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# Albemarle ends 2018 strong; projecting continued growth in 2019

CHARLOTTE, NC - February 20, 2019 -

## Fourth quarter 2018 highlights:

- Fourth quarter net sales were \$921.7 million, an increase of 7% over the prior year; earnings were \$129.6 million, or \$1.21 per diluted share, an increase of 162% over the prior year
- Fourth quarter adjusted EBITDA was \$264.3 million, an increase of 8% over the prior year; adjusted diluted earnings per share was \$1.53, an increase of 14% over the prior year
- Lithium increased net sales on pricing increases of 4% and 9% in the fourth quarter and full year 2018, respectively, and volume increases compared to prior year
- Signed definitive agreement with Mineral Resources Limited to form lithium joint venture in Western Australia
- Completed our second accelerated share repurchase program of 2018, retiring a total of approximately 5.3 million shares during the year
- Expect adjusted diluted earnings per share in 2019 between \$6.10 and \$6.50, an increase of 11% to 19% over 2018

	Three Months Ended			Ended	1	Twelve Moi	nths Ended	
	December 31,				December 31,			
In thousands, except per share amounts	2018		2017		2018		2017	
Net sales	\$	921,699	\$	857,789	\$3	3,374,950	\$3	3,071,976
Net income (loss) attributable to Albemarle Corporation	\$	129,596	\$	(218,366)	\$	693,562	\$	54,850
Adjusted EBITDA	\$	264,302	\$	245,780	\$ 1	1,006,664	\$	885,480
Diluted earnings (loss) per share	\$	1.21	\$	(1.95)	\$	6.34	\$	0.49
Non-operating pension and OPEB items <sup>(a)</sup>		0.08		(80.0)		0.03		(0.09)
Non-recurring and other unusual items <sup>(a)</sup>		0.24		3.36		(88.0)		4.20
Adjusted diluted earnings per share <sup>(b)</sup>	\$	1.53	\$	1.34	\$	5.48	\$	4.59

<sup>(</sup>a) See Non-GAAP Reconciliations for a description of the Non-operating pension and OPEB items and Non-recurring and other unusual items.

Albemarle Corporation (NYSE: ALB) reported fourth quarter 2018 net sales of \$921.7 million, earnings of \$129.6 million and adjusted EBITDA of \$264.3 million.

"2018 was a successful year for Albemarle on many fronts. Excluding divested businesses, we delivered full year, total company adjusted EBITDA growth of 17%, adjusted diluted EPS growth of 23% and we finished the year strong as all of our reportable segments delivered growth in the fourth quarter. In addition, we returned significant value to shareholders through increased dividends of \$145 million and \$500 million in share repurchases, while continuing significant growth investment in our Lithium platform" said Luke Kissam, Albemarle's CEO. "Lithium contributed just over 50% of our adjusted EBITDA, driven by 10% volume growth and 9% pricing compared to 2017."

<sup>(</sup>b) Totals may not add due to rounding.

#### Outlook

Our 2018 performance and execution on our lithium growth projects have positioned Albemarle for another year of growth in 2019. We expect net sales to range between \$3.65 billion and \$3.85 billion, representing growth of approximately 8% to 14%, with adjusted EBITDA between \$1,070 million and \$1,140 million, up approximately 6% to 13%, and adjusted diluted earnings per share between \$6.10 and \$6.50, growth of approximately 11% to 19%. Our growth will be driven by increased volume in our core lithium business, while our Bromine Specialties and Catalysts businesses will be stable. We are not forecasting any significant macroeconomic headwinds and have not seen any decline in our customer demand forecasts.

#### Results

Fourth quarter 2018 earnings were \$129.6 million, or \$1.21 per diluted share, compared to a loss of \$218.4 million, or \$1.95 per diluted share in the fourth quarter 2017. Earnings were negatively impacted by U.S. tax reform of \$3.27 per diluted share in the fourth quarter of 2017. In the fourth quarter of 2018, earnings were negatively impacted by adjustments to indemnifications of divested businesses and a decrease to our previously recorded gain on sale of business totaling \$0.29 per diluted share. The fourth quarter of 2018 also saw earnings growth in our Lithium and Bromine Specialties reportable segments, which more than offset lower Catalysts earnings and increased Corporate costs. Fourth quarter 2018 adjusted EBITDA increased by \$18.5 million, or 7.5%, compared to the prior year. Fourth quarter 2018 adjusted net income was \$163.7 million, or \$1.53 per diluted share, compared to \$149.8 million, or \$1.34 per diluted share, for fourth quarter 2017, an increase of 14.2%. See Non-GAAP Reconciliations for further details. The Company reported net sales of \$921.7 million in fourth quarter 2018, up 7.5% from net sales of \$857.8 million in the fourth quarter of 2017, driven by increased sales volumes and the favorable impact of sales pricing in each of our reportable segments, partially offset by the impact of the divestiture of the polyolefin catalysts and components portion of the Performance Catalyst Solutions ("PCS") business to W.R. Grace & Co. during 2018 ("Polyolefin Catalysts Divestiture").

For the full year 2018, earnings were \$693.6 million, or \$6.34 per diluted share, compared to \$54.9 million, or \$0.49 per diluted share for the full year 2017. The increase was primarily driven by the 2017 impacts of \$3.26 per diluted share from the U.S tax reform laws, a loss on early extinguishment of debt of \$0.30 per diluted share and \$0.09 per diluted share from Hurricane Harvey, as well as the 2018 recognition of \$1.55 per diluted share gain on sale of the Polyolefin Catalysts Divestiture, and earnings growth in each of our reportable segments. For the full year 2018, adjusted EBITDA increased by \$121.2 million, or 13.7%, compared to the full year 2017. For the full year 2018, adjusted net income was \$600.4 million, or \$5.48 per diluted share, compared to \$515.9 million, or \$4.59 per diluted share, for the full year 2017, an increase of 19.4%. See Non-GAAP Reconciliations for further details. The Company reported net sales for the full year 2018 of \$3.37 billion, up from net sales of \$3.07 billion for the full year 2017, driven by increased sales volumes, favorable sales pricing and currency exchange impacts in each of our reportable segments, partially offset by the impact of the Polyolefin Catalysts Divestiture.

On December 14, 2018, we entered into a definitive agreement to acquire a 50 percent interest in Mineral Resources Limited's Wodgina hard rock lithium project ("Wodgina Project") in Western Australia and form a joint venture with Mineral Resources Limited to own and operate the Wodgina Project to produce spodumene concentrate and battery grade lithium hydroxide, for a purchase price of \$1.15 billion. The joint venture will ultimately construct a battery grade lithium hydroxide plant at the resource site. This transaction is subject to regulatory approvals and other customary closing conditions, and is expected to close in the second half of 2019.

# **Quarterly Segment Results**

Effective January 1, 2018, the PCS product category merged with the Refining Solutions reportable segment to form a global business focused on catalysts. As a result, our three reportable segments include: (1) Lithium; (2) Bromine Specialties; and (3) Catalysts. For comparison purposes, prior year periods have been reclassified to conform to the current presentation.

Lithium reported net sales of \$341.6 million in the fourth quarter of 2018, an increase of 18.0% from fourth quarter 2017 net sales of \$289.6 million. The \$52.1 million increase in net sales as compared to prior year was primarily due to increased sales volumes and favorable pricing impacts, partially offset by \$1.4 million of unfavorable currency exchange impacts. Adjusted EBITDA for Lithium was \$144.5 million, an increase of 21.8% from fourth quarter 2017 results of \$118.7 million. The \$25.9 million increase in adjusted EBITDA as compared to

the prior year was primarily due to increased sales volumes, favorable pricing impacts and \$1.6 million of favorable currency exchange impacts.

Bromine Specialties reported net sales of \$239.1 million in the fourth quarter of 2018, an increase of 9.1% from fourth quarter 2017 net sales of \$219.1 million. The \$20.0 million increase in net sales as compared to the prior year was primarily due to increased sales volumes and favorable pricing, partially offset by \$1.3 million of unfavorable currency exchange impacts. Adjusted EBITDA for Bromine Specialties was \$70.2 million, an increase of 9.0% from fourth quarter 2017 results of \$64.4 million. The \$5.8 million increase in adjusted EBITDA as compared to the prior year was primarily due to favorable pricing impacts, higher sales volumes and lower selling, general and administrative costs.

Catalysts reported net sales of \$304.7 million in the fourth quarter of 2018, a decrease of 2.1% from net sales of \$311.2 million in the fourth quarter of 2017. The \$6.4 million decrease in net sales as compared to the prior year was primarily due to the \$26.2 million impact of the Polyolefin Catalysts Divestiture and \$1.6 million of unfavorable currency exchange impacts, partially offset by higher sales volumes and favorable pricing impacts. Adjusted EBITDA for Catalysts was \$78.8 million in the fourth quarter of 2018, a decrease of 8.7% from fourth quarter 2017 results of \$86.3 million. The \$7.5 million decrease in adjusted EBITDA as compared to the prior year was primarily due to the \$10.2 million impact of the Polyolefin Catalysts Divestiture, partially offset by higher sales volumes.

All Other net sales were \$36.2 million in the fourth quarter of 2018, a decrease of 4.1% from net sales of \$37.8 million in the fourth quarter of 2017. The \$1.6 million decrease in net sales as compared to the prior year was primarily due to lower sales volumes and unfavorable pricing in our fine chemistry services business. All Other adjusted EBITDA was \$6.4 million in the fourth quarter of 2018, an increase from fourth quarter 2017 results of \$6.0 million.

## **Corporate Results**

Corporate adjusted EBITDA was a charge of \$35.5 million in the fourth quarter of 2018 compared to a charge of \$29.6 million in the fourth quarter of 2017. The change was primarily due to higher selling, general and administrative spending for professional services, partially offset by \$2.8 million of favorable currency exchange impacts.

### **Income Taxes**

Our effective income tax rates for the fourth quarter of 2018 and 2017 of 8.6% and 266.5%, respectively, were influenced by the Tax Cuts and Jobs Act ("TCJA") enacted in December 2017, as well as, non-recurring, other unusual and non-operating pension and OPEB items (see notes to the condensed consolidated financial information). The TCJA resulted in net tax benefits of \$39.8 million and net provisional expenses of \$366.9 million during the fourth quarter of 2018 and 2017, respectively. The remaining decrease in the effective tax rate in the fourth quarter of 2018 compared to 2017 was impacted by a variety of factors, primarily stemming from a change in the geographic mix of earnings. Our adjusted effective income tax rates, which exclude non-recurring, other unusual and non-operating pension and OPEB items, were 19.9% and 16.8% for the fourth quarter of 2018 and 2017, respectively, and continue to be influenced by the level and geographic mix of income. Our effective income tax rates for the year ended December 31, 2018 and 2017 were 18.2% and 96.6%, respectively, with the decrease primarily driven by the impact of the TCJA. Our adjusted effective income tax rates for the year ended December 31, 2018 and 18.8%, respectively.

### **Cash Flow**

Our cash from operations was \$546.2 million for the year ended December 31, 2018, an increase of \$242.2 million versus the same period in 2017 primarily due to changes in working capital, including the payment of approximately \$257 million in taxes related to the sale of the Chemetall Surface Treatment business in 2017, as well as increased earnings in each of our reportable segments and increased dividends received from unconsolidated investments in 2018. Capital expenditures were \$700.0 million as compared to \$317.7 million for the full year 2017, with the increase driven largely by expansion in our Lithium business.

We had \$555.3 million in cash and cash equivalents at December 31, 2018, as compared to \$1.14 billion at December 31, 2017. During the year ended December 31, 2018, cash on hand, cash provided by operations and \$413.6 million net proceeds from divestitures funded \$114.7 million of commercial paper note repayments, net of

borrowings, \$700.0 million of capital expenditures for plant, machinery and equipment, and mining resource development, dividends to shareholders of \$144.6 million and \$500.0 million accelerated share repurchase programs. Under our accelerated share repurchase programs we received and retired approximately 5.3 million shares of our common stock during 2018, approximately 0.6 million shares of which were received and retired during the fourth guarter of 2018.

## **Earnings Call**

The Company's performance for the fourth quarter ended December 31, 2018 will be discussed on a conference call at 9:00 AM Eastern time on February 21, 2019. The call can be accessed by dialing 844-347-1034 (International Dial-In # 209-905-5910), and entering conference ID 5229789. The Company's earnings presentation and supporting material can be accessed through Albemarle's website under Investors at <a href="https://www.albemarle.com">www.albemarle.com</a>.

#### **About Albemarle**

Albemarle Corporation (NYSE: ALB), headquartered in Charlotte, NC, is a global specialty chemicals company with leading positions in lithium, bromine and refining catalysts. We power the potential of companies in many of the world's largest and most critical industries, from energy and communications to transportation and electronics. Working side-by-side with our customers, we develop value-added, customized solutions that make them more competitive. Our solutions combine the finest technology and ingredients with the knowledge and know-how of our highly experienced and talented team of operators, scientists and engineers.

Discovering and implementing new and better performance-based sustainable solutions is what motivates all of us. We think beyond business-as-usual to drive innovations that create lasting value. Albemarle employs approximately 5,600 people and serves customers in approximately 100 countries. We regularly post information to www.albemarle.com, including notification of events, news, financial performance, investor presentations and webcasts, non-GAAP reconciliations, SEC filings and other information regarding our company, its businesses and the markets it serves.

# **Forward-Looking Statements**

Some of the information presented in this press release, the conference call and discussions that follow, including, without limitation, information related to product development, production capacity, committed volumes, market trends, pricing, expected growth, earnings and demand for our products, input costs, surcharges, tax rates, stock repurchases, dividends, cash flow generation, costs and cost synergies, capital projects, economic trends, outlook and all other information relating to matters that are not historical facts may constitute forwardlooking 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 actions, proceedings, claims or litigation; the occurrence of cyber-security breaches, terrorist attacks, industrial accidents, natural disasters or climate change; 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 press release. 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.

	Three Months Ended					Year Ended			
		Decem	be	r 31,		Decem	r 31,		
		2018		2017		2018		2017	
Net sales	\$	921,699	\$	857,789	\$3	3,374,950	\$3	3,071,976	
Cost of goods sold		601,315		554,086	2	2,157,694	•	1,965,700	
Gross profit		320,384		303,703	_	,217,256	•	1,106,276	
Selling, general and administrative expenses		120,916		118,302		446,090		450,286	
Research and development expenses		16,384		20,907		70,054		84,330	
Loss (gain) on sale of business		8,277				(210,428)			
Operating profit		174,807		164,494		911,540		571,660	
Interest and financing expenses		(12,571)		(16,455)		(52,405)		(115,350)	
Other expenses, net		(32,528)		(6,113)		(64,434)		(9,512)	
Income before income taxes and equity in net income of unconsolidated investments		129,708		141,926		794,701		446,798	
Income tax expense		11,196		378,221		144,826		431,817	
Income (loss) before equity in net income of unconsolidated investments		118,512		(236,295)		649,875		14,981	
Equity in net income of unconsolidated investments (net of tax)		27,537		29,224		89,264		84,487	
Net income (loss)		146,049		(207,071)		739,139		99,468	
Net income attributable to noncontrolling interests		(16,453)		(11,295)		(45,577)		(44,618)	
Net income (loss) attributable to Albemarle Corporation	\$	129,596	\$	(218,366)	\$	693,562	\$	54,850	
Basic earnings (loss) per share:	\$	1.22	\$	(1.98)	\$	6.40	\$	0.49	
Diluted earnings (loss) per share:	\$	1.21	\$	(1.95)	\$	6.34	\$	0.49	
Weighted-average common shares outstanding – basic		106,042		110,510		108,427		110,914	
Weighted-average common shares outstanding – diluted		107,005		112,152		109,458		112,380	

See accompanying notes to the condensed consolidated financial information.

Albemarle Corporation and Subsidiaries Condensed Consolidated Balance Sheets (In Thousands) (Unaudited)

	December 31, 2018			cember 31, 2017	
ASSETS					
Cash and cash equivalents	\$	555,320	\$	1,137,303	
Other current assets		1,443,101		1,301,108	
Assets held for sale		_		39,152	
Total current assets		1,998,421		2,477,563	
Property, plant and equipment		4,799,063		4,124,335	
Less accumulated depreciation and amortization		1,777,979		1,631,025	
Net property, plant and equipment		3,021,084		2,493,310	
Noncurrent assets held for sale		_		139,813	
Other assets and intangibles		2,562,169		2,640,086	
Total assets	\$	7,581,674	\$	7,750,772	
LIABILITIES AND EQUITY					
Current portion of long-term debt	\$	307,294	\$	422,012	
Other current liabilities		875,879		776,975	
Liabilities held for sale		_		1,938	
Total current liabilities		1,183,173		1,200,925	
Long-term debt		1,397,916		1,415,360	
Noncurrent liabilities held for sale		_		614	
Other noncurrent liabilities		858,495		945,788	
Deferred income taxes		382,982		370,389	
Albemarle Corporation shareholders' equity		3,585,321		3,674,549	
Noncontrolling interests		173,787		143,147	
Total liabilities and equity	\$	7,581,674	\$	7,750,772	

See accompanying notes to the condensed consolidated financial information.

	Year E Decem	
	2018	2017
Cash and cash equivalents at beginning of year	\$1,137,303	\$2,269,756
Cash and cash equivalents at end of period	\$ 555,320	\$1,137,303
Sources of cash and cash equivalents:		
Net income	\$ 739,139	\$ 99,468
Cash proceeds from divestitures, net	413,569	6,857
Proceeds from borrowings of long-term debt	_	27,000
Other borrowings, net	_	138,751
Dividends received from unconsolidated investments and nonmarketable securities	57,415	39,386
Proceeds from exercise of stock options	3,633	8,238
Uses of cash and cash equivalents:		
Working capital changes	(151,965)	(392,263)
Capital expenditures	(699,991)	(317,703)
Acquisitions, net of cash acquired	(11,403)	(44,367)
Repayments of long-term debt		(778,209)
Repurchases of common stock	(500,000)	(250,000)
Repayments of other borrowings, net	(113,567)	
Pension and postretirement contributions	(15,236)	(13,341)
Dividends paid to shareholders	(144,596)	(140,557)
Fees related to early extinguishment of debt	_	(46,959)
Dividends paid to noncontrolling interests	(14,756)	(36,756)
Non-cash and other items:		
Depreciation and amortization	200,698	196,928
Gain on sale of business	(210,428)	_
Gain on acquisition	_	(6,221)
Pension and postretirement expense (benefit)	10,410	(12,436)
Loss on early extinguishment of debt	_	52,801
Deferred income taxes	49,164	(41,941)
Equity in net income of unconsolidated investments (net of tax)	(89,264)	(84,487)

See accompanying notes to the condensed consolidated financial information.

Albemarle Corporation and Subsidiaries Consolidated Summary of Segment Results (In Thousands) (Unaudited)

	1	hree Mon Decem	 	Year E Decem	Ended ber 31,	
		2018	2017	2018		2017
Net sales:						
Lithium	\$	341,648	\$ 289,597	\$1,228,171	\$	1,018,885
Bromine Specialties		239,111	219,084	917,880		855,143
Catalysts		304,732	311,165	1,101,554	•	1,067,572
All Other		36,208	37,770	127,186		128,914
Corporate		_	173	159		1,462
Total net sales	\$	921,699	\$ 857,789	\$3,374,950	\$3	3,071,976
Adjusted EBITDA:						
Lithium	\$	144,513	\$ 118,656	\$ 530,773	\$	446,652
Bromine Specialties		70,195	64,402	288,116		258,901
Catalysts		78,773	86,313	284,307		283,883
All Other		6,362	5,972	14,091		13,878
Corporate		(35,541)	(29,563)	(110,623)		(117,834)
Total adjusted EBITDA	\$	264,302	\$ 245,780	\$1,006,664	\$	885,480

See accompanying non-GAAP reconciliations below.

## **Additional Information**

It should be noted that adjusted net income attributable to Albemarle Corporation, adjusted diluted earnings per share, non-operating pension and OPEB items per diluted share, non-recurring and other unusual items per diluted share, adjusted effective income tax rates, EBITDA, adjusted EBITDA, EBITDA margin and adjusted EBITDA margin are financial measures that are not required by, or presented in accordance with, accounting principles generally accepted in the United States, or GAAP. These non-GAAP measures should not be considered as alternatives to Net income (loss) attributable to Albemarle Corporation ("earnings"). 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 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 on the following pages of this press release, which is also posted in the Investors section of our website at <a href="https://www.albemarle.com">www.albemarle.com</a>. 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.

### ALBEMARLE CORPORATION AND SUBSIDIARIES

### **Non-GAAP Reconciliations**

# (Unaudited)

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

	Three Months Ended			Ended	Year Ended			
		Decem	ber :	31,	December 31,			
In thousands, except percentages and per share amounts		2018		2017	2018			2017
Net income (loss) attributable to Albemarle Corporation Add back:	\$	129,596	\$	(218,366)	\$	693,562	\$	54,850
Non-operating pension and OPEB items (net of tax)		8,829		(8,455)		3,234		(10,548)
Non-recurring and other unusual items (net of tax)		25,291		376,641		(96,440)		471,559
Adjusted net income attributable to Albemarle Corporation	\$	163,716	\$	149,820	\$	600,356	\$	515,861
Adjusted diluted earnings per share	\$	1.53	\$	1.34	\$	5.48	\$	4.59
Weighted-average common shares outstanding – diluted		107,005		112,152		109,458		112,380
Net income (loss) attributable to Albemarle Corporation Add back:	\$	129,596	\$	(218,366)	\$	693,562	\$	54,850
Interest and financing expenses		12,571		16,455		52,405		115,350
Income tax expense		11,196		378,221		144,826		431,817
Depreciation and amortization		50,187		52,841		200,698		196,928
EBITDA		203,550		229,151		1,091,491		798,945
Non-operating pension and OPEB items		11,881		(12,981)		5,285		(16,125)
Non-recurring and other unusual items (excluding items associated with interest expense)		48,871		29,610		(90,112)		102,660
Adjusted EBITDA	\$	264,302	\$	245,780	\$	1,006,664	\$	885,480
Net sales	\$	921,699	\$	857,789	\$	3,374,950	\$	3,071,976
EBITDA margin		22.1%		26.7%	_	32.3%		26.0%
Adjusted EBITDA margin		28.7%		28.7%		29.8%		28.8%

See below for a reconciliation of adjusted EBITDA on a segment basis, the non-GAAP financial measure, to Net income (loss) attributable to Albemarle Corporation, the most directly comparable financial measure calculated and reporting in accordance with GAAP (in thousands, except percentages).

	Lithium	Bromine Specialti es	Catalyst s	Reportabl e Segments All Total Other		Corporat e	Consolid ated Total	% of Net Sales
Three months ended December 31, 2018:								
Net income (loss) attributable to Albemarle Corporation	\$112,273	\$ 59,333	\$ 58,566	\$ 230,172	\$ 4,359	\$(104,935)	\$ 129,596	14.1 %
Depreciation and amortization	23,433	10,862	11,930	46,225	2,003	1,959	50,187	5.4 %
Non-recurring and other unusual items	8,807	_	8,277	17,084	_	31,787	48,871	5.3 %
Interest and financing expenses	_	_	_	_	_	12,571	12,571	1.4 %
Income tax expense	_	_	_	_	_	11,196	11,196	1.2 %
Non-operating pension and OPEB items	_	_	_	_	_	11,881	11,881	1.3 %
Adjusted EBITDA	\$144,513	\$ 70,195	\$ 78,773	\$ 293,481	\$ 6,362	\$ (35,541)	\$ 264,302	28.7 %
Three months ended December 31, 2017:								
Net income (loss) attributable to Albemarle								
Corporation	\$ 93,814	\$ 54,646	\$ 71,859	\$ 220,319	\$ 3,899	\$(442,584)	\$ (218,366)	(25.5)%
Depreciation and amortization	25,038	9,756	14,454	49,248	2,073	1,520	52,841	6.2 %
Non-recurring and other unusual items	(196)	_	_	(196)	_	29,806	29,610	3.5 %
Interest and financing expenses	_	_	_	_	_	16,455	16,455	1.9 %
Income tax expense	_	_	_	_	_	378,221	378,221	44.1 %
Non-operating pension and OPEB items						(12,981)	(12,981)	(1.5)%
Adjusted EBITDA	\$118,656	\$ 64,402	\$ 86,313	\$ 269,371	\$ 5,972	\$ (29,563)	\$ 245,780	28.7 %
Year ended December 31, 2018:								
Net income (loss) attributable to Albemarle Corporation	\$428,212	\$246,509	\$445,604	\$1,120,325	\$ 6,018	\$(432,781)	\$ 693,562	20.6 %
Depreciation and amortization	95,193	41,607	49,131	185,931	8,073	6,694	200,698	5.9 %
Non-recurring and other unusual items	7,368	_	(210,428)	(203,060)	_	112,948	(90,112)	(2.7)%
Interest and financing expenses	_	_	_	_	_	52,405	52,405	1.5 %
Income tax expense	_	_	_	_	_	144,826	144,826	4.3 %
Non-operating pension and OPEB items						5,285	5,285	0.2 %
Adjusted EBITDA	\$530,773	\$288,116	\$284,307	\$1,103,196	\$14,091	\$(110,623)	\$1,006,664	29.8 %
Year ended December 31, 2017:								
Net income (loss) attributable to Albemarle								
Corporation `	\$342,992	\$218,839	\$230,665	\$ 792,496	\$ 5,521	\$(743,167)	\$ 54,850	1.8 %
Depreciation and amortization	87,879	40,062	54,468	182,409	8,357	6,162	196,928	6.4 %
Non-recurring and other unusual items (excluding items associated with interest expense)	15,781	_	(1,250)	14,531	_	88,129	102,660	3.3 %
Interest and financing expenses	<i>-</i>	_	_	_	_	115,350	115,350	3.7 %
Income tax expense	_	_	_	_	_	431,817	431,817	14.1 %
Non-operating pension and OPEB items	_	_	_	_	_	(16,125)	(16,125)	(0.5)%
Adjusted EBITDA	\$446,652	\$258,901	\$283,883	\$ 989,436	\$13,878	\$(117,834)	\$ 885,480	28.8 %

Non-operating pension and OPEB items, consisting of mark-to-market ("MTM") actuarial gains/losses, settlements/curtailments, interest cost and expected return on assets, are not allocated to our operating segments and are included in the Corporate category. In addition, we believe that these components of pension cost are mainly driven by market performance, and we manage these separately from the operational performance of our businesses. In accordance with GAAP, these non-operating pension and OPEB items are included in Other expenses, net. Non-operating pension and OPEB items were as follows (in thousands):

Three Months Ended					Year E	Ende	nded	
	December 31,				December 31,			
	2018	2018 2017		2018			2017	
\$	14,001	\$	(11,413)	\$	14,001	\$	(11,413)	
	8,480		9,344		34,116		36,082	
	(10,600)		(10,912)		(42,832)		(40,794)	
\$	11,881	\$	(12,981)	\$	5,285	\$	(16,125)	
	\$	<b>Decem 2018</b> \$ 14,001 8,480 (10,600)	December           2018         \$           \$ 14,001         \$           8,480         (10,600)	December 31,       2018     2017       \$ 14,001     \$ (11,413)       8,480     9,344       (10,600)     (10,912)	December 31,       2018     2017       \$ 14,001     \$ (11,413)       \$ 8,480     9,344       (10,600)     (10,912)	December 31,         December 32018           2018         2017           \$ 14,001         \$ (11,413)           8,480         9,344           (10,600)         (10,912)           (42,832)	December 31,         December           2018         2017         2018           \$ 14,001         \$ (11,413)         \$ 14,001         \$           8,480         9,344         34,116         (10,600)         (10,912)         (42,832)	

In addition to the non-operating pension and OPEB items disclosed above, we have identified certain other items and excluded them from our adjusted net income calculation for the periods presented. A listing of these items, as well as a detailed description of each follows below (per diluted share):

	T	hree Mor	nths	Ended	Year Ended				
		Decem	31,	December 31,					
		2018		2017	2018			2017	
Utilization of inventory markup <sup>(1)</sup>	\$		\$		\$		\$	0.15	
Restructuring and other <sup>(2)</sup>		_		(0.01)		0.03		0.11	
Acquisition and integration related costs <sup>(3)</sup>		0.05		0.06		0.14		0.24	
Albemarle Foundation contribution <sup>(4)</sup>		_		_		0.11		_	
Gain on sale of business <sup>(5)</sup>		0.06		_		(1.55)		_	
Gain on acquisition <sup>(6)</sup>		_		0.01		_		(0.04)	
Legal accrual <sup>(7)</sup>		_		_		0.21		_	
Environmental accrual <sup>(8)</sup>		_		_		0.11		_	
Loss on extinguishment of debt <sup>(9)</sup>		_		(0.04)		_		0.30	
Indemnification adjustments <sup>(10)</sup>		0.23		_		0.23		_	
Note receivable reserve <sup>(11)</sup>		_		0.18		_		0.18	
Other <sup>(12)</sup>		0.07		(0.02)		0.11		0.06	
Discrete tax items <sup>(13)</sup>		(0.17)		3.18		(0.27)		3.20	
Total non-recurring and other unusual items	\$	0.24	\$	3.36	\$	(0.88)	\$	4.20	

- (1) In connection with the acquisition of the lithium hydroxide and lithium carbonate conversion business of Jiangxi Jiangli New Materials Science and Technology Co. Ltd. ("Jiangli New Materials"), the Company valued inventory purchased from Jiangli New Materials at fair value, which resulted in a markup of the underlying net book value of the inventory totaling approximately \$23.1 million. The inventory markup was expensed over the estimated remaining selling period. For the year ended December 31, 2017, \$23.1 million (\$17.3 million after income taxes, or \$0.15 per share) was included in Cost of goods sold related to the utilization of the inventory markup.
- (2) Included in Selling, general and administrative expenses for the year ended December 31, 2018 is \$3.7 million (or \$0.03 per share) related to expected severance payments as part of a business reorganization plan.

The year ended December 31, 2017 included restructuring costs in each of our reportable segments at several locations, primarily at our Lithium site in Germany. These restructuring costs are included in the consolidated statements of income (loss) as follows (in millions):

	Year	Ended
	Decemb	er 31, 2017
Restructuring and other costs:		
Cost of goods sold	\$	2.9
Selling, general and administrative expenses		8.4
Research and development expenses		5.7
Total	\$	17.0
Total restructuring and other costs, after income taxes	\$	12.1
Total restructuring and other costs, per diluted share	\$	0.11

(3) Acquisition and integration related costs for the three months and year ended December 31, 2018 and 2017 related to various significant projects. Acquisition and integration related costs are included in the consolidated statements of income (loss) as follows (in millions, except per share amounts):

	Three Months Ended					Year Ended				
	December 31,					1,				
	2018		2	2017		2018		2017		
Acquisition and integration related costs:										
Cost of goods sold	\$	0.9	\$	1.8	\$	3.7	\$	14.3		
Selling, general and administrative expenses		5.5		5.8		15.7		19.6		
Total	\$	6.4	\$	7.6	\$	19.4	\$	33.9		
Total acquisition and integration related costs, after income taxes	\$	5.1	\$	6.7	\$	15.7	\$	26.8		
Total acquisition and integration related costs, per diluted share	\$	0.05	\$	0.06	\$	0.14	\$	0.24		

- (4) Included in Selling, general and administrative expenses for the year ended December 31, 2018 is a \$15.0 million (\$11.5 million after income taxes, or \$0.11 per share) charitable contribution, using a portion of the proceeds received from the Polyolefin Catalysts Divestiture, to the Albemarle Foundation, a non-profit organization that sponsors grants, health and social projects, educational initiatives, disaster relief, matching gift programs, scholarships and other charitable initiatives in locations where our employees live and operate. This contribution is in addition to the normal annual contribution made to the Albemarle Foundation by the Company, and is significant in size and nature in that it is intended to provide more long-term benefits in the communities where we live and operate.
- (5) Included in Gain on sale of business, for the year ended December 31, 2018 is \$210.4 million (\$169.9 million after discrete income taxes, or \$1.55 per share) related to the Polyolefin Catalysts Divestiture. During the three months ended December 31, 2018 we adjusted the gain, originally recorded in the second quarter of 2018, to reduce it by \$8.3 million (\$6.8 million after discrete income taxes, or \$0.06 per share).
- (6) Included in Other expenses, net, for the three months and year ended December 31, 2017 is a pre-tax gain of \$0.2 million and \$6.2 million, respectively, related to the acquisition of the remaining 50% interest in the Sales de Magnesio Ltda. joint venture in Chile. In addition, during the three months ended December 31, 2017, we adjusted the income taxes on this gain by \$1.0 million. After income taxes, we recorded a loss of \$0.8 million, or \$0.01 per share, and a gain of \$4.6 million, or \$0.04 per share for the three months and year ended December 31, 2017, respectively. The gain was calculated based on the difference between the purchase price and the book value of the investment.
- (7) Included in Other expenses, net, for the year ended December 31, 2018 is a charge of \$10.8 million (or \$0.10 per share as there was no income tax impact), related to a legal expense resulting from a settlement in a legal matter related to guarantees from a previously disposed business and a charge of \$16.2 million (\$12.5 million after income taxes, or \$0.11 per share) for a legal expense relating to a jury rendered verdict

against Albemarle related to certain business concluded under a 2014 sales agreement for products that Albemarle no longer manufactures. Both matters have been resolved and paid during the year ended December 31, 2018.

- (8) Increase in environmental reserve of \$15.6 million (\$12.0 million after income taxes, or \$0.11 per share) to indemnify the buyer of a formerly owned site recorded in Other expenses, net. As defined in the agreement of sale, this indemnification has a set cutoff date in 2024, at which point we will no longer be required to provide financial coverage.
- (9) Included in Interest and financing expenses for the year ended December 31, 2017 is a loss on early extinguishment of debt of \$52.8 million (\$33.4 million after income taxes, or \$0.30 per share) related to the tender premiums, fees, unamortized discounts and unamortized deferred financing costs from the redemption of the 3.00% Senior notes, €307.0 million of the 1.875% Senior notes and \$174.7 million of the 4.50% Senior notes. During the three months ended December 31, 2017, we adjusted the income taxes on this loss by \$4.7 million, or \$0.04 per share.
- (10)Included in Other expenses, net for the three months and year ended December 31, 2018 is \$19.7 million (or \$0.19 per share and \$0.18 per share for the three months and year ended December 31, 2018, respectively, due to differences in the weighted average share count between periods) related to the proposed settlement of an ongoing audit of a previously disposed business in Germany, as well as \$4.6 million (or \$0.04 per share) related to the revision of indemnifications previously recorded from disposed businesses. In addition, for the year ended December 31, 2018, \$0.9 million (\$0.7 million after income taxes, or \$0.01 per share) is included in Other expenses, net related to the revision of previously recorded expenses of disposed businesses.
- (11) Included in Other expenses, net for the three months and year ended December 31, 2017 is a \$28.7 million (\$20.2 million after income taxes, or \$0.18 per share) reserve recorded against a note receivable in one of our European entities no longer deemed probable of collection.
- (12)Other adjustments for the three months ended December 31, 2018 included amounts recorded in:
  - Cost of goods sold \$8.8 million related to non-routine labor and compensation related costs in Chile that are outside normal compensation arrangements.
  - Selling, general and administrative expenses \$2.3 million of shortfall contributions for our multiemployer plan financial improvement plan.
  - Other expenses, net \$1.4 million gain related to the reversal of previously recorded liabilities of a disposed business.

After income taxes, these charges totaled \$6.9 million, or \$0.07 per share.

Other adjustments for the year ended December 31, 2018 included amounts recorded in:

- Cost of goods sold \$4.9 million for the write-off of fixed assets related to a major capacity expansion in our Jordanian joint venture and \$8.8 million related to non-routine labor and compensation related costs in Chile that are outside normal compensation arrangements.
- Selling, general and administrative expenses \$2.3 million of shortfall contributions for our
  multiemployer plan financial improvement plan and a \$1.2 million contribution, using a portion of
  the proceeds received from the Polyolefin Catalysts Divestiture, to schools in the state of
  Louisiana for qualified tuition purposes. This contribution is significant in size and is intended to
  provide long-term benefits for families in the Louisiana community. This was partially offset by a
  \$1.5 million gain related to a refund from Chilean authorities due to an overpayment made in a
  prior year.
- Other expenses, net \$1.5 million gain related to the reversal of previously recorded liabilities of disposed businesses.

After income taxes, these charges totaled \$11.6 million, or \$0.11 per share.

Other adjustments for the three months ended December 31, 2017 included amounts recorded in:

- Selling, general and administrative expenses \$1.3 million of shortfall contributions for our multiemployer plan financial improvement plan.
- Other expenses, net \$1.8 million charge for the revision of tax indemnification expenses and a \$1.0 million charge related to the settlement of a legal claim, partially offset by a \$10.6 million gain

related to the reversal of a liability associated with the purchase accounting of a previous acquisition.

After income taxes, these net gains totaled \$1.6 million or \$0.02 per share.

Other adjustments for the year ended December 31, 2017 included amounts recorded in:

- Cost of goods sold \$1.3 million reversal of deferred income related to an abandoned project at an unconsolidated investment.
- Selling, general and administrative expenses \$3.3 million of shortfall contributions for our multiemployer plan financial improvement plan, partially offset by \$1.0 million related to a reversal of an accrual recorded as part of purchase accounting from a previous acquisition.
- Other expenses, net \$3.2 million of asset retirement obligation charges related to the revision of an estimate at a site formerly owned by Albemarle, losses of \$8.7 million related to adjustments of settlements and indemnifications of previously disposed businesses, the revision of tax indemnification expenses of \$3.7 million primarily related to the filing of tax returns and a competent authority agreement for a previously disposed business and \$1.0 million related to the settlement of a legal claim, partially offset by gains of \$10.6 million and \$1.1 million related to the reversal of liabilities recorded as part of purchase accounting from a previous acquisition and the previous disposal of a property, respectively.

After income taxes, these charges totaled \$7.1 million or \$0.06 per share.

(13)Included in Income tax expense for the three months and year ended December 31, 2018 are discrete net tax benefits, excluding the discrete tax expense on the gain of sale of business note above, of \$17.9 million, or \$0.17 per share, and \$29.5 million, or \$0.27 per share, respectively. The net benefit for the three months primarily as a result of a \$24.3 million benefit from U.S. accrual to return adjustments, primarily related to the one-time transition tax calculation imposed by the TCJA, partially offset by a \$4.5 million expense from foreign accrual to return adjustments, and a \$2.4 million expense from U.S. state rate changes. The net benefit for the year ended December 31, 2018 is primarily a result of a \$38.6 million benefit from U.S. accrual to return adjustments, primarily related to the one-time transition tax calculation imposed by the TCJA and \$5.4 million excess tax benefits realized from stock-based compensation arrangements, partially offset by a \$3.0 million expense from foreign accrual to return adjustments, a \$2.4 million expense from U.S. state rate changes, and a \$6.8 million expense for adjustments to foreign valuation allowances.

Included in Income tax expense for the three months and year ended December 31, 2017 are discrete net income tax expenses of \$356.6 million (\$3.18 per share) and \$359.3 million (\$3.20 per share), respectively. The discrete net income tax expenses are primarily related to the enactment of the TCJA in December 2017, resulting in income tax expense of \$429.2 million from a one-time transition tax on earnings on certain foreign subsidiaries that were previously tax deferred, partially offset by a \$62.3 million income tax benefit as a result of reducing the U.S. federal corporate income tax rate from 35% to 21%.

See below 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 (in thousands, except percentages).

	incom equity i of und	me before e taxes and n net income onsolidated estments	Effective income tax rate	
Three months ended December 31, 2018:			_	
As reported	\$	129,708	\$ 11,196	8.6%
Non-recurring, other unusual and non-operating pension and OPEB items		60,752	26,632	
As adjusted	\$	190,460	\$ 37,828	19.9%
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%
Year ended December 31, 2018:				
As reported	\$	794,701	\$ 144,826	18.2%
Non-recurring, other unusual and non-operating pension and OPEB items		(84,827)	8,379	
As adjusted	\$	709,874	\$ 153,205	21.6%
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%