## Solution Parther

## 4Q 2019 Business Results <br> \& Outlook

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- Sales \& Operating Profit by Business
- Income Statements / Financial Position / Cash Flows
- Dividend Summary
- R\&D Expenses
- Ethylene / PE Demand \& Supply
- Quarterly / Monthly Price Trends

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.

## 2019 Business Results



[^0][^1]
## 4Q 2019 Business Results



[^2]
## 4Q 2019 Business Results

## Balance Sheet

Financial Ratios

|  |  |  | (Unit:KRW tn) |
| :--- | ---: | ---: | ---: |
| Asset | 2017 | 2018 | 2019 |
| Cash and <br> Equivalents | 25.04 | 28.94 | $\mathbf{3 4 . 0 2}$ |
| Liabilities | 8.78 | 2.56 | $\mathbf{1 . 9 2}$ |
| Debt | 3.04 | 5.32 | $\mathbf{8 . 4 1}$ |
| Shareholder's | 16.34 | 17.62 | $\mathbf{1 6 . 6 4}$ |
| Equity |  | 17.32 | $\mathbf{1 7 . 3 8}$ |


|  | 2017 | 2018 | 2019 |
| :--- | ---: | ---: | ---: |
| Liabilities / <br> Equity | $53.3 \%$ | $67.1 \%$ | $95.7 \%$ |
| Debts / Equity | $18.6 \%$ | $30.7 \%$ | $48.4 \%$ |
| Net Debts / <br> Equity | $1.6 \%$ | $16.0 \%$ | $37.4 \%$ |
| ROE | $13.3 \%$ | $9.0 \%$ | $2.2 \%$ |
| ROA | $8.9 \%$ | $5.6 \%$ | $\mathbf{1 . 2 \%}$ |

※ ROE: Net Income / Avg of beginning \& ending shareholders' equity ROA: Net Income / Avg of beginning \& ending assets

## Results \& Outlook by Business

| Sales | 4,100 | 3,749 | 3,936 | 3,965 | (Unit:KRW bn) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 3,898 |
|  |  |  |  |  |  |
| - NCC/PO | 31\% | 30\% | 32\% | 33\% | 34\% |
| - PVC/Plasticizer |  |  |  |  |  |
| ■ ABS | 15\% | 16\% | 14\% | 14\% | 14\% |
| - Acrylate/SAP | 30\% | 31\% | 31\% | 30\% | 29\% |
| Rubber/ Specialty Polymers | 12\% | 12\% | 12\% | 12\% | 12\% |
|  | 12\% | 11\% | 11\% | 11\% | 11\% |
| Operating Profit (\%) | $\begin{gathered} \text { 4Q } 2018 \\ 242 \\ (5.9 \%) \end{gathered}$ | $\begin{gathered} \text { 1Q } 2019 \\ 399 \\ (10.6 \%) \end{gathered}$ | $\begin{gathered} \text { 2Q } 2019 \\ 382 \\ (9.7 \%) \end{gathered}$ | $\begin{gathered} \text { 3Q } 2019 \\ 321 \\ (8.1 \%) \end{gathered}$ | $\begin{gathered} \text { 4Q } 2019 \\ 316 \\ (8.1 \%) \end{gathered}$ |
| Analysis] |  |  | [Outlook] |  |  |

- Decline in demand of upstream due to seasonality of $4 Q$ and worsened market conditions
- Profitability is to be maintained
thanks to the downstream's robust performance
- Earnings of $1 Q$ is expected to be impacted by the new global capacity coming operation and increased market uncertainty


## Results \& Outlook by Business


[Analysis]

- The revenue enhanced with the expansion of sales in EV batteries to European Market
- Profitability worsened due to the recognition of the ESS fire-related provision
[Outlook]
- Shipment of EV battery is expected to grow in $1 Q$
- Decline in the shipment of IT battery caused by seasonal off-peak


## Results \& Outlook by Business


[Analysis]

- Sales and profitability decreased due to seasonality of display industry and the price decline
[Outlook]
- Decreased shipments of display-related products due to seasonality of front industry


## Results \& Outlook by Business



## [Analysis]

- Life Sciences: Decreased profitability due to increase in marketing and R\&D expenses
- Farm Hannong: Improved YoY profitability thanks to expansion of sales in main products and cost improvement
[Outlook]
- Life Sciences: Investment in R\&D is expected to be strengthened for new drug development
- Farm Hannong: Slight decrease in sales YoY is expected due to focusing on profitable products


[^3]The difference between total sales and total sales by business is intra-company transactions, sales in common business, etc.

## 2020 Business Outlook


※ Business outlook and CAPEX are based on our business plan, and may differ from actual results, due to changes in business environment and strategies.

| LG CHEM | 2017 |  |  |  |  | 2018 |  |  |  |  | 2019 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q |  | 1 Q | 2Q | 3Q | 4Q |  | 10 | 2Q | 3Q | 4Q |  |
| Sales | 6,487 | 6,382 | 6,397 | 6,432 | 25,698 | 6,554 | 7,052 | 7,235 | 7,343 | 28,183 | 6,639 | 7,177 | 7,347 | 7,461 | 28,625 |
| Operating Profits | 797 | 727 | 790 | 615 | 2,929 | 651 | 703 | 602 | 290 | 2,246 | 275 | 268 | 380 | -28 | 896 |
| (\%) | 12.3\% | 11.4\% | 12.3\% | 9.6\% | 11.4\% | 9.9\% | 10.0\% | 8.3\% | 3.9\% | 8.0\% | 4.1\% | 3.7\% | 5.2\% | -0.4\% | 3.1\% |
| EBITDA | 1,151 | 1,074 | 1,137 | 972 | 4,335 | 1,006 | 1,065 | 975 | 684 | 3,730 | 682 | 725 | 862 | 485 | 2,755 |
| (\%) | 17.7\% | 16.8\% | 17.8\% | 15.1\% | 16.9\% | 15.3\% | 15.1\% | 13.5\% | 9.3\% | 13.2\% | 10.3\% | 10.1\% | 11.7\% | 6.5\% | 9.6\% |
| Petrochemicals | 4,240 | 4,072 | 4,031 | 4,036 | 16,378 | 4,100 | 4,402 | 4,384 | 4,100 | 16,987 | 3,749 | 3,936 | 3,965 | 3,898 | 15,548 |
| NCC/PO | 1,438 | 1,351 | 1,318 | 1,409 | 5,516 | 1,415 | 1,504 | 1,495 | 1,267 | 5,681 | 1,136 | 1,270 | 1,327 | 1,316 | 5,048 |
| PVC/Plasticizer | 588 | 572 | 560 | 568 | 2,288 | 605 | 596 | 611 | 622 | 2,434 | 596 | 538 | 546 | 545 | 2,225 |
| ABS | 1,216 | 1,185 | 1,261 | 1,214 | 4,876 | 1,233 | 1,357 | 1,304 | 1,209 | 5,102 | 1,170 | 1,228 | 1,182 | 1,148 | 4,728 |
| Acrylate/SAP | 435 | 427 | 425 | 420 | 1,706 | 427 | 468 | 477 | 495 | 1,868 | 447 | 461 | 479 | 473 | 1,861 |
| Rubber/ Specialty Polymer | 563 | 537 | 467 | 424 | 1,991 | 420 | 478 | 497 | 508 | 1,903 | 400 | 440 | 431 | 415 | 1,686 |
| Operating Profits | 700 | 666 | 721 | 596 | 2,683 | 598 | 663 | 528 | 242 | 2,031 | 399 | 382 | 321 | 316 | 1,418 |
| (\%) | 16.5\% | 16.4\% | 17.9\% | 14.8\% | 16.4\% | 14.6\% | 15.1\% | 12.1\% | 5.9\% | 12.0\% | 10.6\% | 9.7\% | 8.1\% | 8.1\% | 9.1\% |
| Energy Solutions | 999 | 1,120 | 1,189 | 1,253 | 4,561 | 1,245 | 1,494 | 1,704 | 2,077 | 6,520 | 1,650 | 2,009 | 2,210 | 2,481 | 8,350 |
| Operating Profits | -10 | 8 | 18 | 14 | 29 | 2 | 27 | 84 | 96 | 209 | -148 | -128 | 71 | -250 | -454 |
| (\%) | -1.0\% | 0.7\% | 1.5\% | 1.1\% | 0.6\% | 0.2\% | 1.8\% | 4.9\% | 4.6\% | 3.2\% | -9.0\% | -6.4\% | 3.2\% | -10.1\% | -5.4\% |
| Advanced Materials | 1,057 | 1,053 | 1,144 | 1,148 | 4,402 | 1,107 | 1,137 | 1,221 | 1,247 | 4,710 | 1,234 | 1,254 | 1,218 | 1,201 | 4,906 |
| Operating Profits | 63 | 43 | 75 | 56 | 237 | 29 | 20 | 31 | -8 | 71 | 4 | 19 | 33 | 8 | 64 |
| (\%) | 6.0\% | 4.1\% | 6.6\% | 4.8\% | 5.4\% | 2.6\% | 1.7\% | 2.5\% | -0.7\% | 1.5\% | 0.3\% | 1.5\% | 2.7\% | 0.7\% | 1.3\% |
| Life Sciences | 129 | 135 | 139 | 148 | 552 | 131 | 151 | 135 | 158 | 575 | 144 | 154 | 166 | 164 | 628 |
| Operating Profits | 21 | 19 | 13 | 1 | 54 | 7 | 16 | 13 | 14 | 50 | 12 | 11 | 16 | -16 | 37 |
| (\%) | 15.9\% | 14.0\% | 9.5\% | 0.6\% | 9.7\% | 5.3\% | 10.5\% | 9.8\% | 8.6\% | 8.6\% | 8.2\% | 7.1\% | 9.7\% | -1.0\% | 5.9\% |
| Farm Hannong | 254 | 186 | 97 | 68 | 604 | 237 | 188 | 92 | 83 | 600 | 228 | 170 | 94 | 99 | 590 |
| Operating Profits | 50 | 14 | -10 | -19 | 36 | 45 | 12 | -19 | -23 | 15 | 38 | 9 | -11 | -15 | 21 |
| (\%) | 19.8\% | 7.3\% | -10.0\% | -28.0\% | 5.9\% | 19.2\% | 6.1\% | -20.4\% | -27.3\% | 2.6\% | 16.7\% | 5.4\% | -11.9\% | -15.5\% | 3.5\% |

※ Applied retroactive effects of past performance based on the reorganization
※ 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.

## Appendix

## Income Statements

(Unit:KRW bn)

|  | 2017 |  |  |  |  | 2018 |  |  |  |  | 2019 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q |  | 1Q | 2Q | 3Q | 4Q |  | 1Q | 2Q | 3Q | 4Q |  |
| Sales | 6,487 | 6,382 | 6,397 | 6,432 | 25,698 | 6,554 | 7,052 | 7,235 | 7,343 | 28,183 | 6,639 | 7,177 | 7,347 | 7,461 | 28,625 |
| Cost of Sales | 5,073 | 5,011 | 4,940 | 5,110 | 20,135 | 5,212 | 5,580 | 5,868 | 6,177 | 22,837 | 5,469 | 6,029 | 6,095 | 6,186 | 23,779 |
| Gross Profit(\%) | 1,414 | 1,371 | .1,457 | 1,322 | 5,564 | 1,342 | 1,472 | 1,367 | 1,166 | 5,346 | 1,170 | 1,148 | 1,253 | 1,275 | 4,846 |
|  | 21.8\% | 21.5\% | 22.8\% | 20,6\% | 21.6\% | 20.5\% | 20.9\% | 18.9\% | 15.9\% | 19.0\% | 17.6\% | 16.0\% | 17.1\% | 17.1\% | 16.9\% |
| SG\&A Expenses | 617 | 644 | 667 | 707 | 2,635 | 691 | 768 | 765 | 876 | 3,100 | 895 | 881 | 873 | 1,303 | 3,950 |
| Operating Profit(\%) | 797 | 727 | 790 | 615 | 2,929 | 651 | 703 | 602 | 290 | 2,246 | 275 | 268 | 380 | -28 | 896 |
|  | 12.3\% | 11.4\% | 12.3\% | 9.6\% | 11.4\% | 9.9\% | 10.0\% | 8.3\% | 3.9\% | 8.0\% | 4.1\% | 3.7\% | 5.2\% | -0.4\% | 3.1\% |
| Other non-operating income(expenses) | -99 | 3 | .-87 | -181 | -365 | 2 | -59 | -117 | -132 | -306 | 4 | -75 | -137 | -128 | -335 |
| Income before tax | 698 | 730 | 702 | 434 | 2,564 | 653 | 644 | 485 | 158 | 1,940 | 280 | 193 | 244 | -156 | 561 |
| Net Income | 548 | 590 | 546 | 338 | 2,022 | 553 | 493 | 347 | 127 | 1,519 | 212 | 84 | 137 | -57 | 376 |
| EPS(Unit:KRW) | 6,936 | 7,531 | 6,799 | 4,101 | 25,367 | 6,934 | 6,234 | 4,481 | 1,568 | 19,217 | 2,537 | 887 | 1,677 | -1,016 | 4,085 |

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## Appendix

(Unit:KRW bn)

|  | 2017 |  |  |  | 2018 |  |  |  | 2019 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q |
| Assets | 22,171 | 22,671 | 23,708 | 25,041 | 26,416 | 27,399 | 28,419 | 28,944 | 31,212 | 32,436 | 33,531 | 34,024 |
| Cash and Equivalents | 1,909 | 2,107 | 2,400 | 2,779 | 3,132 | 2,830 | 3,333 | 2,557 | 3,122 | 2,667 | 2,085 | 1,921 |
| A/R | 3,961 | 4,184 | 4,523 | 4,449 | 4,709 | 5,146 | 4,949 | 4,381 | 4,616 | 4,738 | 4,575 | 3,738 |
| Inventory | 3,250 | 3,086 | 3,187 | 3,353 | 3,784 | 3,950 | 4,404 | 4,290 | 4,503 | 4,771 | 4,977 | 5,034 |
| Tangible / Intangible Assets | 11,773 | 11,954 | 12,130 | 13,035 | 13,366 | 13,936 | 14,074 | 15,845 | 16,938 | 17,993 | 19,471 | 20,804 |
| Liabilities | 7,265 | 7,137 | 7,586 | 8,703 | 9,905 | 10,391 | 11,162 | 11,622 | 14,013 | 15,157 | 16,040 | 16,641 |
| A/P | 1,808 | 1,609 | 1,756 | 2,015 | 1,999 | 2,156 | 2,541 | 2,166 | 2,434 | 2,549 | 2,467 | 2,380 |
| Short-term debts | 2,175 | 1,454 | 1,361 | 1,451 | 1,593 | 1,903 | 2,037 | 1,613 | 1,630 | 1,432 | 1,744 | 1,356 |
| Long-term debts | 972 | 1,869 | 1,915 | 1,594 | 2,643 | 3,211 | 3,262 | 3,708 | 5,275 | 7,049 | 7,211 | 7,058 |
| Shareholders' Equity | 14,906 | 15,535 | 16,122 | 16,339 | 16,510 | 17,009 | 17,257 | 17,322 | 17,199 | 17,279 | 17,491 | 17,384 |
| Liabilities/Equity(\%) | 48.7\% | 45.9\% | 47.1\% | 53.3\% | 60.0\% | 61.1\% | 64.7\% | 67.1\% | 81.5\% | 87.7\% | 91.7\% | 95.7\% |
| Net debt/Equity(\%) | 8.3\% | 7.8\% | 5.4\% | 1.6\% | 6.7\% | 13.4\% | 11.4\% | 16.0\% | 22.0\% | 33.6\% | 39.3\% | 37.4\% |
| BPS (Unit:KRW) | 188,859 | 196,894 | 203,952 | 206,544 | 208,363 | 214,535 | 217,500 | 218,227 | 216,308 | 217,445 | 219,413 | 217,230 |

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## Appendix

|  | 2017 |  |  |  |  | 2018 |  |  |  |  | 2019 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1Q | 2Q | 3Q | 4Q |  | 1Q | 2Q | 3Q | 4Q |  | 1Q | 2Q | 3Q | 4Q |  |
| Beginning Cash Balance | 1,474 | 1,492 | 1,730 | 1,781 | 1,474 | 2,249 | 2,917 | 2,352 | 3,067 | 2,249 | 2,514 | 3,098 | 2,631 | 2,055 | 2,514 |
| Operating Activities | 224 | 955 | 929 | 1,073 | 3,181 | 37 | 82 | 1,198 | 808 | 2,125 | 644 | 246 | 395 | 1,839 | 3,124 |
| Operating Profits | 797 | 727 | 790 | 615 | 2,929 | 651 | 703 | 602 | 290 | 2,246 | 275 | 268 | 380 | -28 | 896 |
| Depreciation | 355 | 347 | 347 | 357 | 1,406 | 355 | 362 | 373 | 394 | 1,484 | 407 | 458 | 481 | 513 | 1,859 |
| Working Capital | -627 | -258 | -294 | 168 | -1,011 | -707 | -446 | 128 | 307 | -718 | -181 | -275 | -124 | 693 | 113 |
| Investing Activities | 92 | -473 | -821 | -438 | -1,640 | -553 | -1,005 | -697 | $\triangle 1,384$ | -3,639 | -1,527 | -1,732 | -1,360 | -1,492 | -6,111 |
| Financing Activities | -271 | -262 | -72 | -132 | -737 | 1,170 | 369 | 238 | 17 | 1,794 | 1,450 | 986 | 386 | -525 | 2,298 |
| Debts | 256 | 177 | -47 | -232 | 154 | 1,191 | 878 | 186 | 21 | 2,276 | 1,584 | 1,576 | 474 | -540 | 3,093 |
| Dividends | - | -386 | - | - | -386 | - | -460 | -34 | - | -494 | - | -484 | - | - | -484 |
| Ending <br> Cash Balance | 1,492 | 1,730 | 1,781 | 2,249 | 2,249 | 2,917 | 2,352 | 3,067 | 2,514 | 2,514 | 3,098 | 2,631 | 2,055 | 1,889 | 1,889 |

※ On an accounting (disclosure) basis
※ 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.

## Appendix

Dividend Summary

※ Dividend of 2019 is approved by the board of directors and will be finalized after approval of the 19th Annual General Meeting.
※ Dividend Policy
LG Chem considers all factors such as, investment amounts, cash flow, financial structure and dividend stability, etc., when the company determines dividend payout amounts for enhancing
The dividend stability means the company tries to avoid reducing dividend per share, however, it can be flexibly applied to the direction of the company's long-term growth and continuing enhancement of shareholders' value after analyzing changes in economic condition and business strategy including CAPEX.
The company will communicate to investors about expected next year's dividend information in the conference call at least once a year.

## Appendix

## R\&D Expenses

(Unit:KRW bn)


## Appendix

## Ethylene / PE Demand Supply

Ethylene


Polyethylene
(Unit : million tons)
(Unit : million tons)

$\square$ Capa (Global) $\square$
Demand (Global)
Capa (NEA)
——Demand/Supply (Global,\%) Demand (NEA) ——— Demand/Supply (NEA,\%)

## Appendix

## Quarterly Price Trends




NCC/PO


| $\begin{gathered} 1 Q \\ 2018 \end{gathered}$ | 2Q | 3Q | 4Q | $\begin{gathered} 1 Q \\ 2019 \end{gathered}$ | 2Q | 3Q | 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AB | $\sim$ |  | B.Acryla |  |  |  |

Acrylate/SAP

Rubber/Specialty Polymers

- The prices are average price of CFR FE Asia for general grade in each product group.


## Appendix



## Thank you

## 이 종목의 더 많은 IR정보 확인하기

IRGO 주주와 기업을 연결하고 응원합니다.


[^0]:    * Applied retroactive effects of past performance based on the reorganization

[^1]:    * Assumptions excluding non-recurring losses for comparison

[^2]:    * Assumptions excluding non-recurring losses for comparison

[^3]:    ※ Business outlook and CAPEX are based on our business plan, and may differ from actual results, due to changes in business environment and strategies.

