

# INVESTOR RELATIONS 2016

*beyond*  
the best

KUMHO PETROCHEMICAL



Investor Relations 2016

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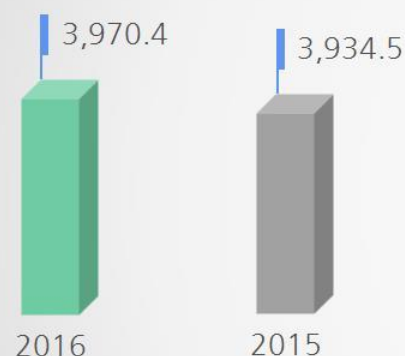
## 2016 Overview

### Sales & Operating Income

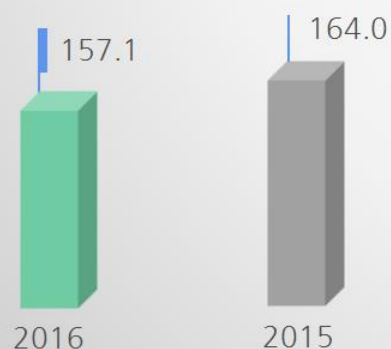
- ❖ Sales increased by 0.9% to KRW 3,970.4bn, as to previous year.
- ❖ Operating income dropped year-on-year by 4.2% down to KRW 157.1bn.

(Unit: KRW bn)

#### Sales (Unit: KRW bn)



#### Operating Income (Unit: KRW bn)



	2016	2015	YoY	
			Amount	Rate of change
S a l e s	3,970.4	3,934.5	35.9	0.9%
[Synthetic Rubbers]	1,559.2	1,553.5	5.7	0.4%
[Synthetic Resins]	1,035.7	1,079.2	-43.5	-4.0%
[ O t h e r s ]	1,375.5	1,301.8	73.7	5.7%
P h e n o l D e r i v a t i v e	859.5	790.4	69.1	8.7%
S p e c i a l t y C h e m i c a l s	122.4	140.3	-17.9	-12.8%
E n e r g y	141.5	126.7	14.8	11.7%
O t h e r s	252.1	244.4	7.7	3.2%
Operating Income	157.1	164.0	-6.9	-4.2%
[ % ]	4.0%	4.2%	-0.2%p	-
Income before Income Taxes	112.9	169.6	-56.7	-33.4%
N e t I n c o m e	73.2	118.9	-45.7	-38.4%
Gain/Loss on Valuation of Equity Method Investments	27.6	43.1	-15.5	-36.0%

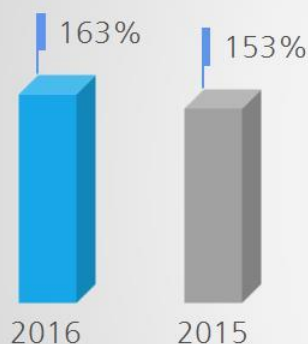
✓ Net Income is based on Controlling Interests.

## 2016 Overview

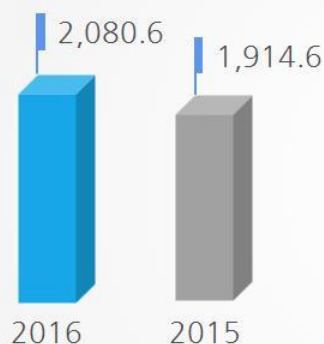
### Financial Structure

- ❖ Total Asset turnover ratio maintained through an increase in working assets despite a rise in sales revenue.
- ❖ Debt to equity ratio increased in accordance with the rise in raw material prices which caused the escalation in debts.

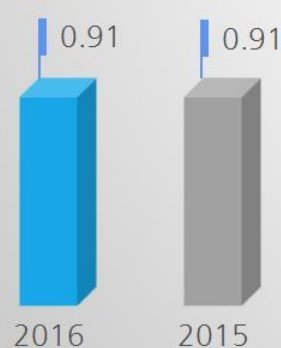
Debt to Equity Ratio (%)



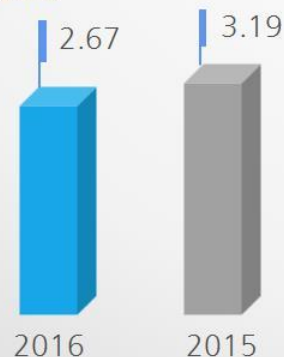
Borrowings (KRW bn)



Total Assets Turnover Ratio



Interest Coverage Ratio



(Unit: KRW bn)

	Unit	2016	2015	YoY	
				Amount	Rate of change
Assets	KRW bn	4,546.1	4,210.5	335.6	8.0%
Liabilities	KRW bn	2,818.2	2,546.8	271.4	10.7%
Shareholders' Equity	KRW bn	1,727.9	1,663.7	64.2	3.9%
Controlling Interests		1,619.7	1,556.5	63.2	4.1%
Non-controlling Interests		108.2	107.2	1.0	0.9%
Debt to Equity Ratio	%	163%	153%	10%p	-
Borrowings	KRW bn	2,080.6	1,914.6	166.0	8.7%
Won-denominated		1,547.6	1,565.0	-17.4	-1.1%
Foreign currency-denominated		533.0	349.6	183.4	52.5%
Total Assets Turnover Ratio		0.91	0.91	-	-
Interest Coverage Ratio		2.67	3.19	-0.52	-16.3%



## Business Review

### Synthetic Rubbers

39.3%  
of Total sales

Synthetic  
Rubbers

Synthetic  
Resins

Others



- ❖ Sales increased by 0.4% year-on-year to KRW 1,559.2bn.
- ❖ Slackening profitability caused by a weak demand amid year-end holiday season and an upsurge in BD price.

#### • Sharp increase in BD prices

- A soar increase in BD price resulted from a restocking demand ahead of the Lunar New Year holiday period and unexpected shutdowns.

##### ➤ BD Price changes by region

(Unit: USD/ton)

	1Q,'16	2Q,'16	3Q,'16	4Q,'16
Asia	909	1,036	1,128	1,681
N. America	625	818	911	1,179
Europe	556	688	774	1,077

※ Source: ICIS/PLATTS 2016

#### • Slackening profitability of synthetic rubber

- A slight increase in sales volume resulted from the expectation for the market improvement caused by a tight balance in NR and its strong NR price.
- Reduced profitability caused by a weak demand amid year-end holiday season and difficulties in raising the selling price relatively to the rise in the raw material price (BD), even though SR price was trending upwards in accordance with a sharp increase in BD price.

(Unit: USD/ton)

	1Q,'16	2Q,'16	3Q,'16	4Q,'16
SBR	1,112	1,339	1,314	1,709
BR	1,165	1,430	1,480	1,954

※ Source: ICIS 2016

# Business Review

## Synthetic Resins

26.1 %  
of Total sales

Synthetic  
Rubbers

Synthetic  
Resins

Others

- ❖ Sales declined by 4.0%, year-on- year to KRW 1,035.7bn.
- ❖ A slight improvement in profitability caused by an increase in selling prices, due to a surge in raw material prices and restocking demand.

### • A rise in SM prices

- Strong raw material prices (SM/BD) as a result of low inventory and tight supply caused by unexpected shutdowns.

#### ➤ SM Price changes

(Unit: USD/ton, CFR China)

	1Q,'16	2Q,'16	3Q,'16	4Q,'16
SM	1,018	1,041	1,040	1,144

※ Source: ICIS 2016

### • Slight improvement in profitability of synthetic resin

- In spite of the calm season, increased demand had shown due to restocking demands a head of the Lunar New Year holiday.
- A slight improvement in profitability resulted from an increase in selling price relatively to the rise in raw material price.

(Unit: USD/ton)

	1Q,'16	2Q,'16	3Q,'16	4Q,'16
PS	1,117	1,205	1,173	1,239
ABS	1,198	1,304	1,382	1,542

※ Source: PLATTS 2016

## Business Review

### Others

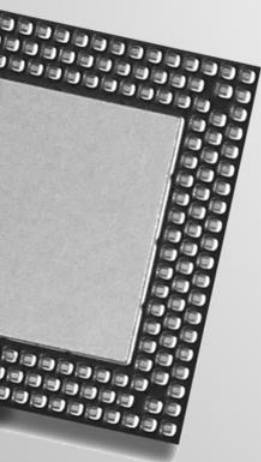
34.6%

Of Total sales

Synthetic  
Rubbers

Synthetic  
Resins

Others



- ❖ Sales increased by 5.7%, year-on-year to KRW 1,375.5bn.
- ❖ Phenol derivatives: Diminished profitability caused by the low season and strong raw material prices.
- ❖ Energy: Rise in sales revenue and operating profit due to surge in prices of steam and electricity.

#### • Phenol derivatives

- A hike in BZ (Benzene) price caused by an improvement in downstream demand and rebound in oil prices.
- In spite of strong raw material prices, a drop in profitability resulted from the low season as well as limited increase in the selling price due to the oversupplies.

#### ➤ BZ Price changes

(Unit: USD/ton, FOB Korea)

	1Q,'16	2Q,'16	3Q,'16	4Q,'16
BZ	579	628	639	713

※ Source: PLATTS 2016

#### • Energy

- Expended sales revenue and operating profit resulted from surge in the prices of steam and electricity, due to rebound in oil prices and power plant shutdowns in Korea.

➤ Expansion of Yeosu Energy II : Steam 800T/H, Electricity 145MWH(in 2016.1Q),



## 2017 Outlook

BD

- The tight balance is expected to continue due to a decrease in new supply additions. The tight supply is looking to be intensified temporarily in the 1st half of 2017 as naphtha crackers have plans to shut down the plants.
- Price is anticipated to be strong amid tight supply and demand, where the increase in price seems to have been reflected by the downstream demand.

Synthetic  
Rubbers

- Growth rate of tire production is forecast to be around 3% and no more additional supplies are expected. However, it seemed more time to be required in the improvement of the over supplied balance.
- Prices of rubber related products are expected to be strong due to the tight BD supply and an improvement in the NR balance. However, increase in SR price is expected to be limited because of supply-demand imbalance.

SM

- SM price is anticipated to be strong as a result of the tight balance in BZ, especially SM price in the 1st half of 2017 is forecast to be strong due to scheduled shutdown of SM makers at the beginning of the year.
- Demand is predicted to grow steadily and new supply additions are expected to ease the tight SM balance.

Synthetic  
Resins

- The price is expected to increase in accordance with the strong prices of raw materials (SM/BD) in the 1st half of 2017.
- The balance is predicted to be similar as to the last year, thanks to the stable demand.



## Appendices

### Income Statement

(Unit: KRW bn)

	2016					2015	YoY	
	1Q	2Q	3Q	4Q	Total		Amount	Rate of change
Sales	871.5	1,011.5	994.4	1,093.0	3,970.4	3,934.5	35.9	0.9%
Operating Income	46.3	65.4	23.5	21.9	157.1	164.0	-6.9	-4.2%
<i>(Operating Margin)</i>	<i>5.3%</i>	<i>6.5%</i>	<i>2.4%</i>	<i>2.0%</i>	<i>4.0%</i>	<i>4.2%</i>	<i>-0.2%p</i>	-
Net Interest Expense	8.4	17.3	10.1	31.4	67.2	67.3	-0.1	-0.1%
Gain/Loss on Valuation of Equity Method Investments	9.9	8.1	5.7	3.9	27.6	43.1	-15.5	-36.0%
Income before Income Taxes	50.9	66.0	22.9	-26.9	112.9	169.6	-56.7	-33.4%
<i>(Ordinary Income Margin)</i>	<i>5.8%</i>	<i>6.5%</i>	<i>2.3%</i>	<i>-2.5%</i>	<i>2.8%</i>	<i>4.3%</i>	<i>-1.5%p</i>	-
Net Income	38.2	45.0	17.8	-27.8	73.2	118.9	-45.7	-38.4%
<i>(Net Income Margin)</i>	<i>4.4%</i>	<i>4.4%</i>	<i>1.8%</i>	<i>-2.5%</i>	<i>1.8%</i>	<i>3.0%</i>	<i>-1.2%p</i>	-

✓ Net Income is based on Controlling Interests.

## Appendices

### Balance Sheet

(Unit: KRW bn)

	2016	2015	YoY	
			Amount	Rate of change
Current Assets	1,255.3	967.6	287.7	29.7%
- Cash and Cash Equivalents	197.0	47.3	149.7	316.5%
Non-current Assets	3,290.8	3,242.9	47.9	1.5%
Total Assets	4,546.1	4,210.5	335.6	8.0%
Current Liabilities	2,145.6	1,541.2	604.4	39.2%
Non-current Liabilities	672.6	1,005.6	-333.0	-33.1%
■ Interest bearing Liabilities	2,080.6	1,914.6	166.0	8.7%
- Short-term Debts	1,521.1	1,032.3	488.8	47.4%
- Long-term Debts	559.5	882.3	-322.8	-36.6%
■ Non-interest bearing Liabilities	737.6	632.2	105.4	16.7%
Total Liabilities	2,818.2	2,546.8	271.4	10.7%
Common & Preferred Stock	167.5	167.5	-	-
Total Shareholders' Equity	1,727.9	1,663.7	64.2	3.9%
Net Debt Ratio	41.4%	44.3%	-2.9%p	-
Long-term Debts to Total Debts Ratio	26.9%	46.1%	-19.2%p	-
Current Ratio	58.5%	62.8%	-4.3%p	-
Debt to Equity Ratio	163.1%	153.1%	10.0%p	-

## Appendices

### Production Capacity (KKPC)

	Product		Capa.	Unit	Note
Synthetic Rubbers	BR	SBR	360,000	MT/Y	
		HBR	290,000		
		LBR	45,000		
	S-SBR		63,000		
	NdBR		60,000		
	NBR		80,000		
	HSR		10,000		
	NB Latex		400,000		Completion of Expansion: 200,000MT/Y(Multi-purpose), 2H,'16
	SB Latex		81,800		
	SBS		75,000		
	Total		1,464,800		
Synthetic Resins	PS		230,000	MT/Y	
	ABS		250,000		
	SAN/POW		145,000		
	EPS		80,000		
	PPG		141,000		
	Total		846,000		
Specialty Chemicals	Antioxidants		83,500	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		



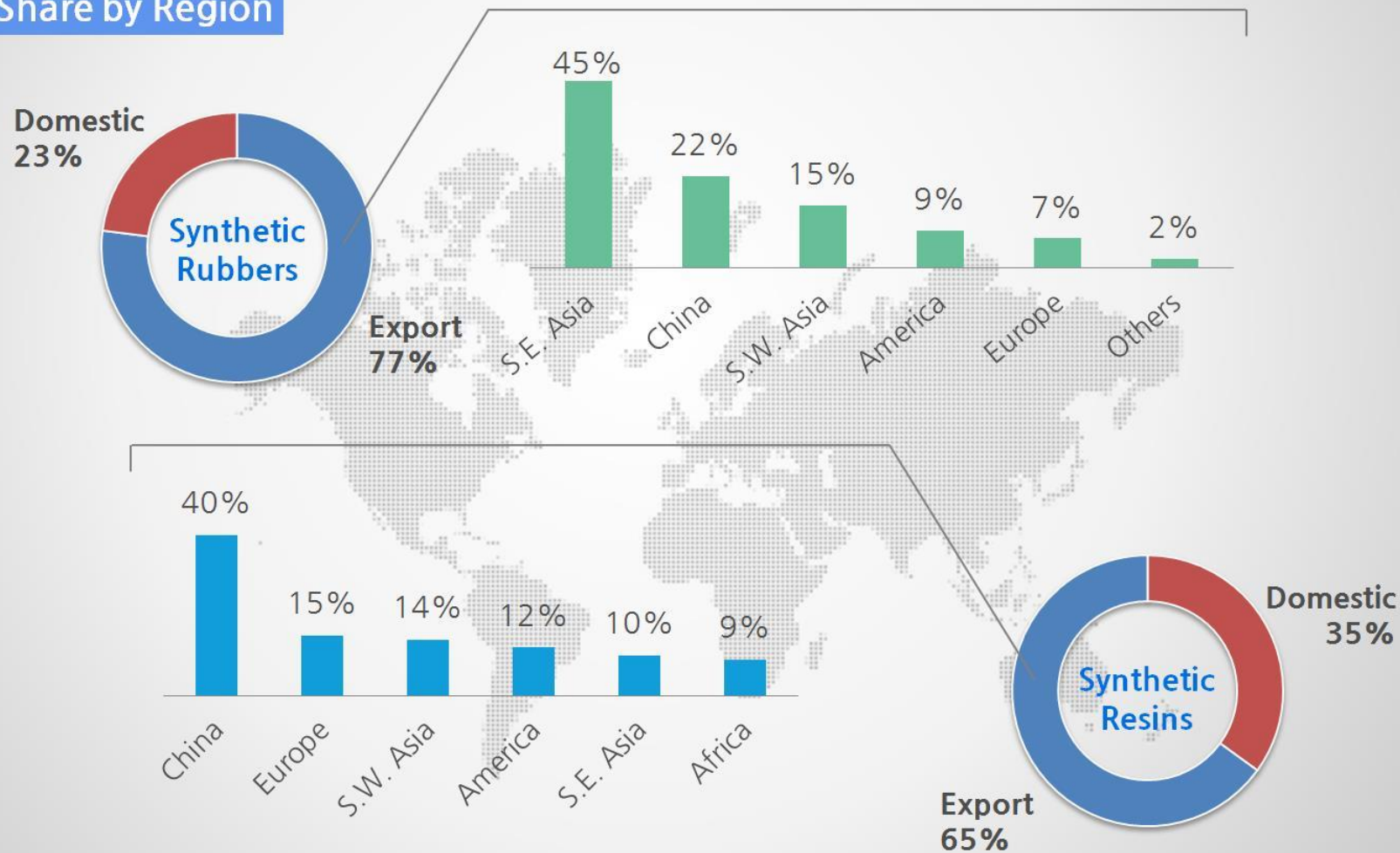
## Appendices

### 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: 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

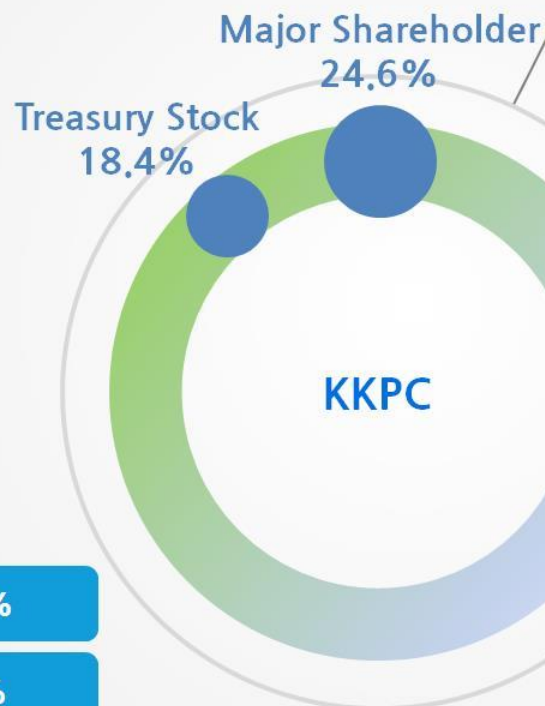
### 2016 Sales Breakdown & Export Share by Region



## Appendices

### Investment Shares & Asset available for sale

✓ As of 31<sup>th</sup> Dec. 2016,  
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 0.9%

Asset available for sale



Q & A