



Rating  
**Buy**

North America  
United States

Industrials  
Chemicals / Specialty

Company  
**Albemarle**

Reuters  
ALB.N

Bloomberg  
ALB UN

Exchange  
NYS

Ticker  
ALB

Date  
1 April 2016

Forecast Change

|                            |               |
|----------------------------|---------------|
| Price at 31 Mar 2016 (USD) | 63.93         |
| Price target               | 72.00         |
| 52-week range              | 64.38 - 41.78 |

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## Meeting with CEO: Lithium Story is (Quietly) Taking Off

L-T a focused Lithium & Catalyst company. Valuation a fair 11.6x EBITDA. Buy

Our meetings with Albemarle's CEO highlighted the compelling growth story in lithium (the best story in chemicals, in our view), the company's growing free cashflow (8% FCF yield in '17) and Albemarle's long-term goal of becoming a lithium and catalyst company. While near-term portfolio changes are unlikely in Bromine (best option is run for cash to fund lithium growth for the next 3-5 years), options for Surface Treatment increase in late '17 as an onerous tax clawback (on a sale) falls away. With our SOTP analysis strongly supportive of our revised \$72 PT and valuation a fair 11.6x '16E EBITDA, we reiterate Buy.

Meetings with CEO. Raising '17-'18E by \$0.10 each to \$4.30 and \$4.90.

We hosted meetings with Albemarle CEO Luke Kissam and investors in NY and Boston this week. To reflect growing confidence in lithium, we are raising our '17E & '18E by \$0.10 each to \$4.35, up 16%, and \$4.90, up 13%, respectively.

### Key takeaways

1) Q1 is firmly on track led by good growth in Lithium and solid growth in Surface Treatment, including in China, where auto/industrial demand is above expectations. The weakest region is Latin America where hydroprocessing catalyst demand is down as refiners in Brazil and Venezuela have sharply curtailed purchases. 2) Spot lithium carbonate prices in China of \$21,000/m.t. are "fiction" with no relation to prices Albemarle receives or its large battery customers pay. Albemarle sells no spot lithium in China. The vast majority of Albemarle's lithium is sold under annual contracts. We estimate Albemarle's battery grade lithium carbonate prices will be up ~15% in '16 to ~\$6,900 (vs \$6,000 in '15). 3) All options for Bromine have been explored. A spin does not work as it would increase Albemarle's leverage at a time when it is trying to reduce leverage. A sale does not work as there are no strategic buyers and private equity would likely only pay 7x. A JV does not work due to required divestitures. As such, Albemarle is focused on running Bromine for cash for the next 3-5 years and using the cash to fund organic growth in lithium. 4) A sale of Surface Treatment would be much easier (and valuable) as evidenced by last week's acquisition of Valspar for 15x EBITDA. However, with an onerous tax clawback until 2H'17 (stemming from the tax free separation of the business in '12), a sale before then is unlikely. 5) Assuming the recently announced MOU with Chile is formalized, Albemarle's next lithium capacity will be a 20k m.t. plant in Chile. If it is built in La Negra, where Albemarle's new 20k m.t. lithium carbonate plant is ramping (commercial sales '17), the cost would be <\$200MM versus \$220MM spent on the new plant. This next increment of capacity should be on-stream in '20 and will increase Albemarle's Chilean lithium carbonate capacity to 64k m.t. (70k m.t. with debottlenecking) plus 6k m.t. of US capacity. After Chile, Albemarle intends to bring on a 25k m.t. lithium hydroxide (from spodumene) plant in '22-'23 at a cost or ~\$300M.

### Forecasts And Ratios

| Year End Dec 31 | 2015A | 2016E | 2017E | 2018E |
|-----------------|-------|-------|-------|-------|
| FY EPS (USD)    | 3.93  | 3.75  | 4.35  | 4.90  |

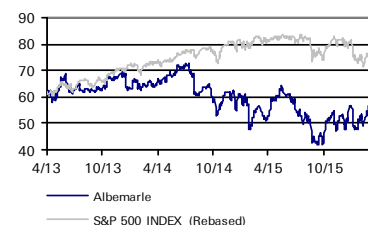
Source: Deutsche Bank estimates, company data

### Key changes

|              |                |   |       |
|--------------|----------------|---|-------|
| Price target | 62.00 to 72.00 | ↑ | 16.1% |
| EPS (USD)    | -              | ↓ | -0.0% |

Source: Deutsche Bank

### Price/price relative



| Performance (%) | 1m   | 3m   | 12m  |
|-----------------|------|------|------|
| Absolute        | 13.7 | 14.1 | 21.0 |
| S&P 500 INDEX   | 6.6  | 0.8  | -0.4 |

Source: Deutsche Bank

### Target Price: \$72

Our PT is based on Albemarle trading at 11.6x 2017E EBITDA, in-line with its current multiple. Risks: Bromine price erosion, lower consumer electronics demand, higher rare earths prices.

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## Key Takeaways (cont.)

Total lithium capital spending over the next 6-7 years is project at \$600MM. This consists of i) slightly less than \$200MM for a 20k m.t. plant in Chile (\$250MM if the plant is not built at the La Negra); ii) \$25-\$50MM of spending in the Salar de Atacama to increase brine extraction and iii) \$300MM for the spodumene conversion (to lithium hydroxide) plant in Australia

Albemarle expects its 20k m.t. La Negra lithium carbonate expansion to begin commercial sales in 2017 and be fully sold out in 3 years. Assuming 7k m.t./year of additional lithium carbonate sales and a \$5k/m.t. cash margin, La Negra would add \$35MM to Lithium EBITDA in '17 and \$100MM-plus EBITDA by the time it is fully ramped up. Lithium EBITDA totaled \$213M in '15 and an estimated \$250MM in '16.

Albemarle expects lithium growth as follows: i) technical (non-battery) grade applications (for ceramics, glass, greases, organo-synthesis) (70-75% of its business, 65% of industry demand): GDP; ii) battery grade applications (25-30% of its business; 35% of industry): 8-10% for non-electric vehicles and 20-30% for electric vehicles.

The 20-30% projected growth in lithium for battery grade application in electric vehicles is based on electric vehicles rising from 0.6% of global auto sales in '15 (550,000 vehicles, up 70% YoY) to 2% in 5-6 years. A 1% increase in auto penetration, would increase lithium demand by ~50K m.t. while the new Tesla gigafactory is projected to use 25-30K m.t. of lithium. This compares to global lithium demand in '15 of 175k m.t. (growing 8-10%/year).

Albemarle is attempting to move its large lithium battery customers from 1-year contracts to multi-year contracts with annual price resets. Customers are, for the moment, resistant to the idea.

Albemarle is confident in fully realizing its 10% fluid cracking catalyst (FCC) price increase (effective 3/15/2016) over 3 years (the standard length of FCC contracts). Despite concerns over Albemarle competitive behavior during the last (2013) FCC price increase, Albemarle achieved 7-8% of the announced 10% price increase over 3 years.

Albemarle expects growth in catalyst will be more transaction / acquisition than organic based

Figure 1: Lithium Application and carbonate content

| Application                    | Lithium Carbonate Content |
|--------------------------------|---------------------------|
| Cell Phone                     | 3 grams ~ 0.1 oz          |
| Notebook                       | 30 grams ~ 1.0 oz         |
| Power Tool                     | 30-40 grams ~ 1.0-1.4 oz  |
| Hybrid (HEV) 3kWh              | 3.5 lbs                   |
| Plug-in Hybrid (PHEV) 15kWh    | 26 lbs                    |
| Electrical Vehicle (BEV) 25kWh | 44 lbs                    |
| Tesla 85kWh                    | 112 lbs                   |

Source: Albemarle

Figure 2: Market growth driven by Energy related applications

|                  | Application    | 2014 Market Size | Growth Rate | Products  |
|------------------|----------------|------------------|-------------|-----------|
| Traditional Uses | Glass/Ceramics | 46KT             | GDP         | Spodumene |



|        |                                           |      |                 |                                         |
|--------|-------------------------------------------|------|-----------------|-----------------------------------------|
|        | Greases/Lubricants                        | 18KT | GDP             | Li <sub>2</sub> CO <sub>3</sub>         |
|        | Chemical Synthesis                        | 11KT | GDP             | LiOH                                    |
|        |                                           |      |                 | Li Organometallics fed by Li Metal LiCl |
| Energy | Portable Electronics & Other Handhelds    |      |                 | BG Li <sub>2</sub> CO <sub>3</sub>      |
|        | Hybrids                                   |      |                 | BG LiOH                                 |
|        | Battery Electric Vehicle (BEV)            | 48KT | 16% (Base Case) | BG Li Metal                             |
|        | Grid and Other Power Storage Applications |      |                 | BG Electrolyte Salts                    |
|        |                                           |      |                 | BG LiCl                                 |
|        |                                           |      |                 | BG Alloys                               |
|        |                                           |      |                 | BG Specialty Compounds                  |

Source: Albemarle

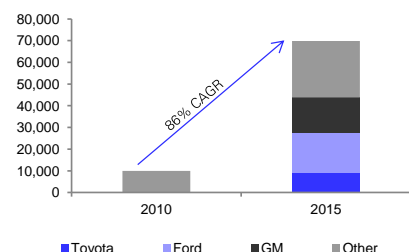
Figure 3: Mass uptake in Battery markets

| Consumer Electronics | Transportation | Energy Storage | Consumer Devices |
|----------------------|----------------|----------------|------------------|
| 8-10% CAGR           | 20-30% CAGR    | >30% CAGR      | >15% CAGR        |

Source: Albemarle

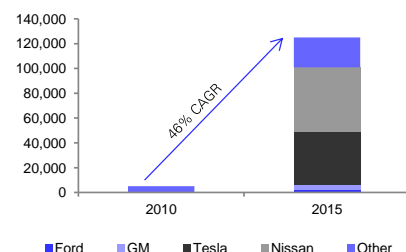


Figure 4: US Electric Vehicle Sales in PHEV



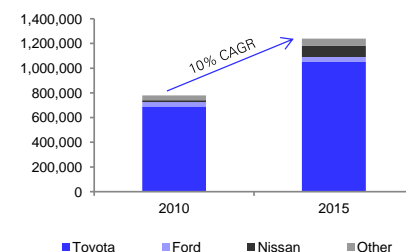
Source: Albemarle

Figure 5: US Electric Vehicle Sales in EV



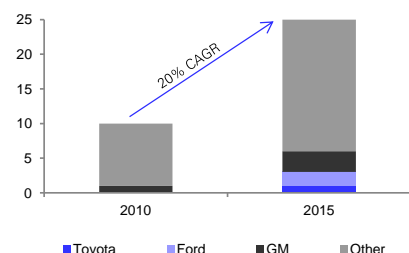
Source: Albemarle

Figure 6: US Electric Vehicle Sales in HEV



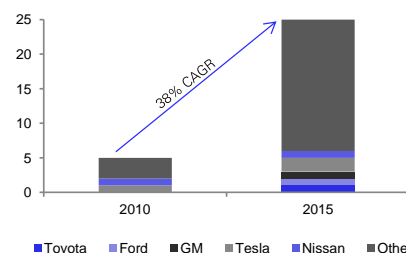
Source: Albemarle

Figure 7: New model launches in US (PHEV)



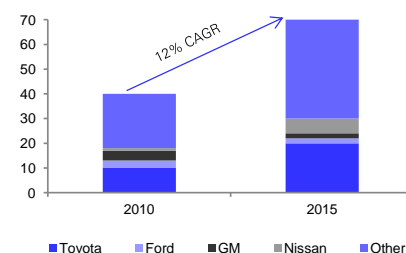
Source: Albemarle

Figure 8: New model launches in US (EV)



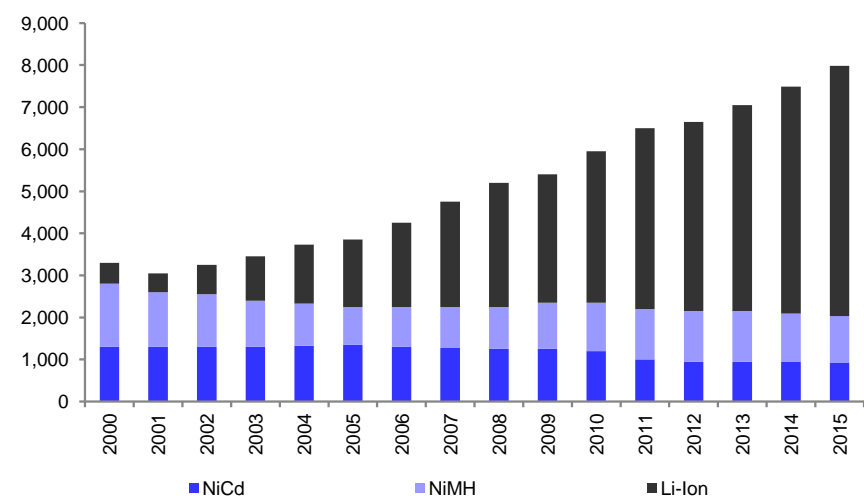
Source: Albemarle

Figure 9: New model launches in US (HEV)



Source: Albemarle

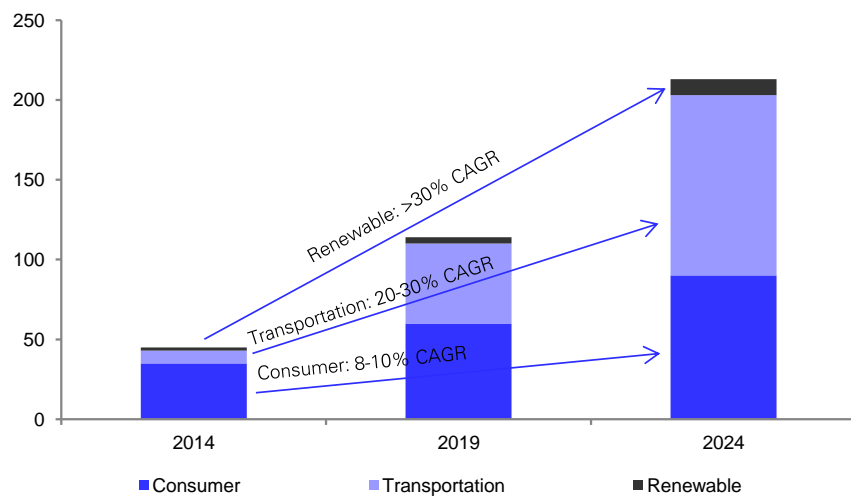
Figure 10: Strong Electric Vehicle sales coupled with new model launches driving Li-Ion battery growth (in Million cells)



Source: Albemarle

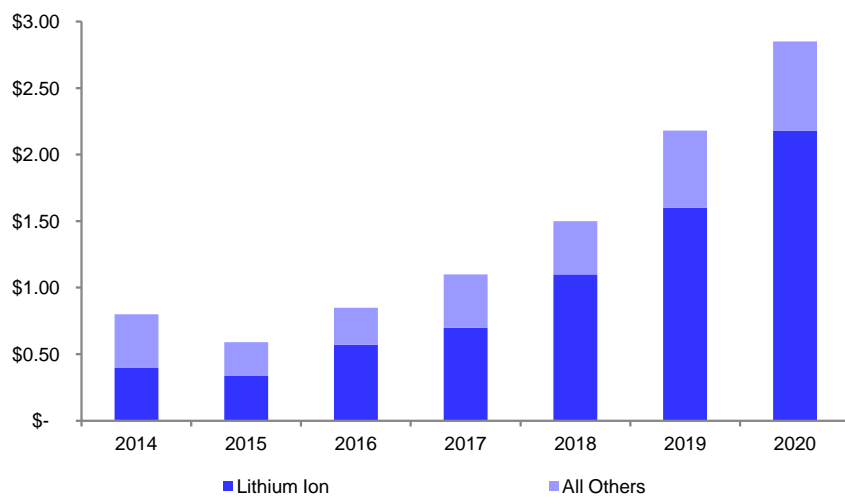


Figure 11: Battery LCE Long-term demand outlook (in KT)



Source: Albemarle

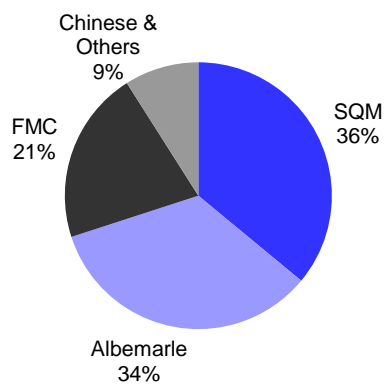
Figure 12: Stationary Energy Storage revenues by technology (\$ in Bn)



Source: Albemarle

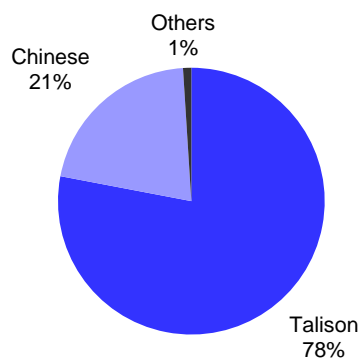


Figure 13: 2014 Brine LCE Production split (98kT)



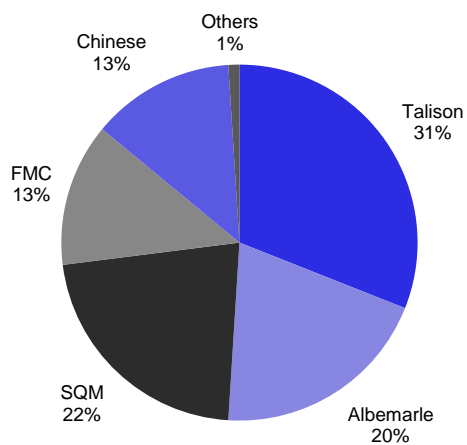
Source: Albemarle

Figure 14: 2014 Spodumene LCE Production split (62kT)



Source: Albemarle

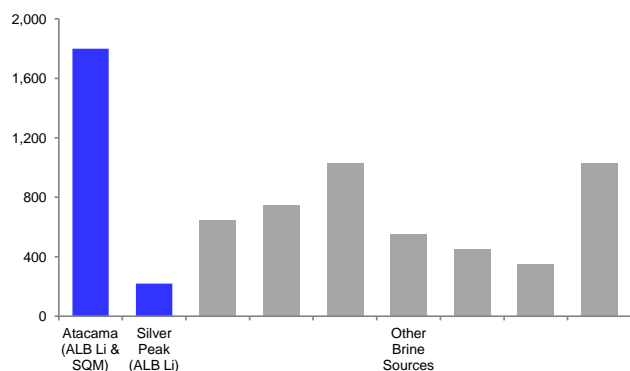
Figure 15: Albemarle holds >35% of total LCE's mined



Source: Albemarle

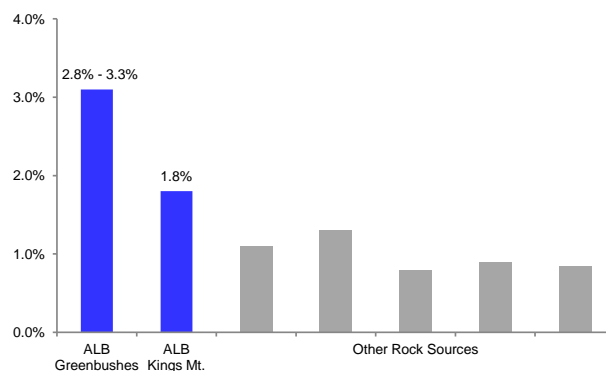


Figure 16: Lithium concentration in Brine (amount in ppm)



Source: Albemarle

Figure 17: Li<sub>2</sub>O concentration in Hardrock



Source: Albemarle

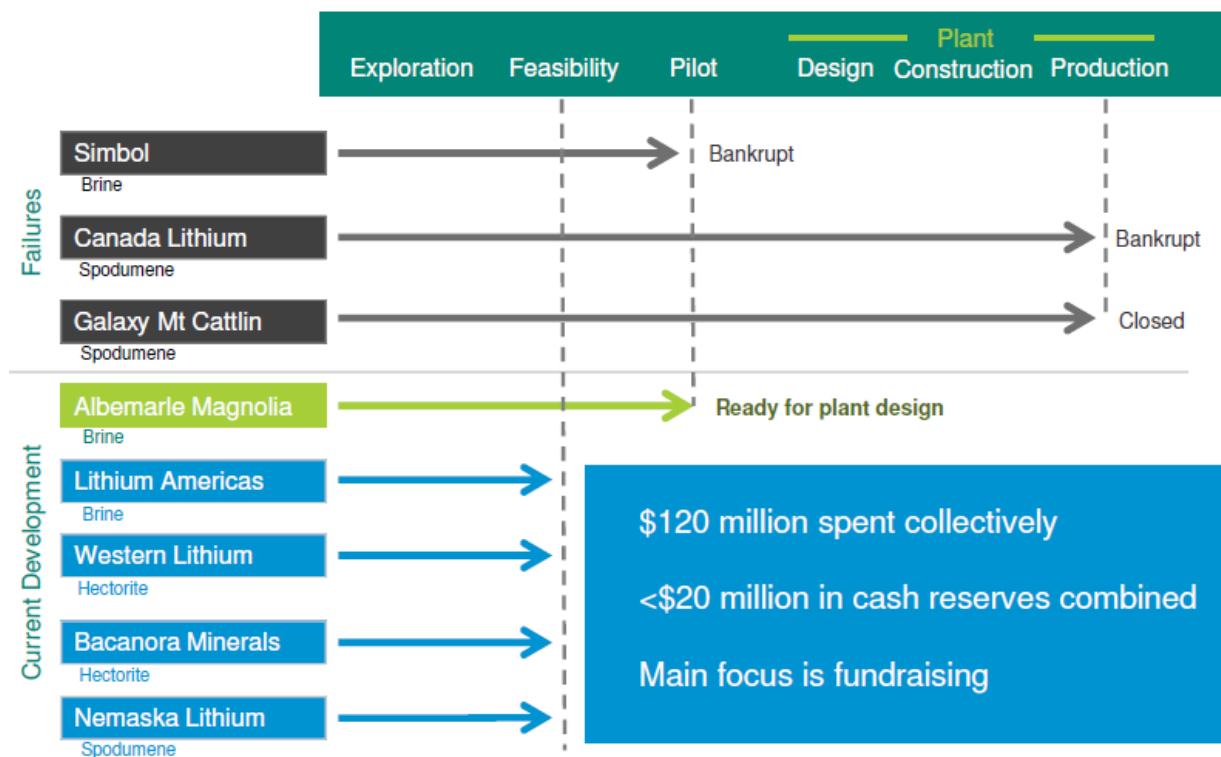
Figure 18: Lithium Resource Projects in Development

| Company                       | Project Status                                                | Category |
|-------------------------------|---------------------------------------------------------------|----------|
| Albemarle                     | Pilot Plant                                                   | Brine    |
| Orocobre (started 2007)       | Li <sub>2</sub> CO <sub>3</sub> Market Production 2015 - 2016 |          |
| Lithium Americas              | Pilot Plant                                                   |          |
| Galaxy Resources              | Feasibility                                                   |          |
| ADY Resources                 | Feasibility                                                   |          |
| Rodinia                       | Feasibility                                                   | Rock     |
| Critical Elements Corporation | Exploration                                                   |          |
| RB Energy                     | Li <sub>2</sub> CO <sub>3</sub> Shut-down Receivership        |          |
| Nemaska                       | Post Feasibility                                              |          |
| Neometals (Reed Resources)    | Pilot                                                         |          |
| Western Lithium               | Demo Plant                                                    | Clay     |
| Bacanora Minerals             | Feasibility                                                   |          |

Source: Albemarle



Figure 19: Lithium Resource development takes time and requires careful consideration



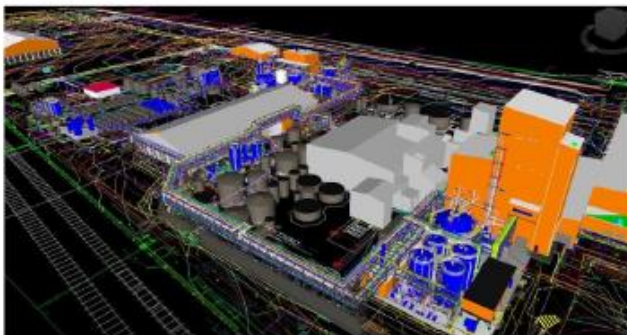
Source: Albemarle





Figure 20: Strategic Investments is the key to meet market demand

### Battery Grade $\text{Li}_2\text{CO}_3$ Plant



- Located in La Negra, Chile
- 20kT battery grade lithium carbonate
- Produces lowest-cost, highest-quality battery grade material in the industry
- Start-up phase

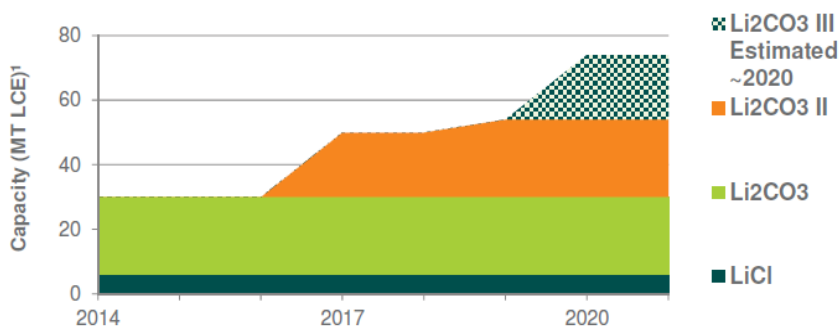
### Planned Battery Grade Li Derivative Plant



- Will be the most technologically advanced mineral conversion plant ever built
- Up to 50kT battery grade lithium derivatives –  $\text{Li}_2\text{CO}_3$  and  $\text{LiOH}$
- Fed from the highest quality Spodumene resource in the world
- Expected startup: 2020

Source: Albemarle

Figure 21: Albemarle Derivative Capacity in Chile



Source: Albemarle



## Valuation

Our \$72 price target is based on Albemarle trading at 11.6x 2017E EBITDA, in-line with its current multiple. We believe this is appropriate given Albemarle's improved earnings growth prospects, notably in Lithium, Refining Solutions and Surface Treatment. Our \$72 price target is supported by our Sum-of-the-Parts model (see below). This model derives segment value based on peer group trading multiples as follows:

Figure 22: Albemarle Sum-of-the-Parts Valuation

| 2017                                             |              |          |                  |                     |
|--------------------------------------------------|--------------|----------|------------------|---------------------|
| Segment                                          | 2017E EBITDA | Multiple | Enterprise Value | Comment             |
| Bromine                                          | 212          | 6.0x     | \$1,273          |                     |
| Lithium                                          | 302          | 14.0x    | \$4,227          |                     |
| PCS                                              | 107          | 12.7x    | \$1,364          | W.R. Grace multiple |
| Refining Solutions                               | 240          | 12.7x    | \$3,045          | W.R. Grace multiple |
| Chemetall Surface Treatment                      | 239          | 11.0x    | \$2,639          | PPG, AXTA           |
| All Other                                        | 0            | 8.0x     | \$0              |                     |
| Corporate                                        | (80)         | 9.0x     | (\$720)          |                     |
| <b>Total Firm Value</b>                          |              |          | <b>\$11,827</b>  |                     |
| Less: Net Debt                                   |              |          | \$2,602          | Year-End '17        |
| Plus: Options Proceeds from In-the-Money Options |              |          | \$44             |                     |
| Less: Underfunded Pension & OPEB Plans           |              |          | \$443            |                     |
| Less: Environmental Remediation                  |              |          | \$35             |                     |
| <b>Total Equity Value</b>                        |              |          | <b>\$8,791</b>   |                     |
| Fully Diluted Shares Outstanding                 |              |          | 112              |                     |
| <b>Per Share Equity Value</b>                    |              |          | <b>\$78.33</b>   |                     |
| SOTP Discount                                    |              |          | 7.5%             |                     |
| <b>Per Share Equity Value with SOTP Discount</b> |              |          | <b>\$72.46</b>   |                     |

Source: Deutsche Bank

## Risks

Key risks include price erosion in elemental bromine and brominated flame retardants, a downturn in consumer electronics demand (a key end market for brominated flame retardants) escalating rare earths prices and an inability to pass thru higher rare earths and other metals prices in fluid catalytic cracking and hydroprocessing catalysts.



Figure 23: Albemarle Annual Income Statement, 2014-2018E (\$ in millions, except per-share data)

|                                                            | 2014    | 2015    | 2016E   | 2017E   | 2018E   |
|------------------------------------------------------------|---------|---------|---------|---------|---------|
| <b>Sales</b>                                               | 2,502   | 3,651   | 3,357   | 3,487   | 3,723   |
| % Change                                                   | (4%)    | 46%     | (8%)    | 4%      | 7%      |
| <b>Cost of Goods Sold</b>                                  | (1,698) | (2,383) | (2,072) | (2,098) | (2,208) |
| <b>Gross Profit</b>                                        | 804     | 1,269   | 1,285   | 1,389   | 1,515   |
| Gross Margin                                               | 32.1%   | 34.7%   | 38.3%   | 39.8%   | 40.7%   |
| % Change                                                   | (2%)    | 58%     | 1%      | 8%      | 9%      |
| <b>Selling, General &amp; Admin.</b>                       | (265)   | (555)   | (571)   | (593)   | (633)   |
| SG&A/Sales                                                 | 10.6%   | 15.2%   | 17.0%   | 17.0%   | 17.0%   |
| % Change                                                   | 1%      | 109%    | 3%      | 4%      | 7%      |
| <b>Research &amp; Development</b>                          | (88)    | (103)   | (101)   | (105)   | (112)   |
| R&D/Sales                                                  | 3.5%    | 2.8%    | 3.0%    | 3.0%    | 3.0%    |
| % Change                                                   | 7%      | 16%     | (2%)    | 4%      | 7%      |
| (SG&A+R&D)/Sales                                           | 14.1%   | 18.0%   | 20.0%   | 20.0%   | 20.0%   |
| <b>Operating Profit</b>                                    | 450     | 611     | 613     | 691     | 770     |
| Operating Margin                                           | 18.0%   | 16.7%   | 18.3%   | 19.8%   | 20.7%   |
| % Change                                                   | (5%)    | 36%     | 0%      | 13%     | 11%     |
| <b>Interest Expense</b>                                    | (37)    | (126)   | (90)    | (86)    | (82)    |
| <b>Other Income</b>                                        | 1       | 53      | 1       | 1       | 1       |
| <b>Pretax Income</b>                                       | 414     | 538     | 524     | 606     | 689     |
| Pretax Margin                                              | 16.6%   | 14.7%   | 15.6%   | 17.4%   | 18.5%   |
| % Change                                                   | (4%)    | 30%     | (3%)    | 16%     | 14%     |
| <b>Income Taxes</b>                                        | (92)    | (135)   | (142)   | (158)   | (179)   |
| Tax Rate                                                   | 22.2%   | 25.1%   | 27.1%   | 26.0%   | 26.0%   |
| <b>Equity in Earnings of Affiliates</b>                    | 36      | 60      | 64      | 68      | 72      |
| % Change                                                   | 13%     | 68%     | 6%      | 6%      | 6%      |
| <b>Net Income Attributable to Noncontrolling Interests</b> | (28)    | (25)    | (24)    | (25)    | (26)    |
| <b>Net Income</b>                                          | 330     | 438     | 422     | 491     | 556     |
| Net Margin                                                 | 13.2%   | 12.0%   | 12.6%   | 14.1%   | 14.9%   |
| % Change                                                   | (4%)    | 33%     | (4%)    | 16%     | 13%     |
| <b>Basic Shares Outstanding</b>                            | 79      | 111     | 112     | 112     | 113     |
| % Change                                                   | (6%)    | 41%     | 1%      | 0%      | 0%      |
| <b>Diluted Shares Outstanding</b>                          | 79      | 112     | 113     | 113     | 113     |
| hl % Change                                                | (6%)    | 41%     | 1%      | 0%      | 0%      |
| <b>Basic EPS</b>                                           | \$4.20  | \$3.94  | \$3.76  | \$4.37  | \$4.92  |
| % Change                                                   | 3%      | (6%)    | (5%)    | 16%     | 13%     |
| <b>Diluted EPS</b>                                         | \$4.17  | \$3.93  | \$3.75  | \$4.35  | \$4.90  |
| % Change                                                   | 3%      | (6%)    | (5%)    | 16%     | 13%     |

Source: Deutsche Bank estimates, company data



Figure 24: Albemarle Quarterly Income Statement, 2015-2016E (\$ in millions, except per-share data)

|                                                            | 2015   |        |        |        |         | 2016E  |        |        |        |         |
|------------------------------------------------------------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|
|                                                            | Q1     | Q2     | Q3     | Q4     | YEAR    | Q1     | Q2     | Q3     | Q4     | YEAR    |
| <b>Sales</b>                                               | 884    | 931    | 905    | 930    | 3,651   | 814    | 866    | 850    | 827    | 3,357   |
| % Change                                                   | 135%   | 54%    | 141%   | 155%   | 46%     | 92%    | (7%)   | 94%    | 89%    | (8%)    |
| <b>Cost of Goods Sold</b>                                  | (586)  | (604)  | (586)  | (607)  | (2,383) | (510)  | (525)  | (519)  | (517)  | (2,072) |
| <b>Gross Profit</b>                                        | 298    | 327    | 320    | 324    | 1,269   | 304    | 341    | 331    | 310    | 1,285   |
| Gross Margin                                               | 33.7%  | 35.1%  | 35.3%  | 34.8%  | 34.7%   | 37.4%  | 39.4%  | 39.0%  | 37.5%  | 38.3%   |
| % Change                                                   | 52%    | 58%    | 54%    | 68%    | 58%     | 2%     | 4%     | 4%     | (4%)   | 1%      |
| <b>Selling, General &amp; Administrative</b>               | (139)  | (148)  | (138)  | (129)  | (555)   | (142)  | (152)  | (145)  | (132)  | (571)   |
| SG&A/Sales                                                 | 15.7%  | 15.9%  | 15.3%  | 13.9%  | 15.2%   | 17.5%  | 17.5%  | 17.0%  | 16.0%  | 17.0%   |
| % Change                                                   | 105%   | 119%   | 107%   | 105%   | 109%    | 3%     | 2%     | 5%     | 2%     | 3%      |
| <b>Research &amp; Development</b>                          | (26)   | (25)   | (25)   | (26)   | (103)   | (24)   | (26)   | (26)   | (25)   | (101)   |
| R&D/Sales                                                  | 3.0%   | 2.7%   | 2.8%   | 2.8%   | 2.8%    | 3.0%   | 3.0%   | 3.0%   | 3.0%   | 3.0%    |
| % Change                                                   | 17%    | 15%    | 13%    | 20%    | 16%     | (8%)   | 3%     | 1%     | (4%)   | (2%)    |
| (SG&A+R&D) % Change                                        | 83%    | 93%    | 83%    | 84%    | 86%     | 1%     | 2%     | 4%     | 1%     | 2%      |
| (SG&A+R&D)/Sales                                           | 18.7%  | 18.7%  | 18.1%  | 16.7%  | 18.0%   | 20.5%  | 20.5%  | 20.0%  | 19.0%  | 20.0%   |
| <b>Operating Profit</b>                                    | 133    | 154    | 156    | 169    | 611     | 137    | 164    | 161    | 153    | 613     |
| Operating Margin                                           | 15.0%  | 16.5%  | 17.2%  | 18.1%  | 16.7%   | 16.9%  | 18.9%  | 19.0%  | 18.5%  | 18.3%   |
| % Change                                                   | 125%   | 131%   | 132%   | 156%   | 36%     | 103%   | 107%   | 103%   | 91%    | 0%      |
| <b>Interest and Financing Expenses</b>                     | (34)   | (33)   | (32)   | (26)   | (126)   | (23)   | (23)   | (22)   | (22)   | (90)    |
| % Change                                                   | 389%   | 280%   | 366%   | 248%   | 341%    | 67%    | (31%)  | 69%    | 84%    | (28%)   |
| <b>Other Income</b>                                        | 54     | 1      | 0      | (2)    | 53      | 0      | 0      | 0      | 0      | 1       |
| <b>Pretax Income</b>                                       | 153    | 121    | 124    | 140    | 538     | 115    | 141    | 139    | 131    | 524     |
| Pretax Margin                                              | 17.3%  | 13.0%  | 13.7%  | 15.0%  | 14.7%   | 14.1%  | 16.3%  | 16.4%  | 15.9%  | 15.6%   |
| % Change                                                   | 55%    | 13%    | 13%    | 43%    | 30%     | (25%)  | 17%    | 12%    | (6%)   | (3%)    |
| <b>Income Taxes</b>                                        | (40)   | (34)   | (33)   | (27)   | (135)   | (31)   | (38)   | (38)   | (35)   | (142)   |
| Tax Rate                                                   | 26.3%  | 28.4%  | 26.9%  | 19.3%  | 25.1%   | 27.0%  | 27.0%  | 27.0%  | 27.0%  | 27.1%   |
| <b>Equity in Earnings of Affiliates</b>                    | 18     | 16     | 15     | 11     | 60      | 19     | 17     | 16     | 12     | 64      |
| % Change                                                   | 106%   | 48%    | 75%    | 45%    | 68%     | 6%     | 6%     | 6%     | 6%     | 6%      |
| <b>Net Income Attributable to Noncontrolling Interests</b> | (4)    | (7)    | (5)    | (8)    | (25)    | (4)    | (7)    | (5)    | (8)    | (24)    |
| <b>Net Income</b>                                          | 127    | 95     | 101    | 115    | 438     | 99     | 113    | 113    | 99     | 422     |
| Net Margin                                                 | 14.4%  | 10.2%  | 11.1%  | 12.4%  | 12.0%   | 12.2%  | 13.0%  | 13.3%  | 12.0%  | 12.6%   |
| % Change                                                   | 66%    | 10%    | 12%    | 49%    | 33%     | (22%)  | 19%    | 12%    | (14%)  | (4%)    |
| <b>Basic Shares Outstanding</b>                            | 108.1  | 112.2  | 112.2  | 112.2  | 111.2   | 112.2  | 112.2  | 112.2  | 112.2  | 112.2   |
| % Change                                                   | 36%    | 43%    | 43%    | 44%    | 41%     | 4%     | 0%     | 0%     | (0%)   | 1%      |
| <b>Diluted Shares Outstanding</b>                          | 108.5  | 112.6  | 112.5  | 112.6  | 111.6   | 112.6  | 112.6  | 112.6  | 112.6  | 112.6   |
| % Change                                                   | 35%    | 42%    | 43%    | 43%    | 41%     | 4%     | (0%)   | 0%     | (0%)   | 1%      |
| <b>Basic EPS</b>                                           | \$1.18 | \$0.85 | \$0.90 | \$1.03 | \$3.94  | \$0.88 | \$1.00 | \$1.01 | \$0.89 | \$3.76  |
| % Change                                                   | 23%    | (23%)  | (22%)  | 4%     | (6%)    | (25%)  | 19%    | 12%    | (14%)  | (5%)    |
| <b>Diluted EPS</b>                                         | \$1.17 | \$0.84 | \$0.89 | \$1.03 | \$3.93  | \$0.88 | \$1.00 | \$1.00 | \$0.88 | \$3.75  |
| % Change                                                   | 23%    | (23%)  | (21%)  | 4%     | (6%)    | (25%)  | 19%    | 12%    | (14%)  | (5%)    |

Source: Deutsche Bank estimates, company data



Figure 25: Albemarle Annual Segment Income Statement, 2014-2018E (\$ in millions, except per-share data)

|                                     | 2014   | 2015   | 2016E  | 2017E  | 2018E  |
|-------------------------------------|--------|--------|--------|--------|--------|
| <b>Sales</b>                        |        |        |        |        |        |
| <b><u>Performance Chemicals</u></b> |        |        |        |        |        |
| Bromine                             | 809    | 776    | 723    | 752    | 782    |
| % Change                            | (6%)   | (4%)   | (7%)   | 4%     | 4%     |
| Lithium                             | 474    | 509    | 577    | 675    | 783    |
| % Change                            | (1%)   | 7%     | 13%    | 17%    | 16%    |
| PCS                                 | 313    | 326    | 332    | 345    | 359    |
| % Change                            | 9%     | 4%     | 2%     | 4%     | 4%     |
| Performance Chemicals               | 1,596  | 1,610  | 1,632  | 1,773  | 1,925  |
| % Change                            | (2%)   | 1%     | 1%     | 9%     | 9%     |
| Refining Solutions                  | 852    | 729    | 728    | 772    | 818    |
| % Change                            | 10%    | (14%)  | (0%)   | 6%     | 6%     |
| Chemetall Surface Treatment         | 827    | 825    | 897    | 933    | 970    |
| % Change                            | 7%     | (0%)   | 9%     | 4%     | 4%     |
| All Other                           | 585    | 471    | 90     |        |        |
| % Change                            | (1%)   | (19%)  |        |        |        |
| Corporate                           | 11     | 15     | 10     | 10     | 10     |
| % Change                            | (22%)  | 45%    | (35%)  | 0%     | 0%     |
| <b>Total Sales</b>                  | 3,870  | 3,651  | 3,357  | 3,487  | 3,723  |
| % Change                            | 3%     | (6%)   | (8%)   | 4%     | 7%     |
| <b>EBITDA</b>                       |        |        |        |        |        |
| <b><u>Performance Chemicals</u></b> |        |        |        |        |        |
| Bromine                             | 225    | 223    | 200    | 212    | 225    |
| EBITDA Margin                       | 27.8%  | 28.7%  | 27.7%  | 28.2%  | 28.7%  |
| % Change                            | (21%)  | (1%)   | (10%)  | 6%     | 6%     |
| Lithium                             | 180    | 213    | 250    | 302    | 345    |
| EBITDA Margin                       | 37.9%  | 42.0%  | 43.3%  | 44.7%  | 44.0%  |
| % Change                            | -3%    | 19%    | 17%    | 21%    | 14%    |
| PCS                                 | 82     | 99     | 102    | 107    | 112    |
| EBITDA Margin                       | 26.1%  | 30.5%  | 30.8%  | 31.1%  | 31.3%  |
| % Change                            | 2%     | 22%    | 3%     | 5%     | 5%     |
| Performance Chemicals               | 487    | 536    | 553    | 621    | 682    |
| EBITDA Margin                       | 30.5%  | 33.3%  | 33.9%  | 35.1%  | 35.4%  |
| % Change                            | -11%   | 10%    | 3%     | 12%    | 10%    |
| Refining Solutions                  | 257    | 198    | 220    | 240    | 258    |
| EBITDA Margin                       | 30.1%  | 27.1%  | 30.3%  | 31.1%  | 31.6%  |
| % Change                            | 35%    | (23%)  | 12%    | 9%     | 8%     |
| Chemetall Surface Treatment         | 194    | 202    | 226    | 239    | 253    |
| EBITDA Margin                       | 23.5%  | 24.5%  | 25.2%  | 25.6%  | 26.0%  |
| % Change                            | 9%     | 4%     | 12%    | 6%     | 6%     |
| All Other                           | 98     | 54     | 14     |        |        |
| EBITDA Margin                       | 16.8%  | 11.5%  |        |        |        |
| % Change                            | 3%     | (45%)  |        |        |        |
| Corporate                           | (127)  | (30)   | (80)   | (80)   | (80)   |
| % Change                            | (2%)   | (77%)  | 168%   | 0%     | 0%     |
| <b>Total EBITDA</b>                 | 908    | 959    | 934    | 1,020  | 1,112  |
| EBITDA Margin                       | 23%    | 26%    | 28%    | 29%    | 30%    |
| % Change                            | 3%     | 6%     | (3%)   | 9%     | 9%     |
| <b>Interest expense</b>             |        | (126)  | (90)   | (86)   | (82)   |
| % Change                            |        |        | (28%)  | (4%)   | (5%)   |
| <b>Other</b>                        |        | 0      | 1      | 1      | 1      |
| <b>Pretax Income</b>                |        | 574    | 554    | 649    | 735    |
| Pretax Margin                       |        | 15.7%  | 16.5%  | 18.6%  | 19.7%  |
| % Change                            |        |        | (3%)   | 17%    | 13%    |
| <b>Income Taxes</b>                 |        | (135)  | (142)  | (158)  | (179)  |
| Tax Rate                            |        | 23.5%  | 25.6%  | 24.3%  | 24.4%  |
| <b>Net Income</b>                   |        | 438    | 412    | 491    | 556    |
| Net Margin                          |        | 12.0%  | 12.3%  | 14.1%  | 14.9%  |
| % Change                            |        |        | (6%)   | 19%    | 13%    |
| <b>Basic Shares Outstanding</b>     | 79     | 111    | 112    | 112    | 113    |
| % Change                            | (6%)   | 41%    | 1%     | 0%     | 0%     |
| <b>Diluted Shares Outstanding</b>   | 79     | 112    | 113    | 113    | 113    |
| % Change                            | (6%)   | 41%    | 1%     | 0%     | 0%     |
| <b>Basic EPS</b>                    | \$4.20 | \$3.94 | \$3.76 | \$4.37 | \$4.92 |
| % Change                            | 3%     | (6%)   | (5%)   | 16%    | 13%    |
| <b>Diluted EPS</b>                  | \$4.17 | \$3.93 | \$3.75 | \$4.35 | \$4.90 |
| % Change                            | 3%     | (6%)   | (5%)   | 16%    | 13%    |

Source: Deutsche Bank estimates, company data



Figure 26: Albemarle Quarterly Segment Income Statement, 2015-2016E (\$ in millions, except per-share data)

|                                        | 2015   |        |        |        |        | 2016E  |        |        |        |        |
|----------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                        | Q1     | Q2     | Q3     | Q4     | YEAR   | Q1     | Q2     | Q3     | Q4     | YEAR   |
| <b>Sales</b>                           |        |        |        |        |        |        |        |        |        |        |
| <b><u>Performance Chemicals</u></b>    |        |        |        |        |        |        |        |        |        |        |
| Bromine                                | 190    | 224    | 191    | 171    | 776    | 174    | 186    | 196    | 166    | 723    |
| % Change                               | (7%)   | 14%    | (14%)  | (9%)   | (4%)   | (8%)   | (17%)  | 3%     | (3%)   | (7%)   |
| Lithium                                | 114    | 127    | 128    | 139    | 509    | 133    | 141    | 145    | 158    | 577    |
| % Change                               | (1%)   | 9%     | 10%    | 12%    | 7%     | 16%    | 11%    | 13%    | 14%    | 13%    |
| PCS                                    | 84     | 86     | 80     | 75     | 326    | 84     | 88     | 83     | 78     | 332    |
| % Change                               | 15%    | 2%     | 3%     | (3%)   | 4%     | (1%)   | 2%     | 3%     | 4%     | 2%     |
| Performance Chemicals                  | 388    | 437    | 400    | 385    | 1,610  | 391    | 415    | 424    | 403    | 1,632  |
| % Change                               | (1%)   | 10%    | (4%)   | (1%)   | 1%     | 1%     | (5%)   | 6%     | 4%     | 1%     |
| Refining Solutions                     | 179    | 165    | 185    | 200    | 729    | 165    | 168    | 189    | 206    | 728    |
| % Change                               | (8%)   | (20%)  | (15%)  | (14%)  | (14%)  | (8%)   | 2%     | 2%     | 3%     | (0%)   |
| Chemetall Surface Treatment            | 192    | 213    | 212    | 208    | 825    | 211    | 237    | 235    | 214    | 897    |
| % Change                               | (6%)   | 0%     | 1%     | 3%     | (0%)   | 10%    | 11%    | 11%    | 3%     | 9%     |
| All Other                              | 122    | 113    | 102    | 133    | 471    | 45     | 45     | -      | -      | 90     |
| % Change                               | (24%)  | (24%)  | (32%)  | 8%     | (19%)  |        |        |        |        |        |
| Corporate                              | 2      | 3      | 6      | 3      | 15     | 2      | 2      | 2      | 4      | 10     |
| % Change                               | (22%)  | 2%     | 127%   | 136%   | 45%    | (17%)  | (40%)  | (69%)  | 21%    | (35%)  |
| <b>Total Sales</b>                     | 884    | 931    | 905    | 930    | 3,651  | 814    | 866    | 850    | 827    | 3,357  |
| % Change                               | (7%)   | (4%)   | (9%)   | (2%)   | (6%)   | (8%)   | (7%)   | (6%)   | (11%)  | (8%)   |
| <b>EBITDA</b>                          |        |        |        |        |        |        |        |        |        |        |
| <b><u>Performance Chemicals</u></b>    |        |        |        |        |        |        |        |        |        |        |
| Bromine                                | 53     | 69     | 59     | 42     | 223    | 48     | 55     | 57     | 41     | 200    |
| EBITDA Margin                          | 27.9%  | 30.7%  | 30.8%  | 24.6%  | 28.7%  | 27.5%  | 29.5%  | 29.0%  | 24.4%  | 27.7%  |
| % Change                               | (7%)   | 31%    | (6%)   | (21%)  | (1%)   | (9%)   | (20%)  | (3%)   | (4%)   | (10%)  |
| Lithium                                | 51     | 54     | 52     | 57     | 213    | 60     | 61     | 60     | 69     | 250    |
| EBITDA Margin                          | 44.2%  | 42.2%  | 40.6%  | 41.1%  | 42.0%  | 45.0%  | 43.5%  | 41.5%  | 43.5%  | 43.3%  |
| % Change                               | 21%    | 26%    | 14%    | 15%    | 19%    | 18%    | 14%    | 16%    | 21%    | 17%    |
| PCS                                    | 27     | 26     | 25     | 21     | 99     | 27     | 27     | 26     | 22     | 102    |
| EBITDA Margin                          | 32.0%  | 30.6%  | 31.5%  | 27.7%  | 30.5%  | 32.5%  | 31.0%  | 31.5%  | 28.0%  | 30.8%  |
| % Change                               | 62%    | 8%     | 26%    | 2%     | 22%    | 0%     | 3%     | 3%     | 5%     | 3%     |
| Performance Chemicals                  | 131    | 149    | 136    | 120    | 536    | 135    | 143    | 143    | 131    | 553    |
| EBITDA Margin                          | 33.6%  | 34.0%  | 34.1%  | 31.2%  | 33.3%  | 34.5%  | 34.6%  | 33.8%  | 32.6%  | 33.9%  |
| % Change                               | 13%    | 24%    | 6%     | (3%)   | 10%    | 3%     | (4%)   | 5%     | 9%     | 3%     |
| Refining Solutions                     | 42     | 48     | 55     | 53     | 198    | 45     | 55     | 60     | 60     | 220    |
| EBITDA Margin                          | 23.5%  | 29.3%  | 29.5%  | 26.3%  | 27.1%  | 27.3%  | 33.0%  | 32.0%  | 28.9%  | 30.3%  |
| % Change                               | (31%)  | (28%)  | (12%)  | (22%)  | (23%)  | 7%     | 15%    | 11%    | 13%    | 12%    |
| Chemetall Surface Treatment            | 46     | 48     | 54     | 54     | 202    | 55     | 57     | 59     | 56     | 226    |
| EBITDA Margin                          | 23.9%  | 22.7%  | 25.4%  | 25.8%  | 24.5%  | 26.0%  | 24.0%  | 24.9%  | 26.2%  | 25.2%  |
| % Change                               | (1%)   | (1%)   | 5%     | 13%    | 4%     | 19%    | 17%    | 9%     | 4%     | 12%    |
| All Other                              | 14     | 10     | 6      | 24     | 54     | 7      | 7      |        |        | 14     |
| EBITDA Margin                          | 11.1%  | 8.6%   | 6.1%   | 18.3%  | 11.5%  |        |        |        |        |        |
| % Change                               | (51%)  | (66%)  | (77%)  | 66%    | (45%)  |        |        |        |        |        |
| Corporate                              | 33     | (25)   | (16)   | (22)   | (30)   | (20)   | (20)   | (20)   | (20)   | (80)   |
| % Change                               | (198%) | (25%)  | (51%)  | (19%)  | (77%)  | (160%) | (20%)  | 26%    | (10%)  | 168%   |
| <b>Total EBITDA</b>                    | 266    | 230    | 235    | 229    | 959    | 222    | 243    | 242    | 227    | 934    |
| EBITDA Margin                          | 30.0%  | 24.7%  | 26.0%  | 24.6%  | 26.3%  | 27.3%  | 28.0%  | 28.5%  | 27.4%  | 27.8%  |
| % Change                               | 23%    | (0%)   | (1%)   | 1%     | 6%     | (17%)  | 5%     | 3%     | (1%)   | (3%)   |
| <b>Interest and Financing Expenses</b> | (34)   | (33)   | (32)   | (26)   | (126)  | (23)   | (23)   | (22)   | (22)   | (90)   |
| % Change                               |        |        |        |        |        | (33%)  | (31%)  | (31%)  | (16%)  | (28%)  |
| <b>Other</b>                           | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 1      |
| <b>Pretax Income</b>                   | 167    | 129    | 134    | 143    | 574    | 130    | 151    | 151    | 135    | 564    |
| Pretax Margin                          | 18.9%  | 13.9%  | 14.8%  | 15.3%  | 15.7%  | 16.0%  | 17.4%  | 17.7%  | 16.3%  | 16.8%  |
| % Change                               |        |        |        |        |        |        |        |        |        | (2%)   |
| <b>Income Taxes</b>                    | (40)   | (34)   | (33)   | (27)   | (135)  | (31)   | (38)   | (38)   | (35)   | (142)  |
| Tax Rate                               | 24.0%  | 26.6%  | 24.9%  | 19.0%  | 23.5%  | 23.8%  | 25.3%  | 25.0%  | 26.3%  | 25.2%  |
| <b>Net Income</b>                      | 127    | 95     | 101    | 116    | 438    | 99     | 113    | 113    | 99     | 422    |
| Net Margin                             | 14.4%  | 10.2%  | 11.1%  | 12.4%  | 12.0%  | 12.2%  | 13.0%  | 13.3%  | 12.0%  | 12.6%  |
| % Change                               |        |        |        |        |        |        |        |        |        | (4%)   |
| <b>Basic Shares Outstanding</b>        | 108.1  | 112.2  | 112.2  | 112.2  | 111.2  | 112.2  | 112.2  | 112.2  | 112.2  | 112.2  |
| % Change                               | 36%    | 43%    | 43%    | 44%    | 41%    | 4%     | 0%     | 0%     | (0%)   | 1%     |
| <b>Diluted Shares Outstanding</b>      | 108.5  | 112.6  | 112.5  | 112.6  | 111.6  | 112.6  | 112.6  | 112.6  | 112.6  | 112.6  |
| % Change                               | 35%    | 42%    | 43%    | 43%    | 41%    | 4%     | (0%)   | 0%     | (0%)   | 1%     |
| <b>Basic EPS</b>                       | \$1.18 | \$0.85 | \$0.90 | \$1.03 | \$3.94 | \$0.88 | \$1.00 | \$1.01 | \$0.89 | \$3.76 |
| % Change                               | 23%    | (23%)  | (22%)  | 4%     | (6%)   | (25%)  | 19%    | 12%    | (14%)  | (5%)   |
| <b>Diluted EPS</b>                     | \$1.17 | \$0.84 | \$0.89 | \$1.03 | \$3.93 | \$0.88 | \$1.00 | \$1.00 | \$0.88 | \$3.75 |
| % Change                               | 23%    | (23%)  | (21%)  | 4%     | (6%)   | (25%)  | 19%    | 12%    | (14%)  | (5%)   |

Source: Deutsche Bank estimates, company data



Figure 27: Albemarle Annual Cash Flow Statement, 2014-2018E (\$ in millions, except per-share data)

|                                                                                 | 2014  | 2015    | 2016E | 2017E | 2018E |
|---------------------------------------------------------------------------------|-------|---------|-------|-------|-------|
| <b>Operating Activities:</b>                                                    |       |         |       |       |       |
| <b>Adjustments to Reconcile Net Income to Cash From Operations</b>              |       |         |       |       |       |
| Net Income                                                                      | \$161 | \$360   | \$422 | \$491 | \$556 |
| Depreciation and Amortization                                                   | 104   | 260     | 280   | 290   | 300   |
| Restructuring Charges                                                           | 6     | (7)     |       |       |       |
| Loss (Gain) on Sale of Business                                                 | 86    |         |       |       |       |
| Stock-Based Compensation                                                        | 14    | 15      | 16    | 17    | 18    |
| Excess Tax Benefit Realized from Stock-Based Compensation Arrangements          | (1)   | (0)     |       |       |       |
| Equity in Net Income of Unconsolidated Investments                              | (36)  | (31)    | (34)  | (38)  | (42)  |
| Dividends Received from Unconsolidated Investments and Nonmarketable Securities | 41    | 60      | 63    | 66    | 69    |
| Pension and Postretirement Expense                                              | 134   | (39)    |       |       |       |
| Pension and Postretirement Contributions                                        | (14)  | (22)    | (20)  | (20)  | (20)  |
| Deferred Income Taxes                                                           | (65)  | (136)   | 88    | 78    | 58    |
| Unrealized Gain on Investments in Marketable Securities                         | (1)   | (1)     |       |       |       |
| Other                                                                           |       |         | (110) | (25)  | (25)  |
| <b>Change in Assets and Liabilities</b>                                         |       |         |       |       |       |
| Working Capital (Increases)                                                     | 57    | (42)    | (1)   | (25)  | (54)  |
| Other                                                                           | 7     | (57)    | 0     | 0     | 0     |
| <b>Cash Flow From Operations</b>                                                | 493   | 361     | 705   | 835   | 861   |
| <b>Free Cash Flow</b>                                                           |       |         |       |       |       |
| Cash Flow From Operations                                                       | 493   | 361     | 705   | 835   | 861   |
| Less: Capital Expenditures                                                      | (111) | (228)   | (235) | (244) | (279) |
| <b>Free Cash Flow</b>                                                           | 382   | 133     | 470   | 591   | 581   |
| <b>Investing Activities:</b>                                                    |       |         |       |       |       |
| Capital Expenditures                                                            | (111) | (228)   | (235) | (244) | (279) |
| Acquisitions                                                                    |       | (2,100) |       |       |       |
| Divestitures                                                                    | 105   | 9       | 250   |       |       |
| Decrease in Restricted Cash                                                     |       | 58      |       |       |       |
| Investments in Marketable Securities                                            | 1     | 1       |       |       |       |
| Long-Term Advances to Joint Ventures                                            | (7)   | 2       |       |       |       |
| Return of Capital from Unconsolidated Investment                                |       | 98      |       |       |       |
| Other                                                                           | (33)  |         |       |       |       |
| <b>Total Investing Activities</b>                                               | (46)  | (2,161) | 15    | (244) | (279) |
| <b>Financing Activities:</b>                                                    |       |         |       |       |       |
| Increase (Decrease) in Debt                                                     | 1,876 | (322)   | (588) | (448) | (427) |
| Issue (Repurchase) of Common Stock                                              |       |         |       |       |       |
| Dividends                                                                       | (84)  | (119)   | (132) | (143) | (154) |
| Dividends Paid to Noncontrolling Interests                                      | (16)  | (23)    |       |       |       |
| Purchase of Non-Controlling Interest                                            |       | (5)     |       |       |       |
| Repurchases of Common Stock                                                     | (150) |         |       |       |       |
| Proceeds from Exercise of Stock Options                                         | 3     | 1       |       |       |       |
| Excess tax benefits realized from stock-based compensation arrangements         | 1     | 0       |       |       |       |
| Withholding taxes paid on stock-based compensation award distributions          | (3)   | (2)     |       |       |       |
| Debt financing costs                                                            | (18)  | (5)     |       |       |       |
| Other                                                                           |       | (4)     |       |       |       |
| <b>Total Financing Activities</b>                                               | 1,609 | (478)   | (720) | (591) | (581) |
| <b>Effect of Exchange Rate Changes</b>                                          | (43)  | 2       |       |       |       |
| <b>Net Increase (Decrease) in Cash</b>                                          | 2,013 | (2,276) | 0     | 0     | 0     |

Source: Deutsche Bank estimates, company data





Figure 28: Albemarle Annual Balance Sheet, 2014-2018E (\$ in millions, except per-share data)

|                                                     | 2014    | 2015    | 2016E   | 2017E   | 2018E   |
|-----------------------------------------------------|---------|---------|---------|---------|---------|
| <b>Assets</b>                                       |         |         |         |         |         |
| <b>Current Assets</b>                               |         |         |         |         |         |
| Cash and Equivalents                                | \$2,490 | \$214   | \$214   | \$214   | \$214   |
| Accounts Receivable                                 | 435     | 633     | 555     | 577     | 616     |
| Inventories                                         | 358     | 509     | 519     | 525     | 553     |
| Other Current Assets                                | 66      | 71      | 71      | 71      | 71      |
| Assets Held for Sale                                |         | 404     | 404     | 404     | 404     |
| <b>Total Current Assets</b>                         | 3,349   | 1,831   | 1,763   | 1,791   | 1,858   |
| Property, Plant & Equipment                         | 1,232   | 2,485   | 2,127   | 2,014   | 1,924   |
| Investments                                         | 194     | 455     | 455     | 455     | 455     |
| Goodwill & Other Intangibles                        | 287     | 4,627   | 4,627   | 4,627   | 4,627   |
| Other Assets                                        | 161     | 217     | 361     | 423     | 490     |
| <b>Total Assets</b>                                 | 5,223   | 9,615   | 9,333   | 9,311   | 9,355   |
| <b>Liabilities &amp; Stockholders' Equity</b>       |         |         |         |         |         |
| <b>Current Liabilities</b>                          |         |         |         |         |         |
| Current Portion L/T Debt                            | 711     | 677     | 677     | 677     | 677     |
| Accounts Payable                                    | 232     | 307     | 238     | 241     | 254     |
| Accrued Expenses                                    | 166     | 402     | 402     | 402     | 402     |
| Dividends Payable                                   | 21      | 32      | 32      | 32      | 32      |
| Liabilities Held for Sale                           |         | 129     | 129     | 129     | 129     |
| Income Taxes                                        | 9       | 69      | 69      | 69      | 69      |
| <b>Total Current Liabilities</b>                    | 1,140   | 1,617   | 1,548   | 1,551   | 1,564   |
| <b>Long-Term Debt</b>                               | 2,223   | 3,175   | 2,586   | 2,138   | 1,711   |
| <b>Other Liabilities</b>                            | 315     | 686     | 682     | 679     | 678     |
| <b>Deferred Income Taxes</b>                        | 57      | 736     | 824     | 902     | 960     |
| <b>Stockholders' Equity</b>                         |         |         |         |         |         |
| Common Shares                                       | 1       | 1       | 1       | 1       | 1       |
| Additional Paid-in Capital                          | 10      | 2,059   | 2,059   | 2,059   | 2,059   |
| Accumulated Other Comp. Income (Loss)               | (62)    | (421)   | (421)   | (421)   | (421)   |
| Retained Earnings                                   | 1,411   | 1,615   | 1,906   | 2,254   | 2,656   |
| Treasury Stock                                      |         |         | 0       | 0       | 0       |
| <b>Total Common Stockholders' Equity</b>            | 1,359   | 3,254   | 3,545   | 3,893   | 4,295   |
| <b>Noncontrolling Interests</b>                     | 129     | 147     | 147     | 147     | 147     |
| <b>Total Equity</b>                                 | 1,489   | 3,401   | 3,691   | 4,040   | 4,442   |
| <b>Total Liabilities &amp; Stockholders' Equity</b> | \$5,223 | \$9,615 | \$9,333 | \$9,311 | \$9,355 |

Source: Deutsche Bank estimates, company data





# Appendix 1

## Important Disclosures

Additional information available upon request

### Disclosure checklist

| Company   | Ticker | Recent price*         | Disclosure |
|-----------|--------|-----------------------|------------|
| Albemarle | ALB.N  | 63.93 (USD) 31 Mar 16 | 6,9,14     |

\*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr>.

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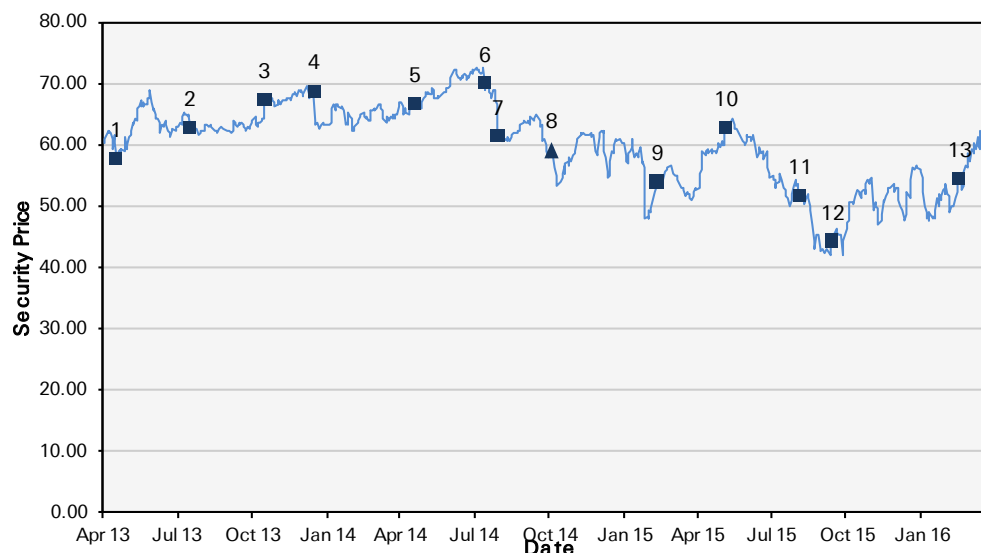
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## Historical recommendations and target price: Albemarle (ALB.N)

(as of 3/31/2016)



### Previous Recommendations

Strong Buy  
Buy  
Market Perform  
Underperform  
Not Rated  
Suspended Rating

### Current Recommendations

Buy  
Hold  
Sell  
Not Rated  
Suspended Rating

\*New Recommendation Structure  
as of September 9, 2002

|                |                                    |                 |                                   |
|----------------|------------------------------------|-----------------|-----------------------------------|
| 1. 04/19/2013: | Hold, Target Price Change USD63.00 | 8. 10/06/2014:  | Upgrade to Buy, USD67.00          |
| 2. 07/19/2013: | Hold, Target Price Change USD65.00 | 9. 02/13/2015:  | Buy, Target Price Change USD60.00 |
| 3. 10/18/2013: | Hold, Target Price Change USD72.00 | 10. 05/08/2015: | Buy, Target Price Change USD70.00 |
| 4. 12/18/2013: | Hold, Target Price Change USD70.00 | 11. 08/07/2015: | Buy, Target Price Change USD62.00 |
| 5. 04/21/2014: | Hold, Target Price Change USD72.00 | 12. 09/16/2015: | Buy, Target Price Change USD55.00 |
| 6. 07/16/2014: | Hold, Target Price Change USD75.00 | 13. 02/19/2016: | Buy, Target Price Change USD62.00 |
| 7. 08/01/2014: | Hold, Target Price Change USD67.00 |                 |                                   |

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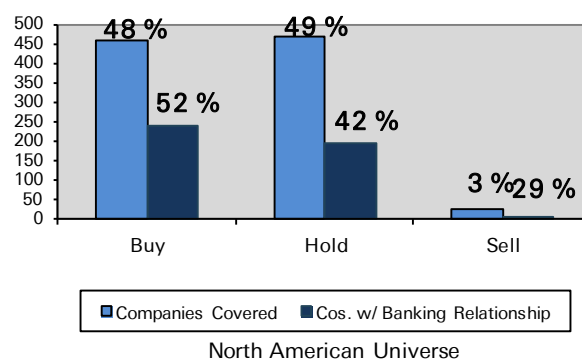
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