**Albemarle Corporation** Fourth Quarter 2017 Earnings and Non-GAAP Reconciliations **Conference Call/Webcast** Wednesday, February 28<sup>th</sup>, 2018 9:00am ET



## **Forward-Looking Statements**

Some of the information presented in this presentation, the conference call and discussions that follow, including, without limitation, statements with respect to product development, changes in productivity, market trends, price, expected growth and earnings, input costs, surcharges, tax rates, stock repurchases, dividends, cash flow generation, costs and cost synergies, portfolio diversification, economic trends, outlook and all other information relating to matters that are not historical facts may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from the views expressed.

Factors that could cause actual results to differ materially from the outlook expressed or implied in any forward-looking statement include, without limitation: changes in economic and business conditions; changes in financial and operating performance of our major customers and industries and markets served by us; the timing of orders received from customers; the gain or loss of significant customers; competition from other manufacturers; changes in the demand for our products or the end-user markets in which our products are sold; limitations or prohibitions on the manufacture and sale of our products; availability of raw materials; increases in the cost of raw materials and energy, and our ability to pass through such increases to our customers; changes in our markets in general; fluctuations in foreign currencies; changes in laws and government regulation impacting our operations or our products; the occurrence of regulatory proceedings, claims or litigation; the occurrence of cyber-security breaches, terrorist attacks, industrial accidents, natural disasters or climate change; hazards associated with chemicals manufacturing; the inability to maintain current levels of product or premises liability insurance or the denial of such coverage; political unrest affecting the global economy, including adverse effects from terrorism or hostilities; political instability affecting our manufacturing operations or joint ventures; changes in accounting standards; the inability to achieve results from our global manufacturing cost reduction initiatives as well as our ongoing continuous improvement and rationalization programs; changes in the jurisdictional mix of our earnings and changes in tax laws and rates; changes in monetary policies, inflation or interest rates that may impact our ability to raise capital or increase our cost of funds, impact the performance of our pension fund investments and increase our pension expense and funding obligations; volatility and uncertainties in the debt and equity markets; technology or intellectual property infringement, including cyber-security breaches, and other innovation risks; decisions we may make in the future; the ability to successfully execute, operate and integrate acquisitions and divestitures; and the other factors detailed from time to time in the reports we file with the SEC, including those described under "Risk Factors" in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. These forward-looking statements speak only as of the date of this presentation. We assume no obligation to provide any revisions to any forward-looking statements should circumstances change, except as otherwise required by securities and other applicable laws.

## **Non-GAAP Financial Measures**

It should be noted that Adjusted net income attributable to Albemarle Corporation ("Adjusted earnings"), Adjusted net income from continuing operations, Adjusted diluted earnings per share attributable to Albemarle Corporation, Adjusted diluted earnings per share from continuing operations, Adjusted effective income tax rates, segment operating profit, segment income, pro-forma net sales, net sales excluding the impact of foreign exchange translation ("ex FX"), EBITDA, Adj. EBITDA, Adj. EBITDA by operating segment, EBITDA margin, Adj. EBITDA margin, pro-forma Adj. EBITDA, pro-forma Adj. EBITDA margin, Adj. EBITDA excluding the impact of foreign exchange translation ("ex FX"), net debt to Adj. EBITDA, gross debt to Adj. EBITDA, free cash flow, and Adjusted free cash flow are financial measures that are not required by, or presented in accordance with, accounting principles generally accepted in the United States, or GAAP. These measures are presented here to provide additional useful measurements to review our operations, provide transparency to investors and enable period-to-period comparability of financial performance. The Company's chief operating decision maker uses these measures to assess the ongoing performance of the Company and its segments, as well as for business and enterprise planning purposes.

A description of these and other non-GAAP financial measures that we use to evaluate our operations and financial performance, and reconciliation of these non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, can be found in the Appendix to this presentation, which is posted in the Investors section of our website at www.albemarle.com, under "Non-GAAP Reconciliations" under "Financials." The Company does not provide a reconciliation of forward looking non-GAAP financial measures to the most directly comparable financial measures calculated and reported in accordance with GAAP, as the Company is unable to estimate significant non-recurring or unusual items without unreasonable effort. The amounts and timing of these items are uncertain and could be material to the Company's results calculated in accordance with GAAP.



## **Key Messages**

Strong growth in Net Sales and adjusted EBITDA in 2017, led by Lithium, provides momentum going into 2018

2017 cash generation from Bromine Specialties and Refining Solutions as well as active portfolio management drive robust balance sheet to support Lithium investment

Increasing outlook for electric vehicle penetration by 2025

Lithium Wave I capacity expansion on track, and Wave II & III are being accelerated to meet increasing demand

Strong growth in 2018 with range of adjusted EPS guidance up 14% to 23% vs 2017 on a Pro Forma<sup>1</sup> basis

1. See slide 13 for details on FY 2017 Pro Forma



## **2017 Financial Highlights – Fourth Quarter and Full Year**

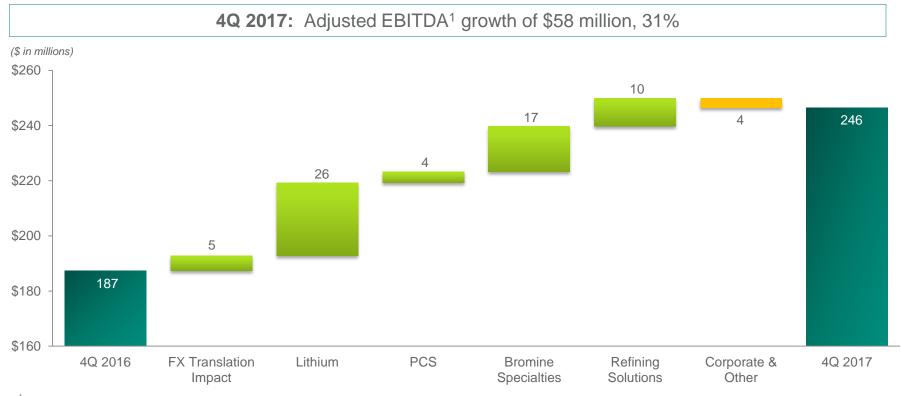


Strong guarter over guarter growth driven by price and volume in Lithium and volume in Bromine Specialties and Refining Solutions

- 1. Trailing Twelve Months.
- 2. Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

3. Excludes net impact from divested businesses

## Fourth Quarter 2017 Adjusted EBITDA<sup>1</sup> Bridge

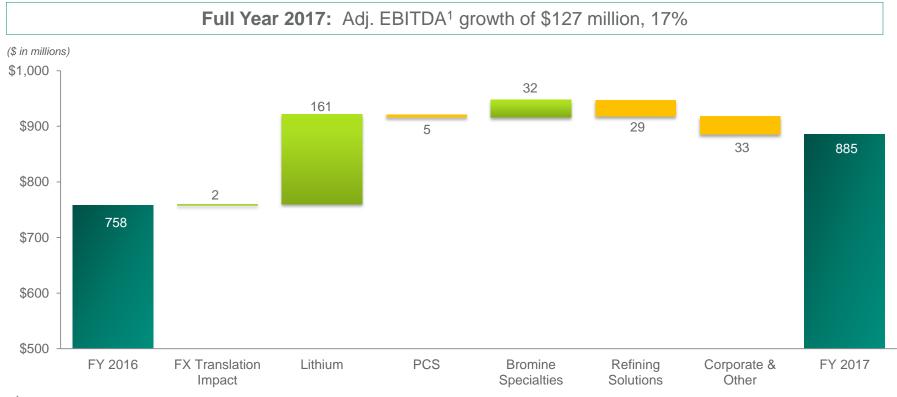


<sup>1</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix. Bridge numbers may not reconcile due to rounding.



Proprietary Information of Albemarle Corporation.

## Full Year 2017 Adjusted EBITDA<sup>1</sup> Bridge

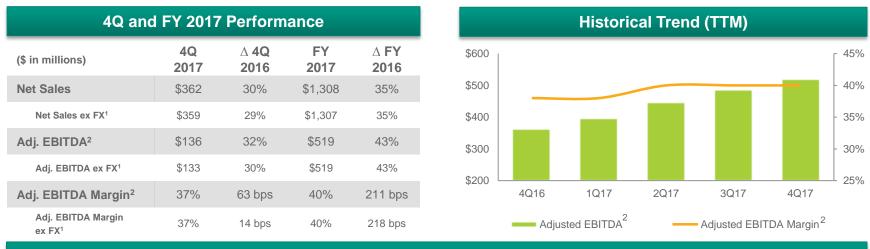


<sup>1</sup> Non-GAAP measure. See Non-GAAP reconciliations in Appendix. Bridge numbers may not reconcile due to rounding.



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## **Lithium and Advanced Materials**



#### **Performance Drivers**

- 4Q 2017 Lithium net sales growth, excluding FX<sup>1</sup> impacts, driven by volume (11%) and pricing (27%)
- FY 2017 Lithium net sales growth, excluding FX<sup>1</sup> impacts, driven by volume (24%) and pricing (28%)
- Volume and pricing growth driven primarily in battery grade lithium salts
- La Negra III and Xinyu II expansion projects on track

1. Non-GAAP measure. Favorable FX impact on 4Q 2017 Net Sales and Adj. EBITDA of \$3M and \$3M, respectively. Favorable (Unfavorable) FX impact on FY 2017 Net Sales and Adj. EBITDA of \$1M and (\$1M), respectively. 2. Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

## Lithium and Adv. Materials – Lithium and PCS detail

Lithium – 4Q and FY 2017 Performance										
(\$ in millions)	4Q 2017									
Net Sales	\$290	39%	\$1,019	52%						
Net Sales ex FX <sup>1</sup>	\$287	38%	\$1,018	52%						
Adj. EBITDA <sup>2</sup>	\$119	33%	\$447	56%						
Adj. EBITDA ex FX <sup>1</sup>	\$116	30%	\$447	56%						
Adj. EBITDA Margin <sup>2</sup>	41%	(183 bps)	44%	112 bps						
Adj. EBITDA Margin ex FX <sup>1</sup>	40%	(244 bps)	44%	118 bps						

#### PCS – 4Q and FY 2017 Performance

(\$ in millions)	4Q 2017	∆ 4Q 2016	FY 2017	∆ FY 2016
Net Sales	\$73	4%	\$289	(3%)
Net Sales ex FX <sup>3</sup>	\$73	4%	\$289	(3%)
Adj. EBITDA <sup>2</sup>	\$17	27%	\$72	(7%)
Adj. EBITDA ex FX <sup>3</sup>	\$17	28%	\$72	(7%)
Adj. EBITDA Margin <sup>2</sup>	23%	436 bps	25%	(109 bps)
Adj. EBITDA Margin ex FX <sup>1</sup>	24%	453 bps	25%	(101 bps)

#### Lithium Historical Trends (TTM)



#### **PCS Historical Trends (TTM)**



Non-GAAP measure. Favorable FX impact on 4Q 2017 Net Sales and Adj. EBITDA of \$3M and \$3M, respectively. Favorable (Unfavorable) FX impact on FY 2017 Net Sales and Adj. EBITDA of \$1M and <(\$1M), respectively. 2Non-GAAP measure. See Non-GAAP reconciliations in Appendix.</p>

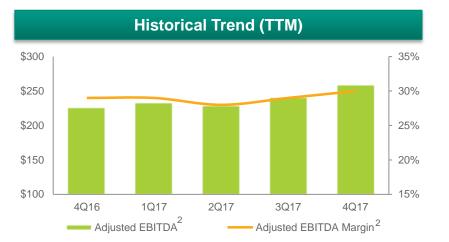
<sup>3</sup>Non-GAAP measure. Favorable (Unfavorable) FX impact on 4Q 2017 Net Sales and Adj. EBITDA of <\$1M and <(\$1M), respectively. Favorable (Unfavorable) FX impact on FY 2017 Net Sales and Adj. EBITDA of <\$1M and <(\$1M), respectively.

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## **Bromine Specialties**

4Q and FY 2017 Performance										
(\$ in millions)	4Q 2017	∆ 4Q 2016	FY 2017	∆ FY 2016						
Net Sales	\$219	13%	\$855	8%						
Net Sales ex FX <sup>1</sup>	\$218	12%	\$855	8%						
Adj. EBITDA <sup>2</sup>	\$64	37%	\$259	14%						
Adj. EBITDA ex FX <sup>1</sup>	\$64	35%	\$259	14%						
Adj. EBITDA Margin <sup>2</sup>	29%	526 bps	30%	164 bps						
Adj. EBITDA Margin ex FX <sup>1</sup>	29%	494 bps	30%	161 bps						



#### **Performance Drivers**

- 4Q 2017 improvement driven by demand for flame retardants and other bromine derivatives, higher pricing on certain bromine derivatives, and higher operating rates
- In FY 2017, the business continued to benefit from solid Flame Retardants growth and reduced production by Chinese bromine companies. However, restarts of local Chinese producers continued through 4Q17 and into January 2018.

1. Non-GAAP measure. Favorable FX impact on 4Q 2017 Net Sales and Adj. EBITDA of \$1M and \$1M, respectively. Favorable FX impact on FY 2017 Net Sales and Adj. EBITDA of <\$1M and <\$1M, respectively.

2. Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

## **Refining Solutions**

4Q and FY 2017 Performance										
(\$ in millions)	4Q 2017	∆ 4Q 2016	FY 2017	∆ FY 2016						
Net Sales	\$238	23%	\$778	6%						
Net Sales ex FX <sup>1</sup>	\$234	21%	\$776	6%						
Adj. EBITDA <sup>2</sup>	\$69	21%	\$212	(11%)						
Adj. EBITDA ex FX <sup>1</sup>	\$68	18%	\$210	(12%)						
Adj. EBITDA Margin <sup>2</sup>	29%	(66 bps)	27%	(540 bps)						
Adj. EBITDA Margin ex FX <sup>1</sup>	29%	(84 bps)	27%	(562 bps)						



#### **Performance Drivers**

- Strong 4Q 2017 results driven by higher volume and favorable product mix in both Clean Fuel Technologies (CFT) and Fluid Catalytic Cracking (FCC), despite \$5.5 million unfavorable adjusted EBITDA<sup>2</sup> impact from Hurricane Harvey
- Full year 2017 results driven by strong volumes in CFT and FCC, unfavorable product mix, higher input costs, and full year \$10.3 million unfavorable impact on adjusted EBITDA<sup>2</sup> from Hurricane Harvey

2. Non-GAAP measure. See Non-GAAP reconciliations in Appendix.

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<sup>1.</sup> Non-GAAP measure. Favorable FX impact on 4Q 2017 Net Sales and Adj. EBITDA of \$4M and \$2M, respectively. Favorable FX impact on FY 2017 Net Sales and Adj. EBITDA of \$3M and \$2M, respectively..

## **Cash Flow and Net Debt**

	Twelve Months Ended December 31									
<u>2017</u>	<u>2016</u>									
\$304	\$736									
(318)	(197)									
21	20									
\$7	\$559									
90	95									
257	20									
\$354	\$674									
	\$304 (318) 21 \$7 90 257									

#### **Selected Financial Metrics**

(\$ in millions)	(as of 12/31/2017)
Dividends Paid:	\$141
Dividend Growth (Y/Y) <sup>3</sup> :	5%
Cash Balance:	\$1,137
Gross Debt <sup>4</sup> :	\$1,837
Net Debt to Adj. EBITDA <sup>5</sup> :	0.9x

#### Net Debt to Adj. EBITDA<sup>5</sup>



1. 2017 amount includes \$8 million related to company employees in the German multiemployer plan and \$13 million related to U.S. defined benefit and other postretirement plans.

2. Non-GAAP measures. Adjusted Free Cash Flow excludes a one time tax payment related to the sale of Chemetall® business of approximately \$257 million.

3. Represents annual increase in dividend per share.

4. Excludes JV debt not guaranteed by Company.

5. Gross Debt to Adj. EBITDA and Net Debt to Adj. EBITDA ratios are based on the bank covenant definition. See appendix for reconciliations.

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## Full Year 2018 Guidance

	FY 2017	FY 2017 Pro Forma <sup>3</sup>	FY 2018 Guidance <sup>4</sup>	2018 Guidance vs FY 2017 Pro-Forma <sup>3</sup>
Net Sales	\$3.07B	\$3.00B	\$3.2 <b>–</b> \$3.4B	7% – 15%
Adjusted EBITDA <sup>1</sup>	\$885M	\$859M	\$955 – \$1,005M	11% – 17%
Adjusted EBITDA Margin <sup>1</sup>	29%	29%	29% – 30%	
Adjusted Diluted EPS <sup>1</sup>	\$4.59	\$4.40	\$5.00 - \$5.40	14% – 23%
Net Cash from Operations <sup>2</sup>	\$304M	\$278M	\$660 <b>-</b> \$730M	
Capital Expenditures	\$318M	\$313M	\$800 <b>-</b> \$900M	
Adjusted Free Cash Flow <sup>2</sup>	\$354M	\$333M	(\$150) <b>–</b> \$50M	

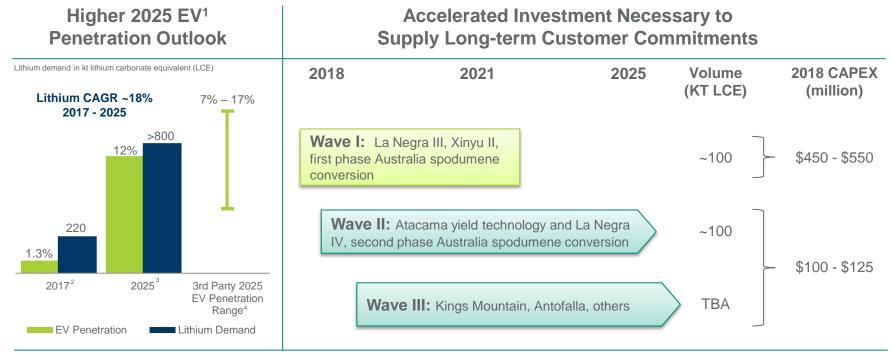
1. Non-GAAP measure. See Non-GAAP reconciliation in Appendix for 2017 figures.

2. Free Cash Flow is a non-GAAP measure defined as Net Cash from Operations, add back pension and post-retirement contributions and subtract capital expenditures. See slide 12 for details.

3. The FY 2017 Pro Forma calculation excludes the financial contribution from Polyolefin Catalyst & Components for the final nine months of 2017 because Albemarle anticipates to close the sale by the end of 1Q 2018. Pro Forma FY 2017 Net Cash from Operations is calculated by subtracting the Adjusted EBITDA associated with the Polyolefin Catalysts & Components. Pro Forma FY 2017 Adjusted Free Cash Flow calculated by subtracting the Adjusted EBITDA and adding back the Capital Expenditures associated with the Polyolefin Catalysts & Components.

4. FY 2018 Guidance assumes financial contribution from Polyolefin Catalysts & Components ends at the end of 1Q 2018 when the sale closes.

## **Increasing EV Penetration Accelerates Lithium Investment**



#### 2018 Lithium Growth CAPEX Expected to Range Between \$550 - \$675 million

1. Represents the sum of plug-in hybrid electric vehicles (PHEV) and battery electric vehicles (BEV)

2. 2017 Lithium demand is an Albemarle estimate. 2017 EV penetration calculated by dividing total plug-in EVs sold (1.2 million per InsideEVs) by global light duty vehicles sold (94.5 million per IHS).

3. Albemarle estimates.

4. Represents the range of 3<sup>rd</sup> party research estimates from Roskill, Bloomberg, Rivalry, Autonomy, IEA, BMO Capital Markets, Morringstar, Citi Investment Research (US), Deutsche Bank, Goldman Sachs, Instine/Numora (America), Morgan Stanley, UBS, and Oppenheimer.



## **Full Year 2018 Business Guidance vs 2017**

GBU	Outlook	Business Environment
Lithium	1	<ul> <li>FY 2018 Adj. EBITDA<sup>1</sup> expected to increase by greater than 20% compared to 2017</li> <li>Favorable outlook driven by strong volume and price improvements, primarily in battery grade product portfolio</li> <li>Wave I expansion projects remain on track and increasing spend to accelerate Wave II projects</li> <li>Lithium Adj. EBITDA<sup>1</sup> margins expected to remain above 40%</li> </ul>
Bromine Specialties	+	<ul> <li>FY 2018 Adj. EBITDA<sup>1</sup> expected to be flat vs prior year</li> <li>Expect healthy demand for flame retardants and other bromine derivatives partially offset by higher raw material and freight costs</li> </ul>
Catalysts <sup>2</sup>	1	<ul> <li>FY 2018 Adj. EBITDA<sup>1</sup> expected to increase mid-to-high single digit vs prior year<sup>2</sup> driven by higher volume and favorable product mix</li> <li>Growth in FCC volume and favorable product mix partially offset by increased input costs</li> <li>Favorable product mix in CFT driving higher margins</li> </ul>

1. Non-GAAP measure.

2. Guidance provided on pro forma basis to include the first quarter of 2018 and exclude the final nine months of 2017 financial contribution of Polyolefin Catalysts & Components business, which is expected to be sold at the end of 1Q 2018



Similar

Better than

2017

## **2018 Tax Changes**

### Tax Cuts and Jobs Act (TCJA)

2017 - \$367 million net charges<sup>1</sup>

- \$429 million expense recognized for transition tax, payable over 8 years
- \$62 million income recognized for revaluation of deferred tax assets and liabilities due to corporate tax rate reduction

#### 2018 Impact<sup>1</sup>

 \$34 million cash tax payment representing first installment of the \$429 million transition tax recognized in 2017

### 2018 Effective Tax Rate Changes

2017 Effective Tax Rate <sup>2</sup>	18.8%
Chile mining tax rate increase	1
Chile statutory rate increase	1
U.S. Tax Cuts and Jobs Act Net Impact	1
Geographic Mix	1
2018 Effective Tax Rate Guidance	23 – 24%

1. All amounts are provisional estimates

2. FY 2017 effective tax rate excluding special items, non-operating pension, and OPEB items.





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# Appendix

# Non-GAAP Reconciliations and Supplemental Information



## **Net Income**

	Three Months Ended							
	December 31,					Decen	nber 31	l <b>,</b>
(\$ in thousands)		2017		2016		2017	2016	
Net (loss) income attributable to Albemarle Corporation Add back:	\$	(218,366)	\$	602,090	\$	54,850	\$	643,675
Income from discontinued operations (net of tax)		_		(559,974)		_		(202,131)
Earnings from continuing operations Add back:		(218,366)		42,116		54,850		441,544
Non-operating pension and OPEB items from continuing operations (net of tax)		(8,455)		17,868		(10,548)		17,608
Non-recurring and other unusual items from continuing operations (net of tax)		376,641		28,844		471,559		(55,374)
Adjusted net income from continuing operations		149,820		88,828		515,861		403,778
Adjusted diluted earnings per share form continuing operations	\$	1.34	\$	0.78	\$	4.59	\$	3.57
Weighted-average common shares outstanding – diluted		112,152		113,563		112,380		113,239

See above for a reconciliation of adjusted net income from continuing operations, and pro-forma adjusted net income, the non-GAAP financial measures, to Net income (loss) attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP. Adjusted earnings is defined as Net income attributable to Albemarle Corporation before discontinued operations and the non-recurring, other unusual and non-operating pension and OPEB items as listed above. Pro-forma adjusted net income is defined as Net income attributable to Albemarle Corporation before discontinued operations and the non-recurring, other unusual and non-operating pension and OPEB items, and the net impact of divested businesses.

## **EBITDA**

			Yea Dece					
(\$ in thousands)					2017			2016
Net (loss) income attributable to Albemarle Corporation Add back:	\$	(218,366)	\$	602,090	\$	54,850	\$	643,675
Income from discontinued operations (net of tax) Interest and financing expenses		— 16,455		(559,974) 18,321		— 115,350		(202,131) 65,181
Income tax expense Depreciation and amortization		378,221 52,841		34,728 49,687		431,817 196,928		96,263 190,975
EBITDA Non-operating pension and OPEB items		229,151 (12,981)		144,852 26,368		798,945 (16,125)		793,963 25,589
Non-recurring and other unusual items (excluding items associated with interest expense)		29,610		16,164		102,660		(61,335)
Adjusted EBITDA	\$	245,780	\$	187,384	\$	885,480	\$	758,217
Net sales	\$	857,789	\$	696,655	\$	3,071,976	\$	2,677,203
EBITDA margin		26.7%	.7% 20.8%		26.0%		26.0%	
Adjusted EBITDA margin		28.7%		26.9%		28.8%		28.3%
Year-over-year difference in adjusted EBITDA margin		176 bps			50 bps			

See above for a reconciliation of EBITDA, adjusted EBITDA, and pro-forma adjusted EBITDA, the non-GAAP financial measures, to Net income (loss) attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP. EBITDA is defined as Net income attributable to Albemarle Corporation before interest and financing expenses, income taxes, depreciation and amortization. Adjusted EBITDA is defined as EBITDA before discontinued operations and the non-recurring, other unusual and non-operating pension and OPEB items as listed below. Pro-forma adjusted EBITDA is defined as adjusted EBITDA before the net impact of EBITDA from divested businesses.



## EBITDA - by Segment (three months ended December 31)

(\$ in thousands)	Lithium ar Advanced Mat		Bromine Specialties	F	Refining Solutions	 Reportable Segments Total	 All Other	 Corporate	Cons	olidated Total
Three months ended December 31, 2017:										
Net income (loss) attributable to Albemarle Corporation	\$ 10	07,705	\$ 54,646	\$	57,968	\$ 220,319	\$ 3,899	\$ (442,584)	\$	(218,366)
Depreciation and amortization	2	28,232	9,756		11,260	49,248	2,073	1,520		52,841
Non-recurring and other unusual items		(196)	_		_	(196)	_	29,806		29,610
Interest and financing expenses		_	_		_	_	_	16,455		16,455
Income tax expense		_	_		_	_	_	378,221		378,221
Non-operating pension and OPEB items		_	_		_	_	 -	(12,981)		(12,981)
Adjusted EBITDA	\$ 13	35,741	\$ 64,402	\$	69,228	\$ 269,371	\$ 5,972	\$ (29,563)	\$	245,780
Three months ended December 31, 2016:										
Net income (loss) attributable to Albemarle Corporation	\$ 7	75,021	\$ 37,143	\$	48,107	\$ 160,271	\$ (1,711)	\$ 443,530	\$	602,090
Depreciation and amortization	2	27,478	9,806		9,236	46,520	1,673	1,494		49,687
Non-recurring and other unusual items (excluding items associated with interest expense)		_	-		_	_	_	16,164		16,164
Interest and financing expenses		_	_		_	_	_	18,321		18,321
Income tax expense		_	_		_	_	_	34,728		34,728
Income from discontinued operations (net of tax)		_	_		_	_	_	(559,974)		(559,974)
Non-operating pension and OPEB items		_			_	 _	 _	 26,368		26,368
Adjusted EBITDA	\$ 10	02,499	\$ 46,949	\$	57,343	\$ 206,791	\$ (38)	\$ (19,369)	\$	187,384

See above for a reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP. Adjusted earnings on a segment basis is defined as earnings before discontinued operations and the special and non-operating pension and OPEB items as listed above. EBITDA is defined as earnings before interest and financing expenses, income taxes, and depreciation and amortization. Adjusted EBITDA is defined as EBITDA before discontinued operations and the non-recurring, other unusual and non-operating pension and OPEB items as listed above.

## **EBITDA** - Margin by Segment (*three months ended December 31*)

(\$ in thousands)	Lithium and Advanced Materials	Bromine Specialties	Refining Solutions	Reportable Segments Total	All Other	Consolidated Total
Three months ended December 31, 2017:						
Net sales	\$ 362,362	\$ 219,084	\$ 238,400	\$ 819,846	\$ 37,770	\$ 857,789
Net income (loss) attributable to Albemarle Corporation	29.7%	24.9%	24.3%	26.9%	10.3%	(25.5)%
Depreciation and amortization	7.8%	4.5%	4.7%	6.0%	5.5%	6.2%
Non-recurring and other unusual items	(0.1)%	—%	—%	—%	—%	3.5%
Interest and financing expenses	—%	%	%	—%	—%	1.9%
Income tax expense	—%	—%	—%	—%	—%	44.1%
Non-operating pension and OPEB items	—%	%	%	—%	—%	(1.5)%
Adjusted EBITDA Margin	37.5%	29.4%	29.0%	32.9%	15.8%	28.7%
Three months ended December 31, 2016:						
Net sales	\$ 278,266	\$ 194,513	\$ 193,093	\$ 665,872	\$ 30,001	\$ 696,655
Net income (loss) attributable to Albemarle Corporation	27.0%	19.1%	24.9%	24.1%	(5.7)%	86.5%
Depreciation and amortization	9.9%	5.0%	4.8%	7.0%	5.6%	7.1%
Non-recurring and other unusual items (excluding items associated with interest expense)	—%	—%	—%	—%	—%	2.3%
Interest and financing expenses	—%	—%	—%	—%	—%	2.6%
Income tax expense	—%	—%	—%	—%	—%	5.0%
Income from discontinued operations (net of tax)	—%	—%	—%	—%	—%	(80.4)%
Non-operating pension and OPEB items	%	%	%	—%	%	3.8%
Adjusted EBITDA Margin	36.8%	24.1%	29.7%	31.1%	(0.1)%	26.9%

See above for adjusted EBITDA margin, a non-GAAP financial measure defined as adjusted EBITDA divided by net sales. See slide 21 for the related reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP.

Consolidated Total includes net sales from Corporate (not shown) of \$173 and \$782 in the three months ended December 31, 2017 and 2016, respectively.

## EBITDA - by Segment (twelve-months ended Dec 31)

(\$ in thousands)	7	ithium and Advanced Materials	Bromine Specialties	Refining Solutions	Reportable gments Total		All Other	Corporate	C	Consolidated Total
Year ended December 31, 2017:	_									
Net income (loss) attributable to Albemarle Corporation	\$	400,360	\$ 218,839	\$ 173,297	\$ 792,496	\$	5,521	\$ (743,167)	\$	54,850
Depreciation and amortization		102,389	40,062	39,958	182,409		8,357	6,162		196,928
Non-recurring and other unusual items (excluding items associated with interest expense)		15,781	—	(1,250)	14,531		-	88,129		102,660
Interest and financing expenses		_	_	-	-		-	115,350		115,350
Income tax expense		—	_	—	_		_	431,817		431,817
Non-operating pension and OPEB items		_	_	_	_		_	(16,125)		(16,125)
Adjusted EBITDA	\$	518,530	\$ 258,901	\$ 212,005	\$ 989,436	\$	13,878	\$ (117,834)	\$	885,480
						_				
Year ended December 31, 2016:										
Net income (loss) attributable to Albemarle Corporation	\$	261,394	\$ 187,364	\$ 202,874	\$ 651,632	\$	131,301	\$ (139,258)	\$	643,675
Depreciation and amortization		101,966	39,562	36,089	177,617		7,302	6,056		190,975
Non-recurring and other unusual items (excluding items associated with interest expense)		_	_	_	_		(123,831)	62,496		(61,335)
Interest and financing expenses		_	_	_	_		_	65,181		65,181
Income tax expense		_	_	_	_		_	96,263		96,263
Income from discontinued operations (net of tax)		_	_	-	_		_	(202,131)		(202,131)
Non-operating pension and OPEB items		_	_	_	_		_	25,589		25,589
Adjusted EBITDA	\$	363,360	\$ 226,926	\$ 238,963	\$ 829,249	\$	14,772	\$ (85,804)	\$	758,217

See above for a reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP. Adjusted earnings on a segment basis is defined as earnings before discontinued operations and the special and non-operating pension and OPEB items as listed above. EBITDA is defined as earnings before unusual and non-operating pension and OPEB items as listed above.

## **EBITDA** - Margin by Segment (*twelve-months ended Dec 31*)

(\$ in thousands)	Lithium and Advanced Materials		Bromine Specialties		Refining Solutions	Reportable Segments Total			All Other	Consolidated Total
Year ended December 31, 2017:								_		
Net sales	\$	1,308,153	\$	855,143	\$ 778,304	\$	2,941,600	\$	128,914	\$ 3,071,976
Net income (loss) attributable to Albemarle Corporation		30.6%		25.6%	22.3%		26.9%		4.3%	1.8%
Depreciation and amortization		7.8%		4.7%	5.1%		6.2%		6.5%	6.4%
Non-recurring and other unusual items (excluding items associated with interest expense)		1.2%		—%	(0.2)%		0.5%		—%	3.3%
Interest and financing expenses		—%		—%	—%		—%		—%	3.7%
Income tax expense		—%		—%	—%		—%		—%	14.1%
Non-operating pension and OPEB items		—%		—%	—%		—%		—%	(0.5)%
Adjusted EBITDA Margin		39.6%		30.3%	27.2%		33.6%		10.8%	28.8%
Year ended December 31, 2016:										
Net sales	\$	968,216	\$	792,425	\$ 732,137	\$	2,492,778	\$	180,988	\$ 2,677,203
Net income (loss) attributable to Albemarle Corporation		27.0%		23.6%	27.7%		26.1%		72.5%	24.0%
Depreciation and amortization		10.5%		5.0%	4.9%		7.1%		4.0%	7.1%
Non-recurring and other unusual items (excluding items associated with interest expense)		—%		—%	—%		—%		(68.4)%	(2.3)%
Interest and financing expenses		—%		—%	—%		—%		—%	2.4%
Income tax expense		—%		—%	—%		—%		—%	3.6%
Income from discontinued operations (net of tax)		—%		—%	—%		—%		—%	(7.6)%
Non-operating pension and OPEB items		—%		—%	—%		—%		—%	 1.0%
Adjusted EBITDA Margin	_	37.5%		28.6%	32.6%	_	33.3%	_	8.2%	28.3%

See above for adjusted EBITDA margin, a non-GAAP financial measure defined as adjusted EBITDA divided by net sales. See slide 23 for the related reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP.

Consolidated Total includes net sales from Corporate (not shown) of \$1,462 and \$3,437 in the twelve months ended December 31, 2017 and 2016, respectively.

## **EBITDA** - Continuing Operations (*Twelve Months Ended*)

			Tw	elve Months Ende	d			
(\$ in thousands)	Dec 31, 2017	Sep 30, 2017		Jun 30, 2017		Mar 31, 2017		Dec 31, 2016
Continuing Operations								
Net income attributable to Albemarle Corporation	\$ 54,850	\$ 875,306	\$	884,856	\$	466,702	\$	643,675
Depreciation and amortization	196,928	193,774		191,853		192,436		190,975
Non-recurring and other unusual items (excluding items associated with interest expense)	102,660	89,214		88,866		77,103		(61,335)
Interest and financing expenses	115,350	117,216		117,370		118,580		65,181
Income tax expense	431,817	88,324		82,223		82,749		96,263
Income from discontinued operations (net of tax)	_	(559,974)		(583,159)		(184,819)		(202,131)
Non-operating pension and OPEB items	(16,125)	23,224		24,021		24,809		25,589
Adjusted EBITDA	\$ 885,480	\$ 827,084	\$	806,030	\$	777,560	\$	758,217
Pro-forma: Net impact of adjusted EBITDA from divested businesses	_	607		(679)		(1,264)		(3,323)
Pro-forma Adjusted EBITDA	\$ 885,480	\$ 827,691	\$	805,351	\$	776,296	\$	754,894
Net Sales	\$ 3,071,976	\$ 2,910,842	\$	2,809,986	\$	2,742,055	\$	2,677,203
Pro-forma: Net impact of adjusted EBITDA from divested businesses	 _	 —		470		(12,435)	_	(38,567)
Pro-forma Net Sales	\$ 3,071,976	\$ 2,910,842	\$	2,810,456	\$	2,729,620	\$	2,638,636
Pro-forma Adjusted EBITDA Margin	29%	28%		29%		28%		29

See above for a reconciliation of EBITDA, adjusted EBITDA, and pro-forma adjusted EBITDA, the non-GAAP financial measures, to Net income attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reported in accordance with GAAP. EBITDA is defined as Net income attributable to Albemarle Corporation before interest and financing expenses, income taxes, depreciation and amortization. Adjusted EBITDA is defined as EBITDA before discontinued operations and the non-recurring, other unusual and non-operating pension and OPEB items as listed below. Pro-forma adjusted EBITDA is defined as adjusted EBITDA before the net impact of EBITDA from divested businesses.

See above for a reconciliation of pro-forma net sales, the non-GAAP financial measure, to net sales, the most directly comparable financial measure calculated and reported in accordance with GAAP. Proforma net sales is defined as net sales before the net impact of net sales from divested businesses.

## **EBITDA** - Lithium & Adv. Materials (Twelve *Months Ended*)

					Twe	ve Months Ende	ed		
(\$ in thousands)	D	ec 31, 2017	5	Sep 30, 2017		Jun 30, 2017		Mar 31, 2017	Dec 31, 2016
Lithium and Advanced Materials									
Net income attributable to Albemarle Corporation	\$	400,360	\$	367,676	\$	330,643	\$	292,173	\$ 261,394
Depreciation and amortization		102,389		101,635		101,052		101,562	101,966
Non-recurring and other unusual items		15,781		15,977		15,094		3,173	 _
Adjusted EBITDA		518,530		485,288		446,789		396,908	363,360
Net Sales		1,308,153		1,224,057		1,120,924		1,036,418	968,216
Adjusted EBITDA Margin		40%		40%		40%		38%	38%
Lithium									
Net income attributable to Albemarle Corporation	\$	342,992	\$	314,707	\$	271,810	\$	232,120	\$ 198,852
Depreciation and amortization		87,879		86,409		85,882		86,439	86,862
Non-recurring and other unusual items		15,781		15,977		15,094		3,173	 
Adjusted EBITDA		446,652		417,093		372,786		321,732	285,714
Net Sales		1,018,885		937,461		834,629		748,521	668,852
Adjusted EBITDA Margin		44%		44%		45%		43%	43%
PCS									
Net income attributable to Albemarle Corporation	\$	57,368	\$	52,969	\$	58,833	\$	60,053	\$ 62,542
Depreciation and amortization		14,510		15,226		15,170		15,123	15,104
Adjusted EBITDA		71,878		68,195		74,003		75,176	77,646
Net Sales		289,268		286,596		286,295		287,897	299,364
Adjusted EBITDA Margin		25%		24%		26%		26%	26%

See above for a reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP. Adjusted earnings on a segment basis is defined as earnings before discontinued operations and the special and non-operating pension and OPEB items as listed above. EBITDA is defined as earnings before interest and financing expenses, income taxes, and depreciation and amortization. Adjusted EBITDA is defined as EBITDA before discontinued operations and the non-recurring, other unusual and non-operating pension and OPEB items as listed above.



## **EBITDA** - Bromine Specialties & Refining Solutions (*Twelve Months Ended*)

				Tw	elve Months Ende	d		
(\$ in thousands)	Dec 31, 2017		Sep 30, 2017	Jun 30, 2017			Mar 31, 2017	 Dec 31, 2016
Bromine Specialties								
Net income attributable to Albemarle Corporation	\$ 218,839	\$	201,336	\$	189,197	\$	194,205	\$ 187,364
Depreciation and amortization	 40,062		40,112		40,122	_	39,601	 39,562
Adjusted EBITDA	 258,901		241,448		229,319		233,806	 226,926
Net Sales	855,143		830,572		812,145		815,063	792,425
Adjusted EBITDA Margin	30%		29%		28%		29%	29%
Refining Solutions								
Net income attributable to Albemarle Corporation	\$ 173,297	\$	163,436	\$	185,025	\$	197,034	\$ 202,874
Depreciation and amortization	39,958		37,934		36,935		36,434	36,089
Non-recurring and other unusual items	 (1,250)		(1,250)		_			 _
Adjusted EBITDA	212,005		200,120		221,960		233,468	238,963
Net Sales	778,304		732,997		753,175		746,970	732,137
Adjusted EBITDA Margin	27%		27%		29%		31%	33%

See above for a reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income attributable to Albemarle Corporation ("earnings"), the most directly comparable financial measure calculated and reporting in accordance with GAAP. Adjusted earnings on a segment basis is defined as earnings before discontinued operations and the special and non-operating pension and OPEB items as listed above. EBITDA is defined as earnings before interest and financing expenses, income taxes, and depreciation and amortization. Adjusted EBITDA is defined as EBITDA before discontinued operations and the non-recurring, other unusual and non-operating pension and OPEB items as listed above.

## **EBITDA** supplemental<sup>1</sup>

(\$ in thousands)	 Twelve Months Ended			Three Mo	onthe			
	 Dec 31, 2017		Dec 31, 2017	 Sep 30, 2017		Jun 30, 2017		lar 31, 2017
Adjusted EBITDA	\$ 885,480	\$	245,780	\$ 209,383	\$	218,941	\$	211,376
Net income attributable to noncontrolling interests	44,618		11,295	11,523		10,356		11,444
Equity in net income of unconsolidated investments (net of tax)	(84,487)		(29,224)	(19,044)		(15,048)		(21,171)
Dividends received from unconsolidated investments	 39,386		27,486	3,446		5,903		2,551
Consolidated EBITDA	\$ 884,997	\$	255,337	\$ 205,308	\$	220,152	\$	204,200
Total Long Term Debt (as reported)	\$ 1,837,372							
Off balance sheet obligations and other	 63,500							
Consolidated Funded Debt	\$ 1,900,872							
Less Cash	1,137,303							
Consolidated Funded Net Debt	\$ 763,569							
Consolidated Funded Debt to Consolidated EBITDA Ratio	2.1							
Consolidated Funded Net Debt to Consolidated EBITDA Ratio	0.9							

<sup>1</sup> This supplemental is for net-debt-to-adjusted EBITDA ratio based on the bank covenant definition.



	Three Mor	nths Ended	Year	Ended
	 Decem	nber 31,	Decer	mber 31,
	2017	2016	2017	2016
iluted (loss) earnings per share attributable to Albemarle Corporation	\$ (1.95)	\$ 5.30	\$ 0.49	\$ 5.68
Add back:				
Non-operating pension and OPEB items	(0.08)	0.16	(0.09)	0.16
Non-recurring and other unusual items from continuing operations (net of tax)				
Utilization of inventory markup	_	_	0.15	_
Restructuring and other, net	(0.01)	_	0.11	_
Acquisition and integration related costs	0.06	0.05	0.24	0.31
Gain on sales of businesses, net	_	_	_	(1.02
Gain on acquisition	0.01	_	(0.04)	-
Loss on extinguishment of debt	(0.04)	0.01	0.30	0.01
Multiemployer plan shortfall contributions	0.02	_	0.06	—
Note receivable reserve	0.18	_	0.18	_
Other	(0.04)	0.03	—	0.03
Discrete tax items	 3.18	0.16	3.20	0.18
Total non-recurring and other unusual items	 3.36	0.25	4.20	(0.49)
Discontinued operations (net of tax)	 _	(4.93)		(1.78)
djusted diluted earnings per share from continuing operations <sup>1</sup>	\$ 1.34	\$ 0.78	\$ 4.59	\$ 3.57

<sup>1</sup>Totals may not add due to rounding

## **Effective Tax Rate**

(\$ in thousands)	operation taxes an income of	rom continuing s before income d equity in net unconsolidated estments	I	Income tax expense	Effective income tax rate
Three months ended December 31, 2017:					
As reported	\$	141,926	\$	378,221	266.5%
Non-recurring, other unusual and non-operating pension and OPEB items		16,629		(351,557)	
As adjusted	\$	158,555	\$	26,664	16.8%
Three months ended December 31, 2016:					
As reported	\$	70,185	\$	34,728	49.5%
Non-recurring, other unusual and non-operating pension and OPEB items		44,453		(2,259)	
As adjusted	\$	114,638	\$	32,469	28.3%
Year ended December 31, 2017:					
As reported	\$	446,798	\$	431,817	96.6%
Non-recurring, other unusual and non-operating pension and OPEB items		139,336		(321,675)	
As adjusted	\$	586,134	\$	110,142	18.8%
Year ended December 31, 2016:					
As reported	\$	515,264	\$	96,263	18.7%
Non-recurring, other unusual and non-operating pension and OPEB items		(33,825)		3,941	
As adjusted	\$	481,439	\$	100,204	20.8%

See above for a reconciliation of the adjusted effective income tax rate, the non-GAAP financial measure, to the effective income tax rate, the most directly comparable financial measure calculated and reporting in accordance with GAAP.

## **Equity Income and Noncontrolling Interest**

		Three Months En	ded December 31,							
	20	017	2	016	2	017	2016			
(\$ in thousands)	Equity Income	Noncontrolling Interest	Equity Income	Noncontrolling Interest	Equity Income	Noncontrolling Interest	Equity Income	Noncontrolling Interest		
Lithium and Advanced Materials	\$ 23,727	\$ —	\$ 9,047	\$ —	\$ 61,322	\$ —	\$ 36,577	\$ —		
Bromine Specialties	_	(11,332)	_	(8,241)	_	(44,663)	_	(37,094)		
Refining Solutions	5,497	_	5,800	_	23,165	_	22,101	_		
All Other	_	_	_	_	_	_	959	_		
Corporate		37		53		45				
Total Company	\$ 29,224	\$ (11,295)	\$ 14,847	\$ (8,188)	\$ 84,487	\$ (44,618)	\$ 59,637	\$ (37,094)		





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Proprietary Information of Albemarle Corporation.