

# INVESTOR RELATIONS

2018 1Q



*beyond*  
the best

KUMHO PETROCHEMICAL

Investor Relations 2018

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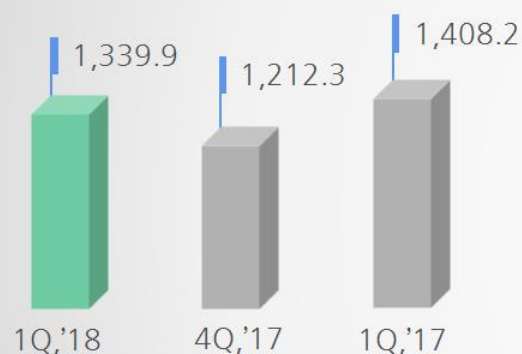
# 1Q, 2018 Overview

## Sales & Operating Income

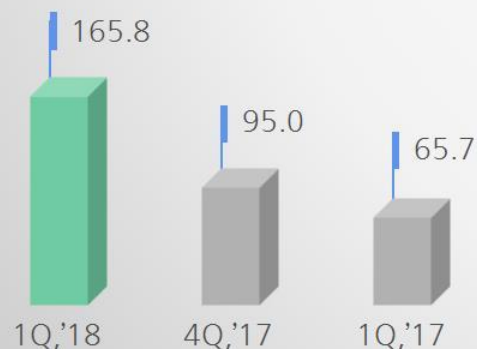
- ❖ Sales increased by 10.5% since the last quarter and declined by 4.9% over the previous year to KRW 1,339.9bn.
- ❖ Operating income increased by 74.5% since the last quarter and soared by 152.4% over the previous year to KRW 165.8bn.

(Unit: KRW bn)

Sales (Unit: KRW bn)



Operating Income (Unit: KRW bn)



	1Q,'18	4Q,'17	1Q,'17	Rate of Change	
				QoQ	YoY
S a l e s	1,339.9	1,212.3	1,408.2	10.5%	-4.9%
[Synthetic Rubbers]	474.5	468.9	636.2	1.2%	-25.4%
[Synthetic Resins]	299.6	299.3	303.5	0.1%	-1.3%
[ O t h e r s ]	565.8	444.1	468.5	27.4%	20.8%
P h e n o l Derivatives	416.2	288.9	309.2	44.1%	34.6%
S p e c i a l t y Chemicals	33.9	29.8	33.6	13.8%	0.9%
E n e r g y	57.0	48.2	47.8	18.3%	19.2%
O t h e r s	58.7	77.2	77.9	-24.0%	-24.6%
Operating Income	165.8	95.0	65.7	74.5%	152.4%
[ % ]	12.4%	7.8%	4.7%	4.6%p	7.7%p
Income before Income Taxes	194.2	70.4	88.4	175.9%	119.7%
N e t I n c o m e	132.1	51.4	69.0	157.0%	91.4%
Equity Income/Losses on Investments	41.8	11.6	18.4	260.3%	127.2%

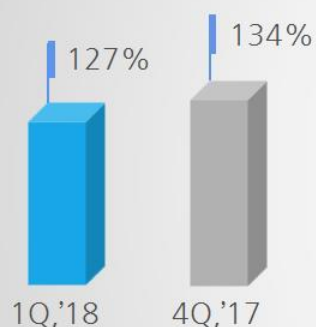
✓ Net Income is based on Controlling Interests.

# 1Q, 2018 Overview

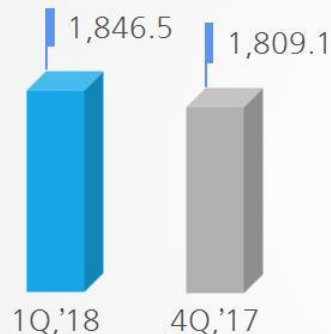
## Financial Structure

- ❖ Interest coverage ratio increased sharply as a result of improved performances in major businesses.
- ❖ Stable financial structure was maintained in accordance with optimal liquidity management.

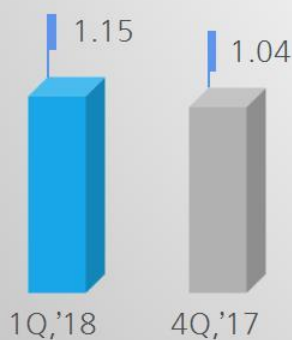
Debt to Equity Ratio (%)



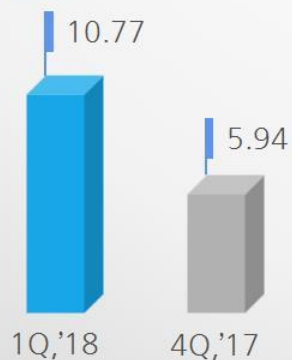
Borrowings (KRW bn)



Total Assets Turnover Ratio



Interest Coverage Ratio



(Unit: KRW bn)

	Unit	1Q,'18	4Q,'17	1Q,'17	Rate of Change	
					QoQ	YoY
Assets	KRW bn	4,712.5	4,579.8	4,760.7	2.9%	-1.0%
Liabilities	KRW bn	2,639.0	2,623.0	2,961.3	0.6%	-10.9%
Shareholders' Equity	KRW bn	2,073.5	1,956.8	1,799.4	6.0%	15.2%
Controlling Interests		1,947.6	1,842.7	1,689.8	5.7%	15.3%
Non-controlling Interests		125.9	114.1	109.6	10.3%	14.9%
Debt to Equity Ratio	%	127	134	165	-7%p	-38%p
Borrowings	KRW bn	1,846.5	1,809.1	2,177.1	2.1%	-15.2%
Won-denominated		1,363.9	1,387.6	1,566.9	-1.7%	-13.0%
Foreign currency-denominated		482.6	421.5	610.2	14.5%	-20.9%
Total Assets Turnover Ratio		1.15	1.04	1.21	10.6%	-5.0%
Interest Coverage Ratio		10.77	5.94	3.98	81.3%	170.6%



# Business Review

## Synthetic Rubbers

35.4%  
of Total sales

Synthetic Rubbers

Synthetic Resins

Others



- ❖ Sales increased by 1.2 % over the previous quarter to KRW 474.5bn.
- ❖ Growth in profitability caused by increase in selling price due to the rise in raw material (BD) price.

### • An upward trend in the BD (Butadiene) price

- Gradual uptrend of BD price resulted from an increased in demand, such as restocking demand before the lunar New Year holidays and re-operation from the shutdown; during the period when the supply was stable.

➤ BD Price changes by region

(Unit: USD/ton)

	Oct.'17	Nov.'17	Dec.'17	Jan.'18	Feb.'18	Mar.'18
Asia	1,169	1,018	1,130	1,298	1,411	1,426
N. America	1,102	959	879	898	1,127	1,356
Europe	1,025	801	879	964	1,126	1,190

※ Source: ICIS/PLATTS 2017, 2018

### • Increased profitability of synthetic rubber

- Growth in sales revenue from the increase in selling price due to risen raw material (BD) price in spite of high inventory.
- Increased profitability due to a favorable downstream market such as stable utilization rates of tire makers and stable operations of new lines from downstream makers.

(Unit: USD/ton)

	Oct.'17	Nov.'17	Dec.'17	Jan.'18	Feb.'18	Mar.'18
SBR	1,591	1,494	1,548	1,541	1,638	1,655
BR	1,838	1,669	1,688	1,738	1,806	1,855

※ Source: ICIS 2017, 2018

# Business Review

## Synthetic Resins

22.4%  
of Total sales

Synthetic  
Rubbers

Synthetic  
Resins

Others

- ❖ Sales increased by 0.1 % over the previous quarter to KRW 299.6bn.
- ❖ Profitability improved through growth in selling price as a result of strong raw material prices (SM/BD).

### • Strong price of raw material (SM)

- Strong SM price resulted from the tight supply due to regular maintenances and unexpected shutdowns.
- Downward pressure in the price at the end of quarter caused by increased utilization rate of Chinese makers and the rise in arbitrage

#### ➤ SM Price changes

(Unit: USD/ton)

	Oct.'17	Nov.'17	Dec.'17	Jan.'18	Feb.'18	Mar.'18
SM	1,218	1,275	1,318	1,391	1,431	1,345

※ Source: ICIS 2017, 2018

### • Improvement in profitability of synthetic resin

- Improvement in profitability through growth in selling price as a result of strong raw material prices (SM/BD), in spite of low season.

(Unit: USD/ton)

	Oct.'17	Nov.'17	Dec.'17	Jan.'18	Feb.'18	Mar.'18
PS	1,401	1,388	1,451	1,460	1,563	1,551
ABS	1,950	1,915	2,028	2,014	2,055	2,023

※ Source: PLATTS 2017, 2018

## Business Review

### Others

42.2%

Of Total sales

Synthetic  
Rubbers

Synthetic  
Resins

Others

- ❖ Sales increased by 27.4% over the previous quarter to KRW 565.8bn.
- ❖ Phenol derivatives: Growth in both sales revenue and profitability resulted from strong selling price in the bullish market.
- ❖ Energy: Enlarged profitability resulted from favorable utilization rates of demand-side and increase in electricity price (SMP).

#### • Phenol derivatives

- Maintained strong raw material (BZ) price due to strong price of both oil and styrene monomer (SM) during the quarter; but slight downturn of the price as a result of high inventory at the end of the quarter.
- Growth in both sales revenue and profitability resulted from strong selling price in the bullish market.

##### ➤ BZ Price changes

(Unit: USD/ton)

	Oct.'17	Nov.'17	Dec.'17	Jan.'18	Feb.'18	Mar.'18
BZ	782	838	885	910	905	860

※ Source: PLATTS 2017, 2018

#### • Energy

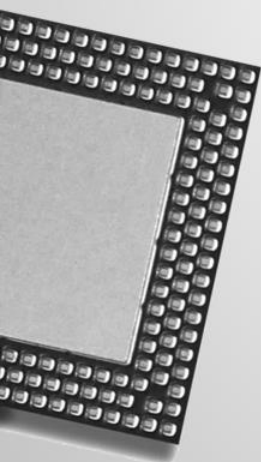
- Increased sales revenue and volume caused by favorable utilization rates of demand-side.
- Enlarged profitability resulted from increase in electricity price (SMP).

##### ➤ SMP Price changes

(Unit: KRW/KW)

	Oct.'17	Nov.'17	Dec.'17	Jan.'18	Feb.'18	Mar.'18
SMP	71	81	90	92	90	101

※ Source: Korea Power Exchange





## 2Q, 2018 Outlook

BD

- Supply is expected to be tight due to scheduled shutdowns and arbitrages to outer region.
- Price is expected to be stabilized through new operation of the crackers and re-operation from the regular maintenance in the end of the 2nd quarter.

Synthetic  
Rubbers

- Increase in demand is forecasted to be limited due to the rise in the international uncertainty despite stable utilization rates of tire makers.
- The price is predicted to be gradually stabilized after the upward price trend of both BD and SR at the beginning of the quarter.

SM

- Supply-demand balance is anticipated to be stable through new operations despite of scheduled maintenances and reduction in supply.
- Price is forecasted to be strong and stable from the strong expectation in the demand during the traditional peak season and low SM inventory.

Synthetic  
Resins

- Actual demand may fluctuate depending on the inventory, in spite of the expectation in the increased demand during the traditional peak season.
- The price is expected to be stable in accordance to the stable raw material price (SM).



## Appendices

### Income Statement

(Unit: KRW bn)

	1Q,'18	4Q,'17	1Q,'17	Rate of change			
				QoQ		YoY	
				Amount	Rate of change	Amount	Rate of change
Sales	1,339.9	1,212.3	1,408.2	127.6	10.5%	-68.3	-4.9%
Operating Income	165.8	95.0	65.7	70.8	74.5%	100.1	152.4%
<i>(Operating Margin)</i>	<i>12.4%</i>	<i>7.8%</i>	<i>4.7%</i>	<i>4.6%p</i>	-	<i>7.7%p</i>	-
Net Interest Expense	13.5	0.6	-11.1	12.9	2150.0%	24.6	-
Equity Income/Losses on Investments	41.8	11.6	18.4	30.2	260.3%	23.4	127.2%
Income before Income Taxes	194.2	70.4	88.4	123.8	175.9%	105.8	119.7%
<i>(Ordinary Income Margin)</i>	<i>14.5%</i>	<i>5.8%</i>	<i>6.3%</i>	<i>8.7%p</i>	-	<i>8.2%p</i>	-
Net Income	132.1	51.4	69.0	80.7	157.0%	63.1	91.4%
<i>(Net Income Margin)</i>	<i>9.9%</i>	<i>4.2%</i>	<i>4.9%</i>	<i>5.7%p</i>	-	<i>5.0%p</i>	-

✓ Net Income is based on Controlling Interests.

## Appendices

### Balance Sheet

(Unit: KRW bn)

	1Q,'18	4Q,'17	1Q,'17	Rate of change	
				QoQ	YoY
Current Assets	1,495.8	1,332.7	1,479.2	163.1	16.6
- Cash and Cash Equivalents	259.4	234.4	118.0	25.0	141.4
Non-current Assets	3,216.7	3,247.1	3,281.5	-30.4	-64.8
Total Assets	4,712.5	4,579.8	4,760.7	132.7	-48.2
Current Liabilities	1,967.5	1,913.9	2,214.4	53.6	-246.9
Non-current Liabilities	671.5	709.1	746.9	-37.6	-75.4
■ Interest bearing Liabilities	1,846.5	1,809.1	2,177.1	37.4	-330.6
- Short-term Debts	1,319.6	1,226.0	1,554.0	93.6	-234.4
- Long-term Debts	526.9	583.1	623.1	-56.2	-96.2
■ Non-interest bearing Liabilities	792.5	813.9	784.2	-21.4	8.3
Total Liabilities	2,639.0	2,623.0	2,961.3	16.0	-322.3
Common & Preferred Stock	167.5	167.5	167.5	-	-
Total Shareholders' Equity	2,073.5	1,956.8	1,799.4	116.7	274.1
Net Debt to Asset Ratio	33.7%	34.4%	43.3%	-0.7%	-9.6%
Long-term Debts to Total Debts Ratio	28.5%	32.2%	28.6%	-3.7%	-0.1%
Current Ratio	76.0%	69.6%	66.8%	6.4%	9.2%
Debt to Equity Ratio	127.3%	134.0%	164.6%	-6.8%	-37.3%

## Appendices

### Production Capacity (KKPC)

	Product		Capa.	Unit	Note
Synthetic Rubbers	BR	SBR	384,000	MT/Y	
		HBR	290,000		
		LBR	45,000		
	S-SBR		63,000		
	NdBR		60,000		
	NBR		87,000		
	HSR		10,000		
	NB Latex		400,000		
	SB Latex		82,800		
	SBS		75,000		
	Total		1,496,800		
Synthetic Resins	PS		230,000	MT/Y	Completion of Expansion: 16,000MT/Y, 1H,'18
	ABS		250,000		
	SAN/Pwd.		145,000		
	EPS		80,000		
	PPG		141,000		
	Total		846,000		
Specialty Chemicals	Antioxidants		83,500	MT/Y	
Energy	Steam		1,710	T/H	
	Electricity		300	MWH	
BD	Ulsan		90,000	MT/Y	
	Yeosu		147,000		
	Total		237,000		

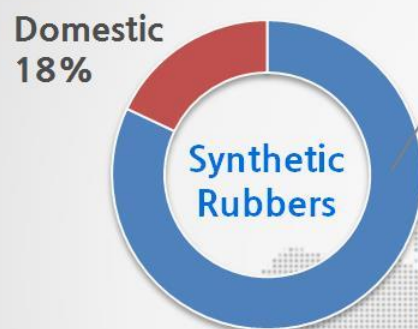


## Appendices

Production Capacity (Affiliates)		Product	Capa.	Unit	Note
	Kumho P&B Chemicals	Phenol	680,000	MT/Y	
		Acetone	420,000		
		MIBK	60,000		
		Cumene	900,000		
		BPA	450,000		
		Epoxy Resin	135,000		Completion of Expansion: 17,000MT/Y, 1H,'18
		Total	2,645,000		
	Kumho Mitsui Chemicals	MDI	350,000	MT/Y	Completion of Expansion: 100,000MT/Y, 2H,'17 60,000MT/Y, 2H '19
		Aniline	20,000		
		Total	370,000		
	Kumho Polychem	EP(D)M	220,000	MT/Y	
		TPV/KEPA	12,000		Completion of Expansion: TPV 5,000MT/Y, 4Q,'17
		Total	232,000		

## Appendices

### Sales Breakdown & Export Share by Region



Export  
82%

47%

20%

15%

9%

8%

1%

S.E. Asia

China

S.W. Asia

Europe

America

Others

42%

17%

12%

12%

10%

7%

China

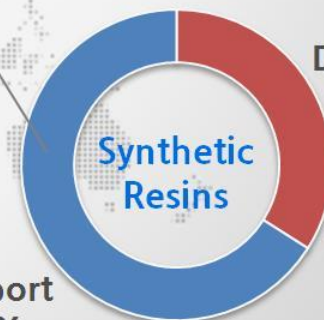
Europe

S.W. Asia

America

S.E. Asia

Africa



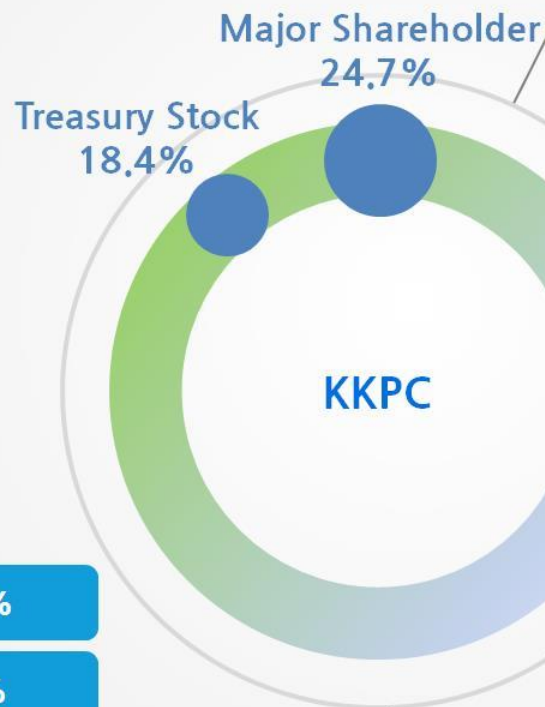
Domestic  
34%

Export  
66%

## Appendices

### Investment Shares & Asset available for sale

✓ As of 31<sup>st</sup> Mar 2018,  
based on common shares



### Investments in Affiliates

Kumho P&B Chemicals 78.2%

Kumho Mitsui Chemicals 50.0%

Kumho Polychem 50.0%

Kumho Terminal & Logistics 95.0%

Korea Energy Power Plant 96.1%

Asiana Airlines 12.0%

Daewoo E&C 3.4%

KDB Life Insurance 0.4%

Asset available for sale



Q & A