

1. News Summary (3 page)

2017년 6월 21일

News	
WTI comment	증산 우려 속 40달러선 위협...WTI 2.2%↓
Headline	LNG 전성시대 올까...힘 실리는 LNG
News 1.	석화 1위 경쟁 LG화학·롯데, 에틸렌 가격하락에 2Q 실적 갈릴 듯
News 2.	한화케미칼 OCI 주가 상승세, 문재인 탈원전정책 영향
News 3.	테슬라, 중상하이에 공장 직접투자도 현지 공략 박차
News 4.	-

Conclusion	
	미국산 LNG의 본격적인 도입이 시작되며 발전단가 차이는 더욱 줄 것 화학 peakout 시작되며 제품 포트폴리오에 따라 기업별 영향 다를 것 에너지 정책 변화로 한동안 태양광, 풍력 관련 기업 주가 상승할 것 기가팩토리 증설, 모델3 양산 계획을 포함해 유동성 확보가 관건

2. Prices Summary (4~7 page)

Daily	Unit	Price	1D	1W	1M	3M	12M
Refinery			%	%	%	%	%
WTI	\$/bbl	43.2	(2.2)	(7.0)	(16.0)	(8.7)	(11.5)
Dubai	\$/bbl	45.6	(0.1)	(3.6)	(12.8)	(9.5)	(1.7)
Gasoline	\$/bbl	58.1	(0.2)	(4.1)	(12.2)	(9.0)	(3.0)
Diesel	\$/bbl	57.2	(0.3)	(1.4)	(9.4)	(7.7)	(2.2)
Complex margin ¹	\$/bbl	7.5	(0.0)	0.4	0.9	0.8	1.2
1M lagging	\$/bbl	2.1	(0.7)	(2.6)	(5.3)	(1.0)	(4.9)
Petrochemical			%	%	%	%	%
Naphtha	\$/t	409	(1.2)	(2.8)	(8.2)	(12.0)	(4.9)
Butadiene	\$/t	825	0.0	(4.6)	(20.7)	(60.7)	(12.2)
HDPE	\$/t	1,075	0.0	(1.4)	(3.2)	(6.5)	(2.3)
MEG	\$/t	760	1.3	(6.2)	2.4	(3.7)	24.8
PX	\$/t	770	(0.8)	(1.4)	(4.8)	(9.4)	(4.2)
SM	\$/t	1,096	0.2	(2.2)	2.2	(13.3)	10.8
Commodity			%	%	%	%	%
Natural Gas	\$/mmbtu	2.90	0.2	(2.3)	(12.5)	(11.5)	(4.4)
Natural rubber	\$/t	1,380	(3.5)	0.0	(11.5)	(30.3)	7.0
Cotton	C/lbs	71.4	(0.1)	(4.2)	(7.6)	(7.1)	13.5

*참고: 정제마진의 변동률은 %가 아닌 \$/bbl임

Weekly	Update	Unit	Price	1W	1M	3M	12M
Petrochemical				%	%	%	%
Ethylene	06/19	\$/t	855	0.0	(14.1)	(20.5)	(17.6)
Propylene	06/19	\$/t	738	1.7	(1.3)	(14.7)	0.3
Benzene	06/19	\$/t	783	2.6	0.3	(5.7)	28.3
Toluene	06/19	\$/t	645	(0.8)	(1.5)	(6.5)	5.7
Xylene	06/19	\$/t	620	(0.8)	(1.6)	(13.9)	(1.6)
PP	06/19	\$/t	1,058	1.0	1.9	(4.5)	9.6
PVC	06/19	\$/t	880	0.0	0.0	(6.4)	12.1
ABS	06/19	\$/t	1,710	4.3	4.9	(5.0)	33.6
SBR	06/19	\$/t	1,450	(3.3)	(17.1)	(47.2)	9.0
SM	06/19	\$/t	1,165	2.6	4.7	(9.7)	15.6
BPA	06/19	\$/t	1,395	(2.3)	3.3	(2.6)	6.1
Caustic	06/19	\$/t	438	0.0	(2.2)	(1.9)	48.3
2-EH	06/19	\$/t	925	(1.6)	(2.6)	(8.0)	20.1
Caprolactam	06/19	\$/t	1,600	0.0	(5.9)	(30.4)	26.0
Solar				%	%	%	%
Polysilicon	06/14	\$/kg	14.0	(0.5)	4.2	(11.2)	(17.5)
Module	06/14	\$/W	0.33	0.0	(0.3)	(3.5)	(34.2)

3. Global Peers Summary (8~9 page)

	Unit	Price	1D	1W	1M	3M	12M
E&P			%	%	%	%	%
ExxonMobil	USD	82.3	(0.5)	(0.8)	0.5	0.4	(9.7)
Shell	EUR	2,091	(1.9)	(1.8)	(1.3)	(1.2)	16.5
Petrochina	CNY	7.70	0.7	0.7	1.3	(4.0)	6.8
Gazprom	RUB	117.4	0.1	(0.6)	(5.4)	(8.8)	(17.9)
Petrobras	BRL	11.9	(3.5)	(8.3)	(12.9)	(12.8)	29.2
Refinery							
Phillips66	USD	79.6	(2.1)	(1.3)	1.7	0.2	0.6
Valero	USD	65.7	(1.4)	(1.3)	2.8	(4.2)	27.0
JX	JPY	483.9	(0.4)	(4.2)	(1.8)	(10.8)	18.0
Neste Oil	EUR	35.7	(0.3)	2.3	(4.0)	3.1	17.2

	Unit	Price	1D	1W	1M	3M	12M
Petrochemical			%	%	%	%	%
BASF	EUR	86.6	(0.7)	0.2	1.1	(2.7)	24.7
Dow Chemical	USD	65.1	(0.2)	(0.2)	6.2	0.9	22.7
SABIC	SAR	102.4	(0.7)	3.8	5.2	6.2	25.1
Formosa Pla.	TWD	91.0	0.3	1.3	3.4	(0.9)	17.4
Shin-Etsu	JPY	10,165	1.0	1.9	3.8	5.2	67.0
Renewable							
Wacker	EUR	95.5	0.9	1.0	(3.3)	(4.8)	14.9
First Solar	USD	35.45	(2.5)	(2.8)	(2.4)	16.8	(28.1)
GCL-Poly	HKD	0.74	(1.3)	(1.3)	(16.9)	(30.8)	(26.7)
Tesla Motors	USD	372.2	0.7	(1.0)	19.8	42.1	69.4

4. Coverage Summary

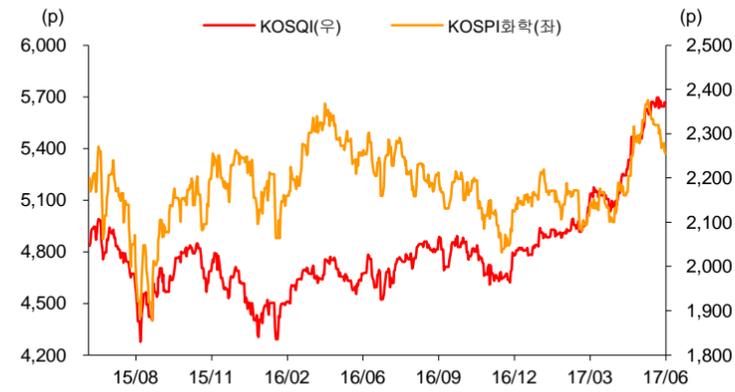
	06/20	1D	1W	1M	3M	6M	12M
KOSPI	2,369	(0.1)	(0.2)	3.5	9.3	16.2	21.3
KOSPI화학	5,371	(0.3)	(2.5)	(2.1)	6.3	5.4	2.5
LG화학	275,500	(1.3)	(5.8)	(2.3)	(5.2)	6.2	6.4
롯데케미칼	325,000	(1.5)	(6.9)	(7.4)	(10.1)	(6.6)	21.0
한화케미칼	30,850	6.4	4.4	7.7	22.7	23.4	24.1
금호석유화학	73,500	(0.9)	(4.4)	(0.9)	0.3	(7.5)	20.7
KCC	405,500	2.4	0.6	13.6	15.2	9.6	8.7
OCI	95,100	2.8	5.8	8.3	13.8	25.6	2.8
SKC	33,200	(0.6)	(1.8)	13.9	9.9	3.1	22.3
국도화학	54,400	1.3	0.2	17.0	12.5	(4.2)	(8.4)
SK이노베이션	157,500	(2.2)	(1.9)	(6.3)	(3.4)	5.7	10.5
S-Oil	94,500	(1.4)	(2.7)	(7.4)	(2.7)	13.9	20.2
GS	65,600	(1.5)	(6.2)	0.9	17.8	21.0	33.9
SK가스	130,500	4.8	4.8	12.0	4.0	10.1	53.2
포스코대우	22,600	1.1	(4.0)	(3.0)	1.3	(21.0)	(8.7)
LG상사	30,550	(1.3)	(6.4)	(2.6)	3.6	0.2	(18.0)
한국전력	41,200	(2.0)	(5.6)	(2.5)	(12.7)	(9.8)	(29.7)
한국가스공사	51,700	1.4	4.3	2.2	13.4	6.6	27.5

투자의견	TP	%	P/E	P/B
			* 추정치는 12M fwd 기준임	
			* 모든 coverage 업체의 실적은 연결기준임	
매수	330,000	19.8	12.62	1.35
매수	410,000	26.2	10.00	1.16
매수	28,000	(9.2)	13.28	0.90
매수	100,000	36.1	10.85	1.32
매수	450,000	11.0	17.81	0.64
매수	100,000	5.2	16.53	0.72
매수	40,000	20.5	11.46	0.83
매수	70,000	28.7	9.85	0.63
매수	180,000	14.3	10.15	0.82
매수	100,000	5.8	13.27	1.46
매수	70,000	6.7	9.13	0.98
매수	140,000	7.3	12.41	1.16
매수	29,000	28.3	11.18	1.08
매수	42,000	37.5	10.60	0.93
매수	60,000	45.6	7.12	0.33
매수	60,000	16.1	8.77	0.61

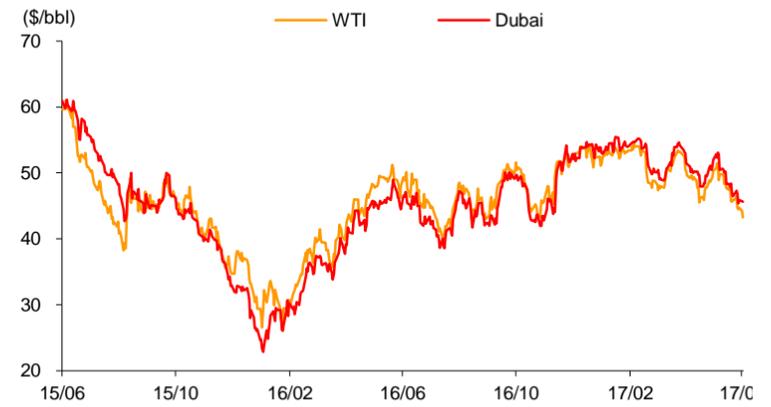
· 작성자(손지우)는 본 조사분석자료에 게재된 내용들이 본인의 의견을 정확하게 반영하고 있으며, 외부의 부당한 압력이나 간섭없이 신의성실하게 작성되었음을 확인합니다.
· 본 보고서에 언급된 종목의 경우 당사 조사분석담당자는 본인의 담당종목을 보유하고 있지 않습니다.
· 본 보고서는 기관투자자 또는 제 3자에게 사전 제공된 사실이 없습니다.
· 당사는 본 보고서의 발간시점에 해당종목을 1% 이상 보유하고 있지 않습니다.

Key Chart

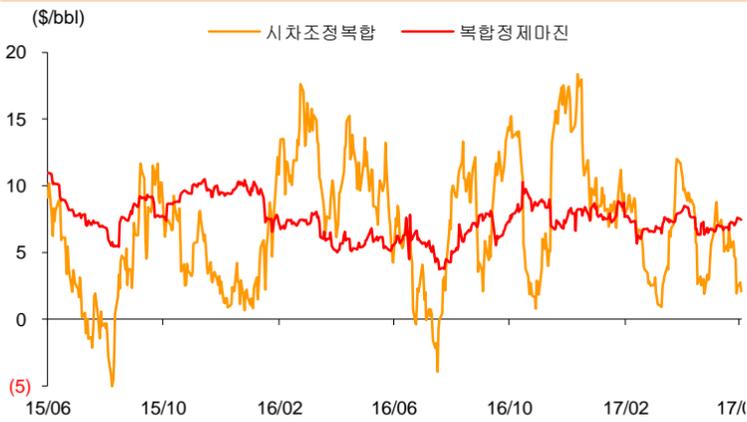
KOSPI/KOSPI화학



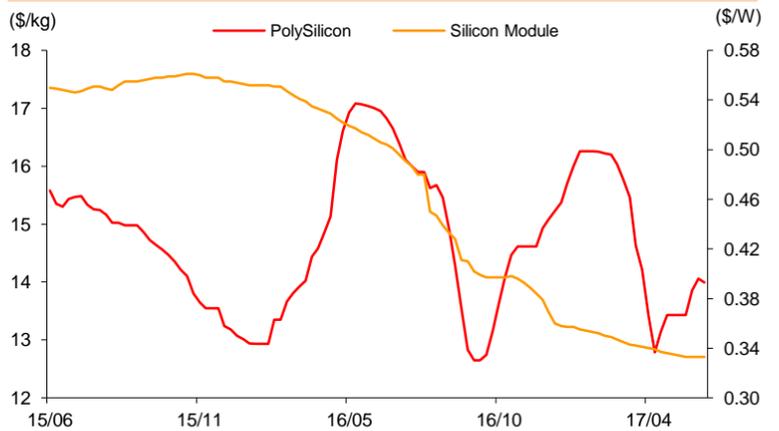
WTI/Dubai



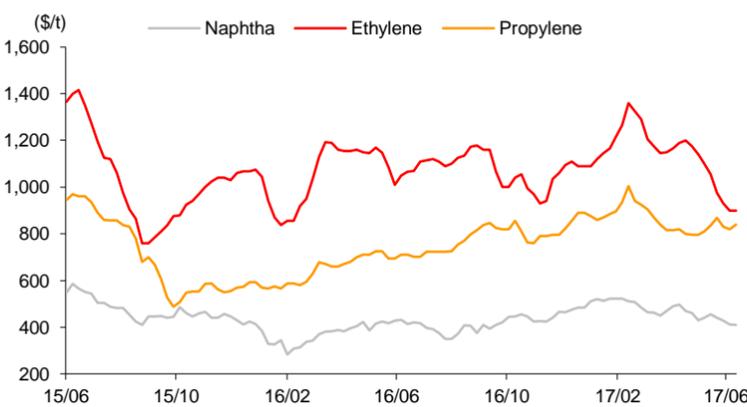
Complex & 1M lagging margin



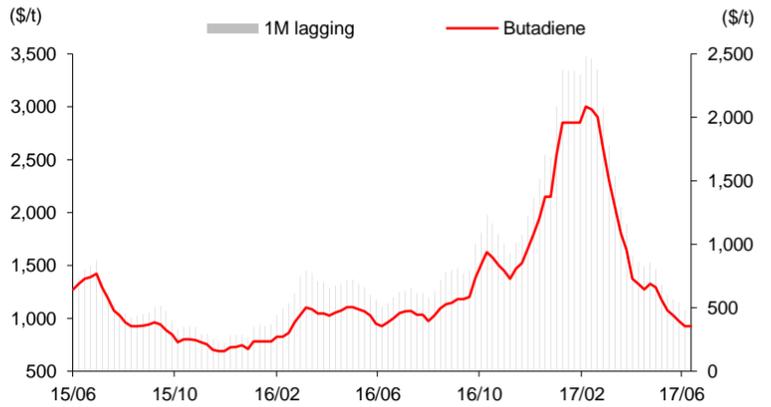
Polysilicon & Module prices



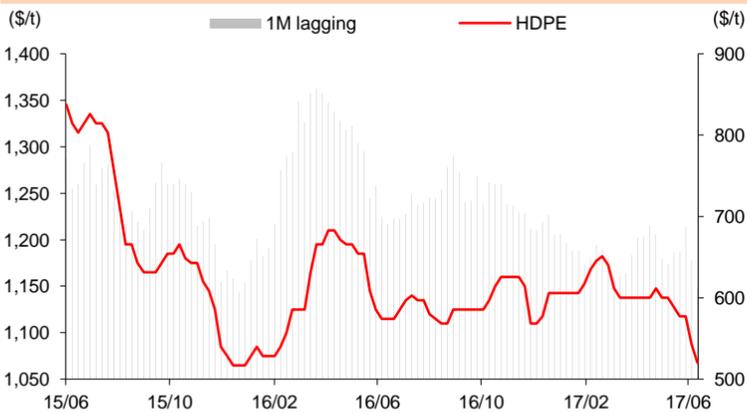
Naphtha/Ethylene/Propylene prices



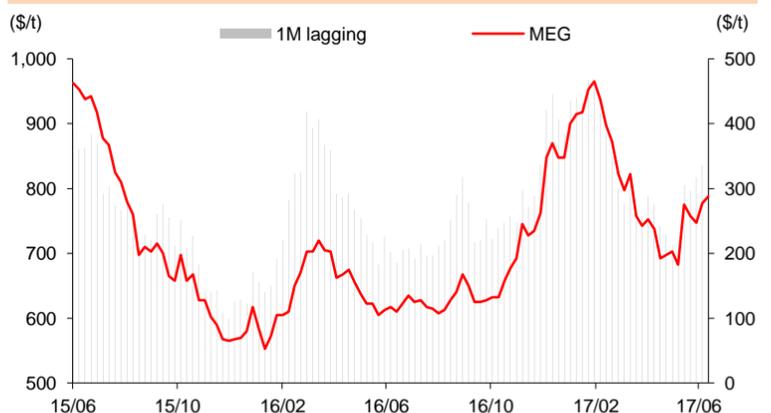
Butadiene price & 1M lagging naphtha spread



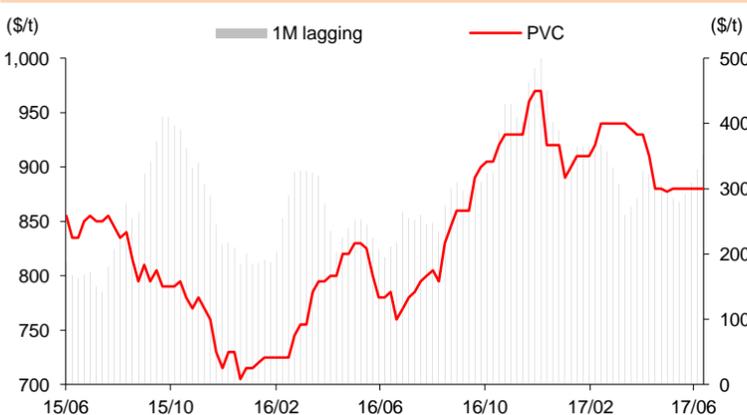
HDPE price & 1M lagging naphtha spread



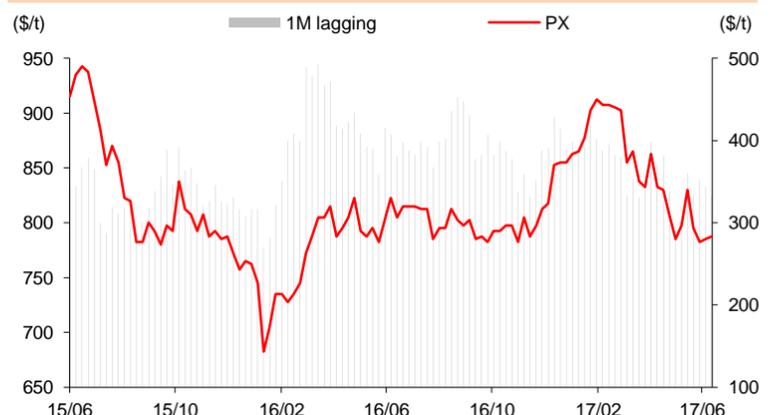
MEG price & 1M lagging naphtha spread



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: EBN)

제목 LNG 전성시대 올까...힘 실리는 LNG

결론 미국산 LNG의 본격적인 도입이 시작되며 발전단가 차이는 더욱 줄 것

세부

- 1) 文, "노후 석탄화력발전소 10기도 폐지해 청정에너지 산업을 육성할 것"
- 2) LNG발전은 원자력발전이나 석탄화력발전에 비해 비싸 비중이 낮았음
- 3) kWh당 발전단가는 우라늄 3~5원, 유연탄 10~50원, LNG 50~200원
- 4) 지난 4월에는 유연탄 50.22원, LNG 79.25원으로 차이가 29.03원으로 줄
- 5) 미국산 LNG의 본격적인 도입이 시작되며 발전단가 차이는 더욱 줄 것

Issue 1 (출처: metro)

제목 석화 1위 경쟁 LG화학·롯데, 에틸렌 가격하락에 2Q 실적 갈릴 듯

결론 화학 peakout 시작되며 제품 포트폴리오에 따라 기업별 영향 다를 것

세부

- 1) 에틸렌 가격이 급락해 LG화학과 롯데의 영업이익이 줄 것으로 예상됨
- 2) 지난 2월 1,390\$/t까지 올랐던 에틸렌은 이달 들어 950\$ 수준까지 하락
- 3) 아시아 지역 에틸렌 기업 정기보수 마무리와 낮은 납사 가격의 영향
- 4) 美 업계는 2019년까지 연산 1000만톤 규모의 ECC 증설을 마칠 계획
- 5) 화학 peakout 시작되며 제품 포트폴리오에 따라 기업별 영향 다를 것

Issue 3 (출처: 동아닷컴)

제목 테슬라, 中상하이에 공장 직접투자로 현지 공략 박차

결론 기가팩토리 증설, 모델3 양산 계획을 포함해 유동성 확보가 관건

세부

- 1) 테슬라, 상하이와 린강경제개발구에 생산시설을 짓는 내용 합의를 앞둠
- 2) 중국 측 합작 파트너를 찾아야 하지만 아직까지 후보 기업은 미정
- 3) 중국 현지에서 자동차를 생산하면 25%에 달하는 세금(관세) 면제
- 4) 이를 통해 테슬라는 모델S나 SUV인 모델X의 가격경쟁력 대폭 강화
- 5) 기가팩토리 증설, 모델3 양산 계획을 포함해 유동성 확보가 관건

Issue 5

제목

결론

세부

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

WTI Comment (출처: 연합뉴스)

제목 증산 우려 속 40달러선 위협...WTI 2.2%↓

상승

요인

하락 리비아와 나이지리아의 원유 증산

요인 리비아의 원유 생산량은 4년만의 최고치를 기록

미국의 셰일오일 생산도 늘어나는 추세

Issue 2 (출처: 비즈니스포스트)

제목 한화케미칼 OCI 주가 상승세, 문재인 탈원전정책 영향

결론 에너지 정책 변화로 한동안 태양광, 풍력 관련 기업 주가 상승할 것

세부

- 1) 文 대통령의 신재생에너지 발전 확대 정책에 따라 한켄, OCI 주가 상승
- 2) 한켄은 전일보다 6.38%(1850원), OCI는 전일보다 2.81%(2600원) 상승
- 3) 文, "원전 비중을 줄이는 대신 태양광과 해상풍력산업 적극 육성"
- 4) 10% 미만의 신재생에너지의 발전비중을 2030년까지 20%로 올릴 계획
- 5) 에너지 정책 변화로 한동안 태양광, 풍력 관련 기업 주가 상승할 것

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	0.898	0.897	0.892	0.892	0.931	0.963	0.884	0.951	0.901	0.904	0.926	
	Change, %		0.1	0.7	0.7	(3.5)	(6.7)	1.6	(5.5)	(0.3)	(0.6)	(3.0)	
	USD/JPY	111.5	111.5	110.1	111.3	112.6	117.9	103.9	117.0	121.1	108.8	112.4	
	Change, %		(0.1)	1.3	0.2	(1.0)	(5.4)	7.2	(4.7)	(7.9)	2.5	(0.8)	
	USD/KRW	1,135.5	1,132.7	1,128.3	1,126.9	1,120.2	1,193.3	1,160.8	1,205.8	1,131.2	1,160.5	1,142.2	
	Change, %		0.2	0.6	0.8	1.4	(4.8)	(2.2)	(5.8)	0.4	(2.2)	(0.6)	
	Agriculture	Corn	370.0	375.3	381.0	372.5	363.5	350.3	421.3	352.0	376.8	358.5	366.3
		Change, %		(1.4)	(2.9)	(0.7)	1.8	5.6	(12.2)	5.1	(1.8)	3.2	1.0
Soybean		927.8	937.8	932.5	953.0	999.5	1,005.3	1,143.5	996.5	945.4	987.5	984.6	
Change, %			(1.1)	(0.5)	(2.6)	(7.2)	(7.7)	(18.9)	(6.9)	(1.9)	(6.1)	(5.8)	
	Wheat	472.5	467.0	445.0	435.3	430.3	403.3	473.0	408.0	508.1	436.4	430.2	
	Change, %		1.2	6.2	8.6	9.8	17.2	(0.1)	15.8	(7.0)	8.3	9.8	
	Rice	11.4	11.5	11.3	10.8	9.9	9.5	11.1	9.4	11.1	10.3	10.0	
	Change, %		(1.3)	1.0	5.0	15.4	20.2	2.4	21.5	2.8	9.9	13.8	
	Oats	261.3	268.3	253.3	241.8	250.8	223.8	208.3	228.5	250.2	196.3	245.3	
	Change, %		(2.6)	3.2	8.1	4.2	16.8	25.5	14.3	4.4	33.1	6.5	
	MYR/mt	Palm Oil	2,603.0	2,640.0	2,649.0	2,885.0	2,939.0	3,123.0	2,443.0	3,218.0	2,190.3	2,653.8	2,945.2
		Change, %		(1.4)	(1.7)	(9.8)	(11.4)	(16.7)	6.5	(19.1)	18.8	(1.9)	(11.6)
Cocoa		1,878.0	1,898.0	2,022.0	2,028.0	2,116.0	2,256.0	3,170.0	2,126.0	3,091.6	2,854.0	2,022.8	
Change, %			(1.1)	(7.1)	(7.4)	(11.2)	(16.8)	(40.8)	(11.7)	(39.3)	(34.2)	(7.2)	
	Cotton	71.4	71.4	74.5	79.5	77.3	69.3	64.4	70.7	63.3	65.6	76.2	
	Change, %		(0.1)	(4.2)	(10.2)	(7.7)	2.9	10.8	1.0	12.8	8.8	(6.4)	
	Sugar	13.6	13.5	13.8	16.4	17.7	18.3	19.7	19.5	13.1	18.2	17.6	
	Change, %		1.1	(1.3)	(16.9)	(23.1)	(25.4)	(30.9)	(30.2)	3.6	(25.0)	(22.9)	
	Coffee	122.0	124.2	126.4	132.1	144.0	143.9	139.5	137.1	132.6	136.1	138.4	
	Change, %		(1.8)	(3.5)	(7.7)	(15.3)	(15.2)	(12.6)	(11.0)	(8.1)	(10.4)	(11.9)	
	Energy	WTI	43.2	44.2	46.5	50.3	48.2	52.2	49.4	53.7	48.8	43.4	50.5
		Change, %		(2.2)	(7.0)	(14.1)	(10.3)	(17.2)	(12.4)	(19.5)	(11.5)	(0.4)	(14.3)
Brent		45.9	46.9	48.7	53.6	51.6	55.4	50.7	56.8	53.7	45.1	53.2	
Change, %			(2.2)	(5.8)	(14.4)	(11.1)	(17.1)	(9.4)	(19.2)	(14.5)	1.8	(13.7)	
	Natural Gas	2.9	2.9	3.0	3.3	3.0	3.3	2.7	3.7	2.6	2.6	3.1	
	Change, %		0.2	(2.3)	(11.0)	(4.7)	(11.2)	5.5	(22.2)	10.3	13.6	(7.1)	
	Ethanol	1.5	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	
	Change, %		(1.8)	(2.8)	2.6	(0.5)	(2.9)	(7.2)	(5.2)	0.8	0.5	(1.1)	
	RBOB Gasoline	142.0	145.1	150.0	165.2	161.1	159.4	158.3	166.5	163.6	140.0	159.0	
	Change, %		(2.1)	(5.3)	(14.0)	(11.9)	(10.9)	(10.3)	(14.7)	(13.2)	1.5	(10.7)	
	Coal	80.8	81.2	80.9	74.3	80.9	87.0	52.9	88.4	59.0	65.5	80.9	
	Change, %		(0.6)	(0.1)	8.8	(0.2)	(7.2)	52.8	(8.7)	37.0	23.4	(0.1)	
Metal	Gold	1,242.9	1,243.4	1,266.6	1,255.9	1,234.3	1,132.3	1,290.1	1,152.3	1,160.6	1,248.5	1,238.1	
	Change, %		(0.0)	(1.9)	(1.0)	0.7	9.8	(3.7)	7.9	7.1	(0.4)	0.4	
	Silver	16.5	16.5	16.9	16.9	17.4	16.1	17.5	15.9	15.7	17.1	17.4	
	Change, %		(0.2)	(2.5)	(2.4)	(5.5)	2.3	(5.9)	3.5	4.7	(3.7)	(5.3)	
	Copper	5,657.0	5,724.0	5,717.0	5,682.0	5,880.0	5,502.0	4,644.0	5,535.5	5,503.1	4,872.0	5,767.6	
	Change, %		(1.2)	(1.0)	(0.4)	(3.8)	2.8	21.8	2.2	2.8	16.1	(1.9)	
	Nickel	572.2	580.1	566.3	602.5	664.0	742.9	623.7	682.0	759.5	646.4	646.9	
	Change, %		(1.4)	1.0	(5.0)	(13.8)	(23.0)	(8.3)	(16.1)	(24.7)	(11.5)	(11.6)	
	Zinc	2,555.0	2,556.0	2,473.0	2,616.0	2,864.0	2,637.0	2,010.0	2,576.0	1,941.9	2,097.5	2,693.6	
	Change, %		(0.0)	3.3	(2.3)	(10.8)	(3.1)	27.1	(0.8)	31.6	21.8	(5.1)	
	Lead	2,118.0	2,107.0	2,036.8	2,086.8	2,270.0	2,185.8	1,717.0	2,003.5	1,791.2	1,868.3	2,216.2	
	Change, %		0.5	4.0	1.5	(6.7)	(3.1)	23.4	5.7	18.2	13.4	(4.4)	
	Aluminum	13,830.0	13,645.0	13,595.0	13,950.0	13,720.0	12,625.0	12,185.0	12,765.0	12,184.0	12,373.5	13,722.0	
	Change, %		1.4	1.7	(0.9)	0.8	9.5	13.5	8.3	13.5	11.8	0.8	
	Cobalt	58,250.0	57,500.0	56,600.0	54,250.0	52,750.0	31,970.0	23,659.5	32,734.0	28,444.4	25,480.1	49,172.9	
	Change, %		1.3	2.9	7.4	10.4	82.2	146.2	77.9	104.8	128.6	18.5	
	HR Coil	589.0	589.0	596.0	613.0	625.0	585.0	628.0	633.0	461.5	519.3	620.9	
	Change, %		0.0	(1.2)	(3.9)	(5.8)	0.7	(6.2)	(7.0)	27.6	13.4	(5.1)	
	Scrap	350.0	350.0	350.0	350.0	335.0	298.0	265.0	302.0	252.9	275.7	337.3	
	Change, %		0.0	0.0	0.0	4.5	17.4	32.1	15.9	38.4	27.0	3.8	

자료: Bloomberg

참고) NYMEX, ICE, LME 중 대표지수를 사용

Refining Price Data

Daily Price		06/20	1D	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.	
Crude Oil	WTI	43.2	44.2	46.5	51.5	47.3	52.2	48.9	53.7	48.8	43.4	50.4	
	<i>Change, %</i>		(2.2)	(7.0)	(16.0)	(8.7)	(17.2)	(11.5)	(19.5)	(11.4)	(0.3)	(14.3)	
	Dubai	45.6	45.7	47.3	52.3	50.4	52.1	46.4	53.8	50.8	41.3	51.8	
	<i>Change, %</i>		(0.1)	(3.6)	(12.8)	(9.5)	(12.4)	(1.7)	(15.3)	(10.2)	10.4	(11.8)	
Crude Oil Product	Gasoline(휘발유)	58.1	58.2	60.6	66.1	63.8	66.9	59.9	69.8	69.5	56.3	66.3	
	<i>Change, %</i>		(0.2)	(4.1)	(12.2)	(9.0)	(13.2)	(3.0)	(16.9)	(16.5)	3.2	(12.5)	
	Kerosene(등유)	56.6	56.6	57.3	63.1	61.0	64.4	59.0	66.4	64.7	52.9	62.8	
	<i>Change, %</i>		0.1	(1.2)	(10.2)	(7.1)	(12.0)	(4.0)	(14.8)	(12.5)	7.1	(9.8)	
	Diesel(경유)	57.2	57.4	58.0	63.1	61.9	64.1	58.5	65.5	64.8	52.1	63.3	
	<i>Change, %</i>		(0.3)	(1.4)	(9.4)	(7.7)	(10.8)	(2.2)	(12.7)	(11.7)	9.7	(9.7)	
	Bunker-C	44.9	45.0	45.7	48.0	45.0	50.9	37.5	52.1	45.3	35.5	48.0	
	<i>Change, %</i>		(0.2)	(1.6)	(6.5)	(0.3)	(11.7)	19.8	(13.7)	(0.8)	26.4	(6.4)	
	Naphtha	44.3	44.3	45.6	49.8	50.2	51.2	46.1	53.5	52.6	42.6	51.7	
	<i>Change, %</i>		0.0	(2.8)	(11.0)	(11.7)	(13.5)	(3.9)	(17.1)	(15.8)	4.1	(14.2)	
	Dubai Spread	Gasoline(휘발유)	12.4	12.5	13.3	13.8	13.4	14.8	13.5	16.0	18.7	14.9	14.6
		<i>Change</i>		(0.0)	(0.8)	(1.4)	(0.9)	(2.4)	(1.0)	(3.6)	(6.3)	(2.5)	(2.1)
Kerosene(등유)		11.0	10.9	10.0	10.8	10.6	12.3	12.6	12.6	14.0	11.6	11.0	
<i>Change</i>			0.1	1.0	0.3	0.5	(1.3)	(1.6)	(1.6)	(2.9)	(0.6)	(0.0)	
Diesel(경유)		11.6	11.7	10.7	10.8	11.5	12.0	12.1	11.7	14.0	10.8	11.6	
<i>Change</i>			(0.1)	0.9	0.8	0.1	(0.4)	(0.5)	(0.1)	(2.4)	0.8	0.0	
Bunker-C		(0.7)	(0.7)	(1.7)	(4.3)	(5.4)	(1.2)	(8.9)	(1.8)	(5.5)	(5.8)	(3.8)	
<i>Change</i>			(0.0)	0.9	3.6	4.7	0.5	8.2	1.1	4.8	5.1	3.1	
Naphtha		(1.3)	(1.4)	(1.7)	(2.5)	(0.2)	(0.9)	(0.3)	(0.4)	1.8	1.3	(0.1)	
<i>Change</i>			0.1	0.4	1.2	(1.1)	(0.4)	(1.0)	(0.9)	(3.1)	(2.6)	(1.2)	
Refining Margin	Simple(단순)	3.9	3.9	3.1	1.9	1.7	4.0	0.5	3.8	3.3	1.9	2.6	
	<i>Change</i>		(0.0)	0.7	1.9	2.2	(0.1)	3.4	0.0	0.6	1.9	1.3	
	Complex(복합)	7.5	7.5	7.0	6.6	6.7	8.2	6.2	8.3	9.3	7.0	7.4	
	<i>Change</i>		(0.0)	0.4	0.9	0.8	(0.7)	1.2	(0.8)	(1.8)	0.5	0.1	
	Complex(lagging)	2.1	2.8	4.7	7.4	3.1	17.5	7.0	18.0	7.3	8.5	6.8	
	<i>Change</i>		(0.7)	(2.6)	(5.3)	(1.0)	(15.4)	(4.9)	(15.9)	(5.2)	(6.4)	(4.7)	

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			06/20	06/19	06/16	06/15	06/14	06/13	06/12	06/09	06/08	06/07
Spot Price	Naphtha	CFR Japan	409.0	414.0	411.3	409.0	417.8	420.8	421.3	416.8	419.3	428.0
	Ethylene	CFR SE Asia	880.0	880.0	880.0	880.0	880.0	880.0	875.0	875.0	885.0	885.0
	Propylene	FOB Korea	835.0	835.0	825.0	815.0	804.0	804.0	800.0	810.0	823.0	824.0
	Butadiene	FOB Korea	825.0	825.0	825.0	865.0	865.0	865.0	865.0	865.0	905.0	905.0
	HDPE	CFR FE Asia	1,075.0	1,075.0	1,080.0	1,090.0	1,090.0	1,090.0	1,090.0	1,090.0	1,090.0	1,090.0
	LDPE	CFR FE Asia	1,125.0	1,125.0	1,135.0	1,140.0	1,140.0	1,140.0	1,150.0	1,150.0	1,150.0	1,150.0
	LLDPE	CFR FE Asia	1,050.0	1,050.0	1,050.0	1,075.0	1,075.0	1,080.0	1,080.0	1,080.0	1,080.0	1,080.0
	MEG	CFR China	760.0	750.0	785.0	805.0	810.0	810.0	790.0	775.0	775.0	767.0
	PP	CFR FE Asia	965.0	965.0	960.0	960.0	970.0	970.0	975.0	970.0	970.0	970.0
	PX	CFR China	770.3	776.3	777.0	774.7	783.0	781.3	774.3	772.3	775.0	776.7
	PTA	CFR China	614.0	614.0	617.0	620.0	620.0	620.0	617.0	617.0	620.0	620.0
	Benzene	FOB Korea	750.0	752.5	749.5	763.0	778.0	773.0	766.0	743.0	740.0	746.0
	Toluene	FOB Korea	603.0	605.0	609.0	608.0	610.0	610.0	612.0	612.0	612.0	615.0
	Xylene	FOB Korea	633.5	636.5	636.5	636.0	640.0	640.0	635.0	632.0	632.0	637.0
	SM	FOB Korea	1,095.5	1,093.5	1,104.0	1,126.0	1,132.0	1,120.0	1,110.0	1,106.0	1,102.0	1,092.0

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.
Spot Price	Naphtha	CFR Japan	409.5	411.5	455.0	462.5	511.5	413.5	484.5	493.0	399.5	475.1
		<i>Change, %</i>		(0.5)	(10.0)	(11.5)	(19.9)	(1.0)	(15.5)	(16.9)	2.5	(13.8)
	Ethylene	CFR SE Asia	855.0	855.0	995.0	1,075.0	1,185.0	1,037.5	990.0	1,103.7	1,040.9	1,046.6
		<i>Change, %</i>		0.0	(14.1)	(20.5)	(27.8)	(17.6)	(13.6)	(22.5)	(17.9)	(18.3)
	Propylene	CFR SE Asia	737.5	725.0	747.5	865.0	1,030.0	735.0	815.0	770.0	705.7	861.5
		<i>Change, %</i>		1.7	(1.3)	(14.7)	(28.4)	0.3	(9.5)	(4.2)	4.5	(14.4)
	Butadiene	CFR SE Asia	875.0	875.0	1,025.0	2,000.0	2,925.0	920.0	2,100.0	877.5	1,116.8	1,872.8
		<i>Change, %</i>		0.0	(14.6)	(56.3)	(70.1)	(4.9)	(58.3)	(0.3)	(21.7)	(53.3)
	Benzene	CFR SE Asia	782.5	762.5	780.0	830.0	1,055.0	610.0	822.5	690.0	646.7	870.6
		<i>Change, %</i>		2.6	0.3	(5.7)	(25.8)	28.3	(4.9)	13.4	21.0	(10.1)
	Toluene	CFR SE Asia	645.0	650.0	655.0	690.0	765.0	610.0	690.0	700.8	630.5	698.2
		<i>Change, %</i>		(0.8)	(1.5)	(6.5)	(15.7)	5.7	(6.5)	(8.0)	2.3	(7.6)
	Xylene	CFR SE Asia	620.0	625.0	630.0	720.0	725.0	630.0	675.0	699.3	627.7	685.6
		<i>Change, %</i>		(0.8)	(1.6)	(13.9)	(14.5)	(1.6)	(8.1)	(11.3)	(1.2)	(9.6)

Spread	Ethylene	-Naphtha	445.5	443.5	540.0	612.5	673.5	624.0	505.5	610.6	641.4	571.5
		<i>Change, %</i>		0.5	(17.5)	(27.3)	(33.9)	(28.6)	(11.9)	(27.0)	(30.5)	(22.0)
	Propylene	-Naphtha	328.0	313.5	292.5	402.5	518.5	321.5	330.5	277.0	306.2	386.4
		<i>Change, %</i>		4.6	12.1	(18.5)	(36.7)	2.0	(0.8)	18.4	7.1	(15.1)
	Butadiene	-Naphtha	465.5	463.5	570.0	1,537.5	2,413.5	506.5	1,615.5	384.5	717.3	1,397.7
		<i>Change, %</i>		0.4	(18.3)	(69.7)	(80.7)	(8.1)	(71.2)	21.1	(35.1)	(66.7)
	Benzene	-Naphtha	373.0	351.0	325.0	367.5	543.5	196.5	338.0	197.0	247.2	395.5
		<i>Change, %</i>		6.3	14.8	1.5	(31.4)	89.8	10.4	89.4	50.9	(5.7)
	Toluene	-Naphtha	235.5	238.5	200.0	227.5	253.5	196.5	205.5	207.8	231.0	223.1
		<i>Change, %</i>		(1.3)	17.8	3.5	(7.1)	19.8	14.6	13.4	1.9	5.6
	Xylene	-Naphtha	210.5	213.5	175.0	257.5	213.5	216.5	190.5	206.3	228.2	210.5
		<i>Change, %</i>		(1.4)	20.3	(18.3)	(1.4)	(2.8)	10.5	2.1	(7.8)	0.0

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	1,087.5	1,127.5	1,137.5	1,177.5	1,115.0	1,142.5	1,230.1	1,134.6	1,139.1
	Change, %			(1.8)	(5.3)	(6.2)	(9.3)	(4.3)	(6.6)	(13.2)	(5.9)	(6.3)
	MEG	CFR SE Asia	787.5	777.5	775.0	822.5	897.5	610.0	847.5	780.8	660.8	810.3
	Change, %			1.3	1.6	(4.3)	(12.3)	29.1	(7.1)	0.9	19.2	(2.8)
	PVC	CFR SE Asia	880.0	880.0	880.0	940.0	940.0	785.0	920.0	820.8	823.4	907.3
	Change, %			0.0	0.0	(6.4)	(6.4)	12.1	(4.3)	7.2	6.9	(3.0)
	PP	CFR SE Asia	1,057.5	1,047.5	1,037.5	1,107.5	1,107.5	965.0	1,032.5	1,109.8	978.4	1,071.5
	Change, %			1.0	1.9	(4.5)	(4.5)	9.6	2.4	(4.7)	8.1	(1.3)
	2-EH	CFR Korea	925.0	940.0	950.0	1,005.0	990.0	770.0	865.0	930.1	772.4	951.2
	Change, %			(1.6)	(2.6)	(8.0)	(6.6)	20.1	6.9	(0.5)	19.8	(2.8)
	ABS	CFR SE Asia	1,710.0	1,640.0	1,630.0	1,800.0	1,940.0	1,280.0	1,635.0	1,431.1	1,347.1	1,744.0
	Change, %			4.3	4.9	(5.0)	(11.9)	33.6	4.6	19.5	26.9	(1.9)
	SBR	CFR SE Asia	1,450.0	1,500.0	1,750.0	2,745.0	3,100.0	1,330.0	2,000.0	1,332.1	1,483.0	2,368.4
	Change, %			(3.3)	(17.1)	(47.2)	(53.2)	9.0	(27.5)	8.8	(2.2)	(38.8)
	SM	CFR SE Asia	1,165.0	1,135.0	1,112.5	1,290.0	1,495.0	1,007.5	1,205.0	1,100.7	1,064.6	1,250.7
	Change, %			2.6	4.7	(9.7)	(22.1)	15.6	(3.3)	5.8	9.4	(6.9)
	Caustic	FOB NEA	437.5	437.5	447.5	446.0	427.5	295.0	422.5	296.8	316.6	435.9
	Change, %			0.0	(2.2)	(1.9)	2.3	48.3	3.6	47.4	38.2	0.4
	PX	CFR SE Asia	787.5	785.0	830.0	865.0	907.5	805.0	855.0	842.9	790.4	847.3
	Change, %			0.3	(5.1)	(9.0)	(13.2)	(2.2)	(7.9)	(6.6)	(0.4)	(7.1)
PO	CFR China	1,395.0	1,427.5	1,350.0	1,432.5	1,557.5	1,315.0	1,562.5	1,683.4	1,396.8	1,481.0	
Change, %			(2.3)	3.3	(2.6)	(10.4)	6.1	(10.7)	(17.1)	(0.1)	(5.8)	
Caprolactam	CFR SE Asia	1,600.0	1,600.0	1,700.0	2,300.0	2,275.0	1,270.0	1,850.0	1,581.5	1,344.9	1,995.0	
Change, %			0.0	(5.9)	(30.4)	(29.7)	26.0	(13.5)	1.2	19.0	(19.8)	
PTA	CFR SE Asia	635.0	635.0	647.5	667.5	702.5	622.5	642.5	648.0	613.7	659.6	
Change, %			0.0	(1.9)	(4.9)	(9.6)	2.0	(1.2)	(2.0)	3.5	(3.7)	
Spread	HDPE		658.0	676.0	672.5	675.0	666.0	701.5	658.0	737.1	735.1	664.0
	Change, %			(2.7)	(2.2)	(2.5)	(1.2)	(6.2)	0.0	(10.7)	(10.5)	(0.9)
	MEG		378.0	366.0	320.0	360.0	386.0	196.5	363.0	287.8	261.3	335.2
	Change, %			3.3	18.1	5.0	(2.1)	92.4	4.1	31.3	44.7	12.8
	PVC		470.5	468.5	425.0	477.5	428.5	371.5	435.5	327.8	423.9	432.2
	Change, %			0.4	10.7	(1.5)	9.8	26.6	8.0	43.5	11.0	8.9
	PP		648.0	636.0	582.5	645.0	596.0	551.5	548.0	616.8	578.9	596.4
	Change, %			1.9	11.2	0.5	8.7	17.5	18.2	5.1	11.9	8.7
	2-EH		515.5	528.5	495.0	542.5	478.5	356.5	380.5	437.0	372.9	476.1
	Change, %			(2.5)	4.1	(5.0)	7.7	44.6	35.5	18.0	38.3	8.3
	ABS		1,300.5	1,228.5	1,175.0	1,337.5	1,428.5	866.5	1,150.5	938.1	947.6	1,268.9
	Change, %			5.9	10.7	(2.8)	(9.0)	50.1	13.0	38.6	37.2	2.5
	SBR	BD spread	575.0	625.0	725.0	745.0	175.0	410.0	(100.0)	454.7	366.2	495.6
	Change, %			(8.0)	(20.7)	(22.8)	228.6	40.2	(675.0)	26.5	57.0	16.0
	SM		755.5	723.5	657.5	827.5	983.5	594.0	720.5	607.7	665.1	775.6
	Change, %			4.4	14.9	(8.7)	(23.2)	27.2	4.9	24.3	13.6	(2.6)
	Caustic											
	Change, %											
	PX		378.0	373.5	375.0	402.5	396.0	391.5	370.5	349.9	390.9	372.2
	Change, %			1.2	0.8	(6.1)	(4.5)	(3.4)	2.0	8.0	(3.3)	1.6
PO	propylene spread	657.5	702.5	602.5	567.5	527.5	580.0	747.5	913.4	691.1	619.5	
Change, %			(6.4)	9.1	15.9	24.6	13.4	(12.0)	(28.0)	(4.9)	6.1	
Caprolactam	benzene spread	817.5	837.5	920.0	1,470.0	1,220.0	660.0	1,027.5	891.6	698.2	1,124.4	
Change, %			(2.4)	(11.1)	(44.4)	(33.0)	23.9	(20.4)	(8.3)	17.1	(27.3)	
PTA	px spread	83.8	85.5	66.5	62.0	67.3	59.0	44.0	58.0	60.4	66.5	
Change, %			(2.0)	25.9	35.1	24.5	41.9	90.3	44.4	38.6	26.0	

자료 : Cischem, Platts, SK증권

참고 : Spread는 Naphtha spread로 일괄적용

Global peers

	Currency	06/20	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	65.1	(0.2)	(0.2)	6.2	0.9	10.7	22.7	13.8	79,533	16.1	14.7	3.0	2.8	9.0	8.5	
Du Pont	USD	83.1	(0.5)	(0.9)	6.8	2.0	10.4	23.0	13.2	72,068	21.6	20.2	6.3	5.6	13.2	12.5	
Eastman	USD	85.1	(1.0)	1.5	8.3	8.0	11.6	18.3	13.2	12,414	11.4	10.5	2.5	2.3	8.7	8.3	
BASF	EUR	86.6	(0.7)	0.2	1.1	(2.7)	(0.8)	24.7	(2.0)	88,456	15.5	14.6	2.4	2.2	8.1	7.8	
Akzo Nobel	EUR	78.3	0.5	1.6	4.0	4.3	32.1	31.7	31.9	22,008	18.1	17.4	3.1	2.9	9.9	9.6	
Arkema	EUR	95.7	(0.7)	(0.0)	(0.1)	4.4	2.6	34.0	3.0	8,067	14.5	13.1	1.7	1.6	6.7	6.3	
Lanxess	EUR	67.0	(1.4)	(3.8)	2.5	6.1	7.5	60.1	7.5	6,822	18.7	15.1	2.2	2.1	6.1	5.8	
Sumitomo Chemical	JPY	609	2.0	1.5	(0.7)	(7.0)	5.5	32.7	9.5	9,045	10.1	9.4	1.1	1.0	7.3	6.9	
Mitsubishi Chemical	JPY	900	2.5	3.9	7.6	3.7	12.8	78.2	18.7	12,157	9.2	8.7	1.1	1.0	6.7	6.5	
Shin-Etsu Chemical	JPY	10,165	1.0	1.9	3.8	5.2	10.5	67.0	12.1	39,408	20.9	18.6	1.9	1.8	9.0	8.0	
Asahi Kasei	JPY	1,182	1.5	1.9	10.2	8.2	11.4	70.1	15.9	14,868	14.7	13.9	1.3	1.3	6.9	6.5	
JSR	JPY	1,852	0.4	(1.6)	(2.5)	(5.0)	1.5	23.3	0.5	3,756	14.9	13.7	1.1	1.0	6.5	5.9	
Nitto Denko	JPY	9,101	1.8	0.2	1.1	3.4	(0.7)	34.2	1.5	14,188	20.2	17.8	2.1	2.0	8.6	7.9	
SABIC	SAR	102.4	(0.7)	3.8	5.2	6.2	11.6	25.1	11.9	81,919	15.3	14.3	1.8	1.7	7.5	7.2	
Yansab	SAR	55.8	(2.5)	1.5	(0.2)	(2.0)	11.0	35.7	2.5	8,369	13.5	13.6	1.9	1.8	8.5	8.5	
Formosa Plastics	TWD	91.0	0.3	1.3	3.4	(0.9)	2.6	17.4	2.0	19,023	14.4	14.5	1.8	1.8	19.8	19.8	
Formosa Fiber	TWD	91.7	0.1	1.3	2.5	(2.6)	(5.3)	13.1	(4.8)	17,650	12.5	13.2	1.6	1.6	10.4	10.6	
Nan Ya Plastics	TWD	72.2	(0.1)	0.0	2.1	0.6	(0.4)	19.5	1.4	18,804	15.9	15.9	1.7	1.6	17.0	15.4	
Sinopec Shanghai	CNY	6.47	(0.5)	(2.0)	(0.5)	(0.5)	3.0	13.1	0.5	8,747	12.5	12.2	2.5	2.2	7.1	7.2	
Sinopec Yizheng(Fiber)	CNY	3.49	0.6	(1.7)	(6.2)	(8.4)	(13.8)	(8.2)	(14.9)	6,506	#N/A	N/A	54.5	8.2	8.2	40.4	16.2
Reliance	INR	1,412	0.2	7.5	7.1	10.3	33.5	42.6	30.5	71,029	15.9	13.2	1.6	1.4	10.5	8.6	
Industries Qatar	QAR	94.5	(1.9)	(1.9)	(7.4)	(17.4)	(19.2)	(5.4)	(19.6)	15,558	14.3	12.9	1.7	1.6	47.1	45.6	
PTT Chemical	THB	69.3	(0.7)	(0.4)	(4.8)	(2.1)	9.5	17.4	9.9	9,079	10.4	10.0	1.3	1.2	5.3	5.1	
Petronas	MYR	7.2	(0.7)	(0.7)	(2.5)	(4.0)	3.9	11.7	2.4	13,285	16.2	15.9	2.0	1.8	8.8	8.5	
LG화학	KRW	275,500	(1.3)	(5.8)	(2.3)	(2.7)	6.6	3.2	5.6	17,028	11.6	10.9	1.4	1.3	4.9	4.5	
롯데케미칼	KRW	325,000	(1.5)	(6.9)	(7.4)	(11.7)	(5.7)	14.6	(11.9)	9,753	5.1	5.1	1.0	0.8	3.3	3.1	
한화케미칼	KRW	30,850	6.4	4.4	7.7	23.9	24.1	23.6	24.9	4,452	6.0	6.2	0.9	0.8	7.4	6.9	
금호석유	KRW	73,500	(0.9)	(4.4)	(0.9)	(5.3)	(11.4)	17.0	(10.4)	1,961	14.6	12.1	1.4	1.2	9.3	8.0	
SKC	KRW	33,200	(0.6)	(1.8)	13.9	9.4	3.8	17.9	0.6	1,091	10.6	8.7	0.8	0.8	8.6	7.3	
국도화학	KRW	54,400	1.3	0.2	17.0	12.9	(3.7)	(9.6)	(0.9)	277	11.9	8.7	0.7	0.6	3.3	2.9	
효성	KRW	6,060	2.5	(5.9)	(10.8)	(28.3)	(4.4)	61.8	(10.9)	5,212	9.0	8.1	1.4	1.3	7.1	6.4	
Average			0.2	(0.2)	2.1	0.3	5.2	26.8	5.1								
Refinery																	
Valero	USD	65.7	(1.4)	(1.3)	2.8	(4.2)	(2.8)	27.0	(3.9)	29,361	14.3	11.4	1.5	1.5	6.3	5.6	
Conoco Phillips	USD	45.8	(1.2)	(1.3)	(3.5)	(0.1)	(11.1)	2.5	(8.6)	56,684	94.9	25.4	1.7	1.7	8.2	6.8	
Formosa Petrochemical	TWD	109.0	0.9	1.4	4.3	1.9	1.4	25.7	(2.7)	34,097	16.2	18.9	3.3	3.3	10.2	11.4	
Tesoro	USD	92.0	(0.9)	(2.4)	10.4	9.2	3.6	22.6	5.2	14,708	18.4	12.7	1.6	1.6	7.7	6.2	
Marathon Petroleum	USD	52.9	(2.7)	(4.0)	0.1	4.7	7.0	52.8	5.0	27,415	18.5	15.0	2.0	1.7	8.4	7.4	
Devon Energy	USD	31.2	(0.5)	(7.0)	(18.8)	(23.1)	(33.2)	(16.5)	(31.8)	16,381	16.5	12.1	2.3	2.0	7.7	6.5	
Hollyfrontier	USD	25.9	(3.3)	(2.3)	(2.0)	(9.4)	(17.8)	6.7	(21.1)	4,585	20.0	11.5	1.0	1.0	7.8	6.2	
Phillips 66	USD	79.6	(2.1)	(1.3)	1.7	0.2	(8.5)	0.6	(7.9)	40,807	18.7	13.0	1.8	1.8	9.8	8.0	
Murphy Oil	USD	24.9	(2.2)	(5.5)	(7.3)	(9.1)	(24.6)	(20.1)	(20.2)	4,288	135.8	31.2	0.8	0.8	4.4	4.1	
JX Holdings	JPY	483.9	(0.4)	(4.2)	(1.8)	(10.8)	(2.8)	18.0	(2.2)	14,878	7.3	6.8	0.6	0.6	7.4	7.0	
Idemitsu	JPY	3,170.0	(0.8)	(3.5)	(6.9)	(17.4)	1.3	36.2	2.1	4,551	6.1	5.9	0.8	0.7	8.5	7.9	
Nesteoil	EUR	35.7	(0.3)	2.3	(4.0)	3.1	(2.6)	17.2	(2.2)	0	13.6	13.4	2.2	2.0	7.7	7.9	
Ashland	USD	67.1	0.2	0.6	3.2	11.6	24.8	19.3	25.5	4,175	15.7	20.5	1.0	1.0	7.7	9.6	
Fuchs Petrolub	EUR	51.0	(1.0)	1.6	5.1	17.2	29.3	43.8	28.0	7,380	26.2	25.0	5.3	4.8	14.9	14.2	
SK이노베이션	KRW	157,500	(2.2)	(1.9)	(6.3)	(2.8)	7.5	10.1	7.5	12,751	6.1	6.3	0.8	0.7	3.6	3.4	
S-Oil	KRW	94,500	(1.4)	(2.7)	(7.4)	(2.2)	13.6	22.3	11.6	9,315	8.9	8.0	1.6	1.4	6.7	5.7	
GS	KRW	65,600	(1.5)	(6.2)	0.9	17.4	22.2	33.5	21.3	5,337	6.2	5.9	0.8	0.7	7.0	6.6	
Average			(1.2)	(2.2)	(1.7)	(0.8)	0.4	17.8	0.3								

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임

* 국내업체의 multiple은 Dataguidepro 기준임

Global peers

	Currency	06/20	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	82	(0.5)	(0.8)	0.5	0.4	(9.0)	(9.7)	(8.8)	348,769	21.4	18.4	2.0	1.9	9.2	8.5		
BP	GBP	460	(2.6)	(2.1)	(2.5)	(0.2)	(7.0)	21.5	(9.7)	114,351	17.3	13.8	1.2	1.2	5.7	5.0		
Shell	EUR	2,091	(1.9)	(1.8)	(1.3)	(1.2)	(5.3)	16.5	(6.8)	218,660	14.9	12.5	1.1	1.1	6.0	5.4		
Chevron	USD	106	(0.9)	(1.5)	(0.0)	(1.1)	(9.7)	3.8	(9.5)	201,733	23.7	19.0	1.4	1.4	7.4	6.5		
Total	EUR	45	(1.3)	(2.0)	(7.9)	(3.2)	(7.7)	4.3	(8.5)	123,108	12.1	10.8	1.2	1.1	5.7	5.1		
Sinopec	CNY	6	(0.2)	(1.8)	1.7	4.6	8.8	26.4	9.8	104,132	13.0	11.9	1.0	0.9	4.6	4.4		
Petrochina	CNY	8	0.7	0.7	1.3	(4.0)	0.9	6.8	(3.1)	196,419	38.5	25.1	1.2	1.1	6.4	6.2		
CNOOC	CNY	11	(0.8)	(2.2)	(14.6)	(12.1)	(12.0)	(7.6)	(12.2)	49,340	13.7	10.5	0.9	0.8	3.8	3.4		
Gazprom	RUB	117	0.1	(0.6)	(5.4)	(8.8)	(24.4)	(17.9)	(24.0)	46,560	4.0	3.4	0.2	0.2	3.5	3.1		
Rosneft	RUB	316	1.6	1.2	3.2	1.6	(21.0)	(6.0)	(21.5)	56,086	8.5	6.2	0.9	0.8	4.6	3.9		
Anadarko	USD	46	(0.9)	(6.0)	(13.2)	(26.3)	(34.8)	(15.6)	(33.6)	25,938	#N/A	N/A	78.1	1.7	1.6	6.7	5.5	
Petrobras	BRL	12	(3.5)	(8.3)	(12.9)	(12.8)	(17.4)	29.2	(20.2)	48,982	8.2	7.0	0.5	0.5	4.8	4.4		
Lukoil	USD	2,769	(0.4)	0.3	(2.8)	(10.5)	(18.9)	4.7	(19.7)	39,483	5.3	4.6	0.6	0.5	N/A	N/A		
Kinder	USD	19	(2.8)	(3.7)	(5.1)	(12.6)	(10.8)	2.3	(10.6)	47,497	27.9	24.8	1.2	1.2	11.3	10.8		
Statoil	NOK	141	(2.8)	(5.1)	(8.0)	(5.0)	(10.7)	1.7	(11.0)	53,776	15.4	13.2	1.4	1.4	3.0	2.7		
BHP	AUD	23	(0.2)	(3.0)	(5.4)	(7.7)	(7.8)	21.7	(8.4)	86,278	13.9	14.7	1.5	1.5	5.6	5.8		
PTT E&P	THB	89	0.6	(0.6)	(5.3)	(1.1)	(1.4)	8.2	(7.5)	10,384	14.0	12.0	0.9	0.8	2.9	2.7		
Petronas gas	MYR	19	(1.2)	(2.6)	(1.8)	(6.1)	(12.3)	(14.2)	(12.4)	8,576	20.8	19.2	3.0	2.8	11.9	10.9		
Chesapeake	USD	5	(1.6)	(7.0)	(15.1)	(5.2)	(32.6)	5.4	(30.1)	4,459	6.0	4.7	#N/A	N/A	163.7	7.2	5.7	
Noble Energy	USD	29	(2.4)	(5.6)	(8.8)	(16.0)	(29.0)	(22.4)	(25.1)	13,863	#N/A	N/A	68.2	1.3	1.3	7.7	6.4	
Average		0	(1.1)	(2.6)	(5.2)	(6.4)	(13.1)	3.0	(13.7)									
PV																		
WACKER	EUR	95.5	0.9	1.0	(3.3)	(4.8)	(0.9)	14.9	(3.4)	5,539	24.4	19.3	1.7	1.6	5.9	5.6		
GCL-Poly	HKD	0.7	(1.3)	(1.3)	(16.9)	(30.8)	(22.1)	(26.7)	(20.4)	1,763	6.3	6.0	0.5	0.5	5.4	4.9		
SunPower	USD	7.5	(3.6)	(7.3)	(0.4)	14.5	2.2	(50.2)	13.6	1,047	#N/A	N/A	357.6	1.6	2.9	43.8	9.4	
Canadian Solar	USD	13.1	0.2	(0.7)	0.5	(3.7)	4.2	(18.9)	7.1	757	9.5	6.3	0.7	0.7	9.4	9.0		
JA Solar	USD	6.3	(1.4)	(0.8)	(12.9)	18.8	26.7	(7.7)	31.7	298	26.9	12.8	1.6	1.6	4.3	3.2		
Yingli	USD	2.1	0.0	0.0	(11.3)	(5.1)	(29.1)	(50.0)	(21.2)	37	#N/A	N/A	#N/A	N/A	#N/A	N/A	39.7	23.6
First Solar	USD	35.5	(2.5)	(2.8)	(2.4)	16.8	2.8	(28.1)	10.5	3,697	64.0	52.4	0.7	0.7	7.1	5.3		
한화큐셀	USD	6.6	0.5	(1.9)	(4.4)	(10.5)	(23.8)	(51.3)	(19.7)	545	35.4	28.5	#N/A	N/A	#N/A	N/A	6.4	6.2
OCI	KRW	95,100	2.8	5.8	8.3	11.6	26.1	0.6	20.8	1,986	23.6	18.5	0.7	0.7	7.9	7.4		
웅진에너지	KRW	6,920	(2.5)	11.4	25.4	40.7	57.5	(32.9)	46.1	151	N/A	0.7	0.7	7.9	7.4	9.0		
신성솔라에너지	KRW	2,025	1.0	8.0	3.1	8.3	(4.3)	(9.2)	(8.4)	307	N/A	0.7	7.9	7.4	9.0	8.1		
Average			(0.5)	1.0	(1.3)	5.1	3.6	(23.6)	5.2									
Gas Company																		
Towngas China	HKD	4.9	1.2	2.1	7.0	8.2	22.5	14.5	20.1	1,703	11.5	10.8	0.9	0.9	11.1	10.5		
Kulun	HKD	6.5	0.9	(1.4)	(7.7)	(7.5)	10.7	4.8	12.1	6,727	10.9	10.1	1.1	1.1	5.4	5.2		
Beijing Enterprise	HKD	37.7	0.4	0.3	3.7	(11.7)	9.1	(9.5)	2.9	6,100	7.5	7.0	0.7	0.7	13.2	12.7		
ENN Energy	HKD	42.5	0.8	2.2	9.5	(3.3)	34.9	12.3	33.2	5,894	11.8	10.9	2.3	1.9	7.8	7.3		
China Resources Gas	HKD	24.1	(0.6)	(0.8)	3.7	(13.5)	9.8	6.4	10.6	6,871	13.9	12.6	2.5	2.2	8.8	8.1		
China Gas Holdings	HKD	12.9	0.2	3.4	11.9	2.2	25.6	12.9	23.0	8,242	13.8	12.3	2.6	2.2	11.1	10.6		
Shenzen Gas	HKD	14.0	1.7	1.9	10.9	20.2	25.2	20.9	24.1	3,519	12.3	11.4	1.3	1.2	8.5	8.0		
Shann Xi	CNY	9.0	1.0	2.0	6.5	(5.3)	(5.6)	(10.6)	(6.3)	1,468	17.0	14.5	1.8	1.7	#N/A	N/A	#N/A	N/A
Suntien	HKD	1.4	(1.4)	(6.6)	(7.2)	(6.6)	37.9	77.5	42.0	676	7.0	6.1	0.6	0.5	8.7	7.5		
China Oil & Gas	HKD	0.5	(1.9)	(1.9)	(8.6)	(13.1)	(8.6)	(11.7)	(13.1)	396	9.1	7.9	0.9	0.8	5.9	5.3		
Average			0.2	0.1	3.0	(3.0)	16.2	11.8	14.9									
EV																		
LG화학	KRW	275,500	(1.3)	(5.8)	(2.3)	(2.7)	6.6	3.2	5.6	17,028	10.8	10.4	1.3	1.2	5.0	4.8		
삼성SDI	KRW	156,000	0.6	3.3	0.0	16.4	41.8	38.7	43.1	9,392	18.1	11.8	1.0	0.9	17.2	11.2		
Panasonic	JPY	1511.0	2.2	1.8	10.6	20.3	19.7	63.4	27.0	33,255	19.1	15.3	1.9	1.8	5.9	5.2		
GS Yuasa	JPY	503.0	(0.6)	(1.4)	1.6	(5.6)	2.0	24.5	3.5	1,866	14.9	13.5	1.2	1.2	6.7	6.2		
NEC	JPY	290.0	0.0	(1.0)	4.3	1.4	(11.0)	16.5	(6.5)	6,777	21.1	16.3	0.9	0.9	7.8	6.7		
BYD Auto	CNY	50.6	(1.3)	(2.4)	4.2	2.8	0.4	(15.1)	1.8	19,240	24.7	18.9	2.5	2.2	12.4	10.0		
Tesla Motors	USD	372.2	0.7	(1.0)	19.8	42.1	78.3	69.4	74.2	61,144	#N/A	N/A	#N/A	N/A	12.8	11.2	72.0	29.7
Kandi Technologies	USD	4.0	1.3	(2.4)	0.0	11.1	(24.5)	(43.3)	(18.4)	192	#N/A	N/A	#N/A	N/A	#N/A	N/A	#N/A	N/A
Average			0.2	(1.1)	4.8	10.7	14.2	19.6	16.3									

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임