K. See also [Note 12 - Derivative Financial Instruments](#) in the accompanying unaudited interim consolidated financial statements for further discussion of our market risk management and the related impact on the Company's financial position and results of operations.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended, as of the end of the period covered by this report. Based on that evaluation, as of September 30, 2022, the Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are effective.

Changes in Internal Control Over Financial Reporting

During the period covered by this report, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. *Legal Proceedings*

The Company is involved in legal and regulatory proceedings, lawsuits, claims and investigations incidental to the normal conduct of its business, relating to such matters as product liability, land disputes, insurance coverage disputes, contracts, employment, antitrust and competition, intellectual property, personal injury and other actions in tort, workers' compensation, chemical exposure, asbestos exposure, taxes, trade compliance, acquisitions and divestitures, claims of current and legacy stockholders, past waste disposal practices and release of chemicals into the environment. The Company is actively defending those matters where it is named as a defendant. Due to the inherent subjectivity of assessments and unpredictability of outcomes of legal proceedings, the Company's litigation accruals and estimates of possible loss or range of possible loss may not represent the ultimate loss to the Company from legal proceedings. See [Note 9 - Environmental](#) and [Note 14 - Commitments and Contingencies](#) in the accompanying unaudited interim consolidated financial statements for a discussion of material environmental matters and material commitments and contingencies related to legal and regulatory proceedings. There have been no significant developments in the "Legal Proceedings" described in our 2021 Form 10-K other than those disclosed in [Note 9 - Environmental](#) and [Note 14 - Commitments and Contingencies](#) in the accompanying unaudited interim consolidated financial statements. See *Part I - Item 1A. Risk Factors* of our 2021 Form 10-K for certain risk factors relating to these legal proceedings.

Item 1A. *Risk Factors*

Additional risk factors are described below and should be read in conjunction with Part I, Item 1A of our 2021 Form 10-K.

Risks Relating to the acquisition of the majority of the Mobility & Materials business (the "M&M Acquisition" and such business being acquired, the "M&M Business") of DuPont de Nemours, Inc. ("DuPont")

We have made certain assumptions relating to the M&M Acquisition which may prove to be materially inaccurate and we may fail to realize all of the anticipated benefits of the acquisition.

We have made certain assumptions relating to the M&M Acquisition, which may prove to be inaccurate. Our failure to identify or understand the magnitude of the problems, liabilities or other challenges associated with the M&M Acquisition could result in incorrect expectations of future results and increased risk of unanticipated or unknown issues or liabilities. Our mitigation strategies for such risks that are identified may be ineffective. These assumptions relate to numerous matters, including:

- general economic and business conditions, and performance of the M&M Business against this backdrop;
- potential unknown liabilities and unforeseen delays or regulatory conditions associated with the M&M Acquisition;
- faulty assumptions or incorrect expectations regarding the process of integrating the M&M Business with ours, including unanticipated delays, costs or inefficiencies;
- the anticipated benefits and synergies, including timing for when such benefits and synergies may be realized through combining the M&M Business with ours;
- the amount of attention and resources needed to successfully align our and the M&M Business's practices and operations which may disrupt our business, including challenges relating to integrating commercial activities, technologies, procedures, policies, retaining key personnel and addressing differences in the business cultures of our business and the M&M Business;
- the complexities associated with managing the combined businesses;
- potential increases in the challenges and risks, including commercial and financial risks, associated with our broader international business footprint, and increased exposure to certain end markets and geographies, as a result of the M&M Acquisition which will expand our presence to markets in which we may not have previously done business; and
- other financial and strategic risks of the M&M Acquisition.

We cannot guarantee that we will achieve our goals or meet our expectations with respect to the M&M Acquisition. Through our review to-date since the November 1, 2022 closing, we have learned that for the remainder of 2022 the M&M Business is expected to underperform prior expectations, and its financial performance from signing through the closing has been lower than anticipated. We cannot be certain when we will be able to realize improvements in the underlying M&M Business performance and as we proceed with integration, we may identify additional risks and challenges. The benefits of the M&M Acquisition, including the anticipated financial benefits and the synergies and growth opportunities, may not be realized as expected or may not be achieved within the anticipated timeframe, or at all. If our assumptions are inaccurate or we are unable to meet our expectations (including our expectations regarding financial targets), our business, financial performance and operating results could be materially and adversely affected.

Financing the M&M Acquisition has resulted in an increase in our indebtedness, which could adversely affect us, including by decreasing our business flexibility and increasing our interest expense.

The increase in our indebtedness to finance the M&M Acquisition may, among other things, reduce our flexibility to respond to changing business and economic conditions or to fund capital expenditures or working capital needs. In addition, the amount of cash required to pay interest on our increased indebtedness, and thus the demands on our cash resources, has materially increased as a result of the indebtedness to finance the M&M Acquisition.

We will incur direct and indirect costs as a result of the M&M Acquisition.

We have incurred and expect to continue to incur a number of non-recurring costs associated with negotiating and completing the M&M Acquisition, combining the operations of our business and the M&M Business and achieving desired synergies. These fees and costs have been, and will continue to be, substantial. Non-recurring expenses include, among others, employee retention costs, fees paid to financial, legal, integration and accounting advisors, severance and benefit costs. We will also incur transaction fees and costs related to formulating and implementing integration plans, including facilities and systems consolidation costs and employment-related costs. We will continue to assess the magnitude of these costs, and additional unanticipated costs may be incurred in the M&M Acquisition and the integration of the M&M Business into our business. Although we expect that the elimination of duplicative costs, as well as the realization of other efficiencies related to the integration of the M&M Business, should allow us to offset integration-related costs over time, this net benefit may not be achieved in the near term, or at all. The costs described above, as well as other unanticipated costs and expenses, could have a material adverse effect on our financial condition and results of operations following the completion of the M&M Acquisition. Factors beyond our control could affect the total amount or timing of these expenses, many of which, by their nature, are difficult to estimate accurately.

The risk of non-compliance with non-U.S. laws, regulations and policies could adversely affect our results of operations, financial condition or strategic objectives.

The M&M Acquisition will introduce us into a number of new geographic markets, subjecting us to additional non-U.S. laws, regulations and policies which do not currently apply to us, and will increase our exposure to certain other geographic markets as well as their laws and regulations. These laws and regulations are complex, change frequently, have become more stringent over time, could increase our cost of doing business, and could result in conflicting legal requirements. These laws and regulations include international labor and employment laws, environmental regulations and reporting requirements, data privacy requirements, and local laws prohibiting corrupt payments to government officials, antitrust and other regulatory laws. We will be subject to the risk that we, our employees, our agents, or our affiliated entities, or their respective officers, directors, employees and agents, may take actions determined to be in violation of any of these laws, regulations or policies, for which we might be held responsible. Actual or alleged violations could result in substantial fines, sanctions, civil or criminal penalties, debarment from government contracts, curtailment of operations in certain jurisdictions, competitive or reputational harm, litigation or regulatory action and other consequences that might adversely affect our results of operations, financial condition or strategic objectives.

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

We did not repurchase any Common Stock during the three months ended September 30, 2022. As of September 30, 2022, our Board of Directors had authorized the repurchase of \$6.9 billion of our Common Stock since February 2008, with approximately \$1.1 billion value of shares remaining that may be purchased under the program. See [Note 10 - Stockholders' Equity](#) in the accompanying unaudited interim consolidated financial statements for further information.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

On November 2, 2022, the Company's Board of Directors adopted and approved, effective immediately, amended and restated by-laws (as amended and restated, the "Seventh Amended and Restated By-laws") of the Company. The Seventh Amended and Restated By-laws, among other things:

- revise procedures and disclosure requirements for stockholders to provide notice of the nomination of directors (outside of "proxy access") and the submission of proposals for consideration at meetings of the stockholders of the Company;
- clarify the power of the Board to set rules and procedures for, postpone, reschedule or cancel any meeting of stockholders previously scheduled, and clarify the power of the chair of a stockholder meeting to adjourn any meeting of stockholders,
- clarify the powers of the Board and the chair of a stockholder meeting to establish rules for the conduct of any meeting of stockholders;
- revise the majority voting provision to clarify when an election will be deemed contested; and
- make certain other administrative, modernizing, clarifying and conforming changes, including making updates to reflect recent amendments to the Delaware General Corporation Law.

The foregoing description of the Seventh Amended and Restated By-laws is not complete and is qualified in its entirety by reference to the complete text of the Seventh Amended and Restated By-laws, which is filed as [Exhibit 3.2](#) hereto and are incorporated herein by reference.

Item 6. Exhibits⁽¹⁾

Exhibit Number	Description
2.1	Transaction Agreement, dated as of February 17, 2022, by and among DuPont De Nemours, Inc., DuPont E&I Holding, Inc. and Celanese Corporation (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the SEC on February 18, 2022).
3.1	Second Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q filed with the SEC on October 18, 2016).
3.1(a)	Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of Celanese Corporation dated as of April 21, 2016 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the SEC on April 22, 2016).
3.1(b)	Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of Celanese Corporation dated as of September 17, 2018 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the SEC on September 17, 2018).
3.1(c)	Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of Celanese Corporation dated April 18, 2019 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the SEC on April 23, 2019).
3.2*	Seventh Amended and Restated By-laws, amended effective November 2, 2022.
4.1	Twelfth Supplemental Indenture, dated as of July 14, 2022, among Celanese US Holdings LLC, Celanese Corporation, the subsidiary guarantors party thereto, U.S. Bank Trust Company, National Association, as series trustee and Computershare Trust Company, N.A. (as successor trustee to Wells Fargo Bank, National Association), as base trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the SEC on July 14, 2022).
4.2	Thirteenth Supplemental Indenture, dated as of July 19, 2022, among Celanese US Holdings LLC, Celanese Corporation, the subsidiary guarantors party thereto, U.S. Bank Trust Company, National Association, as series trustee, registrar and transfer agent, Computershare Trust Company, N.A. (as successor trustee to Wells Fargo Bank, National Association), as base trustee, and Elavon Financial Services DAC, UK Branch, as paying agent (incorporated by reference to Exhibit 4.2 to the current report on Form 8-K filed with the SEC on July 19, 2022).
22.1*	List of Guarantor Subsidiaries.
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022 has been formatted in Inline XBRL.

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* Filed herewith.

‡ Indicates a management contract or compensatory plan or arrangement.

† The Company has omitted certain schedules and similar attachments to such agreements pursuant to Item 601(a)(5) of Regulation S-K. The Company will furnish a copy of such omitted documents to the SEC upon request.

(1) The Company and its subsidiaries have in the past issued, and may in the future issue from time to time, long-term debt. The Company may not file with the applicable report copies of the instruments defining the rights of holders of long-term debt to the extent that the aggregate principal amount of the debt instruments of any one series of such debt instruments for which the instruments have not been filed has not exceeded or will not exceed 10% of the assets of the Company at any pertinent time. The Company hereby agrees to furnish a copy of any such instrument(s) to the SEC upon request.

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.

CELANESE CORPORATION

By: /s/ LORI J. RYERKERK

Lori J. Ryerkerk
Chairman of the Board of Directors,
Chief Executive Officer and President

Date: November 4, 2022

By: /s/ SCOTT A. RICHARDSON

Scott A. Richardson
Executive Vice President and
Chief Financial Officer

Date: November 4, 2022

CELANESE CORPORATION
SEVENTH AMENDED AND RESTATED BY-LAWS

Effective as of November 2, 2022

ARTICLE I

OFFICES

Section 1.01 *Registered Office.* The registered office and registered agent of the Corporation in the State of Delaware shall be as designated from time to time by the appropriate filing by the Corporation in the office of the Secretary of State of the State of Delaware. The Corporation may also have offices in such other places in the United States or elsewhere as the Board of Directors may, from time to time, appoint or as the business of the Corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

Section 2.01 *Annual Meetings.* Annual meetings of stockholders may be held at such place, either within or without the State of Delaware, and at such time and date as the Board of Directors shall determine. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held in whole or in part by means of remote communication as described in Section 2.11 of these By-laws in accordance with Section 211(a)(2) of the Delaware General Corporation Law (as it may be amended, the "DGCL"). The Board of Directors may postpone, reschedule or cancel any annual meeting of stockholders previously scheduled.

Section 2.02 *Special Meetings.* Subject to the Corporation's Certificate of Incorporation (the "Certificate of Incorporation"), special meetings of stockholders, unless otherwise prescribed by statute, may be called at any time by the Chair of the Board of Directors, the Board of Directors or a committee of the Board of Directors which has been duly designated by the Board of Directors and whose powers and authority, as provided in a resolution of the Board of Directors, include the power to call special meetings of stockholders and no special meetings of stockholders shall be called by any other person or persons. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held in whole or in part by means of remote communication as described in Section 2.11 of these By-laws in accordance with Section 211(a)(2) of the DGCL. The Board of Directors may postpone, reschedule or cancel any special meeting of stockholders previously scheduled.

Section 2.03 *Notice of Stockholder Nominations and Other Business.*

(A) *Annual Meetings of Stockholders.*

(1) Nominations of persons for election to the Board of Directors and the proposal of business other than nominations to be considered by the stockholders may be made at an annual meeting of stockholders only: (a) pursuant to the Corporation's notice of meeting (or

any supplement thereto); (b) by or at the direction of the Chair of the Board of Directors or the Board of Directors; (c) by any stockholder of the Corporation who (x) is entitled to vote at the meeting, who complied with the notice procedures set forth in paragraphs (A)(2) and (A)(3) of this Section 2.03 and who was a stockholder of record at the time such notice is delivered to the Secretary of the Corporation and at the time of the annual meeting; or (d) by one or more Eligible Holders (as defined below) pursuant to and in accordance with Section 2.03(B).

(2) For nominations or other business to be properly brought before an annual meeting by a stockholder of record pursuant to clause (c) of paragraph (A)(1) of this Section 2.03, the stockholder of record bringing the notice ("Noticing Stockholder") must have delivered timely notice thereof in proper written form to the Secretary of the Corporation at the principal executive offices of the Corporation, and any such proposed business other than nominations of persons for election to the Board of Directors must constitute a proper matter for stockholder action. To be timely, the Noticing Stockholder's notice must be delivered to the Secretary of the Corporation at the principal executive offices of the Corporation not later than the Close of Business on the ninetieth (90th) day nor earlier than the Close of Business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is changed by more than thirty (30) days from the anniversary date of the previous year's meeting, notice by the Noticing Stockholder to be timely must be so delivered not earlier than the Close of Business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the Close of Business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement (as defined below) of the date of such meeting is first made by the Corporation. Public announcement of an adjournment, recess, rescheduling or postponement of an annual meeting shall not commence a new time period (or extend any time period) for the giving of a Noticing Stockholder's notice. Notwithstanding anything in this paragraph (A)(2) of this Section 2.03 to the contrary, in the event that the number of directors to be elected to the Board of Directors is increased and there is no public announcement by the Corporation naming all of the nominees for director proposed by the Board of Directors or specifying the size of the increased Board of Directors at least ten (10) days prior to the last day a Noticing Stockholder may deliver a notice of nominations in accordance with the second sentence of this paragraph (A)(2) of this Section 2.03, a Noticing Stockholder's notice required by this Section 2.03(A) shall also be considered timely, but only with respect to proposed nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the Close of Business on the tenth (10th) day following the day on which a public announcement of such increase is first made by the Corporation.

(3) To be in proper written form, such Noticing Stockholder's notice also shall set forth:

(a) as to each person whom the Noticing Stockholder proposes to nominate for election or re-election as a director: (i) the name, age and address (business and residential) of such person, (ii) a complete biography and statement of such person's qualifications, including the principal occupation or employment of such person (at present and for the past five (5) years), (iii) the Specified Information (as defined below) for such person and any member of the immediate family of such person, or any Affiliate or Associate (as such terms are defined below) of such person, or any person acting in concert therewith, (iv) (A) a complete

and accurate description of all agreements, arrangements and understandings (whether written or oral, and including promises) between each Holder and any Stockholder Associated Person (as such terms are defined below), on the one hand, and such person, on the other hand, including, without limitation, (x) to consult or advise on any investment or potential investment in a publicly listed company (including the Corporation), (y) to nominate, submit or otherwise recommend (including, without limitation, supporting, advocating for or otherwise taking action to further the consideration of) such person for appointment (or, for the avoidance of doubt, as a candidate for appointment) to any officer, executive officer or director role of any publicly listed company (including the Corporation) during the past ten (10) years, and (B) a complete and accurate description of the outcome of any situations described pursuant to the foregoing clause (A), (v) whether such person has (A) notified the board of directors of each publicly listed company at which such person serves as an officer, executive officer or director with respect to such person's proposed nomination for election to the Board of Directors, and, (B) as applicable, received all necessary consents to serve on the Board of Directors if so nominated and elected or otherwise appointed (or, if any such consents have not been received, how such person intends to address such failure to receive such necessary consents), (vi) whether such person's nomination, election or appointment, as applicable, would violate or contravene a corporate governance policy, including, without limitation, a conflicts of interest or "overboarding" policy of any publicly listed company at which such person serves as an officer, executive officer or director, and, if so, a description of how such person intends to address such violation or contravention, (vii) the first date of contact between any Holder and/or Stockholder Associated Person, on the one hand, and such person, on the other hand, with respect to the Corporation, (viii) the amount and nature of any direct or indirect economic or financial interest, if any, of such person, or of any immediate family member of such person, in any funds or vehicles managed by, under common management with or affiliated with any Holder or Stockholder Associated Person, (ix) a complete and accurate description of all direct and indirect compensation and other monetary or non-monetary agreements, arrangements and understandings (whether written or oral) existing presently, that existed during the past three (3) years or were offered during the past three (3) years (whether accepted or declined), and any other material relationships, between or among the Holders or any Stockholder Associated Person, on the one hand, and such person, and any member of the immediate family of such person, and such person's respective Affiliates and Associates, or others acting in concert therewith, or any other person or persons, on the other hand (including the names of such persons) and all biographical, related party transaction and other information that would be required to be disclosed pursuant to the federal and state securities laws, including Rule 404 promulgated under Regulation S-K ("Regulation S-K") under the Securities Act of 1933 (the "Securities Act") (or any successor provision), if any Holder or any Stockholder Associated Person were the "registrant" for purposes of such rule and such person were a director or executive officer of such registrant, (x) information relevant to a determination of whether such person can be considered an independent director, (xi) any other information relating to such person that would be required to be disclosed in a proxy statement or any other filings required to be made in connection with solicitation of proxies for the election of directors in a contested election or that is otherwise required pursuant to and in accordance with Section 14 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations promulgated thereunder (including such person's written consent to being named in proxy statements as a proposed nominee of the Noticing Stockholder and to serving as a director if elected), and (xii) a completed and signed questionnaire, representation and agreement and any and all other information required by paragraph (A)(3)(e) of this Section 2.03;

(b) as to any other business that the Noticing Stockholder proposes to bring before the meeting: (i) a brief description of the business desired to be brought before the meeting, (ii) the reasons for conducting such business at the meeting, (iii) any material interest of each Holder and each Stockholder Associated Person, if any, in such business, (iv) the text of the proposal or business (including the text of any resolutions proposed for consideration and, in the event that such business includes a proposal to amend the By-laws of the Corporation, the text of the proposed amendment), and (v) a description of all agreements, arrangements and understandings between each Holder and any Stockholder Associated Person and any other person or persons (including their names) in connection with the proposal of such business by the Noticing Stockholder;

(c) as to the Noticing Stockholder and the beneficial owner, if any, on whose behalf the nomination is made or the other business is being proposed (collectively with the Noticing Stockholder, the "Holders" and each a "Holder"): (i) the name and address of each Holder, as the name and address appear on the Corporation's books, and the name and address of each Stockholder Associated Person, if any, (ii) as of the date of the notice (which information, for the avoidance of doubt, shall be updated and supplemented pursuant to paragraph (D)(3) of this Section 2.03), (A) the class or series and number of shares of capital stock of the Corporation which are, directly or indirectly, held of record or owned beneficially by each Holder and any Stockholder Associated Person (provided that, for the purposes of this Section 2.03(A), any such person shall in all events be deemed to beneficially own any shares of stock of the Corporation as to which such person has a right to acquire beneficial ownership at any time in the future (whether such right is exercisable immediately or only after the passage of time or the fulfillment of a condition or both)), (B) any short position, profits interest, option, warrant, convertible security, stock appreciation right or similar right with an exercise or conversion privilege or a settlement payment or mechanism at a price related to any class or series of shares of the Corporation or with a value derived in whole or in part from the value of any class or series of shares of the Corporation, or any derivative or synthetic arrangement having the characteristics of a long position in any class or series of shares of the Corporation, or any contract, derivative, swap or other transaction or series of transactions designed to produce economic benefits and risks that correspond substantially to the ownership of any class or series of shares of the Corporation, including due to the fact that the value of such contract, derivative, swap or other transaction or series of transactions is determined by reference to the price, value or volatility of any class or series of shares of the Corporation, whether or not such instrument, contract or right shall be subject to settlement in the underlying class or series of shares of the Corporation, through the delivery of cash or other property, or otherwise, and without regard to whether the Holder and any Stockholder Associated Person may have entered into transactions that hedge or mitigate the economic effect of such instrument, contract or right, or any other direct or indirect opportunity to profit or share in any profit derived from any increase or decrease in the value of shares of the Corporation (any of the foregoing, a "Derivative Instrument") directly or indirectly owned or held, including beneficially, by each Holder and any Stockholder Associated Person, (C) a description of any proxy, contract, arrangement, understanding or relationship pursuant to which each Holder and any Stockholder Associated Person has any right to vote or has granted a right to vote any shares of stock or any other security of the Corporation, (D) any agreement, arrangement, understanding, relationship or otherwise, including any repurchase or similar so-called "stock borrowing" agreement or arrangement, involving any Holder or any Stockholder Associated Person, on the one hand, and any person acting in concert therewith, on the other hand, directly or indirectly, the purpose or effect of which is to mitigate loss to, reduce the

economic risk (of ownership or otherwise) of any class or series of the shares of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such Holder or any Stockholder Associated Person with respect to any class or series of the shares or other securities of the Corporation, or which provides, directly or indirectly, the opportunity to profit or share in any profit derived from any decrease in the price or value of any class or series of the shares or other securities of the Corporation (any of the foregoing, a "Short Interest"), and any Short Interest held by each Holder or any Stockholder Associated Person within the last twelve (12) months in any class or series of the shares or other securities of the Corporation, (E) any rights to dividends or payments in lieu of dividends on the shares of the Corporation owned beneficially by each Holder or any Stockholder Associated Person that are separated or separable from the underlying shares of stock or other security of the Corporation, (F) any proportionate interest in shares of stock or other securities of the Corporation or Derivative Instruments held, directly or indirectly, by a general or limited partnership or limited liability company or other entity in which any Holder or any Stockholder Associated Person is a general partner or directly or indirectly beneficially owns an interest in a general partner, is the manager, managing member or directly or indirectly beneficially owns an interest in the manager or managing member of a limited liability company or other entity, (G) any performance-related fees (other than an asset-based fee) that each Holder or any Stockholder Associated Person is or may be entitled to based on any increase or decrease in the value of stock or other securities of the Corporation or Derivative Instruments, if any, including without limitation, any such interests held by members of the immediate family sharing the same household of such Holder or any Stockholder Associated Person, (H) any direct or indirect legal, economic or financial interest (including Short Interest) of each Holder and each Stockholder Associated Person, if any, in the outcome of any (x) vote to be taken at any annual or special meeting of stockholders of the Corporation or (y) any meeting of stockholders of any other entity with respect to any matter that is related, directly or indirectly, to any nomination or business proposed by any Holder under these By-laws, (I) any direct or indirect legal, economic or financial interest or any Derivative Instruments or Short Interests in any principal competitor of the Corporation held by each Holder or any Stockholder Associated Person, (J) any direct or indirect interest of each Holder or any Stockholder Associated Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement); and (K) any material pending or threatened action, suit or proceeding (whether civil, criminal, investigative, administrative or otherwise) in which any Holder or any Stockholder Associated Person is, or is reasonably expected to be made, a party or material participant involving the Corporation or any of its officers, directors or employees, or any Affiliate of the Corporation, or any officer, director or employee of such Affiliate (subclause (A)(3)(c)(ii) of this Section 2.03 shall be referred to as the "Specified Information"), (iii) a representation by the Noticing Stockholder that such stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting, will continue to be a stockholder of record of the Corporation entitled to vote at such meeting through the date of such meeting and intends to appear in person or by proxy at the meeting to propose such nomination or other business, (iv) all information that would be required to be set forth in a Schedule 13D filed pursuant to Rule 13d-1(a) or an amendment pursuant to Rule 13d-2(a) if such a statement were required to be filed under the Exchange Act and the rules and regulations promulgated thereunder by each Holder and each Stockholder Associated Person, if any, (v) any other information relating to each Holder and each Stockholder Associated Person, if any, that would be required to be disclosed in a proxy statement and form of proxy or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal

and/or for the election of directors in a contested election pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder, (vi) a representation by the Noticing Stockholder as to whether any Holder and/or any Stockholder Associated Person intends or is part of a group which intends: (A) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to elect the proposed nominee or approve or adopt the other business being proposed and/or (B) otherwise to solicit proxies from stockholders in support of such nomination or other business, (vii) a certification by the Noticing Stockholder that each Holder and any Stockholder Associated Person has complied with all applicable federal, state and other legal requirements in connection with its acquisition of shares of capital stock or other securities of the Corporation and/or such person's acts or omissions as a stockholder of the Corporation, (viii) the statement required by Rule 14a-19(b)(3) of the Exchange Act (or any successor provision), (ix) the names and addresses of other stockholders (including beneficial owners) known by any of the Holder or Stockholder Associated Person to support such proposal(s) or nomination(s), and to the extent known the class or series and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) or other beneficial owner(s), and (x) a representation by the Noticing Stockholder as to the accuracy of the information set forth in the notice.

(d) The Corporation may also, as a condition to any such nomination or business being deemed properly brought before a meeting of stockholders, require any Holder or any proposed nominee to deliver to the Secretary, within five (5) Business Days of any such request, such other information as may reasonably be requested by the Corporation, including (i) such other information as may be reasonably required by the Board of Directors, in its sole discretion, to determine (x) the eligibility of such proposed nominee to serve as a director of the Corporation, and (y) whether such proposed nominee qualifies as an "independent director" or "audit committee financial expert" under applicable law, securities exchange rule or regulation or any publicly disclosed corporate governance guideline or committee charter of the Corporation and (ii) such other information that the Board of Directors determines, in its sole discretion, could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

(e) In addition to the other requirements of this Section 2.03, each person who a Noticing Stockholder proposes to nominate for election or re-election as a director of the Corporation must deliver in writing (in accordance with the time periods prescribed for delivery of notice under this Section 2.03) to the Secretary at the principal executive offices of the Corporation (i) a written questionnaire with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request of any stockholder of record identified by name within five (5) Business Days of such written request) and (ii) a written representation and agreement (in the form provided by the Secretary upon written request of any stockholder of record identified by name within five (5) Business Days of such written request) that such person (A) is not and will not become a party to (x) any agreement, arrangement or understanding (whether written or oral) with, and has not given any commitment or assurance to, any person or entity as to how such person, if elected as a director of the Corporation, will act or vote on any issue or question (for purposes of paragraphs (A) and (C) of Section 2.03, a "Voting Commitment") that has not been disclosed to the Corporation or (y) any Voting Commitment that could limit or interfere with such person's ability to comply, if

elected as a director of the Corporation, with such person's fiduciary duties under applicable law, (B) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed to the Corporation, (C) in such person's individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, if elected as a director of the Corporation, and will comply with all applicable rules of the exchanges upon which the securities of the Corporation are listed and all applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation, and (D) in such person's individual capacity and on behalf of any Holder on whose behalf the nomination is being made, intends to serve a full term if elected as a director of the Corporation.

(B) *Stockholder Nominations Included in the Corporation's Proxy Materials.*

(1) Subject to the provisions of paragraph (B) of this Section 2.03, if expressly requested in the relevant Nomination Notice (as defined below), the Corporation shall include in its proxy statement for an annual meeting of stockholders: (a) the name of each person nominated for election (the "Nominee"), which shall also be included on the Corporation's form of proxy for the applicable annual meeting, by any Eligible Holder or group of up to 20 Eligible Holders that has (individually and collectively, in the case of a qualifying group) satisfied, as determined by the Board of Directors or its designee, acting in good faith, all applicable conditions and complied with all applicable procedures set forth in paragraph (B) of this Section 2.03 (such Eligible Holder or group of Eligible Holders being a "Nominating Stockholder"); (b) disclosure about the Nominee and the Nominating Stockholder required under the rules of the Securities and Exchange Commission ("SEC") or other applicable law to be included in the proxy statement; (c) a statement included by the Nominating Stockholder in the Nomination Notice for inclusion in the proxy statement in support of the Nominee's election to the Board of Directors (subject, without limitation, to clause (b) of paragraph (B)(5) of this Section 2.03), if such statement does not exceed 500 words; and (d) any other information that the Corporation or the Board of Directors determines, in its discretion, to include in the proxy statement relating to the nomination of the Nominee, including, without limitation, any statement in opposition to the nomination and any of the information provided pursuant to paragraph (B) of this Section 2.03. For the avoidance of doubt, and any other provision of these By-laws notwithstanding, the Corporation may in its sole discretion solicit against, and include in the proxy statement its own statements or other information relating to, any Nominating Stockholder and/or Nominee, including any information provided to the Corporation with respect to the foregoing.

(2) (a) The Corporation shall not be required to include in any proxy statement for an annual meeting of stockholders more Nominees than that number of directors constituting, the greater of (A) two directors and (B) such whole number not exceeding 20% of the total number of directors of the Corporation on the last day on which a Nomination Notice may be submitted pursuant to paragraph (B) of this Section 2.03 (such number of Nominees, subject to the following provisos, the "Maximum Number"); provided, however, that in the event that one or more vacancies for any reason occurs on the Board of Directors after the deadline set forth in paragraph (B)(4) of this Section 2.03, but before the date of the annual meeting, and the Board of Directors resolves to reduce the size of the Board of Directors in connection therewith, the Maximum Number shall be calculated based on the number of directors in office as so

reduced. (b) The Maximum Number for a particular annual meeting shall be reduced by: (i) the number of Nominees who are subsequently withdrawn or that the Board of Directors itself decides to nominate for election at such annual meeting, (ii) the number of such director candidates for which the Corporation has received one or more valid stockholder notices nominating director candidates pursuant to paragraph (A) of this Section 2.03 of these By-laws, (iii) the number of directors in office or director candidates that in either case will be included in the Corporation's proxy materials with respect to such annual meeting as an unopposed (by the Corporation) nominee pursuant to any agreement, arrangement or other understanding with any stockholder or group of stockholders (other than any such agreement, arrangement or understanding entered into in connection with an acquisition of common stock of the Corporation by such stockholder or group of stockholders from the Corporation), other than any such director referred to in this clause (iii) who at the time of such annual meeting will have served as a director continuously, as a nominee of the Board of Directors of the Corporation, for the preceding three annual meetings, but only to the extent the Maximum Number after such reduction with respect to this clause (iii) equals or exceeds one and (iv) the number of incumbent directors who had been Nominees with respect to any of the preceding three annual meetings of stockholders and whose re-election at the upcoming annual meeting is being recommended by the Board of Directors. (c) If, pursuant to paragraph (B) of this Section 2.03, the number of Nominees for any annual meeting of stockholders exceeds the Maximum Number then, promptly upon notice from the Corporation, each Nominating Stockholder will select one Nominee for inclusion in the proxy statement until the Maximum Number is reached, going in order of the amount (largest to smallest) of the ownership position of each Nominating Stockholders, as disclosed in each Nominating Stockholder's Nomination Notice, with the process repeated if the Maximum Number is not reached after each Nominating Stockholder has selected one Nominee. If, after the deadline for submitting a Nomination Notice as set forth in paragraph (B)(4) of this Section 2.03, a Nominating Stockholder becomes ineligible or withdraws its nomination or a Nominee becomes unwilling to serve on the Board of Directors, whether before or after the mailing of the definitive proxy statement, then the nomination shall be disregarded, and the Corporation: (i) shall not be required to include in its proxy statement or form of proxy or other filings required to be made in connection with solicitations of proxies the disregarded Nominee or any successor or replacement nominee proposed by the Nominating Stockholder or by any other Nominating Stockholder; and (ii) may otherwise communicate to its stockholders, including without limitation by amending or supplementing its proxy statement or form of proxy or other filings required to be made in connection with solicitations of proxies, that the Nominee will not be included as a Nominee in the proxy statement or on any or form of proxy or other filings required to be made in connection with solicitations of proxies and will not be voted on at the annual meeting.

(3) (a) An "Eligible Holder" is a person who has either (i) been a record holder of the shares of common stock used to satisfy the eligibility requirements in this Section 2.03(B) continuously for the three-year period specified in clause (b) of this paragraph or (ii) provides to the Secretary of the Corporation, within the time period referred to in paragraph (B)(4), evidence of continuous ownership of such shares for such three-year period from one or more securities intermediaries in a form that the Board of Directors or its designee, acting in good faith, determines would be deemed acceptable for purposes of a shareholder proposal under Rule 14a-8(b)(2) (or any successor thereof) promulgated under the Exchange Act.

(b) An Eligible Holder or group of up to 20 Eligible Holders may submit a nomination in accordance with paragraph (B) of this Section 2.03 only if the person or group has continuously owned at least the Minimum Number (as defined below) of shares of the Corporation's common stock throughout the three-year period preceding and including the date of submission of the Nomination Notice, and continues to own at least the Minimum Number through the date of the annual meeting. A group of funds under common management and investment control shall be treated as one Eligible Holder if such Eligible Holder shall provide together with the Nomination Notice documentation reasonably satisfactory to the Corporation that demonstrates that the funds are under common management and investment control. For the avoidance of doubt, in the event of a nomination by a group of Eligible Holders, any and all requirements and obligations for an individual Eligible Holder that are set forth in paragraph (B) of this Section 2.03, including the minimum holding period, shall apply to each member of such group; provided, however, that the Minimum Number shall apply to the ownership of the group in the aggregate. Should any stockholder withdraw from a group of Eligible Holders at any time prior to the annual meeting of stockholders, the group of Eligible Holders shall only be deemed to own the shares held by the remaining members of the group.

(c) The "Minimum Number" of shares of the Corporation's common stock means 3% of the total number of outstanding shares of the Corporation's common stock as of the most recent date for which such amount is given in any filing by the Corporation with the SEC prior to the submission of the Nomination Notice.

(d) For purposes of paragraph (B) of this Section 2.03, an Eligible Holder "owns" only those outstanding shares of common stock of the Corporation as to which the Eligible Holder possesses both: (i) the full voting and investment rights pertaining to the shares; and (ii) the full economic interest in (including the opportunity for profit and risk of loss on) such shares; provided that the number of shares calculated in accordance with clauses (i) and (ii) of this clause (d) shall not include any shares: (A) sold by such Eligible Holder or any of its affiliates in any transaction that has not been settled or closed, (B) borrowed by such Eligible Holder or any of its affiliates for any purpose or purchased by such Eligible Holder or any of its affiliates pursuant to an agreement to resell, or (C) subject to any option, warrant, forward contract, swap, contract of sale, other derivative or similar agreement entered into by such Eligible Holder or any of its affiliates, whether any such instrument or agreement is to be settled with shares or with cash based on the notional amount or value of outstanding shares of common stock of the Corporation, in any such case which instrument or agreement has, or is intended to have, the purpose or effect of: (x) reducing in any manner, to any extent or at any time in the future, such Eligible Holder's or any of its affiliates' full right to vote or direct the voting of any such shares, and/or (y) hedging, offsetting, or altering to any degree, gain or loss arising from the full economic ownership of such shares by such Eligible Holder or any of its affiliates. An Eligible Holder "owns" shares held in the name of a nominee or other intermediary so long as the Eligible Holder retains the right to instruct how the shares are voted with respect to the election of directors and possesses the full economic interest in the shares. An Eligible Holder's ownership of shares shall be deemed to continue during any period in which the Eligible Holder has delegated any voting power by means of a proxy, power of attorney, or other similar instrument or arrangement that is revocable at any time by the Eligible Holder. An Eligible Holder's ownership of shares shall be deemed to continue during any period in which the Eligible Holder has loaned such shares provided that the Eligible Holder has the power to recall such loaned shares on five Business Days' notice and has recalled such loaned shares as of the date of

the Nomination Notice and holds such shares through the date of the annual meeting. The terms "owned," "owning" and other variations of the word "own" shall have correlative meanings. Whether outstanding shares of the Corporation are "owned" for these purposes shall be determined by the Board of Directors.

(e) No person shall be permitted to be in more than one group constituting a Nominating Stockholder, and if any person appears as a member of more than one group, it shall be deemed to be a member of the group that has the largest ownership position as reflected in the Nomination Notice.

(4) To nominate a Nominee pursuant to this Section 2.03, the Nominating Stockholder must, no earlier than 150 calendar days and no later than 120 calendar days before the anniversary of the date that the Corporation mailed its proxy statement for the prior year's annual meeting of stockholders, submit to the Secretary of the Corporation at the principal executive office of the Corporation all of the following information and documents (collectively, the "Nomination Notice"): (a) a Schedule 14N (or any successor form) relating to the Nominee, completed and filed with the SEC by the Nominating Stockholder as applicable, in accordance with SEC's rules; (b) a written notice of the nomination of such Nominee that includes the following additional information, agreements, representations and warranties by the Nominating Stockholder (including each group member): (i) the information required with respect to the nomination of directors pursuant to paragraph (A)(3) of this Section 2.03; (ii) the details of any relationship that existed within the past three years and that would have been described pursuant to Item 6(e) of Schedule 14N (or any successor item) if it existed on the date of submission of the Schedule 14N; (iii) a representation and warranty that the Nominating Stockholder did not acquire, and is not holding, securities of the Corporation for the purpose or with the effect of influencing or changing control of the Corporation; (iv) a representation and warranty that the Nominee's candidacy or, if elected, Board of Directors membership would not violate applicable state or federal law or the rules of any stock exchange on which the Corporation's securities are traded; (v) a representation and warranty that the Nominee: (A) does not have any direct or indirect relationship with the Corporation other than those relationships that have been deemed categorically immaterial pursuant to the Corporation's Director Independence Standards, as most recently published on the Corporation's website, and otherwise qualifies as independent under the rules of the primary stock exchange on which the Corporation's securities are traded; (B) meets the audit committee independence requirements under the rules of any stock exchange on which the Corporation's securities are traded; (C) is a "non-employee director" for the purposes of Rule 16b-3 (or any successor thereof) under the Exchange Act; (D) is an "outside director" for the purposes of Section 162(m) of the Internal Revenue Code (or any successor provision); and (E) is not and has not been subject to any event specified in Rule 506(d)(1) (or any successor thereof) of Regulation D under the Securities Act or Item 401(f) (or any successor thereof) of Regulation S-K, without reference to whether the event is material to an evaluation of the ability or integrity of the Nominee; (vi) a representation and warranty that the Nominating Stockholder satisfies the eligibility requirements set forth in paragraph (B)(3) of this Section 2.03 and has provided evidence of ownership to the extent required by clause (a) of paragraph (B)(3) of this Section 2.03; (vii) a representation and warranty that the Nominating Stockholder intends to continue to satisfy the eligibility requirements described in paragraph (B)(3) of this Section 2.03 through the date of the annual meeting; (viii) details of any position of the Nominee as an officer or director of any competitor (that is, any entity that produces products or provides services that compete with or are alternatives to the products produced or services provided by the

Corporation or its affiliates) of the Corporation, within the three years preceding the submission of the Nomination Notice; (ix) a representation and warranty that the Nominating Stockholder will not engage in a "solicitation" within the meaning of Rule 14a-1(l) (without reference to the exception in Section 14a-1(2)(iv)) (or any successors thereof) with respect to the annual meeting, other than with respect to the Nominee or any nominee of the Board of Directors; (x) a representation and warranty that the Nominating Stockholder will not use any proxy card other than the Corporation's proxy card in soliciting stockholders in connection with the election of a Nominee at the annual meeting; (xi) if desired, a statement for inclusion in the proxy statement in support of the Nominee's election to the Board of Directors, provided that such statement shall not exceed 500 words and shall fully comply with Section 14 of the Exchange Act and the rules and regulations thereunder, including Rule 14a-9 (or any successors thereof); and (xii) in the case of a nomination by a group, the designation by all group members of one group member that is authorized to act on behalf of all group members with respect to matters relating to the nomination, including withdrawal of the nomination; (c) an executed agreement, in a form deemed satisfactory by the Board of Directors or its designee, acting in good faith, pursuant to which the Nominating Stockholder (including each group member) agrees: (i) to comply with all applicable laws, rules and regulations in connection with the nomination, solicitation and election; (ii) to file any written solicitation or other communication with the Corporation's stockholders relating to one or more of the Corporation's directors or director nominees or any Nominee with the SEC, regardless of whether any such filing is required under rule or regulation or whether any exemption from filing is available for such materials under any rule or regulation; (iii) to assume all liability stemming from an action, suit or proceeding concerning any actual or alleged legal or regulatory violation arising out of any communication by the Nominating Stockholder with the Corporation, its stockholders or any other person in connection with the nomination or election of directors, including, without limitation, the Nomination Notice; (iv) to indemnify and hold harmless (jointly with all other group members, in the case of a group member) the Corporation and its affiliates and each of its directors, officers and employees individually against any liability, loss, damages, expenses or other costs (including attorneys' fees) incurred in connection with any threatened or pending action, suit or proceeding, whether legal, administrative or investigative, against the Corporation or any of its directors, officers or employees arising out of or relating to a failure or alleged failure of the Nominating Stockholder to comply with, or any breach or alleged breach of, its obligations, agreements or representations under paragraph (B) of this Section 2.03; and (v) in the event that any information included in the Nomination Notice, or any other communication by the Nominating Stockholder (including with respect to any group member), with the Corporation, its stockholders or any other person in connection with the nomination or election ceases to be true and accurate in all material respects (or due to a subsequent development omits a material fact necessary to make the statements made not misleading), or that the Nominating Stockholder (including any group member) has failed to continue to satisfy the eligibility requirements described in paragraph (B)(3) of this Section 2.03, to promptly (and in any event within 48 hours of discovering such misstatement or omission) notify the Corporation and any other recipient of such communication of the misstatement or omission in such previously provided information and of the information that is required to correct the misstatement or omission; and (d) an executed agreement, in a form deemed satisfactory by the Board of Directors or its designee, acting in good faith, by the Nominee: (i) to provide to the Corporation such other information, including completion of the Corporation's director questionnaire, as it may reasonably request; (ii) that the Nominee has read and agrees, if elected, to serve as a member of the Board of Directors, to adhere to the Corporation's Corporate Governance Guidelines and Business Conduct Policy and any other

Corporation policies and guidelines applicable to directors; and (iii) that the Nominee is not and will not become a party to (A) any compensatory, payment or other financial agreement, arrangement or understanding with any person or entity in connection with service or action as a director of the Corporation that has not been disclosed to the Corporation, (B) any agreement, arrangement or understanding with any person or entity as to how the Nominee would vote or act on any issue or question as a director (for purposes of this paragraph (B) of Section 2.03, a "Voting Commitment") that has not been disclosed to the Corporation or (C) any Voting Commitment that could limit or interfere with the Nominee's ability to comply, if elected as a director of the Corporation, with its fiduciary duties under applicable law. The information and documents required by this paragraph shall be: (x) provided with respect to and executed by each group member, in the case of information applicable to group members; and (y) provided with respect to the persons specified in Instruction 1 to Items 6(c) and (d) (or any successors thereof) of Schedule 14N in the case of a Nominating Stockholder or group member that is an entity. The Nomination Notice shall be deemed submitted on the date on which all the information and documents referred to in this paragraph (other than such information and documents contemplated to be provided after the date the Nomination Notice is provided) have been delivered to or, if sent by mail, received by the Secretary of the Corporation.

(5) (a) Notwithstanding anything to the contrary contained in paragraph (B) of this Section 2.03, the Corporation may omit from its proxy statement any Nominee and any information concerning such Nominee (including a Nominating Stockholder's statement in support) and no vote on such Nominee will occur (notwithstanding that proxies in respect of such vote may have been received by the Corporation), and the Nominating Stockholder may not, after the last day on which a Nomination Notice would be timely, cure in any way any defect preventing the nomination of the Nominee, if: (i) the Nominating Stockholder or the designated lead group member, as applicable, or any qualified representative thereof, does not appear at the meeting of stockholders to present the nomination submitted pursuant to paragraph (B) of this Section 2.03 or the Nominating Stockholder withdraws its nomination; (ii) the Board of Directors, acting in good faith, determines that such Nominee's nomination or election to the Board of Directors would result in the Corporation violating or failing to be in compliance with these By-laws or the Certificate of Incorporation or any applicable law, rule or regulation to which the Corporation is subject, including any rules or regulations of any stock exchange on which the Corporation's securities are traded; (iii) the Nominee was nominated for election to the Board of Directors pursuant to paragraph (B) of this Section 2.03 at one of the Corporation's two preceding annual meetings of stockholders and either withdrew or became ineligible or received a vote of less than 25% of the votes cast for such Nominee; (iv) the Nominee has been, within the past three years, an officer or director of a competitor, as defined for purposes of Section 8 of the Clayton Antitrust Act of 1914, as amended; or (v) the Corporation is notified, or the Board of Directors acting in good faith determines, that a Nominating Stockholder has failed to continue to satisfy the eligibility requirements described in paragraph (B)(3) of this Section 2.03, any of the representations and warranties made in the Nomination Notice ceases to be true and accurate in all material respects (or omits a material fact necessary to make the statement not misleading), the Nominee becomes unwilling or unable to serve on the Board of Directors or any material violation or breach occurs of the obligations, agreements, representations or warranties of the Nominating Stockholder or the Nominee under paragraph (B) of this Section 2.03.

(b) Notwithstanding anything to the contrary contained in paragraph (B) of this Section 2.03, the Corporation may omit from its proxy statement, or may supplement

or correct, any information, including all or any portion of the statement in support of the Nominee included in the Nomination Notice, if the Board of Directors in good faith determines that: (i) such information is not true in all material respects or omits a material statement necessary to make the statements made not misleading; (ii) such information directly or indirectly impugns character, integrity or personal reputation of, or directly or indirectly makes charges concerning improper, illegal or immoral conduct or associations, without factual foundation, with respect to, any person; or (iii) the inclusion of such information in the proxy statement would otherwise violate SEC's proxy rules or any other applicable law, rule or regulation.

(C) *Special Meetings of Stockholders.* Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting: (1) by or at the direction of the Board of Directors or (2) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is entitled to vote at the meeting, who complies with the notice procedures set forth in this Section 2.03 and who is a stockholder of record at the time such notice is delivered to the Secretary of the Corporation and at the time of the special meeting of stockholders. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any Noticing Stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation's notice of meeting, if the Noticing Stockholder's notice as required by paragraphs (A)(2) and (A)(3) of this Section 2.03 shall be delivered to the Secretary at the principal executive offices of the Corporation in proper written form not earlier than the Close of Business on the one hundred twentieth (120th) day prior to such special meeting and not later than the Close of Business on the later of the ninetieth (90th) day prior to such special meeting or the tenth (10th) day following the day on which public announcement is first made by the Corporation of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment, recess, rescheduling or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a Noticing Stockholder's notice as described above.

(D) *General.*

(1) Only such persons who are nominated in accordance with the procedures set forth in paragraphs (A) and (C) of this Section 2.03 (in the case of an annual or special meeting) or paragraph (B) of this Section 2.03 (solely in the case of an annual meeting) shall be eligible for election to serve as directors and only such other business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 2.03. Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, the Chair of the Board of Directors shall have the power and duty to determine whether a nomination or any other business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in these By-laws (including whether the Noticing Stockholder or other Holder, if any, on whose behalf the nomination is made or other business is being proposed solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such Noticing

Stockholder's nominee or other business in compliance with such stockholder's representation as required by clause (c)(vi) of paragraph A(3) of this Section 2.03). If any proposed nomination or other business was not made or proposed in compliance with these By-laws, the chair of the meeting of stockholders shall have the power and duty to declare to the meeting that any such nomination or other business was not properly brought before the meeting and in accordance with the provisions of these By-laws, and that such nomination or other business not properly brought before the meeting shall be disregarded and/or shall not be transacted. Notwithstanding anything to the contrary in these By-laws, if the Noticing Stockholder (or a qualified representative of the Noticing Stockholder) does not appear at the annual or special meeting, as applicable, to present a nomination or other business, such nomination shall be disregarded and such other business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2.03, to be considered a "qualified representative" of the Noticing Stockholder, a person must be authorized by a document authorizing another person or persons to act for such stockholder as proxy at the meeting of stockholders and such person must produce the document or a reliable reproduction of such document at the meeting of stockholders. A stockholder may authorize another person or persons to act for such stockholder as proxy by transmitting or authorizing the transmission of an electronic transmission to the person who will be the holder of the proxy or to a proxy solicitation firm, proxy support service organization or like agent duly authorized by the person who will be the holder of the proxy to receive such transmission, provided that any such transmission must either set forth or be submitted with information from which it can be determined that the transmission was authorized by the stockholder. If it is determined that such transmissions are valid, the inspectors or, if there are no inspectors, such other persons making that determination shall specify the information upon which such inspectors or such persons relied.

(2) Nothing in these By-laws shall be deemed to affect any rights (i) of the holders of any class or series of stock having a preference over the common stock of the Corporation as to dividends or upon liquidation to elect directors under specified circumstances, or (ii) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or any other applicable federal or state securities law with respect to that stockholder's request to include proposals in the Corporation's proxy statement.

(3) In addition, to be considered timely, a Noticing Stockholder's notice shall further be updated and supplemented, if necessary, so that the information provided or required to be provided in such notice shall be true and correct as of the record date for the meeting and as of the date that is ten (10) Business Days prior to the meeting or any adjournment, recess, rescheduling or postponement thereof, and such update and supplement shall be delivered to the Secretary at the principal executive offices of the Corporation not later than five (5) Business Days after the record date for the meeting in the case of the update and supplement required to be made as of the record date, and not later than eight (8) Business Days prior to the date for the meeting or any adjournment, recess, rescheduling or postponement thereof in the case of the update and supplement required to be made as of ten (10) Business Days prior to the meeting or any adjournment, recess, rescheduling or postponement thereof. In addition, if the Noticing Stockholder has delivered to the Corporation a notice relating to the nomination of directors, the Noticing Stockholder shall deliver to the Corporation not later than eight (8) Business Days prior to the date of the meeting or any adjournment, recess, rescheduling or postponement thereof

reasonable evidence that it has complied with the requirements of Rule 14a-19 of the Exchange Act (or any successor provision). For the avoidance of doubt, the obligation to update and supplement set forth in this paragraph or any other Section of these By-laws shall not limit the Corporation's rights with respect to any deficiencies in any notice provided by a stockholder, extend any applicable deadlines hereunder or enable or be deemed to permit a stockholder who has previously submitted notice hereunder to amend or update any proposal or to submit any new proposal, including by changing or adding nominees, matters, business and/or resolutions proposed to be brought before a meeting of the stockholders.

(E) Definitions. For purposes of these By-laws,

(1) "Affiliate" shall have the meaning attributed to such term in Rule 12b-2 under the Exchange Act;

(2) "Associate" shall have the meaning attributed to such term in Rule 12b-2 under the Exchange Act;

(3) "Business Day" shall mean each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in Irving, Texas or New York, New York are authorized or obligated by law or executive order to close;

(4) "Close of Business" on a particular day shall mean 5:00 p.m. local time at the principal executive offices of the Corporation, and if an applicable deadline falls on the Close of Business on a day that is not a Business Day, then the applicable deadline shall be deemed to be the Close of Business on the immediately preceding Business Day;

(5) "delivered" shall mean, both (a) hand delivery, overnight courier service, or by certified or registered mail, return receipt requested, in each case to the Secretary at the principal executive offices of the Corporation, and (b) electronic mail to the Secretary;

(6) "public announcement" shall mean disclosure: (a) in a press release released by the Corporation, provided such press release is released by the Corporation following its customary procedures, as reported by the Dow Jones News Service, Associated Press or a comparable national news service, or is generally available on internet news sites, or (b) in a document publicly filed by the Corporation with the SEC pursuant to Sections 13, 14 or 15(d) of the Exchange Act; and

(7) "Stockholder Associated Person" shall mean, as to any Holder, (i) any person acting in concert with such Holder, (ii) any person controlling, controlled by or under common control with such Holder or any of their respective Affiliates and Associates, or person acting in concert therewith, and (iii) any member of the immediate family of such Holder or an Affiliate or Associate of such Holder.

For purposes of these By-laws, the words "include," "includes" or "including" shall be deemed to be followed by the words "without limitation." Where a reference in these By-laws is made to any statute or regulation, such reference shall be to (1) the statute or regulation as amended from time to time (except as context may otherwise require) and (2) any rules or regulations promulgated thereunder.

Section 2.04 *Notice of Meetings*. Whenever stockholders are required or permitted to take any action at a meeting, a timely written notice or electronic transmission, in the manner provided in Section 232 of the DGCL, of the meeting, which shall state the place, if any, date and time of the meeting, the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting) and, in the case of a special meeting, the purposes for which the meeting is called, shall be mailed to or transmitted electronically by the Secretary of the Corporation to each stockholder of record entitled to vote thereat. Unless otherwise provided by law, the Certificate of Incorporation or these By-laws, the notice of any meeting shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting.

Section 2.05 *Quorum*. Unless otherwise required by law or the Certificate of Incorporation, the holders of a majority of the voting power of the outstanding shares of stock entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of stockholders. When a quorum is once present to organize a meeting, the quorum is not broken by the subsequent withdrawal of any stockholders.

Section 2.06 *Voting*. At all meetings of the stockholders, each stockholder shall be entitled to vote, in person or by proxy, the shares of voting stock owned by such stockholder of record on the record date for the meeting. When a quorum is present or represented at any meeting, the vote of the holders of a majority of the voting power of the shares of stock present in person or represented by proxy and entitled to vote thereon shall decide any question brought before such meeting, unless the question is one upon which, by express provision of law, the rules or regulations of any stock exchange applicable to the Corporation, or applicable law or pursuant to any regulation applicable to the Corporation or its securities, of the Certificate of Incorporation or of these By-laws, a different vote is required, in which case such express provision shall govern and control the decision of such question. Notwithstanding the foregoing sentence, at each meeting of the stockholders for the election of directors at which a quorum is present, each director shall be elected by the vote of the majority of the votes cast; provided, that each director shall be elected by the vote of the plurality of the votes cast at each meeting of the stockholders for the election of directors at which a quorum is present and for which (x) the Secretary of the Corporation receives notice that one or more stockholders has proposed to nominate one or more persons for election or re-election to the Board of Directors, which notice purports to be in compliance with the advance notice requirements for stockholder nominations set forth in these By-laws, irrespective of whether the Board of Directors at any time determines that any such notice is not in compliance with such requirements, and (y) such nomination or nominations have not been formally and irrevocably withdrawn by such stockholder(s) on or prior to the date that is ten (10) days in advance of the date that the Corporation gives notice of the meeting to the stockholders. For purposes of this Section, a majority of the votes cast means that the number of shares voted 'for' a director must exceed the number of shares voted 'against' that director. If, for any cause, the Board of Directors shall not have been elected at an annual meeting, the Board of Directors may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these By-laws.

Section 2.07 *Chair of Meetings*. The Chair of the Board of Directors, if one is elected, or, in the Chair's absence or disability, the President of the Corporation, shall preside at all meetings of the stockholders. In case of the absence or disability of the Chair of the Board of Directors and the President, the Board of Directors shall select a director to preside.

Section 2.08 *Secretary of Meeting*. The Secretary of the Corporation shall act as Secretary at all meetings of the stockholders. In the absence or disability of the Secretary, the Chair of the Board of Directors or the President shall appoint a person to act as Secretary at such meetings.

Section 2.09 *Consent of Stockholders in Lieu of Meeting*. Unless otherwise provided by the Certificate of Incorporation, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly held meeting of stockholders of the Corporation at which a quorum is present or represented and may not be effected by any consent in writing or by electronic transmission of such stockholders.

Section 2.10 *Adjournment*. At any meeting of stockholders of the Corporation, if less than a quorum be present, a majority of the stockholders entitled to vote thereat, present in person or by proxy, shall have the power to adjourn the meeting from time to time without notice other than announcement at the meeting until a quorum shall be present. In addition, the person presiding over a meeting of stockholders of the Corporation in accordance with these By-laws may adjourn any meeting of stockholders for any reason by or at the direction of the Board of Directors. Any business may be transacted at the adjourned meeting that might have been transacted at the meeting originally noticed. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting as of the record date fixed for notice of such adjourned meeting.

Section 2.11 *Remote Communication*. If authorized by the Board of Directors in its sole discretion, and subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxyholders not physically present at a meeting of stockholders may, by means of remote communication:

- (a) participate in a meeting of stockholders; and
- (b) be deemed present in person and vote at a meeting of stockholders whether such meeting is to be held at a designated place or solely by means of remote communication, provided, that
 - (i) the Corporation shall implement reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxyholder;
 - (ii) the Corporation shall implement reasonable measures to provide such stockholders and proxyholders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings; and

(iii) if any stockholder or proxyholder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action shall be maintained by the Corporation.

Section 2.12 *Conduct of Meeting*. The Board of Directors may adopt by resolution such rules, regulations and procedures for the conduct of any meeting of stockholders of the Corporation as it shall deem appropriate, including such guidelines and procedures as it may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board of Directors, the chair of any meeting of stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chair, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chair of the meeting, may include the following: (a) the establishment of an agenda or order of business for the meeting; (b) rules and procedures for maintaining order at the meeting and the safety of those present, including regulation of the manner of voting and the conduct of discussion; (c) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chair of the meeting shall determine; (d) restrictions on entry to the meeting after the time fixed for the commencement thereof; (e) limitations on the time allotted to questions or comments by participants; and (f) restrictions on the use of cell phones, audio or video recording devices and similar devices at the meeting. The chair of any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, except as otherwise provided by law, the Certificate of Incorporation or these By-laws, shall have the power to determine whether a nomination or any other business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with these By-laws and, if any proposed nomination or other business is not in compliance with these By-laws, to declare that no action shall be taken on such nomination or other proposal and such nomination or other proposal shall be disregarded. Unless and to the extent determined by the Board of Directors or the chair of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure. The chair of the meeting shall announce at the meeting when the polls for each matter to be voted upon at the meeting will be opened and closed. After the polls close, no ballots, proxies or votes or any revocations or changes thereto may be accepted. The chair of the meeting shall have the power, right and authority to convene, recess or adjourn any meeting of stockholders.

ARTICLE III

BOARD OF DIRECTORS

Section 3.01 *Powers*. The business and affairs of the Corporation shall be managed by or under the direction of its Board of Directors. The Board of Directors shall exercise all of the powers and duties conferred by law except as provided by the Certificate of Incorporation.

Section 3.02 *Number and Term*. Subject to the Certificate of Incorporation, the number of directors shall be fixed by resolution of the Board of Directors. The Board of Directors shall be elected by the stockholders at their annual meeting, and the term of each elected director shall be as set forth in the Certificate of Incorporation. Directors need not be stockholders.

Section 3.03 *Resignations*. Any director may resign at any time upon notice given in writing or by electronic transmission. The resignation shall take effect at the time specified therein, and if no time is specified, at the time of its receipt by the President or Secretary. The acceptance of a resignation shall not be necessary to make it effective.

Section 3.04 *Removal*. Directors of the Corporation may be removed in the manner provided in the Certificate of Incorporation.

Section 3.05 *Vacancies and Newly Created Directorships*. Vacancies occurring on the Board of Directors and newly created directorships resulting from any increase in the number of directors shall be filled in accordance with the Certificate of Incorporation.

Section 3.06 *Meetings*. Regular meetings of the Board of Directors may be held at such places and times as shall be determined from time to time by the Board of Directors or as may be specified in a notice of meeting. Special meetings of the Board of Directors may be called by the Chair of the Board of Directors or the director elected by the non-employee, independent directors to serve as Lead Director (if a director has been so elected and is serving in such capacity prior to the meeting), and shall be called by the Chair of the Board of Directors, the Lead Director or the Secretary if directed by the Board of Directors. Notice need not be given of regular meetings of the Board of Directors. At least one Business Day before each special meeting of the Board of Directors, written or oral (either in person or by telephone), notice of the time, date and place of the meeting and the purpose or purposes for which the meeting is called, shall be given to each director.

Section 3.07 *Quorum, Voting and Adjournment*. A majority of the total number of directors shall constitute a quorum for the transaction of business at a meeting of the Board of Directors; provided, however, that if at the time of a meeting of the Board of Directors, (a) there are one or more vacancies on the Board of Directors due to death or resignation, and/or (b) one or more members of the Board of Directors is absent from a meeting due to disability, incapacity or an emergency, then one-third (1/3) of the total number of directors shall constitute a quorum for purposes of any meeting. Nothing in this Section 3.07 shall relieve the Corporation of the obligation to provide notice of any meeting of the Board of Directors in accordance with Section 3.06 of these By-laws.

Except as otherwise provided by law, the Certificate of Incorporation or these By-laws, the act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors. In the absence of a quorum, a majority of the directors present thereat may adjourn such meeting to another time and place. Notice of such adjourned meeting need not be given if the time and place of such adjourned meeting are announced at the meeting so adjourned.

Section 3.08 *Committees*. The Board of Directors may by resolution designate one or more committees, including but not limited to an Audit Committee, each such committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of any committee to replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such

absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors establishing such committee, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to the following matters: (a) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval or (b) adopting, amending or repealing any by-law of the Corporation. All committees of the Board of Directors shall keep minutes of their meetings and shall report their proceedings to the Board of Directors when requested or required by the Board of Directors.

A majority of the directors then serving on a committee of the Board of Directors shall constitute a quorum for the transaction of business by the committee; provided, however, that if there are an even number of members then serving on a committee, the number of directors which shall constitute a quorum of such committee shall be one-half of the total number of members of the committee. The vote of a majority of the members of a committee present at a meeting at which a quorum is present shall be the act of the committee.

Section 3.09 *Action Without a Meeting.* Unless otherwise restricted by the Certificate of Incorporation, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting if all members of the Board of Directors or any committee thereof, as the case may be, consent thereto in writing or by electronic transmission. After an action is taken, the consent or consents relating thereto shall be filed with the minutes of the proceedings of the Board of Directors, or the committee thereof, in the same paper or electronic form as the minutes are maintained.

Section 3.10 *Compensation.* The Board of Directors shall have the authority to fix the compensation of directors for their services. A director may also serve the Corporation in other capacities and receive compensation therefore.

Section 3.11 *Remote Meeting.* Unless otherwise restricted by the Certificate of Incorporation, members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting by means of conference telephone or other communications equipment in which all persons participating in the meeting can hear each other. Participation in a meeting by means of conference telephone or other communications equipment shall constitute the presence in person at such meeting.

ARTICLE IV

OFFICERS

Section 4.01 *Number.* The officers of the Corporation shall include a President and a Secretary, both of whom shall be elected by the Board of Directors and who shall hold office for such terms as shall be determined by the Board of Directors and until their successors are elected and qualify or until their earlier resignation or removal. In addition, the Board of Directors may elect a Chair of the Board of Directors, one or more Vice Presidents, including an Executive Vice President, a Treasurer and one or more Assistant Treasurers and one or more Assistant Secretaries, who shall hold their office for such terms and shall exercise such powers and

perform such duties as shall be determined from time to time by the Board of Directors. The initial officers shall be elected at the first meeting of the Board of Directors and, thereafter, at the annual organizational meeting of the Board of Directors. Any number of offices may be held by the same person.

Section 4.02 *Other Officers and Agents.* The Board of Directors may appoint such other officers and agents as it deems advisable, who shall hold their office for such terms and shall exercise and perform such powers and duties as shall be determined from time to time by the Board of Directors.

Section 4.03 *Chair.* The Chair of the Board of Directors shall be a member of the Board of Directors and shall preside at all meetings of the Board of Directors and of the stockholders. In addition, the Chair of the Board of Directors shall have such powers and perform such other duties as from time to time may be assigned to the Chair by the Board of Directors.

Section 4.04 *President.* The President shall be the Chief Executive Officer of the Corporation. The President shall exercise such duties as customarily pertain to the office of President and Chief Executive Officer, and shall have general and active management of the property, business and affairs of the Corporation, subject to the supervision and control of the Board of Directors. The President shall perform such other duties as prescribed from time to time by the Board of Directors or these By-laws.

In the absence, disability or refusal of the Chair of the Board of Directors to act, or the vacancy of such office, the President shall preside at all meetings of the stockholders and, if such person is a director, of the Board of Directors. Except as the Board of Directors shall otherwise authorize, the President shall execute bonds, mortgages and other contracts on behalf of the Corporation, and shall cause the seal to be affixed to any instrument requiring it and, when so affixed, the seal shall be attested by the signature of the Secretary or an Assistant Secretary or the Treasurer or an Assistant Treasurer.

Section 4.05 *Vice Presidents.* Each Vice President, if any are elected, of whom one or more may be designated an Executive Vice President, shall have such powers and shall perform such duties as shall be assigned to such Vice President or such Executive Vice President by the President or the Board of Directors.

Section 4.06 *Treasurer.* The Treasurer shall have custody of the corporate funds, securities, evidences of indebtedness and other valuables of the Corporation and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation. The Treasurer shall deposit all moneys and other valuables in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. The Treasurer shall disburse the funds of the Corporation, taking proper vouchers therefore. The Treasurer shall render to the President and Board of Directors, upon their request, a report of the financial condition of the Corporation. If required by the Board of Directors, the Treasurer shall give the Corporation a bond for the faithful discharge of the Treasurer's duties in such amount and with such surety as the Board of Directors shall prescribe.

The Treasurer shall have such further powers and perform such other duties incident to the office of Treasurer as from time to time are assigned to the Treasurer by the Board of Directors.

Section 4.07 *Secretary*. The Secretary shall: (a) cause minutes of all meetings of the stockholders and directors to be recorded and kept; (b) cause all notices required by these By-laws or otherwise to be given properly; (c) see that the minute books, stock books, and other nonfinancial books, records and papers of the Corporation are kept properly; and (d) cause all reports, statements, returns, certificates and other documents to be prepared and filed when and as required. The Secretary shall have such further powers and perform such other duties as prescribed from time to time by the Board of Directors.

Section 4.08 *Assistant Treasurers and Assistant Secretaries*. Each Assistant Treasurer and each Assistant Secretary, if any are elected, shall be vested with all the powers and shall perform all the duties of the Treasurer and Secretary, respectively, in the absence or disability of such officer, unless or until the Board of Directors shall otherwise determine. In addition, Assistant Treasurers and Assistant Secretaries shall have such powers and shall perform such duties as shall be assigned to them by the Board of Directors.

Section 4.09 *Corporate Funds and Checks*. The funds of the Corporation shall be kept in such depositories as shall from time to time be prescribed by the Board of Directors. All checks or other orders for the payment of money shall be signed by the President or the Secretary or such other person or agent as may from time to time be authorized and with such countersignature, if any, as may be required by the Board of Directors.

Section 4.10 *Contracts and Other Documents*. The President, the Chief Financial Officer, the Treasurer and the Secretary, or such other officer or officers as may from time to time be authorized by the Board of Directors or any other committee given specific authority in the premises by the Board of Directors during the intervals between the meetings of the Board of Directors, shall have power to sign and execute on behalf of the Corporation deeds, conveyances and contracts, and any and all other documents requiring execution by the Corporation.

Section 4.11 *Compensation*. The compensation of the officers of the Corporation shall be fixed from time to time by the Board of Directors (subject to any employment agreements that may then be in effect between the Corporation and the relevant officer). None of such officers shall be prevented from receiving such compensation by reason of the fact that such officer is also a director of the Corporation. Nothing contained herein shall preclude any officer from serving the Corporation, or any subsidiary, in any other capacity and receiving such compensation by reason of the fact that such officer is also a director of the Corporation.

Section 4.12 *Ownership of Stock of Another Corporation*. Unless otherwise directed by the Board of Directors, the President or the Secretary, or such other officer or agent as shall be authorized by the Board of Directors, shall have the power and authority, on behalf of the Corporation, to attend and to vote at any meeting of stockholders of any corporation in which the Corporation holds stock and may exercise, on behalf of the Corporation, any and all of the rights and powers incident to the ownership of such stock at any such meeting, including the authority to execute and deliver proxies and consents on behalf of the Corporation.

Section 4.13 *Delegation of Duties*. In the absence, disability or refusal of any officer to exercise and perform such officer's duties, the Board of Directors may delegate to another officer such powers or duties.

Section 4.14 *Resignation and Removal.* Any officer of the Corporation may be removed from office for or without cause at any time by the Board of Directors. Any officer may resign at any time in the same manner prescribed under Section 3.03 of these By-laws.

Section 4.15 *Vacancies.* The Board of Directors shall have power to fill vacancies occurring in any office.

ARTICLE V

STOCK

Section 5.01 *Certificates of Stock.* The shares of stock of the Corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of the Corporation's stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates shall be entitled to have a certificate signed by, or in the name of the Corporation, by any two authorized officers of the Corporation. Any or all of the signatures on the certificate may be a facsimile. The Board of Directors shall have the power to appoint one or more transfer agents and/or registrars for the transfer or registration of certificates of stock of any class, and may require stock certificates to be countersigned or registered by one or more of such transfer agents and/or registrars.

Section 5.02 *Transfer of Shares.* Shares of stock of the Corporation shall be transferable upon its books by the holders thereof, in person or by their duly authorized attorneys or legal representatives, upon surrender to the Corporation by delivery thereof to the person in charge of the stock and transfer books and ledgers. Such certificates shall be cancelled and new certificates shall thereupon be issued unless, at such time, such class or series of stock shall be uncertificated shares. A record shall be made of each transfer. Whenever any transfer of shares shall be made for collateral security, and not absolutely, it shall be so expressed in the entry of the transfer if, when the certificates are presented, both the transferor and transferee request the Corporation to do so. The Board of Directors shall have power and authority to make such rules and regulations as it may deem necessary or proper concerning the issue, transfer and registration of certificates for shares of stock of the Corporation.

Section 5.03 *Lost, Stolen, Destroyed or Mutilated Certificates.* A new certificate of stock may be issued in the place of any certificate previously issued by the Corporation alleged to have been lost, stolen or destroyed, and the Board of Directors may, in their discretion, require the owner of such lost, stolen or destroyed certificate, or such owner's legal representative, to give the Corporation a bond, in such sum as the Board of Directors may direct, in order to indemnify the Corporation against any claims that may be made against it in connection therewith. A new certificate of stock may be issued in the place of any certificate previously issued by the Corporation that has become mutilated without the posting by the owner of any bond upon the surrender by such owner of such mutilated certificate.

Section 5.04 *Fixing Date for Determination of Stockholders of Record.* In order that the corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting,

or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date: (a) in the case of determination of stockholders entitled to notice of any meeting of stockholders or adjournment thereof, shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting; (b) in the case of the determination of stockholders entitled to vote at the meeting, the record date shall be the same date as the record date for the determination of stockholders entitled to notice of the meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for determining the stockholders entitled to vote at the meeting; (c) in the case of determination of stockholders entitled to express consent to corporate action in writing without a meeting, shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors; and (d) in the case of any other action, shall not be more than sixty (60) days prior to such other action. If no record date is fixed: (x) the record date for determining stockholders entitled to notice of and to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; (y) the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting, when no prior action of the Board of Directors is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation in accordance with applicable law, or, if prior action by the Board of Directors is required by law, shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action; and (z) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting. If after the adjournment a new record date for the determination of stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix as the record date for determining stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting.

Section 5.05 *Registered Stockholders*. Prior to the surrender to the Corporation of the certificate or certificates for a share or shares of stock with a request to record the transfer of such share or shares, the Corporation may treat the registered owner as the person entitled to receive dividends, to vote, to receive notifications, and otherwise to exercise all the rights and powers of an owner. To the fullest extent permitted by law, the Corporation shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof.

ARTICLE VI

NOTICE AND WAIVER OF NOTICE

Section 6.01 *Notice.* Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the Corporation under any provision of the DGCL, the Certificate of Incorporation, or these By-laws may be given in writing directed to the stockholder's mailing address (or by electronic transmission directed to the stockholder's electronic mail address, as applicable) as it appears on the records of the Corporation and shall be given (1) if mailed, when the notice is deposited in the U.S. mail, postage prepaid, (2) if delivered by courier service, the earlier of when the notice is received or left at such stockholder's address or (3) if given by electronic mail, when directed to such stockholder's electronic mail address unless the stockholder has notified the Corporation in writing or by electronic transmission of an objection to receiving notice by electronic mail or such notice is prohibited by Section 232 of the DGCL.

Section 6.02 *Waiver of Notice.* A written waiver of any notice, signed by a stockholder or director, or waiver by electronic transmission by such person, whether given before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such person. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance at any meeting (in person or by remote communication) shall constitute waiver of notice except attendance for the express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened.

ARTICLE VII INDEMNIFICATION

Section 7.01 *Indemnification Respecting Third Party Claims.*

(A) *Indemnification of Directors and Officers.* The Corporation, to the fullest extent permitted and in the manner required, by the laws of the State of Delaware as in effect from time to time shall indemnify in accordance with the following provisions of this Article any person who was or is made a party to or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (including any appeal thereof), whether civil, criminal, administrative, regulatory or investigative in nature (other than an action by or in the right of the Corporation), by reason of the fact that such person is or was a director or officer of the Corporation, or, if at a time when such person was a director or officer of the Corporation, is or was serving at the request of, or to represent the interests of, the Corporation as a director, officer, partner, member, trustee, fiduciary, employee or agent (a "Subsidiary Officer") of another corporation, partnership, joint venture, limited liability company, trust, employee benefit plan or other enterprise including any charitable or not-for-profit public service organization or trade association (an "Affiliated Entity"), against expenses (including attorneys' fees and disbursements), costs, judgments, fines, penalties and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful; provided, however, that the Corporation shall not be obligated to indemnify against any amount paid in settlement unless the Corporation has consented to such settlement. The termination of any action, suit or proceeding by judgment, order, settlement or conviction or upon a plea of nolo

contendere or its equivalent shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, that such person had reasonable cause to believe that such person's conduct was unlawful. Notwithstanding anything to the contrary in the foregoing provisions of this paragraph, a person shall not be entitled, as a matter of right, to indemnification pursuant to this paragraph against costs or expenses incurred in connection with any action, suit or proceeding commenced by such person against the Corporation or any Affiliated Entity or any person who is or was a director, officer, partner, member, fiduciary, employee or agent of the Corporation or a Subsidiary Officer of any Affiliated Entity in their capacity as such, but such indemnification may be provided by the Corporation in a specific case as permitted by Section 7.06 of this Article.

(B) *Indemnification of Employees and Agents.* The Corporation may indemnify any employee or agent of the Corporation in the manner and to the same or a lesser extent that it shall indemnify any director or officer under paragraph (A) above in this Section 7.01.

Section 7.02 *Indemnification Respecting Derivative Claims.*

(A) *Indemnification of Directors and Officers.* The Corporation, to the fullest extent permitted and in the manner required, by the laws of the State of Delaware as in effect from time to time shall indemnify, in accordance with the following provisions of this Article, any person who was or is made a party to or is threatened to be made a party to any threatened, pending or completed action or suit (including any appeal thereof) brought by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Corporation, or, if at a time when such person was a director or officer of the Corporation, is or was serving at the request of, or to represent the interests of, the Corporation as a Subsidiary Officer of an Affiliated Entity against expenses (including attorneys' fees and disbursements) and costs actually and reasonably incurred by such person in connection with such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless, and only to the extent that, the Court of Chancery of the State of Delaware or the court in which such judgment was rendered shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses and costs as the Court of Chancery of the State of Delaware or such other court shall deem proper. Notwithstanding anything to the contrary in the foregoing provisions of this paragraph, a person shall not be entitled, as a matter of right, to indemnification pursuant to this paragraph against costs and expenses incurred in connection with any action or suit in the right of the Corporation commenced by such person, but such indemnification may be provided by the Corporation in any specific case as permitted by Section 7.06 of this Article.

(B) *Indemnification of Employees and Agents.* The Corporation may indemnify any employee or agent of the Corporation in the manner and to the same or a lesser extent that it shall indemnify any director or officer under paragraph (A) above in this Section 7.02.

Section 7.03 *Determination of Entitlement to Indemnification.* Any indemnification to be provided under Section 7.01 or 7.02 of this Article (unless ordered by a court of competent

jurisdiction) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification is proper under the circumstances because such person has met the applicable standard of conduct set forth in such paragraph. Such determination shall be made in accordance with any applicable procedures authorized by the Board of Directors and in accordance with the DGCL. In the event a request for indemnification is made by any person referred to in paragraph (a) of Section 7.01 or 7.02 of this Article, the Corporation shall use its best efforts to cause such determination to be made not later than 90 days after such request is made.

Section 7.04 *Right to Indemnification in Certain Circumstances.*

(A) *Indemnification of Successful Party.* Notwithstanding the other provisions of this Article, to the extent that a director or officer of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in any of paragraphs (A) or (B) of Section 7.01 or 7.02 of this Article, in defense of any claim, issue or matter therein, or in any action, suit or proceeding brought by the director or officer to enforce rights to indemnification or advancement of expenses and costs granted pursuant to this Article, such person shall be indemnified against expenses (including attorneys' fees and disbursements) and costs actually and reasonably incurred by such person in connection therewith.

(B) *Indemnification for Service As a Witness.* To the extent any person who is or was a director or officer of the Corporation has served or prepared to serve as a witness in any action, suit or proceeding (whether civil, criminal, administrative, regulatory or investigative in nature), including any investigation by any legislative body or any regulatory or self-regulatory body by which the Corporation's business is regulated, by reason of such person's services as a director or officer of the Corporation or such person's service as a Subsidiary Officer of an Affiliated Entity at a time when such person was a director or officer of the Corporation (assuming such person is or was serving at the request of, or to represent the interests of, the Corporation as a Subsidiary Officer of such Affiliated Entity) but excluding service as a witness in an action or suit commenced by such person (unless such expenses were incurred with the approval of the Board of Directors, a committee thereof or the Chair, a Vice Chair or the Chief Executive Officer of the Corporation), the Corporation shall indemnify such person against out-of-pocket costs and expenses (including attorneys' fees and disbursements) actually and reasonably incurred by such person in connection therewith and shall use its best efforts to provide such indemnity within 45 days after receipt by the Corporation from such person of a statement requesting such indemnification, averring such service and reasonably evidencing such expenses and costs; it being understood, however, that the Corporation shall have no obligation under this Article to compensate such person for such person's time or efforts so expended. The Corporation may indemnify any employee or agent of the Corporation to the same or a lesser extent as it may indemnify any director or officer of the Corporation pursuant to the foregoing sentence of this paragraph.

Section 7.05 *Advances of Expenses.*

(A) *Advances to Directors and Officers.* To the fullest extent not prohibited by applicable law, expenses and costs, incurred by any person referred to in paragraph (a) of Section 7.01 or 7.02 of this Article in defending a civil, criminal, administrative, regulatory or investigative action, suit or proceeding shall be paid by the Corporation in advance of the final

disposition of such action, suit or proceeding upon receipt of an undertaking in writing by or on behalf of such person to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified in respect of such costs and expenses by the Corporation as authorized by this Article.

(B) *Advances to Employees and Agents.* To the fullest extent not prohibited by applicable law, expenses and costs incurred by any person referred to in paragraph (B) of Section 7.01 or 7.02 of this Article in defending a civil, criminal, administrative, regulatory or investigative action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding as authorized by the Board of Directors, a committee thereof or an officer of the Corporation authorized to so act by the Board of Directors upon receipt of an undertaking in writing by or on behalf of such person to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the Corporation in respect of such costs and expenses as authorized by this Article.

Section 7.06 *Indemnification Not Exclusive.* The provision of indemnification to or the advancement of expenses and costs to any person under this Article, or the entitlement of any person to indemnification or advancement of expenses and costs under this Article, shall not limit or restrict in any way the power of the Corporation to indemnify or advance expenses and costs to such person in any other way permitted by law or be deemed exclusive of, or invalidate, any right to which any person seeking indemnification or advancement of expenses and costs may be entitled under any law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's capacity as an officer, director, employee or agent of the Corporation and as to action in any other capacity.

Section 7.07 *Corporate Obligations; Reliance.* The rights granted pursuant to this Article shall vest at the time a person becomes a director or officer of the Corporation and shall be deemed to create a binding contractual obligation on the part of the Corporation to directors and officers of the Corporation, and such persons in acting in their capacities as officers or directors of the Corporation or Subsidiary Officers of any Affiliated Entity shall be entitled to rely on such provisions of this Article, without giving notice thereof to the Corporation.

Section 7.08 *Accrual of Claims; Successors.* The indemnification and advancement of expenses and costs provided or permitted under the foregoing provisions of this Article shall or may, as the case may be, apply in respect of any expense, cost, judgment, fine, penalty or amount paid in settlement, whether or not the claim or cause of action in respect thereof accrued or arose before or after the effective date of such provisions of this Article. The right of any person who is or was a director, officer, employee or agent of the Corporation to indemnification or advancement of expenses and costs as provided under the foregoing provisions of this Article shall continue after such person shall have ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, distributees, executors, administrators and other legal representatives of such person. Any repeal or modification of the provisions of this Article shall be prospective only and shall not adversely affect the rights of any person who is or was a director, officer, employee or agent of the Corporation hereunder at the time of any act or omission occurring prior to such repeal or modification.

Section 7.09 *Insurance.* The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is

or was serving at the request of, or to represent the interests of, the Corporation as a Subsidiary Officer of any Affiliated Entity, against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such liability under the provisions of this Article or applicable law.

Section 7.10 *Definitions of Certain Terms*. For purposes of this Article: (i) references to "the Corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed into the Corporation in a consolidation or merger if such corporation would have been permitted (if its corporate existence had continued) under applicable law to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request, or to represent the interests of, such constituent corporation as a director, officer, employee or agent of any Affiliated Entity shall stand in the same position under the provisions of this Article with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued; (ii) references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; (iii) references to "serving at the request of the Corporation" shall include any service as a director, officer, partner, member, trustee, fiduciary, employee or agent of the Corporation or any Affiliated Entity which service imposes duties on, or involves services by, such director, officer, partner, member, trustee, fiduciary, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and (iv) a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interest of the Corporation" as referred to in this Article.

ARTICLE VIII

EXCLUSIVE FORUM

Section 8.01 *Exclusive Forum*. Unless the Corporation consents in writing to the selection of an alternative forum, the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director or officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation or any director or officer or other employee of the Corporation arising pursuant to any provision of the DGCL, the Certificate of Incorporation or these By-laws (as either may be amended from time to time), or (iv) any action asserting a claim against the Corporation or any director or officer or other employee of the Corporation governed by the internal affairs doctrine shall be a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware).

ARTICLE IX

MISCELLANEOUS

Section 9.01 *Electronic Transmission*. For purposes of these By-laws, (1) "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, including the use of, or participation in, one or more electronic networks

or databases (including one or more distributed electronic networks or databases), that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process, (2) "electronic mail" means an electronic transmission directed to a unique electronic mail address (which electronic mail shall be deemed to include any files attached thereto and any information hyperlinked to a website if such electronic mail includes the contact information of an officer or agent of the Corporation who is available to assist with accessing such files and information) and (3) "electronic mail address" means a destination, commonly expressed as a string of characters, consisting of a unique user name or mailbox (commonly referred to as the "local part" of the address) and a reference to an internet domain (commonly referred to as the "domain part" of the address), whether or not displayed, to which electronic mail can be sent or delivered.

Section 9.02 *Corporate Seal*. The Board of Directors may provide a suitable seal, containing the name of the Corporation, which seal shall be in charge of the Secretary. If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by an Assistant Secretary or Assistant Treasurer.

Section 9.03 *Fiscal Year*. The fiscal year of the Corporation shall end on December 31 of each year, or such other twelve consecutive months as the Board of Directors may designate.

Section 9.04 *Section Headings*. Section headings in these By-laws are for convenience of reference only and shall not be given any substantive effect in limiting or otherwise construing any provision herein.

Section 9.05 *Inconsistent Provisions*. In the event that any provision of these By-laws is or becomes inconsistent with any provision of the Certificate of Incorporation, the DGCL or any other applicable law, the provision of these By-laws shall not be given any effect to the extent of such inconsistency but shall otherwise be given full force and effect.

ARTICLE X

AMENDMENTS

Section 10.01 *Amendments*. Subject to the Certificate of Incorporation these By-laws may be amended, added to, rescinded or repealed at any meeting of the Board of Directors or of the stockholders; provided, however, that, notwithstanding any other provisions of these By-laws or any provision of law which might otherwise permit a lesser vote of the stockholders, the affirmative vote of the holders of at least 80% in voting power of all shares of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required in order for the stockholders to alter, amend or repeal Sections 2.02, 2.03, 3.02, 3.03, 3.04, 3.05 or this proviso of Section 10.01 of the By-laws or to adopt provisions inconsistent therewith.

List of Guarantor Subsidiaries

(As of September 30, 2022)

Celanese US Holdings LLC (the "Issuer"), a 100% owned subsidiary of Celanese Corporation (the "Parent"), has 4.625% Senior Notes due 2022, 1.125% Senior Notes due 2023, 3.500% Senior Notes due 2024, 5.900% Senior Notes due 2024, 1.250% Senior Notes due 2025, 6.050% Senior Notes due 2025, 1.400% Senior Notes due 2026, 4.777% Senior Notes due 2026, 2.125% Senior Notes due 2027, 6.165% Senior Notes due 2027, 0.625% Senior Notes due 2028, 6.330% Senior Notes due 2029, 5.337% Senior Notes due 2029 and 6.379% Senior Notes due 2032 (collectively, the "Senior Notes"). The Senior Notes are jointly and severally guaranteed on a full and unconditional basis by the Parent and the 100% owned subsidiaries of the Parent listed below.

Name of Company	Jurisdiction
<i>Parent Guarantor</i>	
Celanese Corporation	Delaware
<i>Subsidiary Guarantors</i>	
Celanese Acetate LLC	Delaware
Celanese Americas LLC	Delaware
Celanese Chemicals, Inc.	Delaware
Celanese Global Relocation LLC	Delaware
Celanese International Corporation	Delaware
Celanese Ltd.	Texas
Celanese Sales U.S. Ltd.	Texas
Celtran, Inc.	Delaware
CNA Holdings LLC	Delaware
KEP Americas Engineering Plastics, LLC	Delaware
Ticona Fortron Inc.	Delaware
Ticona LLC	Delaware
Ticona Polymers, Inc.	Delaware

**CERTIFICATION
PURSUANT TO 17 CFR 240.13a-14
PROMULGATED UNDER
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Lori J. Ryerkerk, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Celanese 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ LORI J. RYERKERK

Lori J. Ryerkerk
*Chairman of the Board of Directors,
Chief Executive Officer and President*
November 4, 2022

**CERTIFICATION
PURSUANT TO 17 CFR 240.13a-14
PROMULGATED UNDER
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Scott A. Richardson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Celanese 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(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ SCOTT A. RICHARDSON

Scott A. Richardson
*Executive Vice President and
Chief Financial Officer*
November 4, 2022

**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 Celanese Corporation (the "Company") on Form 10-Q for the period ending September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lori J. Ryerkerk, Chairman of the Board of Directors, Chief Executive Officer and President of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) 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.

/s/ LORI J. RYERKERK

Lori J. Ryerkerk

*Chairman of the Board of Directors,
Chief Executive Officer and President*

November 4, 2022

**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 Celanese Corporation (the "Company") on Form 10-Q for the period ending September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Scott A. Richardson, Executive Vice President and Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) 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.

/s/ SCOTT A. RICHARDSON

Scott A. Richardson

Executive Vice President and

Chief Financial Officer

November 4, 2022