

1. News Summary (3 page)

2017년 6월 28일

News	
WTI comment	달러화 하락속 상승...WTI 2%↑
Headline	SK E&S, 미국 셰일가스전 개발
News 1.	"친환경 마케팅 통했다", 조선 빅3 LNG선 싹쓸이
News 2.	-
News 3.	-
News 4.	-

Conclusion	
	유가에 연동되는 중동산보다 경제성이 높은 셰일가스
	가격은 높지만 절대 수주량이 적어 조선사 상승 모멘텀으로는 부족함
	-
	-
	-

2. Prices Summary (4~7 page)

Daily	Unit	Price	1D	1W	1M	3M	12M
Refinery			%	%	%	%	%
WTI	\$/bbl	44.2	2.0	2.3	(10.9)	(8.5)	(7.5)
Dubai	\$/bbl	45.0	1.9	(1.3)	(10.8)	(8.5)	1.1
Gasoline	\$/bbl	58.2	(0.0)	0.3	(10.3)	(7.3)	1.8
Diesel	\$/bbl	56.3	1.3	(1.6)	(8.3)	(6.5)	(0.2)
Complex margin ¹	\$/bbl	7.6	(0.3)	0.1	0.6	1.2	1.3
1M lagging	\$/bbl	(0.1)	0.8	(2.2)	(7.6)	(1.1)	(5.6)
Petrochemical			%	%	%	%	%
Naphtha	\$/t	403	1.9	(1.4)	(11.9)	(10.5)	(3.4)
Butadiene	\$/t	910	0.0	10.3	(9.9)	(49.4)	(7.1)
HDPE	\$/t	1,080	0.0	0.5	(2.3)	(6.1)	(3.1)
MEG	\$/t	793	1.9	4.3	5.7	9.7	25.9
PX	\$/t	761	1.6	(1.3)	(5.3)	(6.2)	(5.0)
SM	\$/t	1,109	2.3	1.2	3.0	(1.0)	10.4
Commodity			%	%	%	%	%
Natural Gas	\$/mmbtu	3.02	(0.2)	3.9	(4.0)	(9.0)	(1.2)
Natural rubber	\$/t	1,370	0.0	(0.7)	(9.9)	(25.1)	7.0
Cotton	C/lbs	74.4	1.0	4.3	(3.7)	(3.2)	15.1

Weekly	Update	Unit	Price	1W	1M	3M	12M
Petrochemical				%	%	%	%
Ethylene	06/26	\$/t	875	2.3	(7.9)	(16.3)	(15.7)
Propylene	06/26	\$/t	743	0.7	(2.0)	(6.6)	1.0
Benzene	06/26	\$/t	758	(3.2)	(3.5)	(3.5)	21.2
Toluene	06/26	\$/t	635	(1.6)	(3.1)	(8.0)	3.3
Xylene	06/26	\$/t	613	(1.2)	(4.3)	(13.7)	(1.2)
PP	06/26	\$/t	1,038	(1.9)	0.0	(3.7)	4.8
PVC	06/26	\$/t	870	(1.1)	(1.1)	(7.0)	14.5
ABS	06/26	\$/t	1,790	4.7	14.0	3.5	37.7
SBR	06/26	\$/t	1,425	(1.7)	(14.4)	(45.2)	3.6
SM	06/26	\$/t	1,125	(3.4)	0.9	(8.9)	9.5
BPA	06/26	\$/t	1,458	4.5	1.0	(1.9)	11.0
Caustic	06/26	\$/t	438	0.0	(1.1)	(1.9)	48.3
2-EH	06/26	\$/t	930	0.5	(3.1)	(11.0)	20.8
Caprolactam	06/26	\$/t	1,610	0.6	2.5	(29.1)	26.8
Solar				%	%	%	%
Polysilicon	06/21	\$/kg	13.9	(0.7)	3.4	(10.2)	(17.5)
Module	06/21	\$/W	0.33	(0.3)	(0.3)	(3.2)	(34.1)

*참고: 정제마진의 변동률은 %가 아닌 \$/bbl임

3. Global Peers Summary (8~9 page)

	Unit	Price	1D	1W	1M	3M	12M
E&P			%	%	%	%	%
ExxonMobil	USD	81.1	(0.2)	(1.5)	(0.5)	(0.2)	(8.7)
Shell	EUR	2,089	1.1	(0.1)	(1.4)	0.5	9.5
Petrochina	CNY	7.70	(0.4)	0.0	(1.3)	(2.8)	7.8
Gazprom	RUB	119.4	0.6	1.6	(2.3)	(7.3)	(13.8)
Petrobras	BRL	12.2	(0.5)	3.0	(10.7)	(11.3)	39.1
Refinery							
Phillips66	USD	80.5	0.4	1.2	4.0	4.3	4.7
Valero	USD	66.8	1.2	1.8	7.0	0.9	30.7
JX	JPY	486.8	2.1	0.6	(1.0)	(7.6)	27.0
Neste Oil	EUR	34.7	0.5	(2.9)	(5.8)	(3.6)	17.8

	Unit	Price	1D	1W	1M	3M	12M
Petrochemical			%	%	%	%	%
BASF	EUR	84.1	(1.0)	(2.9)	0.3	(6.7)	28.3
Dow Chemical	USD	63.1	(0.8)	(3.1)	3.3	(1.5)	26.3
SABIC	SAR	102.3	0.0	(0.1)	4.2	6.2	25.5
Formosa Pla.	TWD	93.3	0.0	2.5	3.8	0.4	22.4
Shin-Etsu	JPY	10,120	0.2	(0.4)	2.7	5.9	73.9
Renewable							
Wacker	EUR	95.2	(1.3)	(0.3)	(1.5)	(1.9)	27.2
First Solar	USD	40.05	(0.3)	13.0	8.7	41.9	(9.5)
GCL-Poly	HKD	0.80	(2.4)	8.1	(7.0)	(20.0)	(21.6)
Tesla Motors	USD	362.4	(4.0)	(2.7)	11.5	34.1	82.5

4. Coverage Summary

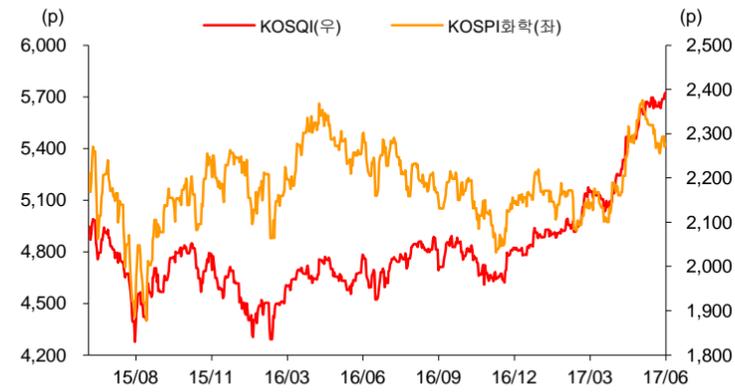
	06/27	1D	1W	1M	3M	6M	12M
KOSPI	2,392	0.1	1.0	1.6	10.4	17.4	24.2
KOSPI화학	5,427	0.3	1.0	(4.1)	5.0	6.3	5.9
LG화학	283,000	0.2	2.7	(7.1)	(5.5)	7.6	17.9
롯데케미칼	334,000	(1.0)	2.8	(11.2)	(7.9)	(3.7)	24.4
한화케미칼	29,800	0.0	(3.4)	1.9	14.0	18.0	29.6
금호석유화학	72,200	(1.4)	(1.8)	(12.1)	(8.8)	(12.2)	21.1
KCC	420,000	(1.2)	3.6	2.9	18.6	13.2	15.5
OCI	90,600	(1.3)	(4.7)	0.2	6.7	17.5	0.1
SKC	33,450	2.0	0.8	6.9	9.0	(0.3)	27.2
국도화학	51,900	(1.0)	(4.6)	2.8	5.9	(8.0)	(9.9)
SK이노베이션	156,500	(0.3)	(0.6)	(6.6)	(4.0)	4.7	13.0
S-Oil	94,000	(0.4)	(0.5)	(7.8)	(4.6)	9.8	24.2
GS	67,500	2.6	2.9	(6.3)	18.6	24.5	42.1
SK가스	125,000	(2.0)	(4.2)	2.0	0.8	2.9	49.2
포스코대우	21,500	(3.6)	(4.9)	(10.4)	(6.5)	(24.3)	(7.9)
LG상사	30,000	(1.6)	(1.8)	(9.4)	(5.1)	1.0	(18.9)
한국전력	41,550	(1.4)	0.8	(2.1)	(10.6)	(10.4)	(27.6)
한국가스공사	51,700	(0.6)	0.0	0.0	17.2	5.4	35.7

투자 의견	TP	%	P/E	P/B
			* 추정치는 12M fwd 기준임	
			* 모든 coverage 업체의 실적은 연결기준임	
매수	330,000	16.6	12.96	1.39
매수	410,000	22.8	10.28	1.19
매수	28,000	(6.0)	12.83	0.87
매수	100,000	38.5	10.65	1.30
매수	450,000	7.1	18.44	0.66
매수	100,000	10.4	15.75	0.68
매수	40,000	19.6	11.55	0.83
매수	70,000	34.9	9.39	0.60
매수	180,000	15.0	10.09	0.82
매수	100,000	6.4	13.20	1.45
매수	70,000	3.7	9.39	1.01
매수	140,000	12.0	11.89	1.11
매수	29,000	34.9	10.63	1.03
매수	42,000	40.0	10.41	0.91
매수	60,000	44.4	7.18	0.33
매수	60,000	16.1	8.77	0.61

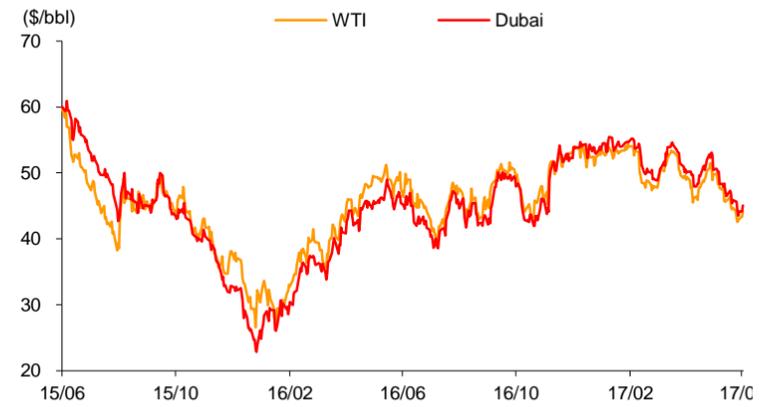
· 작성자(손지우)는 본 조사분석자료에 게재된 내용들이 본인의 의견을 정확하게 반영하고 있으며, 외부의 부당한 압력이나 간섭없이 신의성실하게 작성되었음을 확인합니다.
· 본 보고서에 언급된 종목의 경우 당사 조사분석담당자는 본인의 담당종목을 보유하고 있지 않습니다.
· 본 보고서는 기관투자자 또는 제 3자에게 사전 제공된 사실이 없습니다.
· 당사는 본 보고서의 발간시점에 해당종목을 1% 이상 보유하고 있지 않습니다.

Key Chart

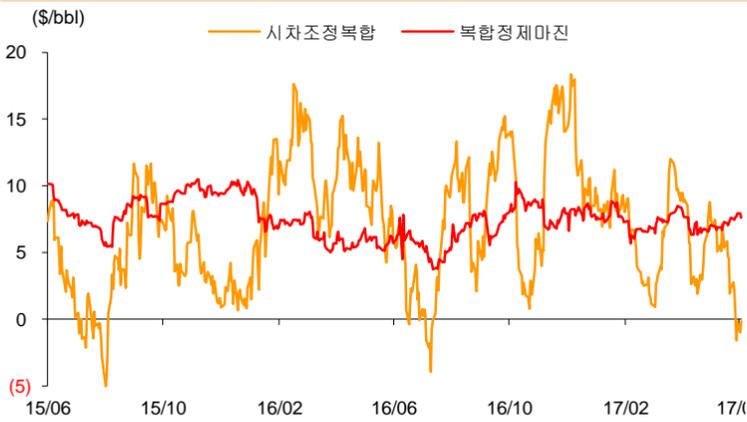
KOSPI/KOSPI화학



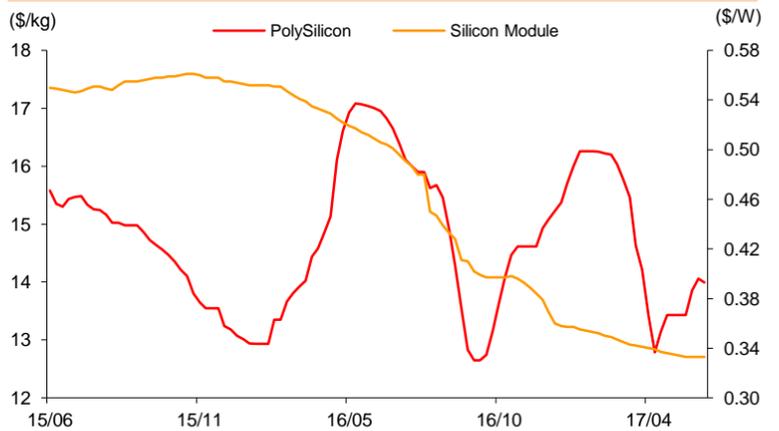
WTI/Dubai



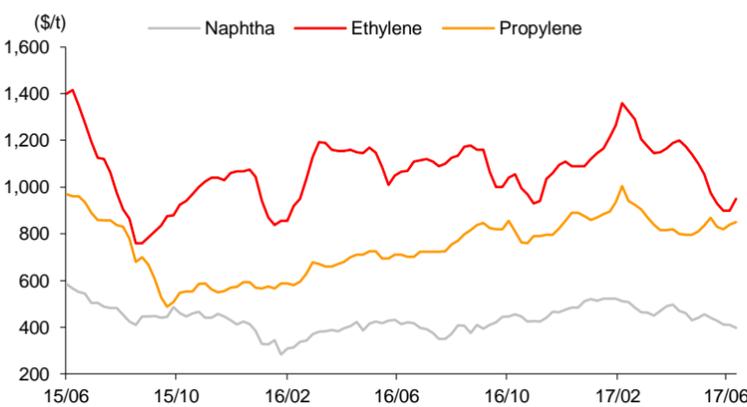
Complex & 1M lagging margin



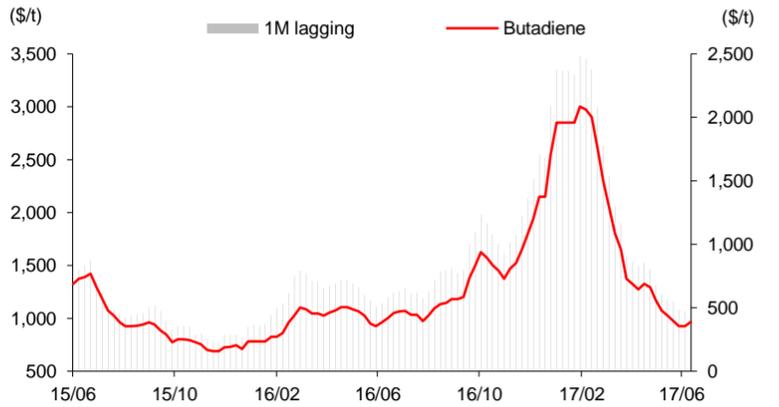
Polysilicon & Module prices



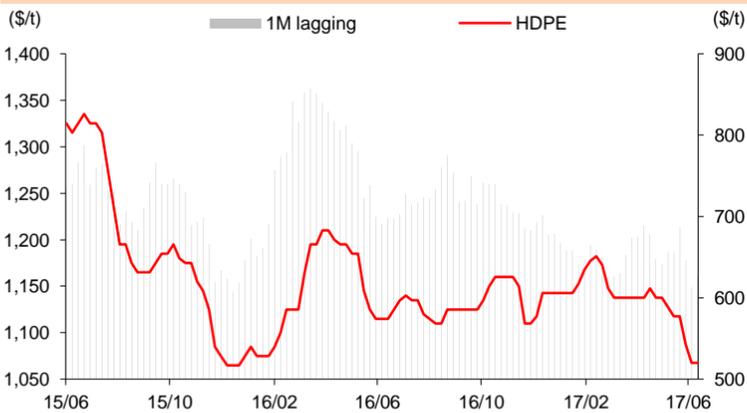
Naphtha/Ethylene/Propylene prices



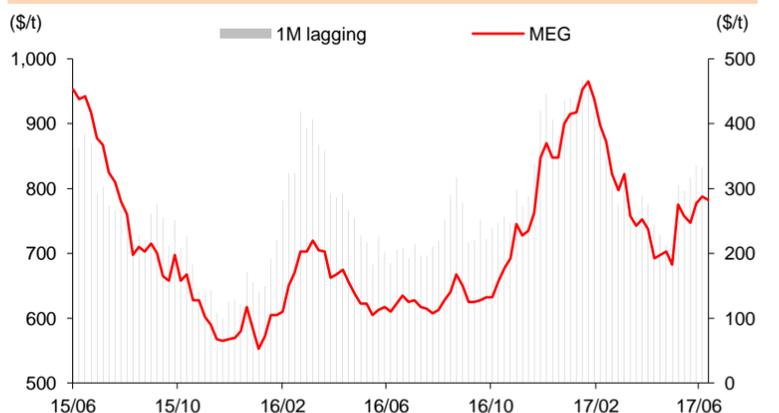
Butadiene price & 1M lagging naphtha spread



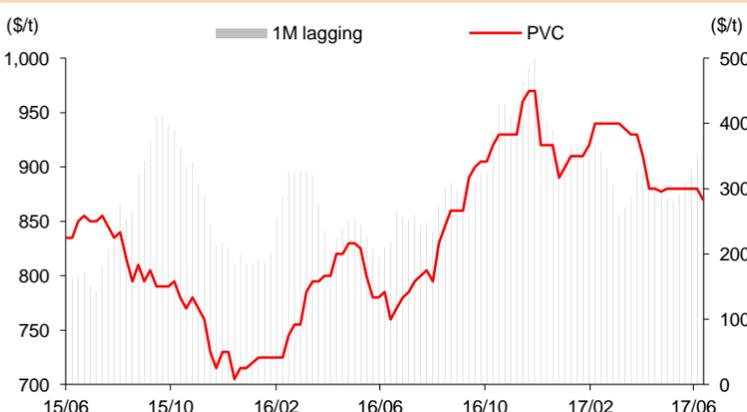
HDPE price & 1M lagging naphtha spread



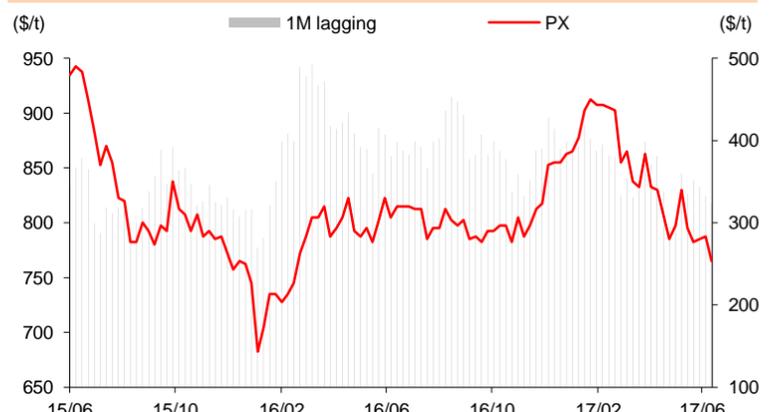
MEG price & 1M lagging naphtha spread



PVC price & 1M lagging naphtha spread



PX price & 1M lagging naphtha spread



자료: Bloomberg, Cischem, Petronet, Platts, Pviewsights, SK증권
참고: 상기 데이터는 일괄적으로 과거 2년치 적용

News Comment

Headline (출처: 한국경제)

제목 SK E&S, 미국 셰일가스전 개발

결론 유가에 연동되는 중동산보다 경제성이 높은 셰일가스

세부

- 1) SK그룹이 콘티넨털리소시스와 셰일가스전 공동 개발을 위한 MOU 체결
- 2) 트럼프 행정부의 거센 통상 압박을 누그러뜨릴 '카드'로 활용될 전망
- 3) SK E&S는 2014년 9월부터 콘티넨털리소시스와 셰일가스전 공동개발중
- 4) SK는 이번 MOU를 통해 추가적 셰일가스전 개발에 나선다는 계획
- 5) 유가에 연동되는 중동산보다 경제성이 높은 셰일가스

Issue 1 (출처: 머니투데이)

제목 "친환경 마케팅 통했다", 조선 빅3 LNG선 싹쓸이

결론 가격은 높지만 절대 수주량이 적어 조선사 상승 모멘텀으로는 부족함

세부

- 1) 한국 조선 '빅3'가 올해 전 세계 LNG선 수주를 사실상 독식함
- 2) 현대중공업은 지난달 크누센OAS로부터 18만㎡급 LNG선 1척을 수주
- 3) 올해 빅3의 LNG선 수주량은 모두 8척이 됨
- 4) 세 조선사 전체 수주 계약금(해양플랜트 제외 상선 기준)의 23.3% 비중
- 5) 가격은 높지만 절대 수주량이 적어 조선사 상승 모멘텀으로는 부족함

Issue 3

제목

결론

세부

- 1)
- 2)
- 3)
- 4)
- 5)

Issue 5

제목

결론

세부

- 1)
- 2)
- 3)
- 4)
- 5)

WTI Comment (출처: 연합뉴스)

제목 달러화 하락속 상승...WTI 2%↑

상승 미국 내 재고는 지난 11주 가운데 10주 줄었음

요인 달러화가 유로화 대비 9개월 이래 최저치 기록

하락 전 세계 재고량은 전혀 줄지 않고 있음

요인

Issue 2

제목

결론

세부

- 1)
- 2)
- 3)
- 4)
- 5)

Issue 4

제목

결론

세부

- 1)
- 2)
- 3)
- 4)
- 5)

Issue 6

제목

결론

세부

- 1)
- 2)
- 3)
- 4)
- 5)

Commodity Price Data

Daily Price		Today	1D	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.	
F/X	USD/EUR	0.882	0.894	0.898	0.894	0.921	0.956	0.907	0.951	0.901	0.904	0.924	
	Change, %		(1.4)	(1.8)	(1.4)	(4.2)	(7.8)	(2.8)	(7.2)	(2.2)	(2.4)	(4.6)	
	USD/JPY	112.4	111.9	111.5	111.3	110.7	117.4	102.0	117.0	121.1	108.8	112.4	
	Change, %		0.4	0.8	0.9	1.5	(4.3)	10.1	(3.9)	(7.2)	3.3	(0.0)	
	USD/KRW	1,136.6	1,137.1	1,135.5	1,120.8	1,113.0	1,207.4	1,182.3	1,205.8	1,131.2	1,160.5	1,142.1	
	Change, %		(0.0)	0.1	1.4	2.1	(5.9)	(3.9)	(5.7)	0.5	(2.1)	(0.5)	
	Agriculture	Corn	359.3	359.0	370.0	374.3	355.8	355.0	385.3	352.0	376.8	358.5	366.0
		Change, %		0.1	(2.9)	(4.0)	1.0	1.2	(6.7)	2.1	(4.7)	0.2	(1.8)
Soybean		911.3	906.8	927.8	926.5	971.5	1,014.8	1,133.0	996.5	945.4	987.5	981.5	
Change, %			0.5	(1.8)	(1.6)	(6.2)	(10.2)	(19.6)	(8.6)	(3.6)	(7.7)	(7.2)	
	Wheat	453.3	450.0	472.5	438.3	420.8	409.5	446.8	408.0	508.1	436.4	431.2	
	Change, %		0.7	(4.1)	3.4	7.7	10.7	1.5	11.1	(10.8)	3.9	5.1	
	Rice	11.3	11.2	11.4	11.0	9.8	9.3	10.8	9.4	11.1	10.3	10.0	
	Change, %		1.0	(0.7)	2.9	15.1	21.4	4.1	20.7	2.1	9.2	12.5	
	Oats	246.5	249.8	261.3	244.3	240.5	228.5	204.0	228.5	250.2	196.3	245.5	
	Change, %		(1.3)	(5.6)	0.9	2.5	7.9	20.8	7.9	(1.5)	25.6	0.4	
	MYR/mt	Palm Oil	2,589.0	2,589.0	2,603.0	2,840.0	2,843.0	3,218.0	2,467.0	3,218.0	2,190.3	2,653.8	2,931.2
		Change, %		0.0	(0.5)	(8.8)	(8.9)	(19.5)	4.9	(19.5)	18.2	(2.4)	(11.7)
Cocoa		1,827.0	1,809.0	1,878.0	1,911.0	2,150.0	2,237.0	3,034.0	2,126.0	3,091.6	2,854.0	2,014.7	
Change, %			1.0	(2.7)	(4.4)	(15.0)	(18.3)	(39.8)	(14.1)	(40.9)	(36.0)	(9.3)	
	Cotton	74.4	73.7	71.4	77.1	76.9	69.7	63.5	70.7	63.3	65.6	76.1	
	Change, %		1.0	4.3	(3.4)	(3.2)	6.7	17.3	5.4	17.7	13.5	(2.1)	
	Sugar	12.7	12.6	13.6	15.1	17.7	18.5	19.5	19.5	13.1	18.2	17.5	
	Change, %		0.3	(7.1)	(15.9)	(28.5)	(31.8)	(35.1)	(35.2)	(3.7)	(30.3)	(27.5)	
	Coffee	122.8	122.0	122.0	131.2	139.2	134.2	134.5	137.1	132.6	136.1	137.7	
	Change, %		0.7	0.7	(6.4)	(11.8)	(8.5)	(8.7)	(10.4)	(7.5)	(9.8)	(10.9)	
	Energy	WTI	43.7	43.4	43.2	49.8	47.7	53.9	46.3	53.7	48.8	43.4	50.2
		Change, %		0.8	1.2	(12.2)	(8.4)	(18.8)	(5.6)	(18.6)	(10.4)	0.8	(12.8)
Brent		46.2	45.8	46.0	52.2	50.8	56.1	47.2	56.8	53.7	45.1	52.9	
Change, %			0.8	0.4	(11.4)	(9.0)	(17.6)	(2.0)	(18.7)	(13.9)	2.5	(12.6)	
	Natural Gas	3.0	3.0	2.9	3.2	3.1	3.8	2.7	3.7	2.6	2.6	3.1	
	Change, %		(0.2)	3.9	(6.7)	(1.0)	(19.7)	11.2	(18.9)	14.9	18.3	(3.0)	
	Ethanol	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	
	Change, %		0.4	(1.2)	(1.1)	(2.4)	(3.2)	(7.2)	(6.4)	(0.4)	(0.8)	(2.2)	
	RBOB Gasoline	144.4	143.9	142.4	164.3	161.9	165.3	147.7	166.5	163.6	140.0	158.4	
	Change, %		0.3	1.4	(12.1)	(10.8)	(12.7)	(2.2)	(13.3)	(11.8)	3.1	(8.9)	
	Coal	80.6	80.6	80.8	74.5	81.0	86.6	54.1	88.4	59.0	65.5	80.8	
	Change, %		0.1	(0.2)	8.3	(0.4)	(6.9)	49.1	(8.8)	36.7	23.1	(0.3)	
Metal	Gold	1,247.1	1,244.7	1,243.0	1,266.9	1,254.4	1,138.9	1,324.6	1,152.3	1,160.6	1,248.5	1,238.6	
	Change, %		0.2	0.3	(1.6)	(0.6)	9.5	(5.8)	8.2	7.5	(0.1)	0.7	
	Silver	16.7	16.6	16.5	17.4	18.1	16.0	17.7	15.9	15.7	17.1	17.4	
	Change, %		0.3	1.2	(4.0)	(8.0)	4.4	(6.1)	4.7	6.0	(2.6)	(4.0)	
	Copper	5,858.0	5,794.5	5,657.0	5,657.5	5,760.0	5,469.0	4,710.0	5,535.5	5,503.1	4,872.0	5,769.7	
	Change, %		1.1	3.6	3.5	1.7	7.1	24.4	5.8	6.4	20.2	1.5	
	Nickel	593.0	579.6	572.2	584.8	637.1	704.8	606.6	682.0	759.5	646.4	644.6	
	Change, %		2.3	3.6	1.4	(6.9)	(15.9)	(2.2)	(13.0)	(21.9)	(8.3)	(8.0)	
	Zinc	2,747.0	2,719.0	2,555.0	2,640.0	2,760.0	2,577.0	1,995.0	2,576.0	1,941.9	2,097.5	2,695.1	
	Change, %		1.0	7.5	4.1	(0.5)	6.6	37.7	6.6	41.5	31.0	1.9	
	Lead	2,281.8	2,248.3	2,118.0	2,114.8	2,292.8	2,061.3	1,697.0	2,003.5	1,791.2	1,868.3	2,217.4	
	Change, %		1.5	7.7	7.9	(0.5)	10.7	34.5	13.9	27.4	22.1	2.9	
	Aluminum	13,745.0	13,810.0	13,830.0	14,015.0	13,585.0	12,700.0	12,545.0	12,765.0	12,184.0	12,373.5	13,724.7	
	Change, %		(0.5)	(0.6)	(1.9)	1.2	8.2	9.6	7.7	12.8	11.1	0.1	
	Cobalt	58,750.0	58,750.0	58,250.0	55,850.0	53,750.0	32,728.0	23,648.0	32,734.0	28,444.4	25,480.1	49,535.5	
	Change, %		0.0	0.9	5.2	9.3	79.5	148.4	79.5	106.5	130.6	18.6	
	HR Coil	589.0	589.0	589.0	613.0	643.0	585.0	628.0	633.0	461.5	519.3	619.6	
	Change, %		0.0	0.0	(3.9)	(8.4)	0.7	(6.2)	(7.0)	27.6	13.4	(4.9)	
	Scrap	350.0	350.0	350.0	350.0	350.0	302.0	255.0	302.0	252.9	275.7	337.8	
	Change, %		0.0	0.0	0.0	0.0	15.9	37.3	15.9	38.4	27.0	3.6	

자료: Bloomberg

참고) NYMEX, ICE, LME 중 대표지수를 사용

Refining Price Data

Daily Price		06/27	1D	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.
Crude Oil	WTI	44.2	43.4	43.2	49.7	48.4	53.9	47.9	53.7	48.8	43.4	50.1
	<i>Change, %</i>		<i>2.0</i>	<i>2.3</i>	<i>(10.9)</i>	<i>(8.5)</i>	<i>(17.9)</i>	<i>(7.5)</i>	<i>(17.6)</i>	<i>(9.3)</i>	<i>2.0</i>	<i>(11.8)</i>
	Dubai	45.0	44.2	45.6	50.5	49.2	53.9	44.6	53.8	50.8	41.3	51.5
	<i>Change, %</i>		<i>1.9</i>	<i>(1.3)</i>	<i>(10.8)</i>	<i>(8.5)</i>	<i>(16.5)</i>	<i>1.1</i>	<i>(16.3)</i>	<i>(11.3)</i>	<i>9.0</i>	<i>(12.5)</i>
Crude Oil Product	Gasoline(휘발유)	58.2	58.2	58.1	64.9	62.8	69.1	57.2	69.8	69.5	56.3	66.0
	<i>Change, %</i>		<i>(0.0)</i>	<i>0.3</i>	<i>(10.3)</i>	<i>(7.3)</i>	<i>(15.7)</i>	<i>1.8</i>	<i>(16.6)</i>	<i>(16.3)</i>	<i>3.5</i>	<i>(11.8)</i>
	Kerosene(등유)	55.9	55.1	56.6	61.7	59.5	65.1	56.4	66.4	64.7	52.9	62.5
	<i>Change, %</i>		<i>1.3</i>	<i>(1.4)</i>	<i>(9.4)</i>	<i>(6.1)</i>	<i>(14.2)</i>	<i>(0.9)</i>	<i>(15.9)</i>	<i>(13.7)</i>	<i>5.6</i>	<i>(10.6)</i>
	Diesel(경유)	56.3	55.5	57.2	61.3	60.2	63.1	56.4	65.5	64.8	52.1	63.0
	<i>Change, %</i>		<i>1.3</i>	<i>(1.6)</i>	<i>(8.3)</i>	<i>(6.5)</i>	<i>(10.8)</i>	<i>(0.2)</i>	<i>(14.1)</i>	<i>(13.1)</i>	<i>8.0</i>	<i>(10.7)</i>
	Bunker-C	44.8	44.0	44.9	47.1	43.8	50.8	37.3	52.1	45.3	35.5	47.8
	<i>Change, %</i>		<i>2.0</i>	<i>(0.2)</i>	<i>(4.7)</i>	<i>2.3</i>	<i>(11.7)</i>	<i>20.2</i>	<i>(13.9)</i>	<i>(0.9)</i>	<i>26.2</i>	<i>(6.2)</i>
	Naphtha	43.2	42.9	44.3	48.1	48.5	52.6	44.3	53.5	52.6	42.6	51.3
	<i>Change, %</i>		<i>0.8</i>	<i>(2.4)</i>	<i>(10.1)</i>	<i>(10.9)</i>	<i>(17.7)</i>	<i>(2.3)</i>	<i>(19.1)</i>	<i>(17.8)</i>	<i>1.5</i>	<i>(15.8)</i>
Dubai Spread	Gasoline(휘발유)	13.2	14.1	12.4	14.4	13.6	15.2	12.6	16.0	18.7	14.9	14.5
	<i>Change</i>		<i>(0.9)</i>	<i>0.7</i>	<i>(1.2)</i>	<i>(0.4)</i>	<i>(2.0)</i>	<i>0.6</i>	<i>(2.8)</i>	<i>(5.5)</i>	<i>(1.8)</i>	<i>(1.3)</i>
	Kerosene(등유)	10.8	11.0	11.0	11.2	10.3	11.2	11.8	12.6	14.0	11.6	11.0
	<i>Change</i>		<i>(0.1)</i>	<i>(0.2)</i>	<i>(0.4)</i>	<i>0.5</i>	<i>(0.4)</i>	<i>(1.0)</i>	<i>(1.8)</i>	<i>(3.1)</i>	<i>(0.7)</i>	<i>(0.2)</i>
	Diesel(경유)	11.2	11.4	11.6	10.9	10.9	9.2	11.8	11.7	14.0	10.8	11.6
	<i>Change</i>		<i>(0.1)</i>	<i>(0.3)</i>	<i>0.4</i>	<i>0.3</i>	<i>2.1</i>	<i>(0.6)</i>	<i>(0.5)</i>	<i>(2.8)</i>	<i>0.4</i>	<i>(0.3)</i>
Dubai Spread	Bunker-C	(0.2)	(0.2)	(0.7)	(3.4)	(5.4)	(3.1)	(7.3)	(1.8)	(5.5)	(5.8)	(3.6)
	<i>Change</i>		<i>0.0</i>	<i>0.5</i>	<i>3.2</i>	<i>5.2</i>	<i>2.9</i>	<i>7.1</i>	<i>1.6</i>	<i>5.3</i>	<i>5.6</i>	<i>3.4</i>
	Naphtha	(1.8)	(1.3)	(1.3)	(2.4)	(0.7)	(1.4)	(0.3)	(0.4)	1.8	1.3	(0.1)
	<i>Change</i>		<i>(0.5)</i>	<i>(0.5)</i>	<i>0.6</i>	<i>(1.1)</i>	<i>(0.4)</i>	<i>(1.5)</i>	<i>(1.4)</i>	<i>(3.6)</i>	<i>(3.1)</i>	<i>(1.7)</i>
Refining Margin	Simple(단순)	4.1	4.3	3.9	2.5	1.5	2.3	1.1	3.8	3.3	1.9	2.7
	<i>Change</i>		<i>(0.2)</i>	<i>0.2</i>	<i>1.6</i>	<i>2.5</i>	<i>1.8</i>	<i>3.0</i>	<i>0.3</i>	<i>0.8</i>	<i>2.2</i>	<i>1.4</i>
	Complex(복합)	7.6	7.9	7.5	7.0	6.4	6.6	6.3	8.3	9.3	7.0	7.4
	<i>Change</i>		<i>(0.3)</i>	<i>0.1</i>	<i>0.6</i>	<i>1.2</i>	<i>1.0</i>	<i>1.3</i>	<i>(0.7)</i>	<i>(1.7)</i>	<i>0.6</i>	<i>0.2</i>
Refining Margin	Complex(lagging)	(0.1)	(1.0)	2.1	7.4	0.9	14.9	5.5	18.0	7.3	8.5	6.5
	<i>Change</i>		<i>0.8</i>	<i>(2.2)</i>	<i>(7.6)</i>	<i>(1.1)</i>	<i>(15.0)</i>	<i>(5.6)</i>	<i>(18.1)</i>	<i>(7.4)</i>	<i>(8.6)</i>	<i>(6.7)</i>

자료 : Petronet, SK증권

참고 1) Crude Oil 가격은 현물(spot) 기준으로 선물(future) 가격과 다를 수 있음

참고 2) Gasoline은 95RON, 경유는 L/P 0.5%, Bunker-C는 380cst/4.0% 기준임

Petrochemical Price Data

Daily Price			06/27	06/23	06/22	06/21	06/20	06/19	06/16	06/15	06/14	06/13
Spot Price	Naphtha	CFR Japan	403.1	395.6	399.0	403.0	409.0	414.0	411.3	409.0	417.8	420.8
	Ethylene	CFR SE Asia	880.0	880.0	880.0	880.0	880.0	880.0	880.0	880.0	880.0	880.0
	Propylene	FOB Korea	831.0	831.0	830.0	835.0	835.0	835.0	825.0	815.0	804.0	804.0
	Butadiene	FOB Korea	910.0	910.0	875.0	860.0	825.0	825.0	825.0	825.0	865.0	865.0
	HDPE	CFR FE Asia	1,080.0	1,080.0	1,085.0	1,085.0	1,075.0	1,075.0	1,080.0	1,090.0	1,090.0	1,090.0
	LDPE	CFR FE Asia	1,125.0	1,125.0	1,125.0	1,125.0	1,125.0	1,125.0	1,135.0	1,140.0	1,140.0	1,140.0
	LLDPE	CFR FE Asia	1,070.0	1,075.0	1,075.0	1,075.0	1,050.0	1,050.0	1,050.0	1,075.0	1,075.0	1,080.0
	MEG	CFR China	793.0	778.0	773.0	775.0	760.0	750.0	785.0	805.0	810.0	810.0
	PP	CFR FE Asia	965.0	960.0	960.0	965.0	965.0	965.0	965.0	960.0	960.0	970.0
	PX	CFR China	760.7	748.7	743.7	761.3	770.3	776.3	777.0	774.7	783.0	781.3
	PTA	CFR China	604.0	607.0	612.0	612.0	614.0	614.0	617.0	620.0	620.0	620.0
	Benzene	FOB Korea	733.5	735.0	726.0	733.0	750.0	752.5	749.5	763.0	778.0	773.0
	Toluene	FOB Korea	577.0	574.0	576.0	594.0	603.0	605.0	609.0	608.0	610.0	610.0
	Xylene	FOB Korea	620.5	617.5	619.5	630.5	633.5	636.5	636.5	636.0	640.0	640.0
	SM	FOB Korea	1,108.5	1,083.5	1,082.5	1,098.5	1,095.5	1,093.5	1,104.0	1,126.0	1,132.0	1,120.0

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.
Spot Price	Naphtha	CFR Japan	397.5	409.5	441.0	449.0	507.0	420.5	484.5	493.0	399.5	472.1
	<i>Change, %</i>			(2.9)	(9.9)	(11.5)	(21.6)	(5.5)	(18.0)	(19.4)	(0.5)	(15.8)
	Ethylene	CFR SE Asia	875.0	855.0	950.0	1,045.0	1,185.0	1,037.5	990.0	1,103.7	1,040.9	1,040.0
	<i>Change, %</i>			2.3	(7.9)	(16.3)	(26.2)	(15.7)	(11.6)	(20.7)	(15.9)	(15.9)
	Propylene	CFR SE Asia	742.5	737.5	757.5	795.0	1,042.5	735.0	815.0	770.0	705.7	861.1
	<i>Change, %</i>			0.7	(2.0)	(6.6)	(28.8)	1.0	(8.9)	(3.6)	5.2	(13.8)
	Butadiene	CFR SE Asia	915.0	875.0	975.0	1,750.0	2,850.0	960.0	2,100.0	877.5	1,116.8	1,836.0
	<i>Change, %</i>			4.6	(6.2)	(47.7)	(67.9)	(4.7)	(56.4)	4.3	(18.1)	(50.2)
	Benzene	CFR SE Asia	757.5	782.5	785.0	785.0	992.5	625.0	822.5	690.0	646.7	866.3
	<i>Change, %</i>			(3.2)	(3.5)	(3.5)	(23.7)	21.2	(7.9)	9.8	17.1	(12.6)
	Toluene	CFR SE Asia	635.0	645.0	655.0	690.0	755.0	615.0	690.0	700.8	630.5	695.8
	<i>Change, %</i>			(1.6)	(3.1)	(8.0)	(15.9)	3.3	(8.0)	(9.4)	0.7	(8.7)
	Xylene	CFR SE Asia	612.5	620.0	640.0	710.0	730.0	620.0	675.0	699.3	627.7	682.8
	<i>Change, %</i>			(1.2)	(4.3)	(13.7)	(16.1)	(1.2)	(9.3)	(12.4)	(2.4)	(10.3)

Spread	Ethylene	-Naphtha	477.5	445.5	509.0	596.0	678.0	617.0	505.5	610.6	641.4	567.9
	<i>Change, %</i>			7.2	(6.2)	(19.9)	(29.6)	(22.6)	(5.5)	(21.8)	(25.6)	(15.9)
	Propylene	-Naphtha	345.0	328.0	316.5	346.0	535.5	314.5	330.5	277.0	306.2	388.9
	<i>Change, %</i>			5.2	9.0	(0.3)	(35.6)	9.7	4.4	24.6	12.7	(11.3)
	Butadiene	-Naphtha	517.5	465.5	534.0	1,301.0	2,343.0	539.5	1,615.5	384.5	717.3	1,363.8
	<i>Change, %</i>			11.2	(3.1)	(60.2)	(77.9)	(4.1)	(68.0)	34.6	(27.9)	(62.1)
	Benzene	-Naphtha	360.0	373.0	344.0	336.0	485.5	204.5	338.0	197.0	247.2	394.1
	<i>Change, %</i>			(3.5)	4.7	7.1	(25.8)	76.0	6.5	82.8	45.7	(8.7)
	Toluene	-Naphtha	237.5	235.5	214.0	241.0	248.0	194.5	205.5	207.8	231.0	223.6
	<i>Change, %</i>			0.8	11.0	(1.5)	(4.2)	22.1	15.6	14.3	2.8	6.2
	Xylene	-Naphtha	215.0	210.5	199.0	261.0	223.0	199.5	190.5	206.3	228.2	210.7
	<i>Change, %</i>			2.1	8.0	(17.6)	(3.6)	7.8	12.9	4.2	(5.8)	2.1

자료 : Cischem, Platts, Bloomberg, SK증권

참고 : Spread는 Polymer와 Naphtha의 가격차이임

Weekly Price		Last Week	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.	
Spot Price	HDPE	CFR SE Asia	1,067.5	1,067.5	1,117.5	1,137.5	1,182.5	1,115.0	1,142.5	1,230.1	1,134.6	1,136.3
	Change, %			0.0	(4.5)	(6.2)	(9.7)	(4.3)	(6.6)	(13.2)	(5.9)	(6.1)
	MEG	CFR SE Asia	782.5	787.5	757.5	757.5	872.5	622.5	847.5	780.8	660.8	809.2
	Change, %			(0.6)	3.3	3.3	(10.3)	25.7	(7.7)	0.2	18.4	(3.3)
	PVC	CFR SE Asia	870.0	880.0	880.0	935.0	940.0	760.0	920.0	820.8	823.4	905.9
	Change, %			(1.1)	(1.1)	(7.0)	(7.4)	14.5	(5.4)	6.0	5.7	(4.0)
	PP	CFR SE Asia	1,037.5	1,057.5	1,037.5	1,077.5	1,142.5	990.0	1,032.5	1,109.8	978.4	1,070.2
	Change, %			(1.9)	0.0	(3.7)	(9.2)	4.8	0.5	(6.5)	6.0	(3.1)
	2-EH	CFR Korea	930.0	925.0	960.0	1,045.0	970.0	770.0	865.0	930.1	772.4	950.4
	Change, %			0.5	(3.1)	(11.0)	(4.1)	20.8	7.5	(0.0)	20.4	(2.1)
	ABS	CFR SE Asia	1,790.0	1,710.0	1,570.0	1,730.0	1,940.0	1,300.0	1,635.0	1,431.1	1,347.1	1,745.8
	Change, %			4.7	14.0	3.5	(7.7)	37.7	9.5	25.1	32.9	2.5
	SBR	CFR SE Asia	1,425.0	1,450.0	1,665.0	2,600.0	2,950.0	1,375.0	2,000.0	1,332.1	1,483.0	2,332.1
	Change, %			(1.7)	(14.4)	(45.2)	(51.7)	3.6	(28.8)	7.0	(3.9)	(38.9)
	SM	CFR SE Asia	1,125.0	1,165.0	1,115.0	1,235.0	1,420.0	1,027.5	1,205.0	1,100.7	1,064.6	1,245.9
	Change, %			(3.4)	0.9	(8.9)	(20.8)	9.5	(6.6)	2.2	5.7	(9.7)
	Caustic	FOB NEA	437.5	437.5	442.5	446.0	436.0	295.0	422.5	296.8	316.6	436.0
	Change, %			0.0	(1.1)	(1.9)	0.3	48.3	3.6	47.4	38.2	0.3
	PX	CFR SE Asia	765.0	787.5	795.0	837.5	905.0	815.0	855.0	842.9	790.4	844.1
	Change, %			(2.9)	(3.8)	(8.7)	(15.5)	(6.1)	(10.5)	(9.2)	(3.2)	(9.4)
PO	CFR China	1,457.5	1,395.0	1,442.5	1,485.0	1,420.0	1,312.5	1,562.5	1,683.4	1,396.8	1,480.1	
Change, %			4.5	1.0	(1.9)	2.6	11.0	(6.7)	(13.4)	4.3	(1.5)	
Caprolactam	CFR SE Asia	1,610.0	1,600.0	1,570.0	2,270.0	2,305.0	1,270.0	1,850.0	1,581.5	1,344.9	1,980.2	
Change, %			0.6	2.5	(29.1)	(30.2)	26.8	(13.0)	1.8	19.7	(18.7)	
PTA	CFR SE Asia	625.0	635.0	632.5	667.5	692.5	622.5	642.5	648.0	613.7	658.3	
Change, %			(1.6)	(1.2)	(6.4)	(9.7)	0.4	(2.7)	(3.6)	1.8	(5.1)	
Spread	HDPE		670.0	658.0	676.5	688.5	675.5	694.5	658.0	737.1	735.1	664.2
	Change, %			1.8	(1.0)	(2.7)	(0.8)	(3.5)	1.8	(9.1)	(8.9)	0.9
	MEG		385.0	378.0	316.5	308.5	365.5	202.0	363.0	287.8	261.3	337.1
	Change, %			1.9	21.6	24.8	5.3	90.6	6.1	33.8	47.4	14.2
	PVC		472.5	470.5	439.0	486.0	433.0	339.5	435.5	327.8	423.9	433.7
	Change, %			0.4	7.6	(2.8)	9.1	39.2	8.5	44.1	11.5	8.9
	PP		640.0	648.0	596.5	628.5	635.5	569.5	548.0	616.8	578.9	598.1
	Change, %			(1.2)	7.3	1.8	0.7	12.4	16.8	3.8	10.5	7.0
	2-EH		532.5	515.5	519.0	596.0	463.0	349.5	380.5	437.0	372.9	478.3
	Change, %			3.3	2.6	(10.7)	15.0	52.4	39.9	21.8	42.8	11.3
	ABS		1,392.5	1,300.5	1,129.0	1,281.0	1,433.0	879.5	1,150.5	938.1	947.6	1,273.6
	Change, %			7.1	23.3	8.7	(2.8)	58.3	21.0	48.4	46.9	9.3
	SBR	BD spread	510.0	575.0	690.0	850.0	100.0	415.0	(100.0)	454.7	366.2	496.2
	Change, %			(11.3)	(26.1)	(40.0)	410.0	22.9	(610.0)	12.2	39.3	2.8
	SM		727.5	755.5	674.0	786.0	913.0	607.0	720.5	607.7	665.1	773.7
	Change, %			(3.7)	7.9	(7.4)	(20.3)	19.9	1.0	19.7	9.4	(6.0)
	Caustic											
	Change, %											
	PX		367.5	378.0	354.0	388.5	398.0	394.5	370.5	349.9	390.9	372.0
	Change, %			(2.8)	3.8	(5.4)	(7.7)	(6.8)	(0.8)	5.0	(6.0)	(1.2)
PO	propylene spread	715.0	657.5	685.0	690.0	377.5	577.5	747.5	913.4	691.1	619.0	
Change, %			8.7	4.4	3.6	89.4	23.8	(4.3)	(21.7)	3.5	15.5	
Caprolactam	benzene spread	852.5	817.5	785.0	1,485.0	1,312.5	645.0	1,027.5	891.6	698.2	1,113.9	
Change, %			4.3	8.6	(42.6)	(35.0)	32.2	(17.0)	(4.4)	22.1	(23.5)	
PTA	px spread	89.5	83.8	76.0	81.3	59.0	52.0	44.0	58.0	60.4	67.4	
Change, %			6.9	17.8	10.2	51.7	72.1	103.4	54.3	48.1	32.8	

자료 : Ciscem, Platts, SK증권

참고 : Spread는 Naphtha spread로 일괄적용

Global peers

	Currency	06/27	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER		PBR		EV/EBITDA		
											17E	18E	17E	18E	17E	18E	
Petrochemical																	
Dow Chemical	USD	63.1	(0.8)	(3.1)	3.3	(1.5)	8.0	26.3	10.3	77,077	15.6	14.2	2.9	2.7	8.8	8.2	
Du Pont	USD	80.7	(0.6)	(2.9)	3.6	0.1	7.6	25.9	9.9	69,961	21.1	19.8	6.1	5.5	12.8	12.2	
Eastman	USD	83.5	(0.3)	(1.9)	4.5	7.2	9.2	26.9	11.0	12,179	11.2	10.4	2.4	2.2	8.6	8.2	
BASF	EUR	84.1	(1.0)	(2.9)	0.3	(6.7)	(4.0)	28.3	(4.8)	87,328	15.0	14.2	2.3	2.2	8.0	7.7	
Akzo Nobel	EUR	77.7	(0.5)	(0.7)	2.0	(0.8)	30.9	47.5	30.9	22,212	17.9	17.2	3.0	2.9	9.8	9.5	
Arkema	EUR	94.2	(0.8)	(1.6)	0.1	3.6	1.0	47.5	1.4	8,074	14.3	12.9	1.6	1.5	6.6	6.3	
Lanxess	EUR	66.6	(1.0)	(0.7)	5.2	10.1	6.8	75.6	6.7	6,890	18.8	14.9	2.3	2.1	5.8	5.7	
Sumitomo Chemical	JPY	616	1.5	1.1	4.9	(0.8)	9.6	48.4	10.8	9,074	10.2	9.4	1.1	1.1	7.7	7.4	
Mitsubishi Chemical	JPY	892	0.6	(0.9)	7.9	5.1	15.2	94.7	17.6	11,952	9.0	8.6	1.1	1.0	6.3	6.1	
Shin-Etsu Chemical	JPY	10,120	0.2	(0.4)	2.7	5.9	9.6	73.9	11.6	38,912	20.8	18.6	1.9	1.8	9.0	7.9	
Asahi Kasei	JPY	1,205	0.5	2.0	14.8	12.7	17.4	76.3	18.2	15,040	14.7	13.8	1.4	1.3	7.0	6.7	
JSR	JPY	1,908	1.6	3.0	1.9	(1.6)	2.6	42.8	3.5	3,838	15.4	14.1	1.1	1.1	6.7	6.1	
Nitto Denko	JPY	8,986	(0.1)	(1.3)	0.7	4.9	(1.1)	48.1	0.2	13,894	20.2	17.8	2.1	2.0	8.5	7.8	
SABIC	SAR	102.3	0.0	(0.1)	4.2	6.2	9.9	25.5	11.8	81,827	15.2	14.3	1.8	1.7	7.5	7.2	
Yansab	SAR	55.8	0.0	(0.0)	0.5	1.0	2.7	39.1	2.4	8,365	13.5	13.6	1.9	1.8	8.5	8.5	
Formosa Plastics	TWD	93.3	0.0	2.5	3.8	0.4	8.0	22.4	4.6	19,562	14.6	14.8	1.8	1.8	19.8	20.2	
Formosa Fiber	TWD	95.3	1.4	3.9	4.5	0.4	1.9	19.3	(1.0)	18,398	13.0	13.7	1.7	1.6	10.8	11.0	
Nan Ya Plastics	TWD	74.8	(0.3)	3.6	4.8	3.5	6.7	24.5	5.1	19,539	16.3	16.6	1.7	1.7	17.5	16.1	
Sinopec Shanghai	CNY	6.58	0.2	1.7	(0.3)	1.9	(1.1)	15.4	2.2	8,881	12.7	12.4	2.5	2.2	7.2	7.3	
Sinopec Yizheng(Fiber)	CNY	3.34	(0.3)	(4.3)	(14.8)	(10.7)	(21.2)	(10.5)	(18.5)	6,238	#N/A	N/A	38.4	6.5	6.4	22.7	15.4
Reliance	INR	1,437	0.1	1.8	7.5	14.9	35.0	50.4	32.8	72,479	16.2	13.5	1.6	1.4	10.6	8.7	
Industries Qatar	QAR	95.5	0.0	1.1	(9.1)	(12.4)	(18.0)	(3.5)	(18.7)	15,532	14.5	13.1	1.7	1.7	47.7	46.2	
PTT Chemical	THB	69.5	0.0	0.4	(4.8)	(2.1)	10.8	21.4	10.3	9,129	10.2	9.9	1.3	1.2	5.3	5.1	
Petronas	MYR	7.2	0.0	0.0	(3.4)	(5.7)	3.9	10.0	2.4	13,335	16.1	15.9	2.0	1.8	8.7	8.5	
LG화학	KRW	283,000	0.2	2.7	(7.1)	0.2	6.2	18.7	8.4	17,537	11.9	11.2	1.4	1.3	5.1	4.7	
롯데케미칼	KRW	334,000	(1.0)	2.8	(11.2)	(4.6)	(5.8)	23.9	(9.5)	10,050	5.2	5.2	1.0	0.9	3.4	3.1	
한화케미칼	KRW	29,800	0.0	(3.4)	1.9	22.1	16.9	30.7	20.6	4,311	5.9	6.0	0.8	0.7	7.3	6.7	
금호석유	KRW	72,200	(1.4)	(1.8)	(12.1)	(2.4)	(11.5)	27.6	(12.0)	1,931	14.2	11.7	1.3	1.2	9.2	8.0	
SKC	KRW	33,450	2.0	0.8	6.9	10.0	(0.6)	26.0	1.4	1,102	10.8	8.7	0.8	0.8	8.7	7.4	
국도화학	KRW	51,900	(1.0)	(4.6)	2.8	6.2	(7.3)	(13.2)	(5.5)	265	11.4	8.3	0.7	0.6	3.1	2.8	
효성	KRW	5,700	1.8	(5.9)	(15.8)	(32.9)	(6.9)	69.4	(16.2)	5,056	8.7	7.9	1.4	1.2	7.0	6.3	
Average			0.0	(0.3)	0.3	1.1	4.6	34.2	4.8								
Refinery																	
Valero	USD	66.8	1.2	1.8	7.0	0.9	(3.8)	30.7	(2.2)	29,880	14.6	11.4	1.5	1.5	6.5	5.6	
Conoco Phillips	USD	44.0	(0.6)	(4.0)	(3.0)	(0.7)	(14.8)	7.8	(12.3)	54,395	90.8	24.5	1.6	1.6	8.0	6.7	
Formosa Petrochemical	TWD	117.5	3.1	7.8	10.8	10.3	10.8	34.1	4.9	36,866	17.4	20.2	3.5	3.5	10.1	12.3	
Tesoro	USD	93.5	1.3	1.7	12.1	14.8	3.4	29.6	7.0	14,960	18.8	13.0	1.7	1.6	7.8	6.3	
Marathon Petroleum	USD	51.9	1.0	(1.9)	(1.8)	6.2	1.4	57.5	3.0	26,897	18.0	14.6	1.9	1.7	8.4	7.4	
Devon Energy	USD	30.4	(1.2)	(2.6)	(15.3)	(21.9)	(35.2)	(10.1)	(33.5)	15,955	16.2	12.3	2.3	1.9	7.7	6.6	
Hollyfrontier	USD	27.7	1.2	7.0	11.6	3.9	(17.5)	20.6	(15.6)	4,904	21.4	12.3	1.0	1.1	8.2	6.5	
Phillips 66	USD	80.5	0.4	1.2	4.0	4.3	(8.2)	4.7	(6.8)	41,315	18.9	13.2	1.8	1.8	9.9	8.1	
Murphy Oil	USD	24.3	(0.6)	(2.4)	(4.2)	(7.6)	(26.1)	(14.0)	(22.1)	4,184	132.5	30.5	0.8	0.8	4.3	4.0	
JX Holdings	JPY	486.8	2.1	0.6	(1.0)	(7.6)	(2.0)	27.0	(1.6)	14,844	7.6	7.1	0.6	0.6	7.6	7.3	
Idemitsu	JPY	3,190.0	1.1	0.6	(1.1)	(15.7)	2.4	40.0	2.7	4,542	6.2	6.0	0.8	0.7	8.5	7.9	
Nesteoil	EUR	34.7	0.5	(2.9)	(5.8)	(3.6)	(5.3)	17.8	(5.0)	0	13.2	13.0	2.1	2.0	7.5	7.7	
Ashland	USD	66.7	(0.4)	(0.6)	0.4	11.3	22.9	23.1	24.8	4,152	15.6	20.4	1.0	1.0	7.7	9.5	
Fuchs Petrolub	EUR	49.3	(1.4)	(3.3)	0.7	12.9	23.8	48.2	23.7	7,238	25.4	24.2	5.1	4.6	14.4	13.7	
SK이노베이션	KRW	156,500	(0.3)	(0.6)	(6.6)	(3.4)	3.0	13.0	6.8	12,703	6.1	6.4	0.8	0.7	3.6	3.4	
S-Oil	KRW	94,000	(0.4)	(0.5)	(7.8)	(0.8)	9.9	23.5	11.0	9,290	8.9	8.0	1.6	1.4	6.8	5.7	
GS	KRW	67,500	2.6	2.9	(6.3)	19.7	24.1	41.2	24.8	5,506	6.4	6.1	0.8	0.7	7.0	6.7	
Average			0.6	0.3	(0.4)	1.3	(0.7)	23.2	0.6								

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임

* 국내업체의 multiple은 Dataguidepro 기준임

Global peers

	Currency	06/27	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER		PBR		EV/EBITDA			
											17E	18E	17E	18E	17E	18E		
E&P/Shale																		
Exxon Mobil	USD	81	(0.2)	(1.5)	(0.5)	(0.2)	(10.6)	(8.7)	(10.1)	343,685	21.2	18.3	2.0	1.9	9.0	8.3		
BP	GBP	460	0.5	0.0	(3.0)	2.8	(8.5)	16.5	(9.7)	116,202	17.7	14.2	1.2	1.2	5.7	5.0		
Shell	EUR	2,089	1.1	(0.1)	(1.4)	0.5	(5.6)	9.5	(6.9)	222,170	15.2	12.8	1.1	1.1	6.1	5.5		
Chevron	USD	104	(0.1)	(2.3)	(0.6)	(2.1)	(12.0)	3.7	(11.6)	197,167	23.3	18.7	1.3	1.3	7.1	6.4		
Total	EUR	44	0.7	(0.3)	(6.4)	(3.7)	(8.2)	10.1	(8.9)	124,742	12.3	11.0	1.2	1.1	5.8	5.2		
Sinopec	CNY	6	(1.7)	(0.7)	(3.9)	3.3	6.1	27.4	9.1	102,910	13.1	11.8	1.0	0.9	4.5	4.3		
Petrochina	CNY	8	(0.4)	0.0	(1.3)	(2.8)	(4.0)	7.8	(3.1)	196,232	40.1	25.4	1.2	1.1	6.5	6.2		
CNOOC	CNY	11	(0.1)	(3.5)	(11.5)	(14.4)	(15.8)	(9.8)	(15.3)	48,654	13.5	10.5	0.9	0.8	3.8	3.4		
Gazprom	RUB	119	0.6	1.6	(2.3)	(7.3)	(20.6)	(13.8)	(22.8)	47,782	4.1	3.5	0.2	0.2	3.5	3.2		
Rosneft	RUB	327	2.0	3.6	7.7	5.6	(17.8)	(0.2)	(18.7)	58,662	8.8	6.7	0.9	0.8	4.7	4.0		
Anadarko	USD	44	(2.5)	(5.4)	(15.5)	(26.9)	(38.8)	(11.5)	(37.2)	24,543	#N/A	N/A	94.8	1.6	1.5	6.5	5.5	
Petrobras	BRL	12	(0.5)	3.0	(10.7)	(11.3)	(15.3)	39.1	(17.9)	49,619	8.7	7.7	0.5	0.5	4.9	4.6		
Lukoil	USD	2,800	1.2	1.1	0.1	(6.8)	(18.3)	6.4	(18.8)	40,317	5.4	4.7	0.6	0.5	N/A	N/A		
Kinder	USD	19	0.2	2.1	(1.8)	(10.1)	(10.5)	8.7	(8.7)	47,497	28.5	25.5	1.2	1.2	11.4	10.9		
Statoil	NOK	141	0.7	(0.2)	(6.1)	(1.2)	(11.3)	3.8	(11.2)	54,500	16.0	13.7	1.5	1.4	3.0	2.8		
BHP	AUD	22	0.0	(2.2)	(6.5)	(4.6)	(8.8)	24.2	(10.4)	86,295	13.8	14.5	1.5	1.4	5.7	5.8		
PTT E&P	THB	87	(0.3)	(2.5)	(6.2)	(5.7)	(5.4)	9.1	(9.9)	10,141	13.6	11.7	0.8	0.8	2.8	2.6		
Petronas gas	MYR	19	0.0	1.3	(0.3)	(4.2)	(11.1)	(13.2)	(11.3)	8,719	21.0	19.5	3.0	2.8	12.0	11.1		
Chesapeake	USD	5	2.8	(2.2)	(9.3)	(7.0)	(36.8)	18.2	(31.6)	4,359	5.8	4.5	#N/A	N/A	#N/A	N/A	7.2	5.9
Noble Energy	USD	28	(1.7)	(2.5)	(5.7)	(15.4)	(29.3)	(18.3)	(27.0)	13,513	#N/A	N/A	66.0	1.2	1.3	7.7	6.4	
Average		0	0.1	(0.5)	(4.3)	(5.6)	(14.1)	5.5	(14.1)									
PV																		
WACKER	EUR	95.2	(1.3)	(0.3)	(1.5)	(1.9)	(2.3)	27.2	(3.7)	5,616	25.1	19.9	1.7	1.6	5.9	5.6		
GCL-Poly	HKD	0.8	(2.4)	8.1	(7.0)	(20.0)	(15.8)	(21.6)	(14.0)	1,906	6.8	6.6	0.6	0.5	5.5	5.0		
SunPower	USD	9.2	1.4	22.2	15.5	49.5	26.8	(31.9)	38.9	1,280	#N/A	N/A	117.7	2.0	3.6	34.9	10.6	
Canadian Solar	USD	15.4	(1.5)	17.9	16.2	35.8	17.3	11.5	26.4	893	11.3	6.7	0.9	0.8	9.7	9.2		
JA Solar	USD	6.4	(0.3)	2.2	(7.2)	8.1	29.2	3.2	34.7	305	27.6	13.1	1.6	1.6	4.3	3.2		
Yingli	USD	2.3	1.8	10.7	2.7	3.2	(17.6)	(36.1)	(12.7)	41	#N/A	N/A	#N/A	N/A	#N/A	N/A	39.8	23.6
First Solar	USD	40.1	(0.3)	13.0	8.7	41.9	17.8	(9.5)	24.8	4,177	72.3	59.2	0.8	0.8	9.3	6.9		
한화큐셀	USD	7.4	0.0	13.0	4.4	5.6	(15.0)	(43.6)	(9.3)	616	40.0	32.2	#N/A	N/A	#N/A	N/A	6.8	6.5
OCI	KRW	90,600	(1.3)	(4.7)	0.2	8.8	16.3	2.4	15.1	1,897	22.5	17.6	0.7	0.6	7.7	7.2		
웅진에너지	KRW	7,040	(1.4)	1.7	3.5	42.9	53.4	(25.1)	48.7	154	N/A	0.7	0.6	7.7	7.2	8.7		
신성솔라에너지	KRW	2,135	(0.2)	5.4	4.9	18.0	(2.1)	1.7	(3.4)	324	N/A	0.6	7.7	7.2	8.7	7.9		
Average			(0.5)	8.1	3.7	17.4	9.8	(11.1)	13.2									
Gas Company																		
Towngas China	HKD	5.1	0.4	4.1	5.8	14.3	27.5	23.5	25.0	1,773	12.0	11.2	1.0	0.9	11.4	10.8		
Kulun	HKD	6.5	(1.2)	0.0	(8.6)	(9.2)	11.5	4.8	12.1	6,727	10.9	10.1	1.1	1.1	5.4	5.2		
Beijing Enterprise	HKD	37.5	(1.1)	(0.5)	3.2	(9.2)	7.6	(6.4)	2.3	6,068	7.4	6.9	0.7	0.7	13.2	12.7		
ENN Energy	HKD	47.1	1.8	10.8	13.9	5.3	50.0	32.7	47.6	6,532	13.1	12.0	2.5	2.1	8.4	7.9		
China Resources Gas	HKD	27.2	2.3	12.7	9.9	(0.5)	28.1	25.1	24.5	7,741	15.7	14.1	2.9	2.5	9.7	8.9		
China Gas Holdings	HKD	15.3	0.0	18.2	28.6	19.7	49.7	42.2	45.4	9,746	15.2	13.4	3.1	2.6	12.6	11.4		
Shenzen Gas	HKD	14.6	2.1	4.1	16.1	28.3	29.2	29.9	29.2	3,769	12.9	11.9	1.4	1.3	8.9	8.4		
Shann Xi	CNY	8.8	(1.3)	(2.1)	4.4	(8.0)	(8.2)	(14.3)	(8.2)	1,438	17.3	15.3	1.8	1.6	#N/A	N/A	#N/A	N/A
Suntien	HKD	1.4	(2.1)	(1.4)	(7.9)	(2.8)	35.9	77.2	40.0	667	6.9	6.1	0.5	0.5	8.7	7.5		
China Oil & Gas	HKD	0.5	1.9	1.9	(5.3)	(6.9)	(6.9)	(10.0)	(11.5)	403	9.3	8.1	0.9	0.8	6.0	5.3		
Average			0.3	4.8	6.0	3.1	22.4	20.5	20.7									
EV																		
LG화학	KRW	283,000	0.2	2.7	(7.1)	0.2	6.2	18.7	8.4	17,537	11.1	10.6	1.4	1.2	5.1	4.9		
삼성SDI	KRW	176,000	2.0	12.8	10.3	30.9	60.7	70.9	61.5	10,624	19.6	13.2	1.1	1.0	19.9	12.9		
Panasonic	JPY	1559.5	1.3	3.2	12.4	30.4	28.4	79.9	31.1	34,041	19.6	15.7	2.0	1.8	6.0	5.3		
GS Yuasa	JPY	487.0	0.6	(3.2)	(3.9)	(6.2)	0.8	29.9	0.2	1,792	14.6	13.4	1.2	1.1	6.7	6.2		
NEC	JPY	290.0	0.3	0.0	0.7	4.7	(6.5)	27.8	(6.5)	6,722	21.2	16.5	0.9	0.9	7.8	6.8		
BYD Auto	CNY	51.5	(0.1)	1.8	4.8	3.8	4.1	(13.7)	3.6	19,564	26.0	19.4	2.5	2.3	12.7	10.1		
Tesla Motors	USD	362.4	(4.0)	(2.7)	11.5	34.1	65.1	82.5	69.6	59,523	#N/A	N/A	#N/A	N/A	12.5	10.9	70.3	28.9
Kandi Technologies	USD	4.3	1.2	6.3	0.0	13.3	(17.5)	(33.6)	(13.3)	204	#N/A	N/A	#N/A	N/A	#N/A	N/A	#N/A	N/A
Average			0.2	2.6	3.6	13.9	17.7	32.8	19.3									

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임