## INVESTOR RELATIONS 20162 Q

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KUMHO PETROCHEMICAL

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## | 2Q, 2016 Overview

## Sales <br> \& <br> Operating Income

* Sales revenue increased by $16.1 \%$ over the previous quarter and decreased by $6.3 \%$ over the previous year to KRW 1,011.5bn.
* Operating income increased by $41.3 \%$ since the last quarter and rose by 2.0\% over the previous year to KRW 65.4bn.
(Unit: KRW bn)

| Sales |  | (Unit: KRW bn) |
| :--- | :--- | :--- |
|  | $1,011.5$ | 871.5 |
| 2Q,'16 1, |  |  |
| Operating Income |  |  |



|  | 2Q,'16 | 1Q,'16 | 2Q,'15 | Rate of change |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | QoQ | YoY |
| S a l e s | 1,011.5 | 871.5 | 1,079.0 | 16.1\% | -6.3\% |
| [Synthetic Rubbers] | 387.7 | 347.0 | 422.4 | 11.7\% | -8.2\% |
| [Synthetic Resins] | 271.6 | 256.6 | 307.6 | 5.9\% | -11.7\% |
| [ O t h e r s ] | 352.2 | 267.9 | 349.0 | 31.5\% | 0.9\% |
| Phen o l Derivatives | 223.4 | 160.0 | 220.2 | 39.6\% | 1.5\% |
| $\begin{aligned} & \text { Specialty } \\ & \text { Chemical } \end{aligned}$ | 28.5 | 29.4 | 37.9 | -3.1\% | -24.8\% |
| $E n$ e $r$ g y | 38.1 | 24.6 | 30.8 | 54.8\% | 23.7\% |
| O ther r | 62.2 | 53.9 | 60.1 | 15.4\% | 3.5\% |
| Operating Income | 65.4 | 46.3 | 64.1 | 41.3\% | 2.0\% |
| [ \% ] | 6.5\% | 5.3\% | 5.9\% | - | - |
| Income before Income Taxes | 66.0 | 50.9 | 69.2 | 29.7\% | -4.6\% |
| Net Income | 45.0 | 38.2 | 49.1 | 17.8\% | -8.4\% |
| Gain/Loss on Valuation of Equity Method Investments | 8.1 | 9.9 | 9.8 | -18.2\% | -17.3\% |

$\checkmark$ Net Income is based on Controlling Interests.

## | 2Q, 2016 Overview

Financial
Structure

* Total asset turnover rate and interest coverage ratio improved for the increased sales revenue and operating profit in main businesses.
* Financial structure maintained its stability through the continuous management of liquidity such as the improved current ratio.
(Unit: KRW bn)


Ratio


2Q,'16


1Q,'16


Interest Coverage Ratio


|  | Unit | 1Q,'16 | 2Q,'16 | 2Q,'15 | Rate of change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | QoQ | YoY |
| Assets | KRW bn | 4,476.2 | 4,280.5 | 4,547.5 | 4.6\% | -1.6\% |
| Liabilities | KRW bn | 2,754.9 | 2,597.5 | 2,874.0 | 6.1 \% | -4.1\% |
| Shareholders' Equity | KRW bn | 1,721.3 | 1,683.0 | 1,673.5 | 2.3\% | 2.9\% |
| Controlling Interests |  | 1,607.5 | 1,580.1 | 1,587.5 | 1.7\% | 1.3\% |
| Noncontrolling Interests |  | 113.8 | 102.9 | 86.0 | 10.6\% | 32.3\% |
| Debt to Equity Ratio | \% | 160\% | 154\% | 172\% |  |  |
| Borrowings | KRW bn | 2,072.8 | 1,989.3 | 2,191.6 | 4.2\% | -5.4\% |
| Wondenominated |  | 1,642.4 | 1,573.0 | 1,598.4 | 4.4\% | 2.8\% |
| Foreign currencydenominated |  | 430.4 | 416.3 | 593.2 | 3.4\% | -27.4\% |
| Total Assets Turnover Ratio |  | 0.92 | 0.82 | 0.97 | 12.2\% | -5.2\% |
| Interest Coverage Ratio |  | 4.25 | 3.89 | 4.86 | 9.3\% | -12.6\% |

## Business Review

## Synthetic <br> Rubbers

* Sales grew by 11.7\% over the previous quarter to KRW 387.7bn.
* Profitability was improved due to the strong prices of synthetic rubbers by the strong BD price as well as the improved buying interest.


## - Strong price of main feedstock, BD

- BD prices had been maintained strong due to a tight supply caused by both increased LPG injection and regular maintenances within the area.
- Downward pressure on the price eased due to the decrease of deep-sea cargo caused by reduced price gaps between regions as well as troubles in the other areas, such as Europe, despite the completion of regular maintenances.
$\rightarrow$ BD Price changes by region
(Unit: USD/ton)

|  | Jan.'16 | Feb.'16 | Mar.'16 | Apr.'16 | May.'16 | Jun.'16 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Asia | 771 | 865 | 1,091 | 1,059 | 1,091 | 956 |
| N. America | 653 | 551 | 672 | 750 | 805 | 899 |
| Europe | 488 | 511 | 669 | 663 | 697 | 703 |

※ Source: ICIS/PLATTS 2016

- Improvement in profitability of synthetic rubber
- Profitability was expanded due to the strong prices of synthetic rubbers caused by the strong BD price as well as the improved buying interest, despite a downward price trend of natural rubbers for increased production.
- Sales volume and revenue improved by the increased restocking activity in the area.
(Unit: USD/ton)

|  | Jan.'16 | Feb.'16 | Mar.'16 | Apr.'16 | May.'16 | Jun.'16 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| SBR | 1,041 | 1,056 | 1,240 | 1,353 | 1,366 | 1,298 |
| BR | 1,085 | 1,093 | 1,319 | 1,445 | 1,476 | 1,370 |

※ Source: ICIS 2016

## Business Review

## Synthetic <br> Resins

## 26.9 \%

of Total sales

## Synthetic <br> Rubbers

Synthetic
Resins
Others

* Sales rose by 5.9\% over the previous quarter to KRW 271.6bn.
* Profitability was diminished due to the dropped selling prices of products by the weak price of raw material (SM) and a wait-and-see demand stance.
- Weak price of feedstock, SM
- SM price was weakened because of a stable supply caused by the operation of new plants in the area; high level of SM inventories; and the inflow of arbitrage.
> SM Price changes
(Unit: USD/ton, CFR China)

|  | Jan.'16 | Feb.'16 | Mar.'16 | Apr.'16 | May.'16 | Jun.'16 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| SM | 929 | 993 | 1,133 | 1,098 | 1,021 | 1,004 |

※ Source: ICIS 2016

## - Slackening in profitability of synthetic resin

- Profitability was diminished despite a peak season because of the weak product prices for the dropped prices of raw materials as well as lower demand than expected, including a slowdown in the operation rate of front industries.
(Unit: USD/ton)

|  | Jan.'16 | Feb.'16 | Mar.'16 | Apr.'16 | May.'16 | Jun.'16 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| PS | 1,060 | 1,070 | 1,223 | 1,264 | 1,194 | 1,158 |
| ABS | 1,135 | 1,163 | 1,298 | 1,361 | 1,274 | 1,278 |

※ Source: PLATTS 2016

## Others

## 34.8\%

Of Total sales

## Synthetic

Rubbers
Synthetic
Resins
Others

* Sales increased by 31.4\% over the previous quarter to KRW 352.1 bn.
* Phenol derivatives: Revenue and profitability improved by adjustments of the operation rate inside the area and increased sales volume after the completion of expansion.
* Energy : Profitability shrank due to the dropped selling price of electricity and stabilization of the production after the completion of expansion.


## - Phenol derivatives

- The price of benzene (raw material) was weakened despite the upward trend of oil prices because of ample stock inside the area and the low operation rate of SM businesses.
- Sales revenue and profitability improved because of a tight supply and demand balance by adjustments of the operation rate inside the area and widened sales volume after the completion of the expansion during the second quarter.
> BZ Price changes
(Unit: USD/ton, FOB Korea)

|  | Jan.'16 | Feb.'16 | Mar.'16 | Apr.'16 | May.'16 | Jun.'16 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| BZ | 559 | 547 | 630 | 639 | 637 | 609 |

※ Source: PLATTS 2016
$>$ Expansion of Phenol, Acetone and Cumene : Phenol 300KTA, Acetone 185KTA and Cumene 470KTA(in 2016.2Q)

- Energy
- Profitability decreased because of the downward price trend of electricity and efforts to stabilize production despite widened sales volume after the completion of the expansion.
> Expansion of Yeosu Energy II: Steam 800T/H, Electricity 145MWH(in 2016.1Q)
- Supply and demand are expected to be stable due to the restart of operation after resolving troubles and an ample stock of BD inside the area.
- Prices are forecast to weaken because of continued difficulty in downstream, including the consistently low operation rate of synthetic rubber inside the area.

| - Supply is forecast to improve slightly because of the reduced supply caused | Synthetic |
| :--- | :--- | :--- |
| by a temporarily halting operation during the G20 meeting and a permanent |  |
| shutdown of a local plant within the area. |  |
| - Prices of raw materials are expected to weaken; moreover, the upward price trend |  |
| of synthetic rubber will be limited because of the ample stock of such material. |  |

- The supply and demand are forecast to be tight because of the reduced production by the increased volume of annual maintenance of SM makers; troubles inside the area; and the decreased volume of arbitrage from the U.S compared to that of the first half of the year.
- Prices are forecast to slowly stabilize due to the stagnant demand despite the peak season of manufacturers.
- Supply is expected to drop because of the reduced operation rate of the business by holding the G20 meeting in China. However, supply and demand are forecast to be stable because of the ample stock and a low season of some products.
- Prices are expected to be weak and steady due to the stabilized prices of raw materials and the weak demand.


## | Appendices

Income Statement
(Unit: KRW bn)

|  | 2Q,'16 | 1Q,'16 | 2Q,'15 | Rate of change |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | QoQ |  | YoY |  |
|  |  |  |  | Amount | Rate of change | Amount | Rate of change |
| Sales | 1,011.5 | 871.5 | 1,079.0 | 140.0 | 16.1\% | -67.5 | -6.3\% |
| Operating Income | 65.4 | 46.3 | 64.1 | 19.1 | 41.3\% | 1.3 | 2.0\% |
| (Operating Margin) | 6.5\% | 5.3\% | 5.9\% | 1.2\%p | - | 0.6\%p | - |
| Net Interest Expense | 17.3 | 8.4 | 17.1 | 8.9 | 106.0\% | 0.2 | 1.2\% |
| Gain/Loss on Valuation of Equity Method Investments | 8.1 | 9.9 | 9.8 | -1.8 | -18.2\% | -1.7 | -17.3\% |
| Income before Income Taxes | 66.0 | 50.9 | 69.2 | 15.1 | 29.7\% | -3.2 | -4.6\% |
| Ordinary Income Margin) | 6.5\% | 5.8\% | 6.4\% | 0.7\%p | - | $0.1 \% p$ | - |
| Net Income | 45.0 | 38.2 | 49.1 | 6.8 | 17.8\% | -4.1 | -8.4\% |
| (Net Income Margin) | 4.4\% | 4.4\% | 4.6\% | 0.0\%p | - | -0.2\%p | - |

Net Income is based on Controlling Interests.
| Appendices

## Balance Sheet

(Unit: KRW bn)

|  | 2Q,'16 | 1Q,'16 | 2Q,'15 | Rate of change |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | QoQ | YoY |
| Current Assets | 1,092.3 | 1,006.6 | 1,373.7 | 85.7 | -281.4 |
| - Cash and Cash Equivalents | 1,03.0 | 102.0 | 353.2 | 1.0 | -250.2 |
| Non-current Assets | 3,383.9 | 3,273.9 | 3,173.8 | 110.0 | 210.1 |
| Total Assets | 4,476.2 | 4,280.5 | 4,547.5 | 195.7 | -71.3 |
| Current Liabilities | 1,755.8 | 1,668.4 | 1,691.3 | 87.4 | 64.5 |
| Non-current Liabilities | 999.1 | 929.1 | 1,182.7 | 70.0 | -183.6 |
| - Interest bearing Liabilities | 2,072.8 | 1,989.3 | 2,191.6 | 83.5 | -118.8 |
| - Short-term Debts | 1,210.5 | 1,191.3 | 1,123.1 | 19.2 | 87.4 |
| - Long-term Debts | 862.3 | 798.0 | 1,068.5 | 64.3 | -206.2 |
| ■ Non-interest bearing Liabilities | 682.1 | 608.2 | 682.4 | 73.9 | -0.3 |
| Total Liabilities | 2,754.9 | 2,597.5 | 2,874.0 | 157.4 | -119.1 |
| Common \& Preferred Stock | 167.5 | 167.5 | 167.5 | - | - |
| Total Shareholders' Equity | 1,721.3 | 1,683.0 | 1,673.5 | 38.3 | 47.8 |
| Net Debt Ratio | 44.0\% | 44.1\% | 40.4\% | -0.1\%p | 3.6\%p |
| Long-term Debts to Total Debts Ratio | 41.6\% | 40.1\% | 48.8\% | 1.5\%p | -7.2\%p |
| Current Ratio | 62.2\% | 60.3\% | 81.2\% | 1.9\%p | -19.0\%p |
| Debt to Equity Ratio | 160.0\% | 154.3\% | 171.7\% | 5.7\%p | -11.7\%p |

## | Appendices

## Production <br> Capacity (KKPC)

|  | Product | Capa. | Unit | Note |
| :---: | :---: | :---: | :---: | :---: |
| Synthetic Rubbers | SBR | 481,000 | MT/Y |  |
|  | BR | 290,000 |  |  |
|  | BR LBR | 45,000 |  |  |
|  | S-SBR | 63,000 |  |  |
|  | NdBR | 60,000 |  |  |
|  | NBR | 80,000 |  |  |
|  | HSR | 10,000 |  |  |
|  | NB Latex | 200,000 |  | Completion of Expansion: <br> 200,000MT/Y(Multi-purpose),2H,'16 |
|  | SB Latex | 80,000 |  |  |
|  | SBS | 75,000 |  |  |
|  | Total | 1,384,000 |  |  |
| Synthetic Resins | PS | 230,000 | MT/Y |  |
|  | ABS | 250,000 |  |  |
|  | SAN/POW | 145,000 |  |  |
|  | EPS | 80,000 |  |  |
|  | PPG | 139,000 |  |  |
|  | Total | 844,000 |  |  |
| Specialty Chemicals | Antioxidants | 83,000 | MT/Y |  |
| Energy | Steam | 1,710 | T/H | Completion of Expansion: Steam 800T/H, Electricity 145MWH in 1Q,'16 |
|  | Electricity | 300 | MWH |  |
| BD | Ulsan | 90,000 | MT/Y |  |
|  | Yeosu | 147,000 |  |  |
|  | Total | 237,000 |  |  |

## | Appendices

Production Capacity (Affiliates)

|  | Product | Capa. | Unit | Note |
| :---: | :---: | :---: | :---: | :---: |
| Kumho P\&B Chemicals | Phenol | 680,000 | MT/Y | Completion of Expansion: 300,000MT/Y, 2Q,'16 |
|  | Acetone | 420,000 |  | Completion of Expansion: 185,000MT/Y, 2Q,'16 |
|  | MIBK | 60,000 |  |  |
|  | Cumene | 900,000 |  | Completion of Expansion: <br> 470,000MT/Y, 2Q,'16 |
|  | BPA | 450,000 |  |  |
|  | Epoxy Resin | 135,000 |  |  |
|  | Total | 2,645,000 |  |  |
| Kumho Mitsui Chemicals | MDI | 250,000 | MT/Y | Completion of Expansion: 100,000MT/Y, 2H,'17 |
|  | Aniline | 2,000 |  |  |
|  | Total | 252,000 |  |  |
| Kumho Polychem | EP(D)M | 220,000 | MT/Y |  |
|  | TPV/KEPA | 7,000 |  | Completion of Expansion: TPV 5,000MT/Y, 3Q,'17 |
|  | Total | 227,000 |  |  |

## | Appendices

## Sales Breakdown \&

## Export Share by Region



## | Appendices




