

Non-US GAAP Financial Measures and Supplemental Information

October 16, 2017

In this document, the terms the Company, "we" and "our" refer to Celanese Corporation and its subsidiaries on a consolidated basis.

Purpose

The purpose of this document is to provide information of interest to investors, analysts and other parties including supplemental financial information and reconciliations and other information concerning our use of non-US GAAP financial measures. This document is updated quarterly.

Presentation

This document presents the Company's business segments in two subtotals, reflecting our two cores, the Acetyl Chain and Materials Solutions, based on similarities among customers, business models and technical processes. As described in the Company's annual report on Form 10-K and quarterly reports on Form 10-Q, the Acetyl Chain includes the Company's Acetyl Intermediates segment and the Industrial Specialties segment. Materials Solutions includes the Company's Advanced Engineered Materials segment and the Consumer Specialties segment.

Use of Non-US GAAP Financial Measures

From time to time, management may publicly disclose certain numerical non-GAAP financial measures in the course of our earnings releases, financial presentations, earnings conference calls, investor and analyst meetings and otherwise. For these purposes, the Securities and Exchange Commission (SEC) defines a non-GAAP financial measure as a numerical measure of historical or future financial performance, financial position or cash flows that excludes amounts, or is subject to adjustments that effectively exclude amounts, included in the most directly comparable measure calculated and presented in accordance with US GAAP, and vice versa for measures that include amounts, or are subject to adjustments that effectively include amounts, that are excluded from the most directly comparable US GAAP measure so calculated and presented. For these purposes, GAAP refers to generally accepted accounting principles in the United States.

Non-GAAP financial measures disclosed by management are provided as additional information to investors, analysts and other parties because the Company believes them to be important supplemental measures for assessing our financial and operating results and as a means to evaluate our financial condition and period-to-period comparisons. These non-GAAP financial measures should be viewed as supplemental to, and should not be considered in isolation or as alternatives to, net earnings (loss), operating profit (loss), operating margin, cash flow from operating activities (together with cash flow from investing and financing activities), earnings per share or any other US GAAP financial measure. These non-GAAP financial measures should be considered within the context of our complete audited and unaudited financial results for the given period, which are available on the Investor Relations/Financial Information/SEC Filings page of our website, www.celanese.com. The definition and method of calculation of the non-GAAP financial measures used herein may be different from other companies' methods for calculating measures with the same or similar titles. Investors, analysts and other parties should understand how another company calculates such non-GAAP financial measures before comparing the other company's non-GAAP financial measures to any of our own. These non-GAAP financial measures may not be indicative of the historical operating results of the Company nor are they intended to be predictive or projections of future results.

Pursuant to the requirements of SEC Regulation G, whenever we refer to a non-GAAP financial measure, we will also present in this document, in the presentation itself or on a Form 8-K in connection with the presentation on the Investor Relations/Financial Information/Non-GAAP Financial Measures page of our website, www.celanese.com, to the extent practicable, the most directly comparable financial measure calculated and presented in accordance with GAAP, along with a reconciliation of the differences between the non-GAAP financial measure we reference and such comparable GAAP financial measure.

This document includes definitions and reconciliations of non-GAAP financial measures used from time to time by the Company.

Specific Measures Used

This document provides information about the following non-GAAP measures: adjusted EBIT, adjusted EBIT margin, operating EBITDA, operating EBITDA margin, operating profit (loss) attributable to Celanese Corporation, adjusted earnings per share, net debt, free cash flow and return on invested capital (adjusted). The most directly comparable financial measure presented in accordance with US GAAP in our consolidated financial statements for adjusted EBIT and operating EBITDA is net earnings (loss) attributable to Celanese Corporation; for adjusted EBIT margin and operating EBITDA margin is operating margin; for operating profit (loss) attributable to Celanese Corporation is operating profit (loss); for adjusted earnings per share is earnings (loss) from continuing operations attributable to Celanese Corporation per common share-diluted; for net debt is total debt; for free cash flow is net cash provided by (used in) operations; and for return on invested capital (adjusted) is net earnings (loss) attributable to Celanese Corporation divided by the sum of the average of beginning and end of the year short- and long-term debt and Celanese Corporation stockholders' equity.

Definitions

- *Adjusted EBIT is a performance measure used by the Company and is defined by the Company as net earnings (loss) attributable to Celanese Corporation, plus (earnings) loss from discontinued operations, less interest income, plus interest expense, plus refinancing expense and taxes, and further adjusted for Certain Items (refer to [Table 8](#)). We believe that adjusted EBIT provides transparent and useful information to management, investors, analysts and other parties in evaluating and assessing our primary operating results from period-to-period after removing the impact of unusual, non-operational or restructuring-related activities that affect comparability. Our management recognizes that adjusted EBIT has inherent limitations because of the excluded items. Adjusted EBIT is one of the measures management uses for planning and budgeting, monitoring and evaluating financial and operating results and as a performance metric in the Company's incentive compensation plan. We may provide guidance on adjusted EBIT but are unable to reconcile forecasted adjusted EBIT to a US GAAP financial measure without unreasonable efforts because a forecast of Certain Items, such as mark-to-market pension gains and losses, which may be significant, is not practical. Adjusted EBIT margin is defined by the Company as adjusted EBIT divided by net sales. Adjusted EBIT margin has the same uses and limitations as Adjusted EBIT.*
- *Adjusted EBIT by core (i.e. Acetyl Chain and/or Materials Solutions) may also be referred to by management as core income. Adjusted EBIT margin by core may also be referred to by management as core income margin. Adjusted EBIT by business segment may also be referred to by management as segment income. Adjusted EBIT margin by business segment may also be referred to by management as segment income margin.*
- *Operating EBITDA is a performance measure used by the Company and is defined by the Company as net earnings (loss) attributable to Celanese Corporation, plus (earnings) loss from discontinued operations, less interest income, plus interest expense, plus refinancing expense, taxes and depreciation and amortization, and further adjusted for Certain Items, which Certain Items include accelerated depreciation and amortization expense. Operating EBITDA is equal to adjusted EBIT plus depreciation and amortization. We believe that Operating EBITDA provides transparent and useful information to investors, analysts and other parties in evaluating our operating performance relative to our peer companies. Operating EBITDA margin is defined by the Company as Operating EBITDA divided by net sales. Operating EBITDA margin has the same uses and limitations as Operating EBITDA.*
- *Operating profit (loss) attributable to Celanese Corporation is defined by the Company as operating profit (loss), less earnings (loss) attributable to noncontrolling interests (NCI). We believe that operating profit (loss) attributable to Celanese Corporation provides transparent and useful information to management, investors, analysts and other parties in evaluating our core operational performance. Operating margin attributable to Celanese Corporation is defined by the Company as operating profit (loss) attributable to Celanese Corporation divided by net sales. Operating margin attributable to Celanese Corporation has the same uses and limitations as Operating profit (loss) attributable to Celanese Corporation.*
- *Adjusted earnings per share is a performance measure used by the Company and is defined by the Company as earnings (loss) from continuing operations attributable to Celanese Corporation, adjusted for income tax (provision) benefit, Certain Items, and refinancing and related expenses, divided by the number of basic common shares and dilutive restricted stock units and stock options calculated using the treasury method. We believe that adjusted earnings per share provides transparent and useful information to management, investors, analysts and other parties in evaluating and assessing our primary operating results from period-to-period after removing the impact of the above stated items that affect comparability and as a performance metric in the Company's incentive compensation plan. We may provide guidance on adjusted earnings per share but are unable to reconcile forecasted adjusted earnings per share to a GAAP financial measure without unreasonable efforts because a forecast of Certain Items, such as mark-to-market pension gains and losses, which may be significant, is not practical.*

Note: The income tax expense (benefit) on Certain Items (Non-GAAP adjustments) is determined using the applicable rates in the taxing jurisdictions in which the Non-GAAP adjustments occurred and includes both current and deferred income tax expense (benefit). The income tax rate used for adjusted earnings per share approximates the midpoint in a range of forecasted tax rates for the year. This range may include certain partial or full-year forecasted tax opportunities and related costs, where applicable, and specifically excludes changes in uncertain tax positions, discrete recognition of GAAP items on a quarterly basis, other pre-tax items adjusted out of our GAAP earnings for adjusted earnings per share purposes and changes in management's assessments regarding the ability to realize deferred tax assets for GAAP. In determining the adjusted earnings per share tax rate, we reflect the impact of foreign tax credits when utilized, or expected to be utilized, absent discrete events impacting the timing of foreign tax credit utilization. We analyze this rate quarterly and adjust it if there is a material change in the range of forecasted tax rates; an updated forecast would not necessarily result in a change to our tax rate used for adjusted earnings per share. The adjusted tax rate is an estimate and may differ from the actual tax rate used for GAAP reporting in any given reporting period. [Table 3a](#) summarizes the reconciliation of our estimated GAAP effective tax rate to the adjusted tax rate. The estimated GAAP rate excludes discrete recognition of GAAP items due to our inability to forecast such items. As part of the year-end reconciliation, we will update the reconciliation of the GAAP effective tax rate to the adjusted tax rate for actual results.

- *Free cash flow is a liquidity measure used by the Company and is defined by the Company as net cash provided by (used in) operations, less capital expenditures on property, plant and equipment, and adjusted for capital contributions from or distributions to Mitsui & Co., Ltd. (Mitsui) related to our methanol joint venture, Fairway Methanol LLC (Fairway). We believe that free cash flow provides useful information to management, investors, analysts and other parties in evaluating the Company's liquidity and credit quality assessment because it provides an indication of the long-term cash generating ability of our business. Although we use free cash flow as a measure to assess the liquidity generated by our business, the use of free cash flow has important limitations, including that free cash flow does not reflect the cash requirements necessary to service our indebtedness, lease obligations, unconditional purchase obligations or pension and postretirement funding obligations.*
- *Net debt is defined by the Company as total debt less cash and cash equivalents. We believe that net debt provides useful information to management, investors, analysts and other parties in evaluating changes to the Company's capital structure and credit quality assessment.*
- *Return on invested capital (adjusted) is defined by the Company as adjusted EBIT, tax effected using the adjusted tax rate, divided by the sum of the average of beginning and end of the year short- and long-term debt and Celanese Corporation stockholders' equity. We believe that return on invested capital (adjusted) provides useful information to management, investors, analysts and other parties in order to assess our income generation from the point of view of our stockholders and creditors who provide us with capital in the form of equity and debt and whether capital invested in the Company yields competitive returns. In addition, achievement of certain predetermined targets relating to return on invested capital (adjusted) is one of the factors we consider in determining the amount of performance-based compensation received by our management.*

Supplemental Information

Supplemental Information we believe to be of interest to investors, analysts and other parties includes the following:

- *Net sales for Materials Solutions, the Acetyl Chain and each of our business segments and the percentage increase or decrease in net sales attributable to price, volume, currency and other factors for Materials Solutions, the Acetyl Chain and each of our business segments.*
- *Cash dividends received from our equity and cost investments.*
- *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 NCI. Beginning in 2014, this includes Fairway for which the Company's ownership percentage is 50%. Amounts referred to as "attributable to Celanese Corporation" are net of any applicable NCI.*

Results Unaudited

The results in this document, together with the adjustments made to present the results on a comparable basis, have not been audited and are based on internal financial data furnished to management. Quarterly results should not be taken as an indication of the results of operations to be reported for any subsequent period or for the full fiscal year.

Table 1
Adjusted EBIT and Operating EBITDA - Reconciliation of Non-GAAP Measures - Unaudited

	Q3 '17	Q2 '17	Q1 '17	2016	Q4 '16	Q3 '16	Q2 '16	Q1 '16
	(In \$ millions)							
Net earnings (loss) attributable to Celanese Corporation	226	231	183	900	160	262	221	257
(Earnings) loss from discontinued operations	4	8	—	2	—	3	—	(1)
Interest income	(1)	(1)	—	(2)	(1)	—	—	(1)
Interest expense	32	30	29	120	29	28	30	33
Refinancing expense	—	—	—	6	—	4	—	2
Income tax provision (benefit)	57	40	56	122	(5)	15	52	60
Certain Items attributable to Celanese Corporation (Table 8)	27	18	65	130	106	7	9	8
Adjusted EBIT	345	326	333	1,278	289	319	312	358
Depreciation and amortization expense ⁽¹⁾	78	75	71	288	71	71	73	73
Operating EBITDA	423	401	404	1,566	360	390	385	431
	(In \$ millions)							
Advanced Engineered Materials	—	—	—	—	—	—	—	—
Consumer Specialties	—	—	—	1	—	1	—	—
Industrial Specialties	2	—	—	—	—	—	—	—
Acetyl Intermediates	—	—	—	—	—	—	—	—
Other Activities ⁽²⁾	—	—	—	1	1	—	—	—
Accelerated depreciation and amortization expense	2	—	—	2	1	1	—	—
Depreciation and amortization expense ⁽¹⁾	78	75	71	288	71	71	73	73
Total depreciation and amortization expense	80	75	71	290	72	72	73	73

⁽¹⁾ Excludes accelerated depreciation and amortization expense as detailed in the table above, which amounts are included in Certain Items above.

⁽²⁾ Other Activities includes corporate Selling, general and administrative ("SG&A") expenses, the results of captive insurance companies and certain components of net periodic benefit cost (interest cost, expected return on plan assets and net actuarial gains and losses).

Table 2 - Supplemental Segment Data and Reconciliation of Segment Adjusted EBIT and Operating EBITDA - Non-GAAP Measures - Unaudited

	Q3 '17		Q2 '17		Q1 '17		2016		Q4 '16		Q3 '16		Q2 '16		Q1 '16	
	(In \$ millions, except percentages)															
Operating Profit (Loss) / Operating Margin																
Materials Solutions	150	20.5%	146	20.6%	166	23.5%	652	27.5%	163	27.7%	161	27.3%	162	27.0%	166	27.9%
Acetyl Chain ⁽¹⁾	148	17.1%	135	16.3%	52	6.5%	446	14.2%	86	11.5%	108	14.2%	107	13.7%	145	17.3%
Other Activities ⁽²⁾	(46)		(41)		(26)		(205)		(132)		(23)		(26)		(24)	
Total	252	16.1%	240	15.9%	192	13.1%	893	16.6%	117	8.9%	246	18.6%	243	18.0%	287	20.4%
Less: Net Earnings (Loss) Attributable to NCI ⁽¹⁾	2		2		1		6		1		1		2		2	
Operating Profit (Loss) Attributable to Celanese Corporation	250	16.0%	238	15.8%	191	13.0%	887	16.5%	116	8.8%	245	18.5%	241	17.8%	285	20.3%
Operating Profit (Loss) / Operating Margin Attributable to Celanese Corporation																
Advanced Engineered Materials	97	17.9%	97	18.8%	98	20.1%	350	24.2%	87	23.9%	93	25.5%	82	22.5%	88	25.1%
Consumer Specialties	53	28.3%	49	25.4%	68	31.2%	302	32.5%	76	33.8%	68	30.2%	80	34.0%	78	32.0%
Total Materials Solutions	150	20.5%	146	20.6%	166	23.5%	652	27.5%	163	27.7%	161	27.3%	162	27.0%	166	27.9%
Industrial Specialties	20	7.6%	26	9.9%	25	10.2%	105	10.7%	20	9.1%	25	10.2%	29	11.1%	31	12.3%
Acetyl Intermediates ⁽¹⁾	126	18.4%	107	16.5%	26	4.2%	334	13.7%	65	10.9%	82	13.9%	75	12.7%	112	16.9%
Eliminations	—		—		—		1		—		—		1		—	
Total Acetyl Chain	146	16.9%	133	16.1%	51	6.4%	440	14.0%	85	11.3%	107	14.0%	105	13.5%	143	17.0%
Other Activities ⁽²⁾	(46)		(41)		(26)		(205)		(132)		(23)		(26)		(24)	
Total	250	16.0%	238	15.8%	191	13.0%	887	16.5%	116	8.8%	245	18.5%	241	17.8%	285	20.3%
Equity Earnings, Cost-Dividend Income, Other Income (Expense) Attributable to Celanese Corporation																
Advanced Engineered Materials	45		38		42		122		31		33		27		31	
Consumer Specialties	26		28		30		110		27		27		28		28	
Total Materials Solutions	71		66		72		232		58		60		55		59	
Industrial Specialties	—		—		—		—		—		—		—		—	
Acetyl Intermediates	1		2		1		7		2		1		2		2	
Total Acetyl Chain	1		2		1		7		2		1		2		2	
Other Activities ⁽²⁾	(4)		2		4		22		7		6		5		4	
Total	68		70		77		261		67		67		62		65	
Certain Items Attributable to Celanese Corporation (Table 8)																
Advanced Engineered Materials	5		7		3		7		3		1		2		1	
Consumer Specialties	—		2		2		6		3		3		—		—	
Total Materials Solutions	5		9		5		13		6		4		2		1	
Industrial Specialties	3		—		—		1		(2)		—		1		2	
Acetyl Intermediates	7		(3)		56		6		1		1		3		1	
Total Acetyl Chain	10		(3)		56		7		(1)		1		4		3	
Other Activities ⁽²⁾	12		12		4		110		101		2		3		4	
Total	27		18		65		130		106		7		9		8	
Adjusted EBIT / Adjusted EBIT Margin																
Advanced Engineered Materials	147	27.1%	142	27.5%	143	29.4%	479	33.2%	121	33.2%	127	34.8%	111	30.4%	120	34.3%
Consumer Specialties	79	42.2%	79	40.9%	100	45.9%	418	45.0%	106	47.1%	98	43.6%	108	46.0%	106	43.4%
Total Materials Solutions	226	31.0%	221	31.2%	243	34.5%	897	37.8%	227	38.5%	225	38.1%	219	36.5%	226	38.0%
Industrial Specialties	23	8.7%	26	9.9%	25	10.2%	106	10.8%	18	8.2%	25	10.2%	30	11.5%	33	13.0%
Acetyl Intermediates	134	19.6%	106	16.3%	83	13.4%	347	14.2%	68	11.4%	84	14.3%	80	13.5%	115	17.3%
Eliminations	—		—		—		1		—		—		1		—	
Total Acetyl Chain	157	18.2%	132	16.0%	108	13.6%	454	14.5%	86	11.5%	109	14.3%	111	14.2%	148	17.6%
Other Activities ⁽²⁾	(38)		(27)		(18)		(73)		(24)		(15)		(18)		(16)	
Total	345	22.0%	326	21.6%	333	22.6%	1,278	23.7%	289	22.0%	319	24.1%	312	23.1%	358	25.5%

⁽¹⁾ Net earnings (loss) attributable to NCI is included within the Acetyl Intermediates segment.

⁽²⁾ Other Activities includes corporate SG&A expenses, the results of captive insurance companies and certain components of net periodic benefit cost (interest cost, expected return on plan assets and net actuarial gains and losses).

Table 2 - Supplemental Segment Data and Reconciliation of Segment Adjusted EBIT and Operating EBITDA - Non-GAAP Measures - Unaudited (cont.)

	Q3 '17		Q2 '17		Q1 '17		2016		Q4 '16		Q3 '16		Q2 '16		Q1 '16	
	(In \$ millions, except percentages)															
Depreciation and Amortization Expense⁽¹⁾																
Advanced Engineered Materials	29		26		24		92		21		22		25		24	
Consumer Specialties	11		11		11		44		11		11		11		11	
Total Materials Solutions	40		37		35		136		32		33		36		35	
Industrial Specialties	8		10		8		34		9		9		8		8	
Acetyl Intermediates	26		26		26		107		26		27		27		27	
Total Acetyl Chain	34		36		34		141		35		36		35		35	
Other Activities ⁽²⁾	4		2		2		11		4		2		2		3	
Total	78		75		71		288		71		71		73		73	
Operating EBITDA / Operating EBITDA Margin																
Advanced Engineered Materials	176	32.4%	168	32.6%	167	34.3%	571	39.5%	142	39.0%	149	40.8%	136	37.3%	144	41.1%
Consumer Specialties	90	48.1%	90	46.6%	111	50.9%	462	49.7%	117	52.0%	109	48.4%	119	50.6%	117	48.0%
Total Materials Solutions	266	36.4%	258	36.4%	278	39.4%	1,033	43.5%	259	44.0%	258	43.7%	255	42.5%	261	43.9%
Industrial Specialties	31	11.7%	36	13.7%	33	13.5%	140	14.3%	27	12.3%	34	13.9%	38	14.5%	41	16.2%
Acetyl Intermediates	160	23.4%	132	20.3%	109	17.6%	454	18.6%	94	15.7%	111	18.8%	107	18.1%	142	21.4%
Eliminations	—		—		—		1		—		—		1		—	
Total Acetyl Chain	191	22.1%	168	20.3%	142	17.9%	595	19.0%	121	16.2%	145	19.0%	146	18.7%	183	21.8%
Other Activities ⁽²⁾	(34)		(25)		(16)		(62)		(20)		(13)		(16)		(13)	
Total	423	27.0%	401	26.6%	404	27.5%	1,566	29.1%	360	27.5%	390	29.5%	385	28.5%	431	30.7%

⁽¹⁾ Excludes accelerated depreciation and amortization expense, which amounts are included in Certain Items above. See [Table 1](#) for details.

⁽²⁾ Other Activities includes corporate SG&A expenses, the results of captive insurance companies and certain components of net periodic benefit cost (interest cost, expected return on plan assets and net actuarial gains and losses).

Table 3
Adjusted Earnings (Loss) per Share - Reconciliation of a Non-GAAP Measure - Unaudited

	Q3 '17		Q2 '17		Q1 '17		2016		Q4 '16		Q3 '16		Q2 '16		Q1 '16	
	per share		per share		per share		per share		per share		per share		per share		per share	
(In \$ millions, except per share data)																
Earnings (loss) from continuing operations attributable to Celanese Corporation	230	1.68	239	1.72	183	1.30	902	6.19	160	1.12	265	1.83	221	1.50	256	1.73
Income tax provision (benefit)	57		40		56		122		(5)		15		52		60	
Earnings (loss) from continuing operations before tax	287		279		239		1,024		155		280		273		316	
Certain Items attributable to Celanese Corporation (Table 8)	27		18		65		130		106		7		9		8	
Refinancing and related expenses	—		—		—		6		—		4		—		2	
Adjusted earnings (loss) from continuing operations before tax	314		297		304		1,160		261		291		282		326	
Income tax (provision) benefit on adjusted earnings ⁽¹⁾	(50)		(48)		(49)		(197)		(44)		(49)		(48)		(55)	
Adjusted earnings (loss) from continuing operations⁽²⁾	264	1.93	249	1.79	255	1.81	963	6.61	217	1.52	242	1.67	234	1.59	271	1.83
Diluted shares (in millions) ⁽³⁾																
Weighted average shares outstanding	136.6		138.6		140.6		144.9		141.9		144.0		146.5		147.4	
Incremental shares attributable to equity awards	0.4		0.4		0.4		0.8		0.7		0.6		0.6		0.7	
Total diluted shares	137.0		139.0		141.0		145.7		142.6		144.6		147.1		148.1	

⁽¹⁾ Calculated using adjusted effective tax rates (Table 3a) as follows:

	Q3 '17		Q2 '17		Q1 '17		2016		Q4 '16		Q3 '16		Q2 '16		Q1 '16	
	(In percentages)															
Adjusted effective tax rate	16		16		16		17		17		17		17		17	

⁽²⁾ Excludes the immediate recognition of actuarial gains and losses and the impact of actual vs. expected plan asset returns.

	Actual Plan Asset Returns	Expected Plan Asset Returns
	(In percentages)	
2016	6.9	7.3

⁽³⁾ Potentially dilutive shares are included in the adjusted earnings per share calculation when adjusted earnings are positive.

Table 3a
Adjusted Tax Rate - Reconciliation of a Non-GAAP Measure - Unaudited

	Estimated 2017	Actual 2016
	(In percentages)	
US GAAP effective tax rate	18	12
Discrete quarterly recognition of GAAP items ⁽¹⁾	(1)	1
Tax impact of other charges and adjustments ⁽²⁾	(1)	3
Utilization of foreign tax credits	—	—
Changes in valuation allowances, excluding impact of other charges and adjustments ⁽³⁾	—	2
Other ⁽⁴⁾	—	(1)
Adjusted tax rate	16	17

Note: As part of the year-end reconciliation, we will update the reconciliation of the GAAP effective tax rate for actual results.

- ⁽¹⁾ Such as changes in tax laws, deferred taxes on outside basis differences, changes in uncertain tax positions and prior year audit adjustments.
- ⁽²⁾ Reflects the tax impact on pre-tax adjustments presented in Certain Items ([Table 8](#)), which are excluded from pre-tax income for adjusted earnings per share purposes.
- ⁽³⁾ Reflects changes in valuation allowances related to changes in judgment regarding the realizability of deferred tax assets or current year operations, excluding other charges and adjustments.
- ⁽⁴⁾ Tax impacts related to full-year forecasted tax opportunities and related costs.

Table 4
Net Sales by Segment - Unaudited

	Q3 '17	Q2 '17	Q1 '17	2016	Q4 '16	Q3 '16	Q2 '16	Q1 '16
	(In \$ millions)							
Advanced Engineered Materials	543	516	487	1,444	364	365	365	350
Consumer Specialties	187	193	218	929	225	225	235	244
Total Materials Solutions	730	709	705	2,373	589	590	600	594
Industrial Specialties	264	262	245	979	219	245	262	253
Acetyl Intermediates	684	649	619	2,441	597	589	592	663
Eliminations ⁽¹⁾	(85)	(85)	(70)	(288)	(67)	(71)	(74)	(76)
Total Acetyl Chain	863	826	794	3,132	749	763	780	840
Other Activities ⁽²⁾	—	—	—	—	—	—	—	—
Intersegment eliminations ⁽¹⁾	(27)	(25)	(28)	(116)	(27)	(30)	(29)	(30)
Net sales	1,566	1,510	1,471	5,389	1,311	1,323	1,351	1,404

⁽¹⁾ Includes intersegment sales as follows:

	Q3 '17	Q2 '17	Q1 '17	2016	Q4 '16	Q3 '16	Q2 '16	Q1 '16
	(In \$ millions)							
Industrial Specialties	(1)	(1)	(1)	(3)	(1)	(1)	(1)	—
Acetyl Intermediates	(111)	(109)	(97)	(401)	(93)	(100)	(102)	(106)
Intersegment eliminations	(112)	(110)	(98)	(404)	(94)	(101)	(103)	(106)

⁽²⁾ Other Activities includes corporate SG&A expenses, the results of captive insurance companies and certain components of net periodic benefit cost (interest cost, expected return on plan assets and net actuarial gains and losses).

Table 4a
Factors Affecting Segment Net Sales Sequentially - Unaudited

Three Months Ended September 30, 2017 Compared to Three Months Ended June 30, 2017

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	—	2	3	—	5
Consumer Specialties	(4)	—	1	—	(3)
Total Materials Solutions	(1)	1	3	—	3
Industrial Specialties	(4)	2	3	—	1
Acetyl Intermediates	3	(1)	3	—	5
Total Acetyl Chain	1	—	3	—	4
Total Company	—	1	3	—	4

Three Months Ended June 30, 2017 Compared to Three Months Ended March 31, 2017

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	4	—	2	—	6 ⁽¹⁾
Consumer Specialties	(10)	(2)	—	—	(12)
Total Materials Solutions	—	(1)	1	—	—
Industrial Specialties	2	3	2	—	7
Acetyl Intermediates	(1)	5	1	—	5
Total Acetyl Chain	—	5	1	(2)	4
Total Company	—	3	1	(1)	3

Three Months Ended March 31, 2017 Compared to Three Months Ended December 31, 2016

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	35	—	(1)	—	34 ⁽²⁾
Consumer Specialties	3	(6)	—	—	(3)
Total Materials Solutions	22	(2)	—	—	20
Industrial Specialties	11	1	—	—	12
Acetyl Intermediates	(2)	6	—	—	4
Total Acetyl Chain	2	5	(1)	—	6
Total Company	11	2	(1)	—	12

⁽¹⁾ 2017 includes the effect of the acquisition of the nylon compounding division of Nilit Group.

⁽²⁾ 2017 includes the effect of the SO.F.TER. S.p.A. acquisition.

Three Months Ended December 31, 2016 Compared to Three Months Ended September 30, 2016

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	1	—	(1)	—	—
Consumer Specialties	2	(2)	—	—	—
Total Materials Solutions	2	(1)	(1)	—	—
Industrial Specialties	(7)	(2)	(2)	—	(11)
Acetyl Intermediates	—	2	(1)	—	1
Total Acetyl Chain	(2)	1	(2)	1	(2)
Total Company	(1)	1	(1)	—	(1)

Three Months Ended September 30, 2016 Compared to Three Months Ended June 30, 2016

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	(1)	1	—	—	—
Consumer Specialties	(4)	—	—	—	(4)
Total Materials Solutions	(2)	—	—	—	(2)
Industrial Specialties	(6)	—	(1)	—	(7)
Acetyl Intermediates	—	—	—	—	—
Total Acetyl Chain	(2)	—	(1)	1	(2)
Total Company	(2)	—	—	—	(2)

Three Months Ended June 30, 2016 Compared to Three Months Ended March 31, 2016

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	6	(2)	1	—	5
Consumer Specialties	(3)	(1)	—	—	(4)
Total Materials Solutions	2	(2)	1	—	1
Industrial Specialties	4	(1)	1	—	4
Acetyl Intermediates	(11)	—	—	—	(11)
Total Acetyl Chain	(7)	(1)	1	—	(7)
Total Company	(4)	(1)	1	—	(4)

Table 4a
Factors Affecting Segment Net Sales Sequentially - Unaudited (cont.)

Three Months Ended March 31, 2016 Compared to Three Months Ended December 31, 2015

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	(In percentages)				
Advanced Engineered Materials	12	—	—	—	12
Consumer Specialties	6	(7)	—	—	(1)
Total Materials Solutions	10	(3)	—	—	7
Industrial Specialties	9	(3)	—	—	6
Acetyl Intermediates	7	(4)	—	—	3
Total Acetyl Chain	8	(4)	—	(1)	3
Total Company	9	(4)	—	—	5

Table 4b
Factors Affecting Segment Net Sales Year Over Year - Unaudited

Three Months Ended September 30, 2017 Compared to Three Months Ended September 30, 2016

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	49	(2)	2	—	49
Consumer Specialties	(10)	(8)	1	—	(17)
Total Materials Solutions	26	(4)	2	—	24
Industrial Specialties	2	4	2	—	8
Acetyl Intermediates	(1)	16	1	—	16
Total Acetyl Chain	—	13	2	(2)	13
Total Company	11	6	2	(1)	18

Three Months Ended June 30, 2017 Compared to Three Months Ended June 30, 2016

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	44	(2)	(1)	—	41
Consumer Specialties	(9)	(9)	—	—	(18)
Total Materials Solutions	23	(4)	(1)	—	18
Industrial Specialties	(1)	3	(2)	—	—
Acetyl Intermediates	(4)	14	(1)	1	10
Total Acetyl Chain	(3)	12	(2)	(1)	6
Total Company	8	5	(1)	—	12

Three Months Ended March 31, 2017 Compared to Three Months Ended March 31, 2016

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	44	(3)	(2)	—	39
Consumer Specialties	(2)	(8)	(1)	—	(11)
Total Materials Solutions	25	(5)	(1)	—	19
Industrial Specialties	1	(2)	(2)	—	(3)
Acetyl Intermediates	(12)	7	(2)	—	(7)
Total Acetyl Chain	(9)	5	(2)	1	(5)
Total Company	5	1	(2)	1	5

Three Months Ended December 31, 2016 Compared to Three Months Ended December 31, 2015

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	20	(2)	(1)	—	17
Consumer Specialties	2	(11)	—	—	(9)
Total Materials Solutions	12	(6)	—	—	6
Industrial Specialties	(1)	(6)	(1)	—	(8)
Acetyl Intermediates	(4)	(2)	(2)	1	(7)
Total Acetyl Chain	(4)	(3)	(2)	1	(8)
Total Company	2	(4)	(1)	1	(2)

Three Months Ended September 30, 2016 Compared to Three Months Ended September 30, 2015

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	16	(4)	—	—	12
Consumer Specialties	(2)	(7)	—	—	(9)
Total Materials Solutions	8	(5)	—	—	3
Industrial Specialties	(1)	(9)	(1)	—	(11)
Acetyl Intermediates	(3)	(11)	—	1	(13)
Total Acetyl Chain	(3)	(12)	—	2	(13)
Total Company	1	(9)	—	2	(6)

Three Months Ended June 30, 2016 Compared to Three Months Ended June 30, 2015

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	<u>(In percentages)</u>				
Advanced Engineered Materials	8	(4)	1	—	5
Consumer Specialties	2	(8)	—	—	(6)
Total Materials Solutions	5	(5)	1	—	1
Industrial Specialties	(1)	(8)	—	—	(9)
Acetyl Intermediates	(5)	(13)	—	2	(16)
Total Acetyl Chain	(4)	(12)	—	2	(14)
Total Company	—	(10)	—	1	(9)

Table 4b
Factors Affecting Segment Net Sales Year Over Year - Unaudited (cont.)

Three Months Ended March 31, 2016 Compared to Three Months Ended March 31, 2015

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	(In percentages)				
Advanced Engineered Materials	5	(2)	(1)	—	2
Consumer Specialties	17	(9)	—	—	8
Total Materials Solutions	9	(5)	—	—	4
Industrial Specialties	—	(9)	(1)	—	(10)
Acetyl Intermediates	6	(13)	(2)	2	(7)
Total Acetyl Chain	5	(13)	(2)	1	(9)
Total Company	7	(10)	(2)	1	(4)

Table 4c
Factors Affecting Segment Net Sales Year Over Year - Unaudited

Year Ended December 31, 2016 Compared to Year Ended December 31, 2015

	<u>Volume</u>	<u>Price</u>	<u>Currency</u>	<u>Other</u>	<u>Total</u>
	(In percentages)				
Advanced Engineered Materials	11	(2)	—	—	9
Consumer Specialties	4	(8)	—	—	(4)
Total Materials Solutions	8	(5)	—	—	3
Industrial Specialties	(1)	(8)	(1)	—	(10)
Acetyl Intermediates	(2)	(10)	(1)	2	(11)
Total Acetyl Chain	(2)	(10)	(1)	2	(11)
Total Company	2	(8)	(1)	2	(5)

Table 5
Free Cash Flow - Reconciliation of a Non-GAAP Measure - Unaudited

	Q3 '17	Q2 '17	Q1 '17	2016	Q4 '16	Q3 '16	Q2 '16	Q1 '16
	(In \$ millions)							
Net cash provided by (used in) investing activities	(68)	(325)	(64)	(439)	(247)	(54)	(63)	(75)
Net cash provided by (used in) financing activities	(247)	21	(270)	(759)	(292)	265	(259)	(473)
Net cash provided by (used in) operating activities	255	298	192	893	(47)	304	349	287
Capital expenditures on property, plant and equipment	(64)	(54)	(62)	(246)	(60)	(58)	(58)	(70)
Capital (distributions to) contributions from NCI	(10)	(4)	(4)	(24)	(9)	(9)	(6)	—
Free cash flow⁽¹⁾⁽²⁾	181	240	126	623	(116)	237	285	217

⁽¹⁾ Free cash flow is a liquidity measure used by the Company and is defined by the Company as net cash provided by (used in) operating activities, less capital expenditures on property, plant and equipment, and adjusted for capital contributions from or distributions to Mitsui & Co., Ltd. ("Mitsui") related to our joint venture, Fairway Methanol LLC ("Fairway").

⁽²⁾ Excludes required debt service and capital lease payments of \$27 million and \$56 million for the years ending December 31, 2017 and 2016, respectively.

Table 6
Cash Dividends Received - Unaudited

	<u>Q3 '17</u>	<u>Q2 '17</u>	<u>Q1 '17</u>	<u>2016</u>	<u>Q4 '16</u>	<u>Q3 '16</u>	<u>Q2 '16</u>	<u>Q1 '16</u>
	(In \$ millions)							
Dividends from equity method investments	5	59	50	131	15	6	73	37
Dividends from cost method investments	24	29	29	108	26	26	29	27
Total	<u>29</u>	<u>88</u>	<u>79</u>	<u>239</u>	<u>41</u>	<u>32</u>	<u>102</u>	<u>64</u>

Table 7
Net Debt - Reconciliation of a Non-GAAP Measure - Unaudited

	<u>Q3 '17</u>	<u>Q2 '17</u>	<u>Q1 '17</u>	<u>2016</u>	<u>Q4 '16</u>	<u>Q3 '16</u>	<u>Q2 '16</u>	<u>Q1 '16</u>
	(In \$ millions)							
Short-term borrowings and current installments of long-term debt - third party and affiliates	435	384	107	118	118	92	119	116
Long-term debt, net of unamortized deferred financing costs	2,954	2,931	2,851	2,890	2,890	2,923	2,464	2,487
Total debt	<u>3,389</u>	<u>3,315</u>	<u>2,958</u>	<u>3,008</u>	<u>3,008</u>	<u>3,015</u>	<u>2,583</u>	<u>2,603</u>
Cash and cash equivalents	(461)	(511)	(501)	(638)	(638)	(1,252)	(735)	(716)
Net debt	<u>2,928</u>	<u>2,804</u>	<u>2,457</u>	<u>2,370</u>	<u>2,370</u>	<u>1,763</u>	<u>1,848</u>	<u>1,887</u>

Table 8
Certain Items - Unaudited

The following Certain Items attributable to Celanese Corporation are included in Net earnings (loss) and are adjustments to non-GAAP measures:

	Q3 '17	Q2 '17	Q1 '17	2016	Q4 '16	Q3 '16	Q2 '16	Q1 '16	Income Statement Classification
	(In \$ millions)								
Employee termination benefits ⁽¹⁾	—	2	2	11	—	3	3	5	Other charges (gains), net
Plant/office closures	2	(3)	57	4	1	2	—	1	Cost of sales / SG&A / R&D / Other charges (gains), net
Business optimization	4	—	—	7	3	1	1	2	Cost of sales / SG&A
Asset impairments	—	—	—	2	1	—	1	—	Other charges (gains), net
(Gain) loss on disposition of business and assets, net	—	2	—	(4)	(2)	(2)	—	—	(Gain) loss on disposition, net
Commercial disputes	—	—	—	(2)	(2)	—	—	—	Other charges (gains), net
Write-off of other productive assets	—	—	—	4	1	1	2	—	Cost of sales / R&D
Employee benefit plan changes	—	1	—	1	—	—	1	—	Cost of sales / SG&A / R&D
Actuarial (gain) loss on pension and postretirement plans	—	—	—	102	102	—	—	—	Cost of sales / SG&A / R&D
Start-up costs	—	—	—	2	—	1	1	—	Cost of sales
Mergers and acquisitions	10	7	9	3	2	1	—	—	Cost of sales / SG&A
InfraServ ownership change	—	8	—	—	—	—	—	—	Other charges (gains), net / Equity in net earnings (loss) of affiliates
Impact from natural disasters ⁽²⁾	11	—	—	—	—	—	—	—	Cost of sales
Other	—	1	(3)	—	—	—	—	—	Equity in net earnings (loss) of affiliates
Certain Items attributable to Celanese Corporation	27	18	65	130	106	7	9	8	

⁽¹⁾ Primarily associated with site shutdown costs.

⁽²⁾ Primarily associated with Hurricane Harvey.

Table 9
Return on Invested Capital (Adjusted) - Presentation of a Non-GAAP Measure - Unaudited

	2016		
	(In \$ millions, except percentages)		
Net earnings (loss) attributable to Celanese Corporation	900		
Adjusted EBIT (Table 1)	1,278		
Adjusted effective tax rate (Table 3a)	17%		
Adjusted EBIT tax effected	1,061		
	2016	2015	Average
	(In \$ millions, except percentages)		
Short-term borrowings and current installments of long-term debt - third parties and affiliates	118	513	316
Long-term debt, net of unamortized deferred financing costs	2,890	2,468	2,679
Celanese Corporation stockholders' equity	2,588	2,378	2,483
Invested capital	5,478		
Return on invested capital (adjusted)	19.4%		
Net earnings (loss) attributable to Celanese Corporation as a percentage of invested capital	16.4%		