

# INVESTOR RELATIONS

2018



*beyond*  
the best

KUMHO PETROCHEMICAL

Investor Relations 2018

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# 2018 Overview

## Sales & Operating Income

- ❖ Sales increased by 10.3% over the previous year to KRW 5,584.9bn.
- ❖ Operating income increased by 111.2% over the previous year to KRW 554.6bn.

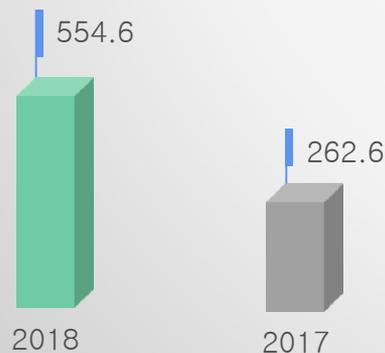
### Sales

(Unit: KRW bn)



### Operating Income

(Unit: KRW bn)



(Unit: KRW bn)

	2018	2017	YoY	
			Amount	Rate of change
S a l e s	5,584.9	5,064.7	520.2	10.3%
[Synthetic Rubbers]	2,015.4	2,068.1	-52.7	-2.5%
[Synthetic Resins]	1,225.7	1,205.5	20.2	1.7%
[ O t h e r s ]	2,343.8	1,791.1	552.7	30.9%
P h e n o l Derivatives	1,756.2	1,180.9	575.3	48.7%
S p e c i a l t y Chemicals	136.0	134.7	1.3	1.0%
E n e r g y	206.3	171.4	34.9	20.4%
O t h e r s	245.3	304.1	-58.8	-19.3%
Operating Income	554.6	262.6	292.0	111.2%
[ % ]	9.9%	5.2%	4.7%p	-
Income before Income Taxes	616.9	289.7	327.2	112.9%
Net Income	491.2	213.6	277.6	130.0%
E q u i t y Income/Losses on Investments	118.1	89.1	29.0	32.5%

✓ Net Income is based on Controlling Interests.

# 2018 Overview

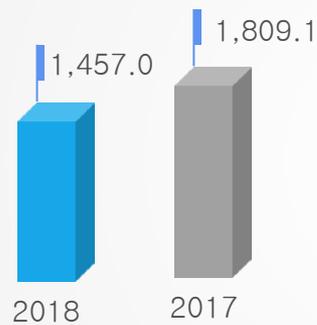
## Financial Structure

- ❖ Interest coverage ratio and total asset turnover ratio increased by reason of improved performance in major businesses.
- ❖ Financial structure improved through a decrease in debt with cash generated from operations.

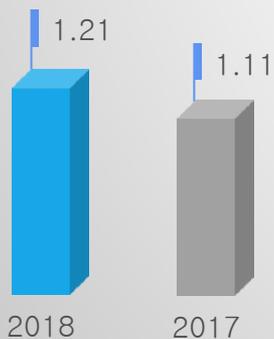
Debt to Equity Ratio (%)



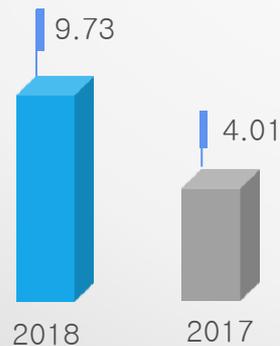
Borrowings (KRW bn)



Total Assets Turnover Ratio



Interest Coverage Ratio



(Unit: KRW bn)

	Unit	2018	2017	YoY	
				Amount	Rate of change
Assets	KRW bn	4,616.7	4,579.8	36.9	0.8%
Liabilities	KRW bn	2,268.6	2,623.0	-354.4	-13.5%
Shareholders' Equity		2,348.1	1,956.8	391.3	20.0%
Controlling Interests	KRW bn	2,347.3	1,842.7	504.6	27.4%
Non-controlling Interests		0.8	114.1	-113.3	-99.3%
Debt to Equity Ratio	%	97%	134%	-37.4%p	-
Borrowings		1,457.0	1,809.1	-352.1	-19.5%
Won-denominated	KRW bn	1,150.0	1,387.6	-237.6	-17.1%
Foreign currency-denominated		307.0	421.5	-114.5	-27.2%
Total Assets Turnover Ratio		1.21	1.11	0.10	9.4%
Interest Coverage Ratio		9.73	4.01	5.72	142.7%

# Business Review

## Synthetic Rubbers

36.1%

of Total sales

Synthetic Rubbers

Synthetic Resins

Others



- ❖ Sales decreased by 2.5% over the previous year to KRW 2,015.4bn.
- ❖ Diminished profitability resulted from Inventory sales produced in the 3Q and plummeting sales price in Nov caused by BD decline.

### • Weak raw material (BD) price

- Weak BD price resulted from slow demand of downstream.

#### ➤ BD Price changes by region

(Unit: USD/ton)

	1Q,'18	2Q,'18	3Q,'18	4Q,'18
Asia	1,378	1,587	1,614	1,139
N. America	1,127	1,580	1,616	1,261
Europe	1,093	1,396	1,492	948

※ Source: ICIS/PLATTS 2018

### • A drop in 4Q profitability of synthetic rubber

- Reduction BD decline effect in 4Q due to the pre-purchased expensive spot BD before BD price plunge.
- Decline in profitability resulted from Inventory sales produced in the 3Q and plummeting sales price in Nov due to BD decline.

(Unit: USD/ton)

	1Q,'18	2Q,'18	3Q,'18	4Q,'18
SBR	1,611	1,658	1,653	1,455
BR	1,800	1,927	2,012	1,707

※ Source: ICIS 2018

# Business Review

## Synthetic Resins

21.9%

of Total sales

Synthetic Rubbers

Synthetic Resins

Others

- ❖ Sales increased by 1.7% over the previous year to KRW 1,225.7bn.
- ❖ Reduction in Profitability resulted from falling demand caused by US-China trade war and weak selling price.

### • Weak steady trend of raw material (SM)

- The low profitability of downstream (ABS) and weakness in buying sentiment caused by the US-China trade war.

#### ➤ SM Price changes

(Unit: USD/ton)

	1Q,'18	2Q,'18	3Q,'18	4Q,'18
SM	1,389	1,417	1,432	1,130

※ Source: ICIS 2018

### • A drop in profitability of synthetic resins

- Continued market uncertainty resulted from US-China trade war and slow demand from China.
- Decline in profitability due to seasonal low and price decline caused by raw material price.

(Unit: USD/ton)

	1Q,'18	2Q,'18	3Q,'18	4Q,'18
PS	1,525	1,539	1,500	1,360
ABS	2,031	2,024	1,879	1,581

※ Source: PLATTS 2018

# Business Review

Others

42.0%

Of Total sales

Synthetic Rubbers

Synthetic Resins

Others

- ❖ Sales increased by 30.9% over the previous year to KRW 2,343.8bn.
- ❖ Phenol derivatives: Reduction in sales revenue and profitability due to weak downstream demand and a downward price trend of raw material.
- ❖ Energy: Increased sales revenue and profitability resulted from a hike in the electricity price (SMP).

## • Phenol derivatives

- Weak benzene price resulted from a weak downstream demand and a high inventory in the region.
- Reduction in profitability due to weak downstream demand and a downward price trend of raw material.

### ➤ BZ Price changes

(Unit: USD/ton)

	1Q,'18	2Q,'18	3Q,'18	4Q,'18
BZ	892	843	855	698

※ Source: PLATTS 2018

## • Energy

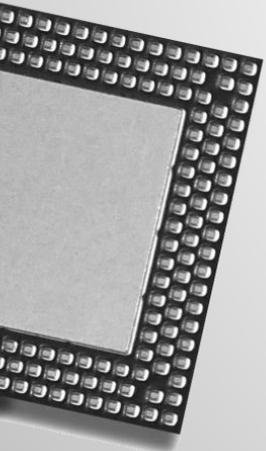
- Growth in sales volume caused by favorable utilization rates of demand-side.
- Improvement in profitability resulted from an upward trend of electricity price (SMP).

### ➤ SMP Price changes

(Unit: KRW/KW)

	1Q,'18	2Q,'18	3Q,'18	4Q,'18
SMP	94	89	89	105

※ Source: Korea Power Exchange



## 2019 Outlook

BD

- A tight supply is expected to be temporary in 1H as naphtha crackers in Europe and Asia have plans to shut down.
- Price is predicted to be stabilized in 2H after new plant operation is scheduled domestically and China.

Synthetic Rubbers

- The downstream industries, such as automobiles and tires, will experience a low growth rate of 1% due to a decline in OE demand stemming from the slowdown in the auto market and a decline in Chinese tire exports.
- Despite overall synthetic rubber demand to be sluggish, general-purpose products are expected to have a profit structure similar to that of 18 years. However, SBS market demand is likely to remain robust thanks to ongoing SOC investment projects in each country.

SM

- A tight supply and demand is expected in 1H due to regular maintenance of SM makers in Korea and Japan.
- Price fluctuations are possible depending on the downstream demand but the supply situation is expected to be smooth in 2H, and price stabilization is anticipated.

Synthetic Resins

- PS and ABS demand is expected to be weak due to slowing global growth and weak raw material price.
- Buying sentiment and product price rally will be determined after the results of the US-China trade negotiations in the first half of the year are made visible.

## Appendices

### Income Statement

(Unit: KRW bn)

	2018					2017	YoY	
	1Q	2Q	3Q	4Q	Total		Amount	Rate of change
Sales	1,339.9	1,441.8	1,450.6	1,352.6	5,584.9	5,064.7	520.2	10.3%
Operating Income	165.8	153.5	151.0	84.3	554.6	262.6	292.0	111.2%
<i>(Operating Margin)</i>	<i>12.4%</i>	<i>10.6%</i>	<i>10.4%</i>	<i>6.2%</i>	<i>9.9%</i>	<i>5.2%</i>	<i>4.7%p</i>	–
Net Interest Expense	13.5	23.8	12.4	13.1	62.8	27.6	35.2	127.5%
Equity Income/Losses on Investments	41.8	41.2	25.7	9.4	118.1	89.1	29.0	32.5%
Income before Income Taxes	194.2	181.1	162.4	79.2	616.9	289.7	327.2	112.9%
<i>(Ordinary Income Margin)</i>	<i>14.5%</i>	<i>12.6%</i>	<i>11.2%</i>	<i>5.9%</i>	<i>11.0%</i>	<i>5.7%</i>	<i>5.3%p</i>	–
Net Income	132.1	175.3	122.4	61.4	491.2	213.6	277.6	130.0%
<i>(Net Income Margin)</i>	<i>9.9%</i>	<i>12.2%</i>	<i>8.4%</i>	<i>4.5%</i>	<i>8.8%</i>	<i>4.2%</i>	<i>4.6%p</i>	–

✓ Net Income is based on Controlling Interests.

# Appendices

## Balance Sheet

(Unit: KRW bn)

구분	2018	2017	YoY	
			Amount	Rate of change
Current Assets	1,348.7	1,332.7	16.0	1.2%
- Cash and Cash Equivalents	101.8	234.4	-132.6	-56.6%
Non-current Assets	3,268.0	3,247.1	20.9	0.6%
<b>Total Assets</b>	<b>4,616.7</b>	<b>4,579.8</b>	<b>36.9</b>	<b>0.8%</b>
Current Liabilities	1,758.9	1,913.9	-155.0	-8.1%
Non-current Liabilities	509.7	709.1	-199.4	-28.1%
■ Interest bearing Liabilities	1,457.0	1,809.1	-352.1	-19.5%
- Short-term Debts	1,085.3	1,226.0	-140.7	-11.5%
- Long-term Debts	371.7	583.1	-211.4	-36.3%
■ Non-interest bearing Liabilities	811.6	813.9	-2.3	-0.3%
<b>Total Liabilities</b>	<b>2,268.6</b>	<b>2,623.0</b>	<b>-354.4</b>	<b>-13.5%</b>
Common & Preferred Stock	167.5	167.5	-	-
<b>Total Shareholders' Equity</b>	<b>2,348.1</b>	<b>1,956.8</b>	<b>391.3</b>	<b>20.0%</b>
Net Debt to Asset Ratio	29.4%	34.4%	-5.0%p	-
Long-term Debts to Total Debts Ratio	25.5%	32.2%	-6.7%p	-
Current Ratio	76.7%	69.6%	7.0%p	-
Debt to Equity Ratio	96.6%	134.0%	-37.4%p	-

## Appendices

### Production Capacity (KKPC)

	Product	Capa.	Unit	Note	
Synthetic Rubbers	SBR	384,000	MT/Y	Completion of Expansion: 150,000MT/Y, 1H,'19	
	BR	HBR			290,000
		LBR			48,000
	S-SBR	63,000			
	NdBR	60,000			
	NBR	87,000			
	HSR	10,000			
	NB Latex	400,000			
	SB Latex	82,800			
	SBS	84,000			
	<b>Total</b>	<b>1,508,800</b>			
Synthetic Resins	PS	233,000	MT/Y	Completion of Expansion: 16,000MT/Y, 1H,'18	
	ABS	250,000			
	SAN/Pwd.	173,000			
	EPS	80,000			
	PPG	141,000			
	<b>Total</b>	<b>877,000</b>			
Specialty Chemicals	Antioxidants	83,900	MT/Y		
Energy	Steam	1,710	T/H		
	Electricity	300	MWH		
BD	Ulsan	90,000	MT/Y		
	Yeosu	147,000			
	<b>Total</b>	<b>237,000</b>			

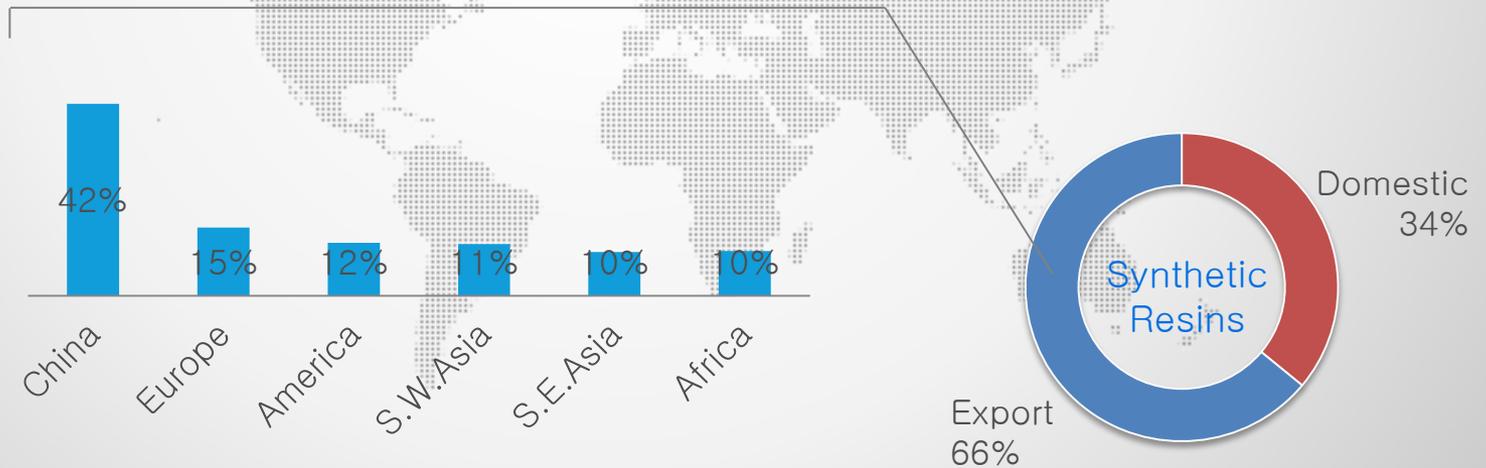
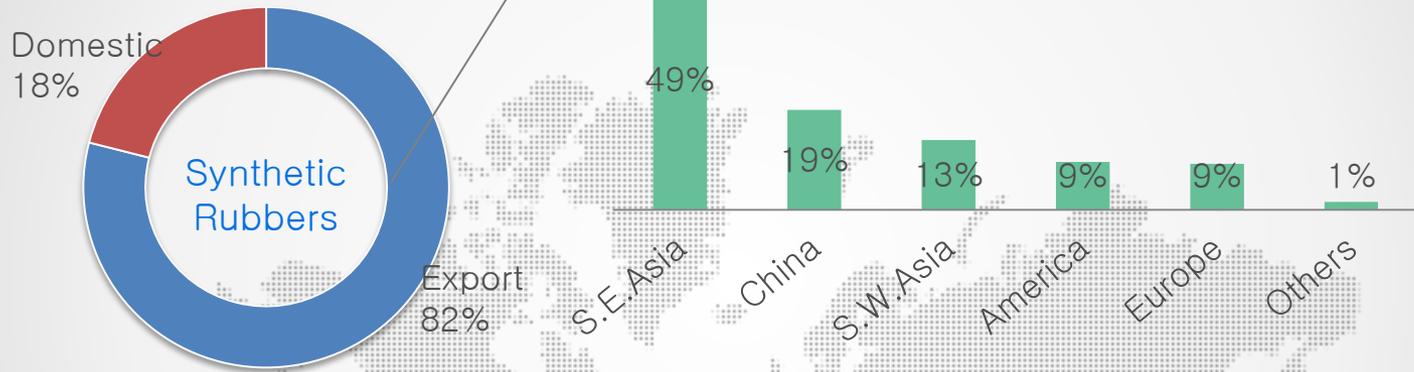
## Appendices

### 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	152,000		Completion of Expansion: 17,000MT/Y, 1Q,'18 45,000MT/Y, 1Q,'19
	Total	2,662,000		
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

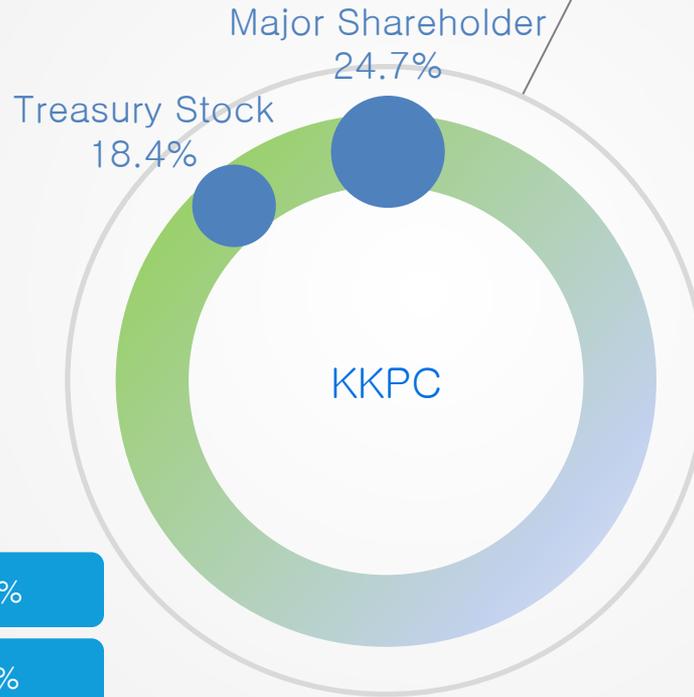
## Sales Breakdown & Export Share by Region



# Appendices

## Investment Shares & Asset available for sale

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



## Investments in Affiliates

Kumho P&B Chemicals	100.0%
Kumho Mitsui Chemicals	50.0%
Kumho Polychem	50.0%
Kumho Terminal & Logistics	100.0%
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**