

A night-time photograph of a large industrial facility, likely a petrochemical plant. The scene is dominated by tall, illuminated distillation columns and a complex network of pipes and structural steel. In the foreground and middle ground, several large, spherical storage tanks are visible, some with labels like 'L.P.G. AT-804A' and 'BOST-TANK'. The entire facility is brightly lit by numerous spotlights, creating a high-contrast scene against the dark blue night sky. The lighting creates significant lens flare effects across the image.

# INVESTOR RELATIONS 2017 3Q

*beyond*  
the best

KUMHO PETROCHEMICAL

Investor Relations 2017

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## 3Q, 2017 Overview

### Sales & Operating Income

- ❖ Sales decreased by 2.7% since the last quarter and rose by 21.2% over the previous year to KRW 1,205.1bn.
- ❖ Operating income increased by 30.8% since the last quarter and by 145.5% over the previous year to KRW 57.7bn.

#### Sales

(Unit: KRW bn)



#### Operating Income

(Unit: KRW bn)



(Unit: KRW bn)

	3Q,'17	2Q,'17	3Q,'16	Rate of change	
				QoQ	YoY
S a l e s	1,205.1	1,239.1	994.4	-2.7%	21.2%
[Synthetic Rubbers]	463.5	499.5	379.3	-7.2%	22.2%
[Synthetic Resins]	308.9	293.8	247.8	5.1%	24.7%
[ O t h e r s ]	432.7	445.8	367.3	-2.9%	17.8%
P h e n o l Derivatives	287.3	295.5	240.9	-2.8%	19.3%
S p e c i a l t y Chemicals	35.8	35.5	30.7	0.8%	16.6%
E n e r g y	38.0	37.4	32.2	1.6%	18.0%
O t h e r s	71.6	77.4	63.5	-7.5%	12.8%
Operating Income	57.7	44.1	23.5	30.8%	145.5%
[ % ]	4.8%	3.6%	2.4%	1.2%p	2.4%p
Income before Income Taxes	78.1	52.8	22.9	47.9%	241.0%
N e t I n c o m e	56.5	36.7	17.8	54.0%	217.4%
Equity Income/Losses on Investments	37.7	21.4	5.7	76.2%	561.4%

✓ Net Income is based on Controlling Interests.



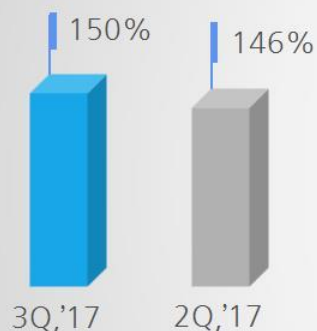
## 3Q, 2017 Overview

### Financial Structure

- ❖ Interest coverage ratio increased due to improved performance in major businesses.
- ❖ Stable financial structure maintained in accordance with a decrease in debt and continuous liquidity management.

(Unit: KRW bn)

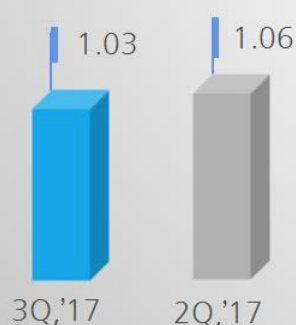
Debt to Equity Ratio (%)



Borrowings (KRW bn)



Total Assets Turnover Ratio



Interest Coverage Ratio



	Unit	3Q,'17	2Q,'17	3Q,'16	Rate of change	
					QoQ	YoY
Assets	KRW bn	4,735.4	4,617.8	4,394.4	2.5%	7.8%
Liabilities	KRW bn	2,838.3	2,743.3	2,644.0	3.5%	7.3%
Shareholders' Equity	KRW bn	1,897.1	1,874.5	1,750.4	1.2%	8.4%
Controlling Interests		1,786.3	1,764.0	1,637.3	1.3%	9.1%
Non-controlling Interests		110.8	110.5	113.1	0.3%	-2.0%
Debt to Equity Ratio	%	150	146	151	4%p	-1%p
Borrowings	KRW bn	2,005.6	2,133.3	1,985.5	-6.0%	1.0%
Won-denominated		1,544.7	1,623.5	1,564.0	-4.9%	-1.2%
Foreign currency-denominated		460.9	509.8	421.5	-9.6%	9.3%
Total Assets Turnover Ratio		1.03	1.06	0.90	-2.8%	14.4%
Interest Coverage Ratio		3.58	2.61	1.40	37.2%	155.7%

## Business Review

### Synthetic Rubbers

**38.5%**  
of Total sales

Synthetic Rubbers

Synthetic Resins

Others



- ❖ Sales declined by 7.2% over the previous quarter to KRW 463.5bn.
- ❖ Increased profitability and sales volume due to the hike in BD price and improved buying interest.

#### • Increase in BD price

- Upward trend of BD price caused by increased demand in the favorable ABS market and demand prior to the week-long holidays in early Oct.
- Tight supply continued in accordance with shutdowns of some crackers and delays in scheduled arbitrages.

##### ➤ BD Price changes by region

(Unit: USD/ton)

	Apr.'17	May.'17	Jun.'17	Jul.'17	Aug.'17	Sep.'17
Asia	1,325	1,113	947	989	1,170	1,516
N. America	1,934	1,375	1,133	871	808	1,008
Europe	1,686	1,450	976	719	817	1,114

※ Source: ICIS/PLATTS 2017

#### • Improvement in profitability of synthetic rubber

- Improvement in profitability resulted from the upward trend of the selling prices as well as the BD price.
- Growth in sales volume caused by improved buying interest and decreased total rubber inventory in the region subsequent to the decline in natural rubber inventory.

(Unit: USD/ton)

	Apr.'17	May.'17	Jun.'17	Jul.'17	Aug.'17	Sep.'17
SBR	2,016	1,734	1,418	1,463	1,434	1,678
BR	2,244	1,963	1,550	1,588	1,588	1,870

※ Source: ICIS 2017

# Business Review

## Synthetic Resins

25.6%  
of Total sales

Synthetic  
Rubbers

Synthetic  
Resins

Others

- ❖ Sales increased by 5.1 % over the previous quarter to KRW 308.9bn.
- ❖ Enhanced profitability due to robust demand and strong raw material prices.

### • Strong raw material (SM) price

- Strong SM price resulted from robust demand in a favorable downstream market.
- Tight supply continued due to low inventory in the region as well as shutdowns.

#### ➤ SM Price changes

(Unit: USD/ton, CFR China)

	Apr.'17	May.'17	Jun.'17	Jul.'17	Aug.'17	Sep.'17
SM	1,151	1,081	1,126	1,162	1,200	1,345

※ Source: ICIS 2017

### • Improvement in profitability of synthetic resin

- Increase in sales volume and sales revenue due to a robust seasonal demand and restocking demand before the week-long holidays.
- Enhanced profitability due to strong raw material prices which had impacted selling prices to rise.

(Unit: USD/ton)

	Apr.'17	May.'17	Jun.'17	Jul.'17	Aug.'17	Sep.'17
PS	1,293	1,215	1,242	1,280	1,296	1,485
ABS	1,703	1,610	1,709	1,799	1,856	2,024

※ Source: PLATTS 2017



## Business Review

### Others

35.9%

Of Total sales

Synthetic  
Rubbers

Synthetic  
Resins

Others

- ❖ Sales decreased by 2.9% over the previous quarter to KRW 432.7bn.
- ❖ Phenol derivatives : Diminished profitability resulted from an upward trend of raw material prices.
- ❖ Energy : Slight decline in profitability caused by a weak electricity price (SMP) and an increase in raw material price.

#### • Phenol derivatives

- Slight upward trend of raw material price (Benzene) resulted from strong SM price, despite an ample inventory in the region.
- Diminished profitability resulted from an upward trend of raw material prices with no changes in demand.

##### ➤ BZ Price changes

(Unit: USD/ton, FOB Korea)

	Apr.'17	May.'17	Jun.'17	Jul.'17	Aug.'17	Sep.'17
BZ	808	750	748	726	755	795

※ Source: PLATTS 2017

#### • Energy

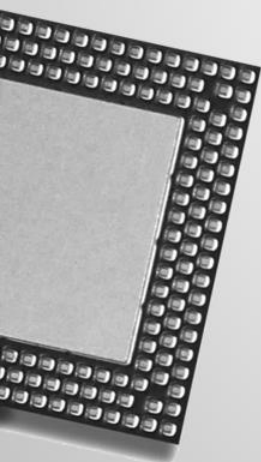
- Slight decline in profitability caused by a weak electricity price (SMP) and an increase in raw material price.

##### ➤ SMP Price changes

(Unit: KRW/KW)

	Apr.'17	May.'17	Jun.'17	Jul.'17	Aug.'17	Sep.'17
SMP	75	78	82	76	76	73

※ Source: Korea Power Exchange



## 4Q, 2017 Outlook

BD

- Supply is expected to be stable due to operation of a new BD plant in the region and arrivals of delayed deep-sea cargoes.
- Price is expected to be weak as a result of shutdowns in the region which may cause a decrease in demand.

Synthetic  
Rubbers

- Supply is forecast to be stable in response to high synthetic rubber inventory in the region regardless of shutdowns.
- Price is anticipated to be weak in accordance with the forecast on the weak raw material price and the possibility of inventory adjustment by the customers.

SM

- Supply is expected to be stable due to re-operations of SM makers and arrivals of deep-sea cargoes despite the delays of new operations.
- The supply-demand balance is expected to be stable caused by the favorable downstream market; for this reason, price is likely to be stabilized.

Synthetic  
Resins

- In spite of a robust demand than usual, wait-and-see in the demand is expected due to the arrival of off-season period and a stable price in the feedstock.
- Price is anticipated to be stabilized after a drop in prices of both feedstocks and products in the early quarter.



## Appendices

### Income Statement

(Unit: KRW bn)

	3Q,'17	2Q,'17	3Q,'16	Rate of change			
				QoQ		YoY	
				Amount	Rate of change	Amount	Rate of change
Sales	1,205.1	1,239.1	994.4	-34.0	-2.7%	210.7	21.2%
Operating Income	57.7	44.1	23.5	13.6	30.8%	34.2	145.5%
<i>(Operating Margin)</i>	<i>4.8%</i>	<i>3.6%</i>	<i>2.4%</i>	<i>1.2%p</i>	-	<i>2.4%p</i>	-
Net Interest Expense	15.9	22.2	10.1	-6.3	-28.4%	5.8	57.4%
Equity Income/Losses on Investments	37.7	21.4	5.7	16.3	76.2%	32.0	561.4%
Income before Income Taxes	78.1	52.8	22.9	25.3	47.9%	55.2	241.0%
<i>(Ordinary Income Margin)</i>	<i>6.5%</i>	<i>4.3%</i>	<i>2.3%</i>	<i>2.2%p</i>	-	<i>4.2%p</i>	-
Net Income	56.5	36.7	17.8	19.8	54.0%	38.7	217.4%
<i>(Net Income Margin)</i>	<i>4.7%</i>	<i>3.0%</i>	<i>1.8%</i>	<i>1.7%p</i>	-	<i>2.9%p</i>	-

✓ Net Income is based on Controlling Interests.

## Appendices

### Balance Sheet

(Unit: KRW bn)

	3Q,'17	2Q,'17	3Q,'16	Rate of change	
				QoQ	YoY
Current Assets	1,452.3	1,307.6	1,009.3	144.7	443.0
- Cash and Cash Equivalents	366.8	241.3	54.8	125.5	312.0
Non-current Assets	3,283.1	3,310.2	3,385.1	-27.1	-102.0
Total Assets	4,735.4	4,617.8	4,394.4	117.6	341.0
Current Liabilities	2,065.3	1,975.1	1,768.0	90.2	297.3
Non-current Liabilities	773.0	768.2	876.0	4.8	-103.0
■ Interest bearing Liabilities	2,005.6	2,133.3	1,985.5	-127.7	20.1
- Short-term Debts	1,373.5	1,498.7	1,244.2	-125.2	129.3
- Long-term Debts	632.1	634.6	741.3	-2.5	-109.2
■ Non-interest bearing Liabilities	832.7	610.0	658.5	222.7	174.2
Total Liabilities	2,838.3	2,743.3	2,644.0	95.0	194.3
Common & Preferred Stock	167.5	167.5	167.5	-	-
Total Shareholders' Equity	1,897.1	1,874.5	1,750.4	22.6	146.7
Net Debt to Asset Ratio	34.6%	41.0%	43.9%	-6.4%	-9.3%
Long-term Debts to Total Debts Ratio	31.5%	29.7%	37.3%	1.8%	-5.8%
Current Ratio	70.3%	66.2%	57.1%	4.1%	13.2%
Debt to Equity Ratio	149.6%	146.3%	151.1%	3.3%	-1.5%

## 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		Completion of Expansion: 200,000MT/Y(Multi-purpose), 2H,'16
	SB Latex		81,800		
	SBS		75,000		
	Total		1,495,800		
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	
	Electricity		300	MWH	
BD	Ulsan		90,000	MT/Y	
	Yeosu		147,000		
	Total		237,000		

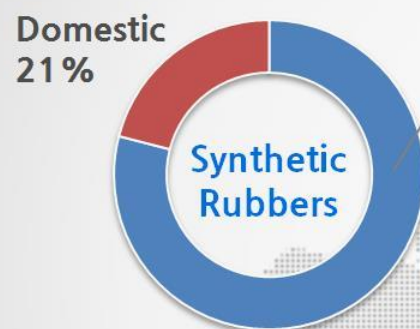


## Appendices

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, 2H,'17
		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, 4Q,'17
		Total	227,000		

## Appendices

### Sales Breakdown & Export Share by Region



Export  
79%

47%

21%

15%

9%

7%

1%

S.E. Asia

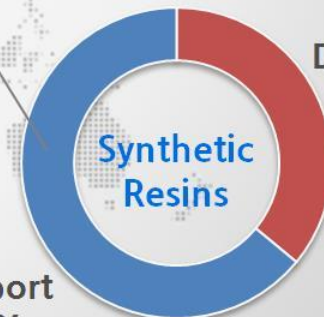
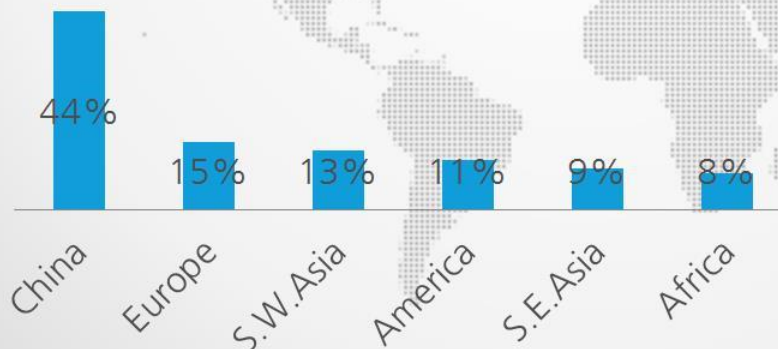
China

S.W. Asia

America

Europe

Others



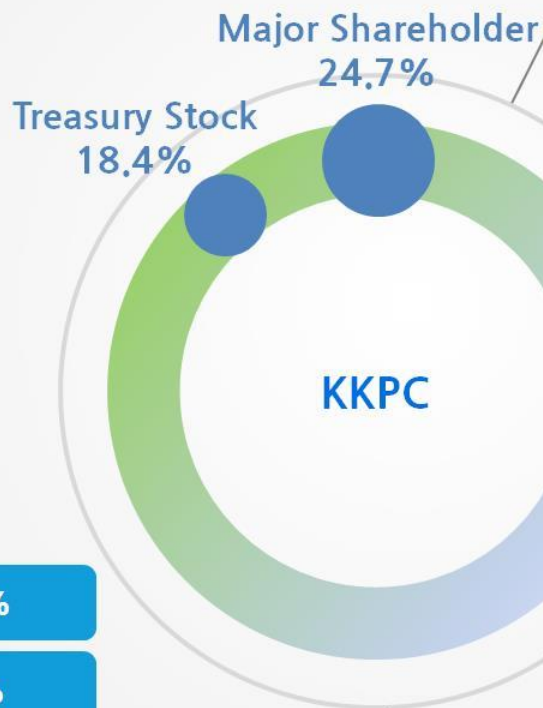
Domestic  
36%

Export  
64%

## Appendices

### Investment Shares & Asset available for sale

✓ As of 30<sup>th</sup> Sep 2017,  
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