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## 3Q 2018 Business Results \& Outlook

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(ㅏ) LG Chem

## Disclaimer

The business results currently under audit review are presented here for investors' convenience. Hence, please be advised that some of their contents may be altered in the course of audit.

The business results are subject to the K-IFRS(Korea International Financial Reporting Standards).

Forecasts and projections contained in this material are based on current business environments and management's strategies. Please note it may differ from actual results, due to uncertainties including changes in the future business environment and recalibration of strategy.

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## 3Q 2018 Business Results

(Unit: KRW bn)

| Classification | 3Q '17 | 2Q'18 | 3Q '18 | YoY | QoQ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sales | 6,397 | 7,052 | 7,235 | 13.1\% | 2.6\% |
| Operating Profit <br> (\%) | $\begin{array}{r} 790 \\ \text { (12.3) } \end{array}$ | $\begin{array}{r} 703 \\ (10.0) \end{array}$ | $\begin{aligned} & 602 \\ & (8.3) \end{aligned}$ | -23.7\% | -14.3\% |
| EBITDA <br> (\%) | $\begin{aligned} & 1,137 \\ & (17.8) \end{aligned}$ | $1,065$ <br> (15.1) | $\begin{array}{r} 975 \\ (13.5) \end{array}$ | -14.2\% | -8.5\% |
| Pre-tax Income (\%) | $\begin{array}{r} 702 \\ (11.0) \end{array}$ | $644$ <br> (9.1) | $\begin{array}{r} 485 \\ (6.7) \end{array}$ | -30.9\% | -24.7\% |
| Net Income (\%) | $\begin{aligned} & 546 \\ & (8.5) \end{aligned}$ | (7.0) | $\begin{gathered} 347 \\ (4.8) \end{gathered}$ | -36.5\% | -29.8\% |

## 3Q 2018 Business Results

## Balance Sheet

## Financial Ratios


(Unit: \%)

|  | '17 <br> (End) | 1Q'18 <br> (End) | 2Q'18 <br> (End) | $3 Q^{\prime} 18$ <br> (End) | Change |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Debt / Equity | 18.6 | 25.7 | 30.1 | 30.7 | $0.6 \% p$ |
| Net Debt/ <br> Equity | 1.6 | 6.7 | 13.4 | 11.4 | $-2.0 \% p$ |
| Interest <br> Coverage <br> Ratio (x) | 29.3 | 25.4 | 24.5 | 21.5 | -3.0 |
| ROE | 13.3 | 13.5 | 12.5 | 11.1 | $-1.4 \% p$ |
| ROA | 8.9 | 8.6 | 8.0 | 6.9 | $-1.1 \% p$ |

※ ROE: Annualized net profit / Avg of beginning \& ending shareholders' equity ROA: Annualized net profit / Avg of beginning \& ending assets

## Results \& Outlook by Business

## Basic Materials \& Chemicals

## Performance Breakdown

## Analysis \& Outlook

(Unit: KRW bn)

| - NCC/PO | 4,316 | 4,671 | 4,649 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | 29\% | 30\% | 30\% |
| - PVC/ | 13\% | 13\% | 13\% |
| - ABS/EP | 38\% | 37\% | 36\% |
| - Acrylate/ | 10\% | 10\% | 10\% |
| - Rubber/ | 11\% | 10\% | 11\% |
| polymers | '17.3Q | '18.2Q | '18.3Q |
| Operating Profit OP(\%) | $\begin{gathered} 755 \\ (17.5 \%) \end{gathered}$ | $\begin{gathered} 705 \\ (15.1 \%) \end{gathered}$ | $\begin{gathered} 548 \\ (11.8 \%) \end{gathered}$ |

## Analysis

- Spread decreased due to increasing of feedstock prices and weaker demand because of trade war
- Increased sales and improved profitability in Acrylate/SAP by improving customer structure


## Outlook

- Although external uncertainties and unbalanced supply/demand situation in long-term upstream industry are expected, inventory level of major products is expected to be low and supply/demand situation in most downstream industry to be improved in longer term view
- Short-term profit is expected to slow down due to regular maintenance(T/A) of NCC, but profitability will be improved through differentiated competitiveness


## Performance Breakdown

## Analysis \& Outlook

(Unit: KRW bn)


## Analysis

- Energy Sales was posted historic-high and profitability was improved Solutions from an increase in EV sales and IT \& New Application Battery
- I\&E Turnaround was made by increasing in sales volume caused Materials by seasonality


## Outlook

- Energy Revenue growth and profitability expect to grow continually Solutions due to huge growth of automotive and ESS battery demand
- I\&E Despite concerns about slowing demand in display market Materials and declined price, revenue expects to increase due to strength of cost competitiveness and growth of premium product sales


## Results \& Outlook by Business

## Performance Breakdown

(Unit: KRW bn)


## Analysis \& Outlook

## Appendix

Divisional Sales \& Operating Profit
(Unit: KRW bn)

| LG CHEM | 2016 |  |  |  |  | 2017 |  |  |  |  | 2018 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q | Total | 1Q | 2Q | 3Q | 4Q | Total | 10 | 2 Q | 3Q |
| Sales | 4,874 | 5,219 | 5,054 | 5,512 | 20,659 | 6,487 | 6,382 | 6,397 | 6,432 | 25,698 | 6,554 | 7,052 | 7,235 |
| Operating Profits | 458 | 612 | 460 | 462 | 1,992 | 797 | 727 | 790 | 615 | 2,928 | 651 | 703 | 602 |
| (\%) | 9.4\% | 11.7\% | 9.1\% | 8.4\% | 9.6\% | 12.3\% | 11.4\% | 12.3\% | 9.6\% | 11.4\% | 9.9\% | 10.0\% | 8.3\% |
| EBITDA | 780 | 946 | 796 | 805 | 3,327 | 1,151 | 1,074 | 1,137 | 972 | 4,335 | 1,006 | 1,065 | 975 |
| (\%) | 16.0\% | 18.1\% | 15.8\% | 14.6\% | 16.0\% | 17.8\% | 16.8\% | 17.8\% | 15.1\% | 16.9\% | 15.3\% | 15.1\% | 13.5\% |
| Basic Materials \& Chemicals | 3,512 | 3,653 | 3,525 | 3,758 | 14,447 | 4,495 | 4,319 | 4,316 | 4,297 | 17,427 | 4,359 | 4,671 | 4,649 |
| NCC / PO | 1,156 | 1,221 | 1,131 | 1,161 | 4,669 | 1,362 | 1,291 | 1,246 | 1,323 | 5,2२2 | 1,326 | 1,401 | 1,386 |
| PVC / Plasticizer | 489 | 508 | 495 | 542 | 2,035 | 587 | 572 | 560 | 568 | 2,288 | 605 | 596 | 611 |
| ABS | 877 | 920 | 866 | 947 | 3,611 | 1,216 | 1,185 | 1,261 | 1,214 | 4,876 | 1,233 | 1,356 | 1,304 |
| EP | 298 | 299 | 304 | 308 | 1,210 | 332 | 307 | 357 | 347 | 1,343 | 347 | 372 | 374 |
| Acrylate / SAP | 345 | 331 | 357 | 391 | 1,424 | 435 | 427 | 424 | 420 | 1,706 | 427 | 468 | 477 |
| Rubber / Specialty Polymer | 347 | 374 | 370 | 408 | 1,499 | 563 | 537 | 467 | 424 | 1,991 | 420 | 478 | 497 |
| Operating Profit | 466 | 649 | 517 | 506 | 2,139 | 734 | 686 | 755 | 634 | 2,808 | 637 | 704 | 548 |
| (\%) | 13.3\% | 17.8\% | 14.7\% | 13.5\% | 14.8\% | 16.3\% | 15.9\% | 17.5\% | 14.7\% | 16.1\% | 14.6\% | 15.1\% | 11.8\% |
| Energy Solutions | 814 | 809 | 879 | 1,059 | 3,562 | 999 | 1,120 | 1,189 | 1,253 | 4,561 | 1,244 | 1,494 | 1,704 |
| Operating Profit | 0 | -31 | -14 | -4 | -49 | -10 | 7 | 18 | 14 | 29 | 2 | 27 | 84 |
| (\%) | 0.0\% | -3.9\% | -1.6\% | -0.3\% | -1.4\% | -1.0\% | 0.7\% | 1.5\% | 1.1\% | 0.6\% | 0.2\% | 1.8\% | 4.9\% |
| I\&E Materials | 627 | 650 | 641 | 739 | 2,656 | 725 | 747 | 786 | 801 | 3,059 | 759 | 765 | 847 |
| Operating Profit | -8 | -15 | -16 | -16 | -55 | 29 | 23 | 41 | 18 | 111 | -10 | -22 | 12 |
| (\%) | -1.3\% | -2.2\% | -2.5\% | -2.2\% | -2.1\% | 4.0\% | 3.1\% | 5.2\% | 2.2\% | 3.6\% | -1.3\% | -2.9\% | 1.4\% |
| Life Sciences | 120 | 131 | 135 | 147 | 532 | 129 | 135 | 139 | 148 | 552 | 131 | 151 | 135 |
| Operating Profit | 17 | 11 | 10 | 9 | 47 | 21 | 19 | 13 | 1 | 54 | 7 | 16 | 13 |
| (\%) | 14.3\% | 8.1\% | 7.5\% | 6.4\% | 8.9\% | 15.9\% | 14.0\% | 9.5\% | 0.6\% | 9.7\% | 5.3\% | 10.5\% | 9.8\% |
| Farm Hannong | 242 | 189 | 87 | 50 | 568 | 254 | 186 | 97 | 67 | 604 | 237 | 188 | 92 |
| Operating Profit | 39 | -2 | -20 | -31 | -15 | 50 | 14 | -10 | -19 | 36 | 45 | 12 | -19 |
| (\%) | 15.9\% | -1.2\% | -23.3\% | -61.1\% | -2.6\% | 19.8\% | 7.3\% | -10.1\% | -27.9\% | 5.9\% | 19.2\% | 6.1\% | -20.4\% |

## Appendix

## Borrowings \& Cash Flow

## Debt

## Cashflow

(Unit : KRW bn)

| Classification | '17 <br> (End) | 1Q'18 <br> (End) | 2Q'18 <br> (End) | 3Q'18 <br> (End) |
| :---: | ---: | ---: | ---: | ---: |
| Total | 3,045 | 4,236 | 5,114 | 5,300 |
| KRW <br> denominated | 1,327 <br> $44 \%$ | 2,375 <br> $56 \%$ | 2,340 <br> $46 \%$ | 2,346 <br> $44 \%$ |
| Other currency <br> denominated | 1,718 <br> $56 \%$ | 1,861 <br> $44 \%$ | 2,774 <br> $54 \%$ | 2,954 <br> $56 \%$ |
| Short-term | 1,451 <br> $48 \%$ | 1,593 <br> $38 \%$ | 1,903 <br> $37 \%$ | 2,037 <br> $38 \%$ |
| Long-term | 1,594 <br> $52 \%$ | 2,643 <br> $62 \%$ | 3,211 <br> $63 \%$ | 3,262 <br> $62 \%$ |
| Cash | 2,779 | 3,132 | 2,830 | 3,333 |
| Net Debt | 266 | 1,105 | 2,284 | 1,967 |

## CAPEX

## R\&D expenses

(Unit: KRW bn)
(Unit: KRW bn)

| Classification |  | ‘16 | '17 | 1Q '18 | 2Q'18 | 3Q '18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Basic Materials \& Chemicals | New / Expansion | 103 | 324 | 116 | 229 | 182 |
|  | Maintenance | 289 | 345 | 49 | 104 | 114 |
|  | Total | 392 | 669 | 164 | 333 | 296 |
| Energy <br> Solutions | New / Expansion | 365 | 691 | 150 | 275 | 502 |
|  | Maintenance | 197 | 259 | 30 | 72 | 68 |
|  | Total | 563 | 950 | 180 | 347 | 569 |
| I \& E <br> Materials | New / Expansion | 291 | 120 | 46 | 30 | 51 |
|  | Maintenance | 95 | 101 | 28 | 37 | 32 |
|  | Total | 386 | 221 | 75 | 67 | 83 |
| Life <br> Sciences | New / Expansion | 124 | 81 | 24 | 18 | 9 |
|  | Maintenance | 38 | 25 | 2 | 6 | 8 |
|  | Total | 162 | 106 | 26 | 24 | 17 |
| Common (including Farm Hannong) | New / Expansion | 555 | 395 | 21 | 43 | 28 |
|  | Maintenance | 82 | 200 | 36 | 45 | 39 |
|  | Total | 637 | 595 | 56 | 88 | 67 |
| Total | New / Expansion | 1,314 | 1,612 | 357 | 595 | 771 |
|  | Maintenance | 663 | 928 | 145 | 263 | 259 |
|  | Total | 1,977 | 2,540 | 501 | 859 | 1,030 |


| Classification | 2016 | 2017 | 1Q '18 | 2Q 18 | 3Q 18 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Basic Materials \& Chemicals (\% of sales) | $\begin{array}{r} 150 \\ (1.0 \%) \end{array}$ | $\begin{array}{r} 164 \\ (0.9 \%) \end{array}$ | $\begin{array}{r} 40 \\ (0.9 \%) \end{array}$ | $\begin{array}{r} 43 \\ (0.9 \%) \end{array}$ | $\begin{array}{r} 47 \\ (1.0 \%) \end{array}$ |
| Energy Solutions (\% of sales) |  |  |  | $\begin{array}{r} 78 \\ (5.2 \%) \end{array}$ |  |
| I \& E <br> Materials (\% of sales) | $\begin{array}{r} 161 \\ (6.1 \%) \end{array}$ | $\begin{array}{r} 181 \\ (5.9 \%) \end{array}$ |  |  | $\begin{array}{r} 50 \\ (5.9 \%) \end{array}$ |
| Life Sciences (\% of sales) |  |  |  | (21.1\%) |  |
| $\begin{gathered} \text { Common } \\ \text { (including } \\ \text { Farm Hannong) } \end{gathered}$ | 104 | 152 | 45 | 59 | 58 |
| Total <br> (\% of sales) | $\begin{array}{r} 686 \\ (3.3 \%) \end{array}$ | $\begin{array}{r} 893 \\ (3.5 \%) \end{array}$ |  |  | $\begin{array}{r} 270 \\ (3.5 \%) \end{array}$ |

## Appendix

(Unit : Million Tons)
(Unit : Million Tons)


$\square$ Demand (Global) $\square$ Supply (Global) $\qquad$ Demand/Supply (Global,\%)
(Source : IHS
Demand (Asia)
Supply (Asia)
_ـ_ Demand/Supply (Asia,\%)

## Appendix

## Quarterly Price Trends

## (Unit : USD/MT)

(Unit : USD/MT)


- Prices are the average of CFR FE Asia for general grade in each product group


## Appendix

## Monthly Price Trends

(Unit : USD/MT)
(Unit : USD/MT)


- Prices are the average of CFR FE Asia for general grade in each product group
* shows the average prices on 1st week of December, 2018

