



# Second Quarter 2017 Earnings Presentation

*August 1, 2017*



# Forward-Looking Statements



This communication includes forward-looking statements. These statements relate to analyses and other information that are based on management's beliefs, certain assumptions made by management, forecasts of future results, and current expectations, estimates and projections about the markets and economy in which we and our various segments operate. These statements may include statements regarding our October 5, 2015 acquisition of the U.S. chlor alkali and downstream derivatives businesses (the "Acquired Business"), the expected benefits and synergies of the transaction, and future opportunities for the combined company following the transaction. The statements contained in this presentation that are not statements of historical fact may include forward-looking statements that involve a number of risks and uncertainties.

We have used the words "anticipate," "intend," "may," "expect," "believe," "should," "plan," "project," "estimate," "forecast," "optimistic," and variations of such words and similar expressions in this release to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions, which are difficult to predict and many of which are beyond our control.

Therefore, actual outcomes and results may differ materially from those matters expressed or implied in such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to: our sensitivity to economic, business and market conditions in the U.S. and overseas; higher-than-expected raw material and energy, transportation, and/or logistics costs; our substantial amount of indebtedness and significant debt service obligations; our reliance on a limited number of suppliers for specified feedstock and services and our reliance on third-party transportation; failure to control costs or to achieve targeted cost reductions; the occurrence of unexpected manufacturing interruptions and outages; changes in legislation or government regulations or policies; unexpected litigation outcomes; the integration of the Acquired Business not being successful in realizing the benefits of the anticipated synergies; adverse conditions in the credit and capital markets; the failure to attract, retain and motivate key employees; and the other risks detailed in Olin's Form 10-K for the fiscal year ended December 31, 2016 and Olin's Form 10-Q for the quarter ended March 31, 2017. All of the forward-looking statements should be considered in light of these factors. In addition, other risks and uncertainties not presently known to Olin or that Olin considers immaterial could affect the accuracy of our forward-looking statements. The reader is cautioned not to rely unduly on these forward-looking statements. All references to expectations for 2017 are based on expectations at July 31, 2017. Olin undertakes no obligation to update publicly any forward-looking statements, whether as a result of future events, new information or otherwise.

## **Non-GAAP Financial Measures**

In addition to U.S. GAAP financial measures, this presentation includes certain non-GAAP financial measures including EBITDA, and Adjusted EBITDA. These non-GAAP measures are in addition to, not a substitute for or superior to, measures for financial performance prepared in accordance with U.S. GAAP. Definitions of these measures and reconciliation of GAAP to non-GAAP measures are provided in the appendix to this presentation.

# Second Quarter 2017 Overview



**Adjusted EBITDA of \$180.3 million in the second quarter<sup>1</sup>**

**Extended VCM turnaround and unplanned Bisphenol-A outage reduced second quarter results by \$50 million**

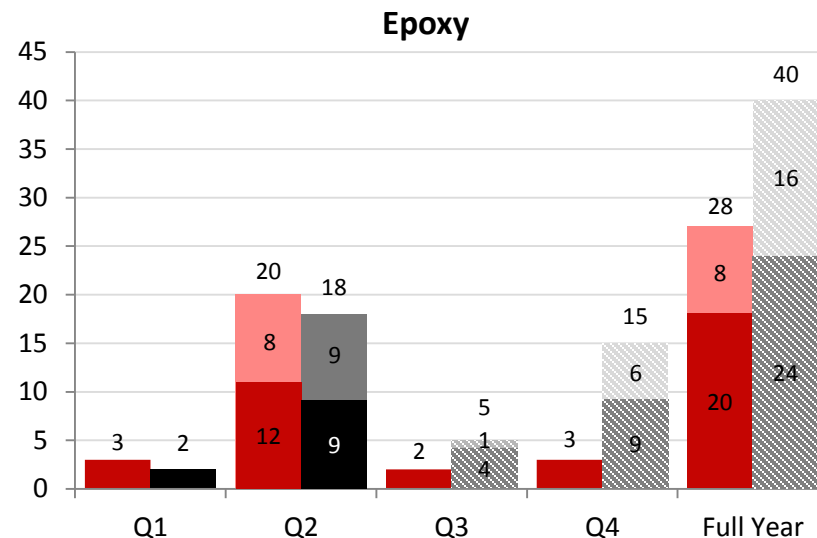
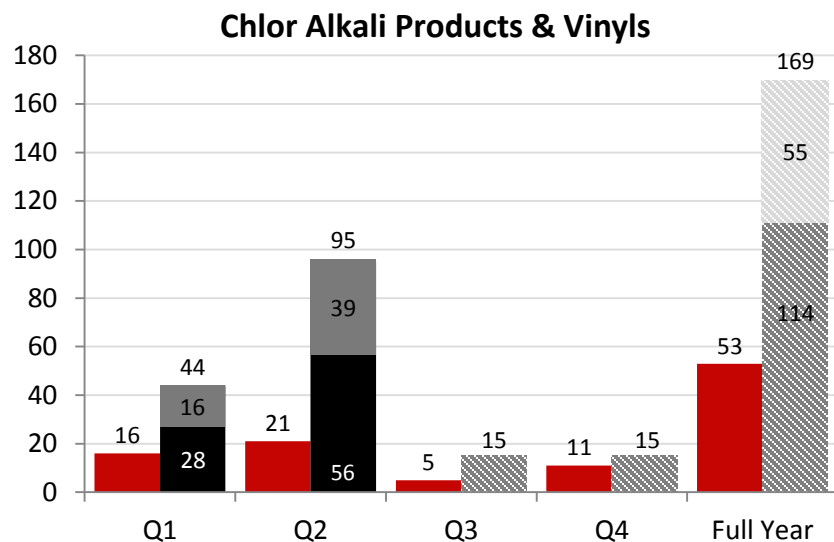
**Winchester results impacted by lower commercial ammunition demand and a less favorable product mix**

**CAPV earnings included sequential improvement in caustic soda and EDC pricing**

**Epoxy segment benefited from sequentially improved pricing and lower hydrocarbon costs, primarily benzene and propylene**

1: Second quarter net loss is \$5.9 million

# Maintenance Turnaround Costs



Maintenance Costs: ■ Actual 2016 ■ Actual 2017  Forecast 2017

Lost Volume Penalty:<sup>1</sup> ■ Actual 2016 ■ Actual 2017  Forecast 2017

- Full year 2017 turnaround costs expected to be approximately \$130 million higher than 2016
- Expect 2H 2017 will be lower than 1H 2017 by approximately \$110 million
- 2Q 2017 CAPV turnaround costs include VCM and Freeport, TX chlor alkali turnarounds
- 2Q 2017 Epoxy turnaround costs include 21-day unplanned Bisphenol-A outage in Freeport, TX
- 4Q 2017 includes a planned Epoxy turnaround

<sup>1</sup>: Lost volume penalty includes unabsorbed fixed manufacturing costs and reduced pretax profit from lost sales associated with the turnarounds and outages

# Winchester Segment Performance



	2Q17	2Q16	Δ Q/Q
Sales	\$169.4	\$181.0	-6.4%
Adjusted EBITDA	\$23.5	\$35.7	-34.2%

(\$ in millions)

- 2Q17 Performance vs. 2Q16
  - Lower volumes to commercial customers reflecting inventory reductions
  - Less favorable product mix and higher commodity and material costs
  - Higher sales to military customers
- 3Q17 Outlook vs. 3Q16
  - Expect lower commercial sales as customers continue to reduce inventory
  - Expect higher sales to military customers
  - Expect higher commodity and other material costs

# Chlor Alkali Products and Vinyls Segment Performance



	2Q17	2Q16	Δ Q/Q
Sales	\$865.1	\$733.0	18.0%
Adjusted EBITDA	\$159.4	\$134.1	18.9%

(\$ in millions)

- 2Q17 Performance vs. 2Q16
  - Higher caustic soda and EDC pricing
  - Higher maintenance turnaround costs
  - Higher electricity costs, driven by higher natural gas costs, and higher ethylene costs
- 3Q17 Outlook vs. 3Q16
  - Expect improvement in chlorine and caustic soda pricing
  - Expect lower ethylene costs
  - Expect increase in electricity costs associated with higher natural gas prices

# Favorable Multi-Year View on Caustic Soda



**North American chlor alkali capacity reductions, no capacity additions announced**

**European mercury cell chlor alkali production sunset by the end of this year**

**Increasing caustic exports from North America; 2017 volumes currently on pace to exceed 2016 record export volumes**

**Growing internal caustic soda consumption in China coupled with lower vinyls demand is limiting caustic soda exports from China**

# Epoxy Segment Performance



	2Q17	2Q16	Δ Q/Q
Sales	\$492.0	\$450.0	9.3%
Adjusted EBITDA	\$14.7	\$23.0	-36.1%

(\$ in millions)

- 2Q17 Performance vs. 2Q16
  - Higher raw materials costs associated with benzene and propylene; sequentially both costs have declined
  - Higher product pricing and volumes
- 3Q17 Outlook vs. 3Q16
  - Expect higher pricing and volumes
  - Expect higher raw materials costs associated with benzene and propylene
  - Sequentially from 2Q17, benzene and propylene prices are expected to decrease



# Second Half 2017 Outlook



2H 2017 Adjusted EBITDA is expected to improve significantly from 1H 2017

## **Chlor Alkali Products and Vinyls is expected to benefit from:**

- Higher caustic soda and chlorine pricing
- Higher product volumes
- Lower plant maintenance turnaround costs
- Lower ethylene costs

## **Epoxy is expected to benefit from:**

- Higher pricing
- Lower raw material costs, primarily benzene and propylene

## **Winchester is expected to benefit from:**

- Seasonally stronger third quarter commercial demand
- Higher military sales

## 2017 Adjusted EBITDA of \$1 Billion +/- 5%



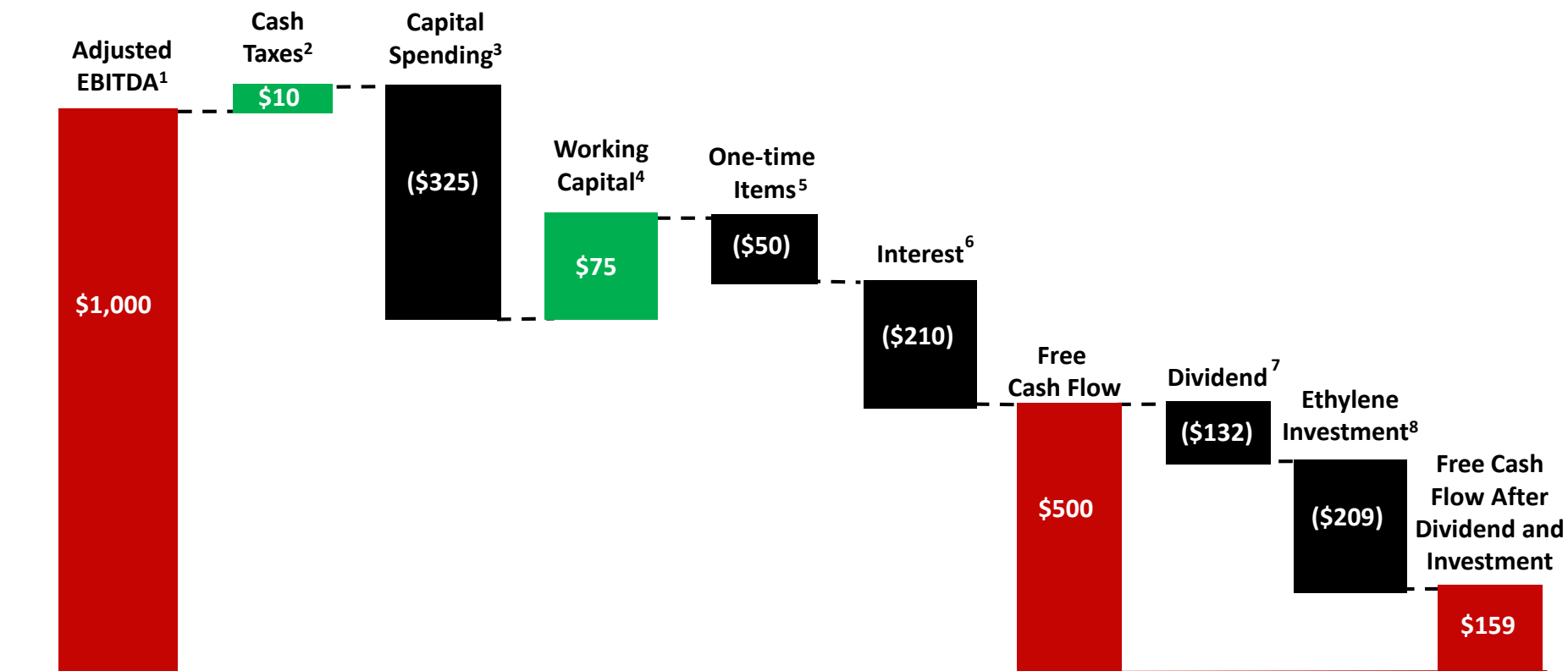
Full Year 2017 Adjusted EBITDA forecast reflects the following:

- Higher domestic and export caustic soda pricing compared to 2016;
- Lower ethylene costs associated with the acquisition of additional cost-based ethylene from The Dow Chemical Company during the third quarter;
- Improved EDC pricing of approximately 20% year-over-year;
- Incremental cost synergy realizations of approximately \$50 million to \$75 million;
- Epoxy segment results slightly lower than full year 2016;
- Higher electricity costs, primarily driven by higher natural gas costs versus 2016;
- Higher planned maintenance turnaround costs of approximately \$130 million as compared to 2016, includes unabsorbed fixed manufacturing costs and reduced profit from lost sales associated with the turnarounds and outages; and
- Lower Winchester segment results due to lower commercial ammunition demand, a less favorable product mix and higher commodity and material costs. Full year 2017 Winchester results are forecast to be in the \$115 to \$120 million range.

# 2017 Cash Flow Forecast



(\$ in millions)



1: Mid-point of Olin's estimated Adjusted EBITDA forecast of \$1 billion, plus or minus 5% for full year 2017

2: Estimated using the mid-point of the cash tax rate of 25% to 30% and the benefits from the NOL carryforward and tax refunds

3: Represents the mid-point of management's annual capital spending estimate range of \$300 million to \$350 million which includes \$35 million of synergy capital

4: Net working capital reduction includes a program to accelerate the collection of \$50 million of receivables and a reduction in Winchester inventory levels of approximately \$25 million

5: One-time items include integration expenses and cash restructuring charges of \$50 million

6: Calculated based on Olin's capital structure, mandatory debt repayments and assuming current interest rates

7: Calculated based on 165 million shares outstanding and an annual dividend rate of \$0.80 per share

8: \$209 million investment to acquire additional ethylene supply at producer economics

# Appendix



# Non-GAAP Financial Measures – Adjusted EBITDA <sup>(a)</sup>



Olin's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) is net income (loss) plus an add-back for depreciation and amortization, interest expense (income), income tax expense (benefit), other expense (income), restructuring charges, acquisition-related costs and certain other non-recurring items. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors as a supplemental financial measure to assess the financial performance of our assets without regard to financing methods, capital structures, taxes or historical cost basis. The use of non-GAAP financial measures is not intended to replace any measures of performance determined in accordance with GAAP and Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies. Reconciliation of forward-looking non-GAAP financial measures to the most directly comparable GAAP financial measures are omitted from this release because Olin is unable to provide such reconciliations without the use of unreasonable efforts. This inability results from the inherent difficulty in forecasting generally and quantifying certain projected amounts that are necessary for such reconciliations. In particular, sufficient information is not available to calculate certain adjustments required for such reconciliations, including interest expense (income), income tax expense (benefit), other expense (income), restructuring charges and acquisition-related costs. Because of our inability to calculate such adjustments, forward-looking net income guidance is also omitted from this release. We expect these adjustments to have a potentially significant impact on our future GAAP financial results.

(In millions)	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
<b>Reconciliation of Net (Loss) Income to Adjusted EBITDA:</b>				
<b>Net (Loss) Income</b>	\$ (5.9)	\$ (1.0)	\$ 7.5	\$ (38.9)
<b>Add Back:</b>				
<b>Interest Expense</b>	52.5	47.6	104.9	96.1
<b>Interest Income</b>	(0.4)	(0.5)	(0.6)	(0.8)
<b>Income Tax Benefit</b>	(15.9)	(22.6)	(11.4)	(40.1)
<b>Depreciation and Amortization</b>	137.1	132.4	272.2	262.1
<b>EBITDA</b>	<b>167.4</b>	<b>155.9</b>	<b>372.6</b>	<b>278.4</b>
<b>Add Back:</b>				
<b>Restructuring Charges (b)</b>	8.5	8.2	16.7	101.0
<b>Acquisition-related Costs (c)</b>	4.4	16.3	11.4	26.5
<b>Certain Non-recurring Items (d)</b>	-	-	-	(11.0)
<b>Adjusted EBITDA</b>	<b>\$ 180.3</b>	<b>\$ 180.4</b>	<b>\$ 400.7</b>	<b>\$ 394.9</b>

(a) Unaudited.

(b) Restructuring charges were primarily associated with the closure of 433,000 tons of chlor alkali capacity across three separate Olin locations, of which \$76.6 million was non-cash impairment charges for equipment and facilities for the six months ended June 30, 2016.

(c) Acquisition-related costs were associated with our integration of the Acquired Business.

(d) Certain non-recurring items for the six months ended June 30, 2016 included an \$11.0 million insurance recovery for property damage and business interruption related to a 2008 Henderson, NV chlor alkali facility incident.

# Non-GAAP Financial Measures by Segment



	Three Months Ended June 30, 2017			Three Months Ended June 30, 2016		
(In millions)	Income (loss) before Taxes	Depreciation and Amortization	Adjusted EBITDA	Income (loss) before Taxes	Depreciation and Amortization	Adjusted EBITDA
Chlor Alkali Products and Vinyls	\$ 52.8	\$ 106.6	\$ 159.4	\$ 30.7	\$ 103.4	\$ 134.1
Epoxy	(8.1)	22.8	14.7	-	23.0	23.0
Winchester	19.0	4.5	23.5	31.2	4.5	35.7

	Six Months Ended June 30, 2017			Six Months Ended June 30, 2016		
(In millions)	Income (loss) before Taxes	Depreciation and Amortization	Adjusted EBITDA	Income (loss) before Taxes	Depreciation and Amortization	Adjusted EBITDA
Chlor Alkali Products and Vinyls	\$ 140.3	\$ 211.2	\$ 351.5	\$ 98.8	\$ 205.3	\$ 304.1
Epoxy	(9.3)	45.2	35.9	8.2	44.7	52.9
Winchester	44.1	9.4	53.5	59.9	9.1	69.0

# Significant Realizable Synergies



	Actual 2016	Synergies Breakdown (\$M)	2017	2018	2019
Logistics & Procurement	75	Projected Annual Impact	125-150	180-200	250
Operational Efficiencies	120	Projected Year-End Run Rate	150-175	230-250	250
Asset Optimization					
Accessing New Segments & Customers	6	Projected Annual Impact	15-25	40-50	100
	10	Projected Year-End Run Rate	35-50	50	100
Capital Investment	205	Projected CAPEX and Investments	30	20	0
	70	Projected Cash Integration & Restructuring Costs	35	35	20

# Chlor Alkali Products and Vinyls

## Pricing and Volume Comparisons



### Volume Comparison

	2Q17 versus	
	2Q16	1Q17
Chlorine	↔	↑
Caustic Soda	↙	↙
EDC	↑	↑
Bleach	↗	↑
HCl	↑	↔
Chlorinated Organics	↑	↑

### Pricing Comparison

	2Q17 versus	
	2Q16	1Q17
Chlorine	↗	↔
Caustic Soda	↑	↗
EDC	↑	↗
Bleach	↗	↔
HCl	↓	↑
Chlorinated Organics	↔	↔

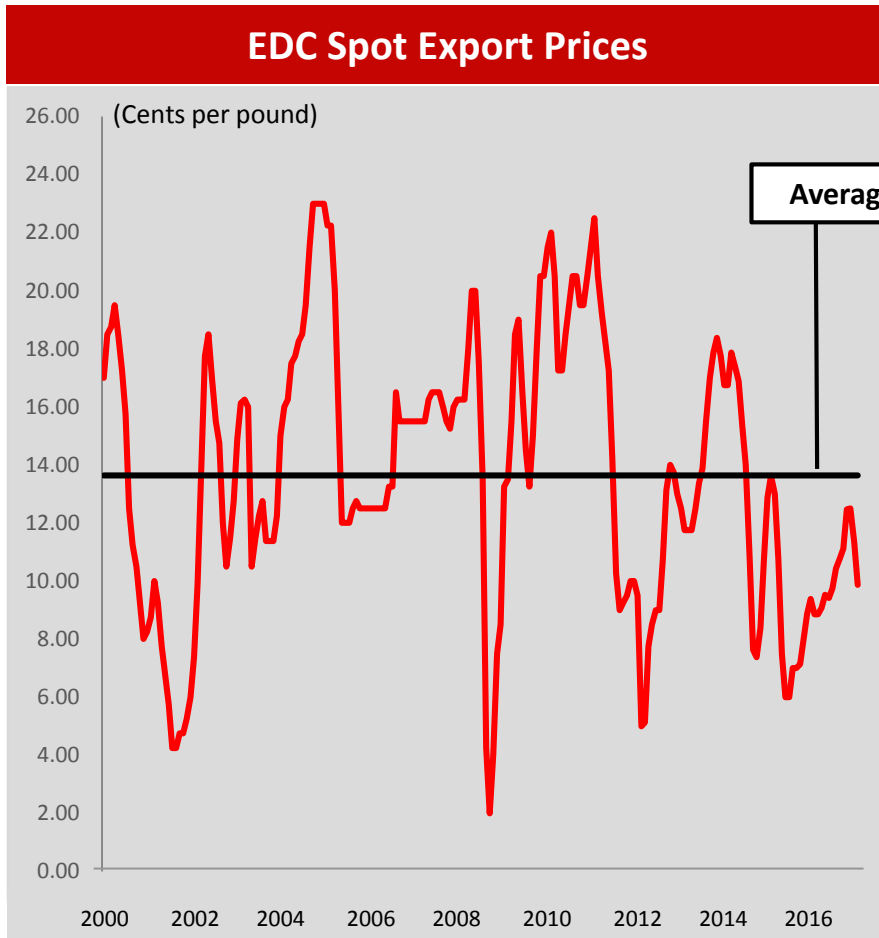


# Annual EBITDA Sensitivity

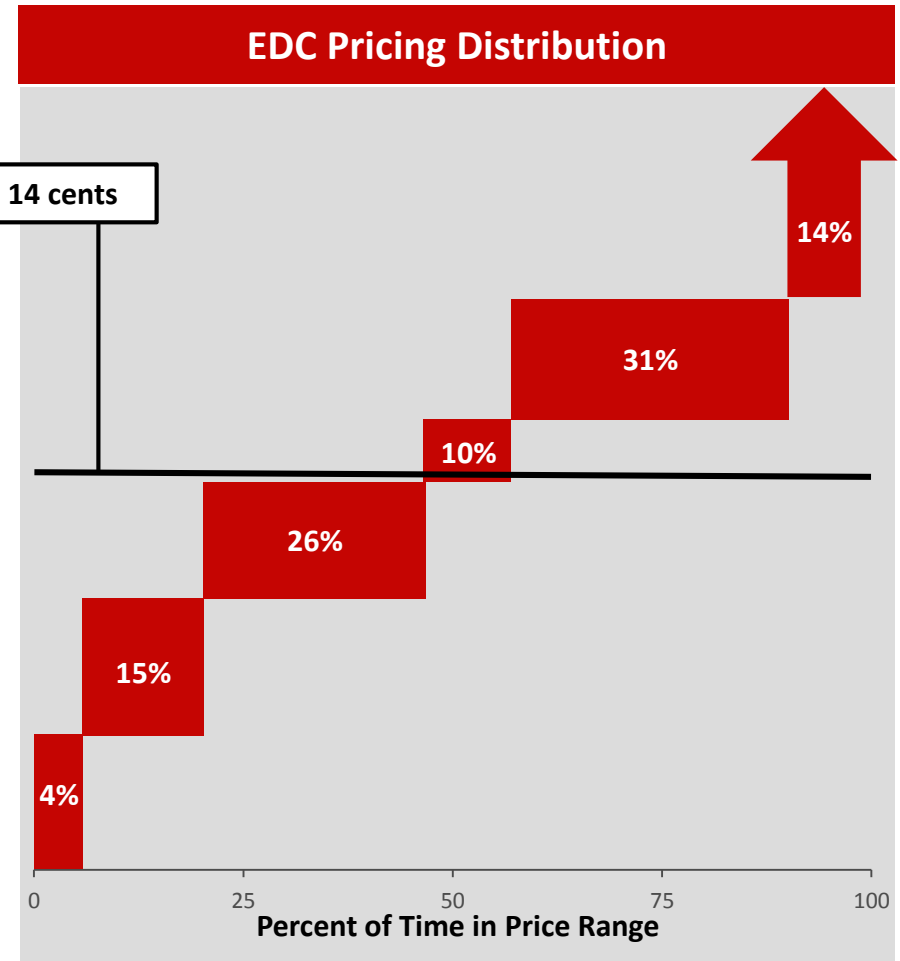


Product	Price Change	EBITDA Impact
Chlorine	\$10/ton	\$10 million
Caustic	\$10/ton	\$30 million
EDC	\$.01/pound	\$20 million

# EDC Pricing History 2000 – 2Q 2017



Source: IHS



- A \$0.01 change in Olin's EDC sales price changes annual Adjusted EBITDA by \$20 million
- Full year 2017 EDC pricing is forecast to improve by 20% from full year 2016 pricing

# Olin Caustic Soda Price Realization



## Fundamental Principle

- A \$10 per ton change in **Olin's** caustic soda selling price changes annual Adjusted EBITDA by approximately \$30 million

## Export Sales

- Sold on a combination of negotiated sales and export index price
- Changes in export index prices are typically realized on a 30 to 90 day lag
- Realization of index price changes are typically 80% to 100%

## Domestic Sales

- A significant portion of domestic sales are linked to index prices
- Index price changes typically occur 30 to 90 days post our price nomination
- Depending on market conditions 30% to 70% of index price changes are realized
- Overall price realization lags index price changes by 30 to 120 days

# Forecast Assumptions



	Full Year 2017 Forecast	Key Elements
<b>(\$ in millions)</b>		
Capital Spending	\$300 to \$350	Maintenance level of capital spending of \$225M to \$275M annually, synergy capital of \$35M, includes bleach capacity and other projects
Investments	\$209	Includes 20 year ethylene at cost supply contract
Depreciation & Amortization	\$535	Property, plant and equipment and intangible assets fair value step up of approximately \$2.5B. Includes FV step up of \$160M
Pension Income	\$40 to \$45	Lower than 2016 income levels by approximately \$10M
Environmental Expense	\$15 to \$20	Represents a more historic level of expense
Other Corporate & Unallocated Costs	\$110 to \$115	Stock-based compensation, legal and litigation costs, and the build out of corporate infrastructure costs
Restructuring & Acquisition Costs	\$50	Acquisition related integration and restructuring costs
Book Effective Tax Rate	25% to 30%	Favorable book/tax permanent differences, primarily salt depletion
Cash Tax Rate	\$10 Refund	2017 cash tax benefit utilizes the benefits of NOL carry forwards from 2015, 2016 and income tax refunds

