

1. News Summary (3 page)

2020년 6월 5일

News	
WTI comment	국제유가 '감산 불확실성' 혼조...WTI 0.3%↑
Headline	남사 펀더멘탈 약세에도 \$300/mt 상회
News 1.	FPCC, 크래커 6월 7일 재가동
News 2.	-
News 3.	-
News 4.	-

Conclusion	
	최근 급등한 남사가격의 여파로 화학제품 스프레드 약화될 전망 짧은 섯다운 기간으로 스팟 시장에 미칠 여파는 제한 적일 전망
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2. Prices Summary (4~7 page)

Daily	Unit	Price	1D	1W	1M	3M	12M
Refinery			%	%	%	%	%
WTI	\$/bbl	37.4	0.3	11.0	83.5	(18.5)	(30.0)
Dubai	\$/bbl	38.8	(2.7)	17.0	59.6	(23.6)	(35.3)
Gasoline	\$/bbl	42.2	(3.3)	18.5	83.9	(28.1)	(35.4)
Diesel	\$/bbl	42.4	(1.3)	14.1	56.6	(28.1)	(41.7)
Complex margin	\$/bbl	1.2	0.6	0.5	3.0	(1.7)	(3.8)
1M lagging	\$/bbl	15.6	(4.1)	(0.3)	14.3	17.2	22.1
Petrochemical			%	%	%	%	%
Naphtha	\$/t	340	(2.0)	12.6	63.7	(25.4)	(26.9)
Butadiene	\$/t	330	0.0	0.0	6.5	(50.0)	(67.3)
HDPE	\$/t	780	0.0	2.6	11.4	(2.5)	(21.2)
MEG	\$/t	432	0.7	3.8	6.4	(15.1)	(19.9)
PX	\$/t	488	(0.1)	6.6	10.5	(28.2)	(38.0)
SM	\$/t	630	(0.9)	3.7	8.6	(20.4)	(37.7)
Commodity			%	%	%	%	%
Natural Gas	\$/mmbtu	1.82	0.1	(0.3)	(14.3)	(6.8)	(28.2)
Natural rubber	\$/t	1,110	(0.9)	0.9	2.8	(14.6)	(26.5)
Cotton	C/lbs	60.0	(0.8)	4.2	8.3	(5.6)	(12.5)

*참고: 정제마진의 변동률은 %가 아닌 \$/bbl임

Weekly	Update	Unit	Price	1W	1M	3M	12M
Utility				%	%	%	%
SMP	06/04	원/kwh	71	(0.2)	(2.1)	(17.0)	(11.4)
Petrochemical				%	%	%	%
Ethylene	06/01	\$/t	690	7.0	79.2	0.0	(14.8)
Propylene	06/01	\$/t	688	(2.8)	11.8	(12.4)	(15.6)
Benzene	06/01	\$/t	413	3.8	26.0	(34.5)	(34.5)
Toluene	06/01	\$/t	400	1.3	17.6	(33.9)	(39.4)
Xylene	06/01	\$/t	420	2.4	18.3	(32.0)	(39.6)
PP	06/01	\$/t	838	2.4	9.1	(7.7)	(23.3)
PVC	06/01	\$/t	695	0.7	12.1	(19.2)	(17.3)
ABS	06/01	\$/t	1,250	4.2	11.6	(7.4)	(12.0)
SBR	06/01	\$/t	1,000	(4.8)	(13.0)	(20.6)	(28.3)
SM	06/01	\$/t	640	0.8	6.7	(19.5)	(39.9)
BPA	06/01	\$/t	1,350	(1.6)	11.3	5.1	(3.4)
Caustic	06/01	\$/t	251	(4.9)	(4.9)	2.4	(28.1)
Solar				%	%	%	%
Polysilicon	06/03	\$/kg	6.23	(0.3)	(2.7)	(11.9)	(23.8)
Module	06/03	\$/W	0.167	(1.2)	(4.6)	(9.7)	(22.7)

3. Global Peers Summary (8~9 page)

	Unit	Price	1D	1W	1M	3M	12M
E&P			%	%	%	%	%
ExxonMobil	USD	49.0	(0.3)	9.0	9.4	(6.3)	(33.3)
ARAMCO	SAR	32	(1.7)	(2.4)	5.6	(2.6)	-
Petrochina	CNY	4.00	(0.5)	0.7	(2.7)	(16.6)	(39.2)
Gazprom	RUB	201.0	(3.1)	2.3	8.5	0.7	(12.5)
Petrobras	BRL	21.0	(0.2)	8.4	23.3	(20.3)	(18.2)
Refinery							
Phillips66	USD	83.0	(0.7)	5.8	13.1	11.4	(1.2)
Valero	USD	70.0	(0.7)	4.3	10.0	9.2	(5.1)
JX	JPY	417.0	(1.4)	(1.4)	9.1	(1.1)	(18.5)
Neste Oil	EUR	36.0	2.8	(2.1)	18.5	(0.9)	20.3

	Unit	Price	1D	1W	1M	3M	12M
Petrochemical			%	%	%	%	%
BASF	EUR	55.0	(0.3)	10.0	20.5	0.2	(10.4)
DowDuPont	USD	55.0	0.7	8.9	22.9	24.5	(25.8)
SABIC	SAR	88.0	0.1	6.1	27.7	12.2	(21.2)
Formosa Pla.	TWD	87.0	0.8	3.6	1.5	(6.2)	(20.4)
Shin-Etsu	JPY	12,630	(0.5)	(0.8)	9.7	7.8	40.2
Renewable							
Wacker	EUR	61.9	2.2	4.9	20.3	(1.1)	(18.4)
First Solar	USD	49.60	0.2	9.0	14.3	9.1	(18.5)
GCL-Poly	HKD	0.20	1.7	5.4	9.8	(41.0)	(50.3)
Tesla Motors	USD	864.4	(2.1)	7.3	13.6	15.3	346.5

4. Coverage Summary

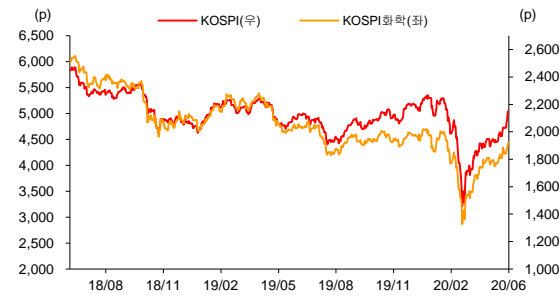
	06/04	1D	1W	1M	3M	6M	12M
KOSPI	2,151	0.2	6.0	13.5	5.4	4.0	4.1
KOSPI화학	4,442	1.0	4.8	10.5	6.9	0.6	(5.4)
LG화학	417,500	4.2	7.5	16.0	4.4	40.8	23.7
롯데케미칼	193,000	(3.0)	1.8	(1.5)	9.7	(10.0)	(26.6)
한화솔루션	17,000	(1.4)	4.3	23.2	(6.6)	(4.2)	(21.7)
금호석유화학	76,200	2.7	7.5	7.8	18.1	6.6	(21.0)
KCC	152,500	(1.3)	0.0	(4.4)	(11.6)	(31.0)	(42.9)
OCI	40,850	(1.2)	(5.8)	6.2	(20.2)	(32.8)	(56.1)
SKC	57,900	2.3	(1.0)	19.3	8.2	25.6	88.0
SK이노베이션	125,500	(1.6)	6.4	29.8	16.2	(12.8)	(23.0)
S-Oil	76,000	(1.0)	7.2	11.4	18.2	(13.7)	(7.7)
GS	40,400	(1.1)	3.6	8.5	1.0	(17.0)	(19.4)
SK가스	77,200	(0.5)	(1.9)	(0.1)	(0.6)	(11.1)	(2.5)
포스코인터내셔널	15,850	(1.6)	5.3	15.7	5.7	(16.6)	(7.6)
LG상사	15,400	(3.1)	(1.0)	18.9	37.5	5.5	(5.2)
한국전력	22,000	(1.8)	2.8	(3.5)	4.3	(24.8)	(15.4)
한국가스공사	30,300	0.3	3.9	13.9	12.2	(20.6)	(26.6)

투자의견	TP	%	P/E	P/B
			* 추정치는 12M fwd 기준임	
			* 모든 coverage 업체의 실적은 연결기준임	
매수	350,000	(16.2)	35.93	2.05
매수	220,000	14.0	15.27	0.54
매수	16,000	(5.9)	10.10	0.48
매수	75,000	(1.6)	12.35	0.88
매수	160,000	4.9	19.43	0.33
매수	45,000	10.2	6.92	0.41
매수	53,000	(8.5)	34.92	1.47
매수	110,000	(12.4)	11.80	0.68
매수	70,000	(7.9)	15.90	1.26
매수	48,000	18.8	7.71	0.45
매수	75,000	(2.8)	5.57	0.48
매수	14,000	(11.7)	8.91	0.61
매수	11,000	(28.6)	12.01	0.51
매수	24,000	9.1	7.93	0.19
매수	26,000	(14.2)	9.87	0.39

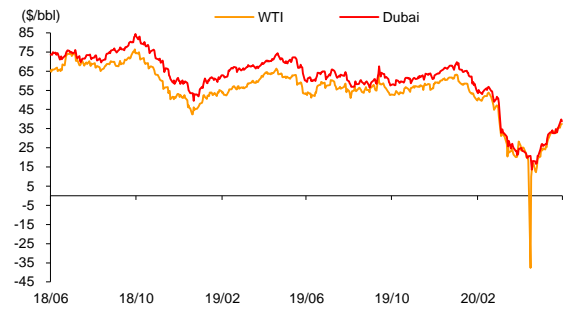
• 작성자(손지우)는 본 조사분석자료에 게재된 내용들이 본인의 의견을 정확하게 반영하고 있으며, 외부의 부당한 압력이나 간섭없이 신의성실하게 작성되었음을 확인합니다.
• 본 보고서에 언급된 종목의 경우 당사 조사분석담당자는 본인의 담당종목을 보유하고 있지 않습니다.
• 본 보고서는 기관투자자 또는 제 3자에게 사전 제공된 사실이 없습니다.
• 당사는 본 보고서의 발간시점에 해당종목을 1% 이상 보유하고 있지 않습니다.

Key Chart

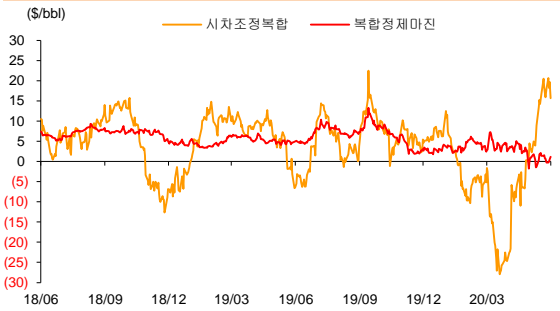
KOSPI/KOSPI화학



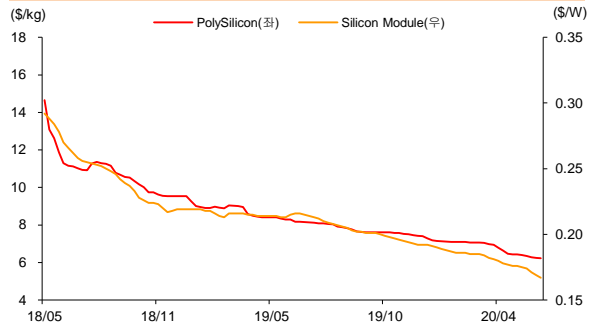
WTI/Dubai



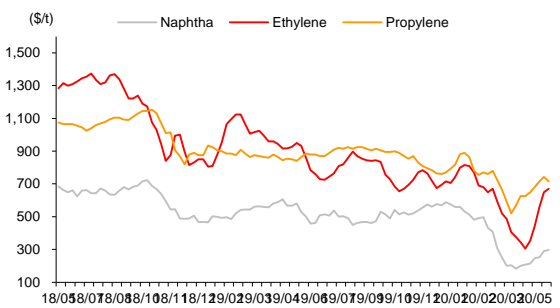
Complex & 1M lagging margin



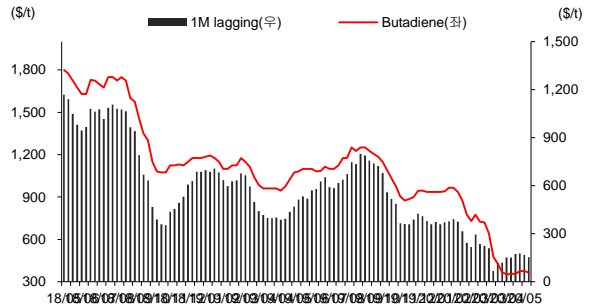
Polysilicon & Module prices



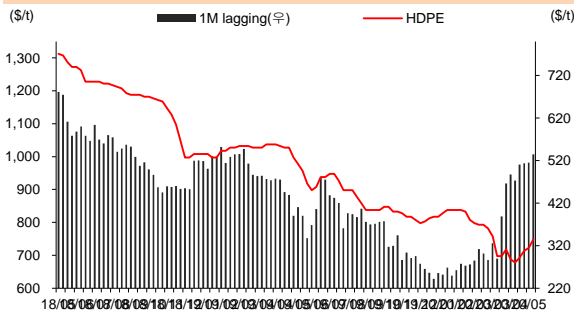
Naphtha/Ethylene/Propylene prices



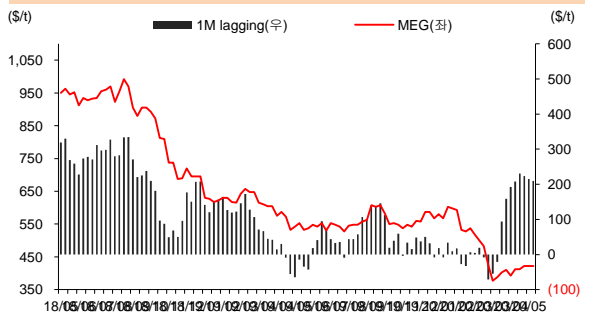
Butadiene price & 1M lagging naphtha spread



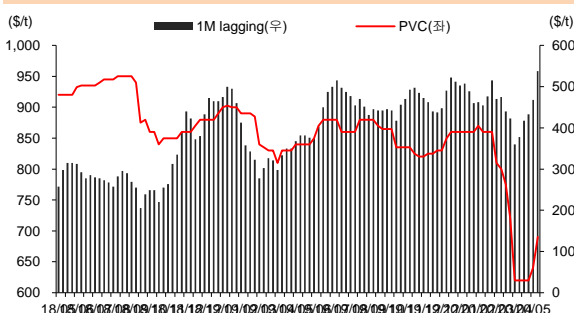
HDPE price & 1M lagging naphtha spread



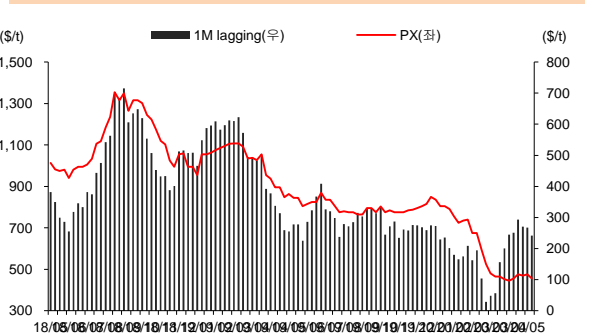
MEG price & 1M lagging naphtha spread



PVC price & 1M lagging naphtha spread



PX price & 1M lagging naphtha spread



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



News Comment

Headline	(출처: Platts)
제목	납사 펀더멘탈 약세에도 \$300/mt 상회
결론	최근 급등한 납사가격의 여파로 화학제품 스프레드 악화될 전망
사실	<ol style="list-style-type: none"> 1) 유럽 납사가격은 \$310/톤 이상을 기록하며 \$300/톤을 상회했음 2) 락다운 완화와 리파이너리 가동률 감소가 상승을 견인한 것으로 해석 3) 트레이더에 따르면 현 가솔린 가격에 납사 수요는 감소했음 4) 프로판과 납사 간 스프레드는 지속 하락해 마이너스 수준을 기록 중 5) 최근 급등한 납사가격의 여파로 화학제품 스프레드 악화될 전망

WTI Comment	(출처: 연합뉴스)
제목	국제유가 '감산 불확실성' 혼조...WTI 0.3% ↑
상승	사우디와 러시아의 하루 970만배럴 감산 7월까지 연장 기대감 요인
하락	감산합의 연장 불확실성 요인

Issue 1	(출처: Platts)
제목	FPCC, 크래커 6월 7일 재가동
결론	짧은 섯다운 기간으로 스팟 시장에 미칠 여파는 제한 적일 전망
사실	<ol style="list-style-type: none"> 1) 대만 Formosa PC(FPCC)는 No.2 스티크래커를 6월 7일 재가동 예정 2) 해당 크래커는 6월 1일에 기술적 결함으로 섯다운에 들어갔음 3) 해당 납사 크래커는 103.3만톤/년 에틸렌 생산 능력을 보유함 4) 당사는 No.1, No.2 Styrene 생산 라인을 5월 12일 중단했었음 5) 짧은 섯다운 기간으로 스팟 시장에 미칠 여파는 제한 적일 전망

Issue 2
제목
결론
사실
1)
2)
3)
4)
5)

Issue 3
제목
결론
사실
1)
2)
3)
4)
5)

Issue 4
제목
결론
사실
1)
2)
3)
4)
5)

Issue 5
제목
결론
사실
1)
2)
3)
4)
5)

Issue 6
제목
결론
사실
1)
2)
3)
4)
5)

Commodity Price Data

Daily Price		06/04	1D	1W	1M	3M	6M	12M	YTD	2018avg.	2019avg.	2020acc.
F/X	USD/EUR	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.800	0.900	0.900
	Change, %		(0.9)	(2.3)	(3.8)	(1.8)	(2.3)	(0.7)	(1.1)	4.1	(1.3)	(3.1)
	USD/JPY	109.2	108.9	107.7	106.7	107.5	108.9	108.2	108.8	110.4	109.0	108.4
	Change, %		0.2	1.4	2.3	1.5	0.3	0.9	0.4	(1.2)	0.1	0.7
USD/KRW		1,219.0	1,216.8	1,239.5	1,229.0	1,187.7	1,194.6	1,182.7	1,154.8	1,100.3	1,165.7	1,207.1
	Change, %		0.2	(1.6)	(0.8)	2.6	2.0	3.1	5.6	10.8	4.6	1.0
Agriculture	Corn	329.0	324.0	327.5	310.8	387.0	368.8	425.3	387.8	368.2	383.5	352.0
	Change, %		1.5	0.5	5.9	(15.0)	(10.8)	(22.6)	(15.2)	(10.6)	(14.2)	(6.5)
	Soybean	867.8	857.5	847.0	834.0	898.8	878.0	881.8	943.0	931.9	889.8	871.9
	Change, %		1.2	2.4	4.0	(3.4)	(1.2)	(1.6)	(8.0)	(6.9)	(2.5)	(0.5)
	Wheat	523.8	512.0	514.5	524.3	521.5	535.0	507.3	558.8	495.4	494.7	540.4
	Change, %		2.3	1.8	(0.1)	0.4	(2.1)	3.3	(6.3)	5.7	5.9	(3.1)
	Rice	22.1	20.6	16.9	16.2	13.4	12.3	11.7	13.1	11.5	11.3	14.6
	Change, %		7.3	30.7	36.2	64.6	79.5	88.9	68.0	91.2	94.6	51.4
Oats		345.5	331.8	328.5	315.0	264.3	322.8	304.0	292.0	256.2	286.9	295.0
	Change, %		4.1	5.2	9.7	30.7	7.0	13.7	18.3	34.9	20.4	17.1
MYR/mt	Palm Oil	2,396.0	2,474.0	2,334.0	2,035.0	2,501.0	2,673.0	2,030.0	3,041.0	2,250.9	2,176.0	2,491.7
	Change, %		(3.2)	2.7	17.7	(4.2)	(10.4)	18.0	(21.2)	6.4	10.1	(3.8)
	Cocoa	2,396.0	2,395.0	2,429.0	2,405.0	2,713.0	2,612.0	2,360.0	2,540.0	2,308.4	2,387.4	2,538.9
	Change, %		0.0	(1.4)	(0.4)	(11.7)	(8.3)	1.5	(5.7)	3.8	0.4	(5.6)
	Cotton	60.0	60.5	57.6	55.0	63.0	63.2	69.0	69.1	82.1	67.3	61.1
	Change, %		(0.8)	4.2	9.1	(4.7)	(5.0)	(13.0)	(13.1)	(26.9)	(10.8)	(1.8)
	Sugar	11.7	11.6	10.8	10.4	13.5	13.1	12.4	13.4	12.3	12.4	12.3
	Change, %		0.9	8.6	12.8	(12.9)	(10.2)	(5.6)	(12.6)	(4.3)	(5.0)	(4.7)
Coffee		98.2	99.1	99.1	105.6	117.2	120.6	105.7	129.7	112.7	101.4	110.0
	Change, %		(1.0)	(1.0)	(7.0)	(16.2)	(18.6)	(7.1)	(24.3)	(12.9)	(3.2)	(10.8)
Energy	WTI	37.4	37.3	33.7	20.4	46.8	58.4	53.5	61.1	64.8	57.0	37.2
	Change, %		0.3	11.0	83.5	(20.0)	(36.0)	(30.0)	(38.7)	(42.3)	(34.4)	0.6
	Brent	40.0	39.8	35.3	27.2	51.1	63.0	62.0	66.0	71.6	64.2	42.5
	Change, %		0.5	13.3	47.0	(21.8)	(36.5)	(35.5)	(39.4)	(44.1)	(37.7)	(6.0)
	Natural Gas	1.8	1.8	1.8	2.0	1.8	2.4	2.4	2.2	3.1	2.5	1.8
	Change, %		0.1	(0.3)	(8.6)	(0.3)	(24.1)	(24.6)	(16.8)	(40.6)	(27.9)	(0.4)
	Ethanol	1.2	1.2	1.1	1.0	1.3	1.5	1.5	1.4	1.4	1.4	1.2
	Change, %		2.2	6.1	16.9	(6.0)	(19.3)	(21.7)	(13.8)	(13.7)	(14.8)	2.6
RBOB Gasoline		114.9	111.9	99.9	82.2	155.6	160.4	172.4	169.8	191.7	172.6	113.7
	Change, %		2.7	15.1	39.9	(26.1)	(28.4)	(33.4)	(32.3)	(40.1)	(33.4)	1.0
Coal		55.2	55.8	52.3	50.6	65.8	66.8	73.4	67.7	107.1	78.1	63.1
	Change, %		(1.1)	5.6	9.1	(16.0)	(17.4)	(24.7)	(18.5)	(48.5)	(29.3)	(12.5)
Metal	Gold	1,714.0	1,699.7	1,718.3	1,702.1	1,636.9	1,474.6	1,325.5	1,517.3	1,269.3	1,393.8	1,633.1
	Change, %		0.8	(0.3)	0.7	4.7	16.2	29.3	13.0	35.0	23.0	5.0
	Silver	17.7	17.7	17.4	14.8	17.2	16.9	14.8	17.9	15.7	16.2	16.5
	Change, %		0.3	2.0	19.8	2.9	5.1	19.5	(0.8)	12.7	9.3	7.4
	Copper	5,524.5	5,524.5	5,332.5	5,123.0	5,684.0	5,885.0	5,879.0	6,174.0	6,543.8	6,025.4	5,463.9
	Change, %		0.0	3.6	7.8	(2.8)	(6.1)	(6.0)	(10.5)	(15.6)	(8.3)	1.1
	Nickel	962.2	961.1	922.7	903.3	941.3	969.7	860.7	1,029.3	897.6	994.1	936.2
	Change, %		0.1	4.3	6.5	2.2	(0.8)	11.8	(6.5)	7.2	(3.2)	2.8
	Zinc	2,021.5	2,021.5	1,934.5	1,899.5	1,982.0	2,246.0	2,475.5	2,272.0	2,893.0	2,507.3	2,054.8
	Change, %		0.0	4.5	6.4	2.0	(10.0)	(18.3)	(11.0)	(30.1)	(19.4)	(1.6)
	Lead	1,708.3	1,708.3	1,617.5	1,613.0	1,811.3	1,910.8	1,849.5	1,917.0	2,244.6	2,000.7	1,757.8
	Change, %		0.0	5.6	5.9	(5.7)	(10.6)	(7.6)	(10.9)	(23.9)	(14.6)	(2.8)
	Aluminum	13,385.0	13,310.0	13,315.0	12,725.0	13,110.0	14,065.0	14,105.0	14,345.0	14,252.6	13,912.8	13,076.8
	Change, %		0.6	0.5	5.2	2.1	(4.8)	(5.1)	(6.7)	(6.1)	(3.8)	2.4
	Cobalt	29,557.5	29,557.5	29,568.0	29,555.0	33,055.0	35,288.5	32,000.0	32,300.0	72,883.1	33,221.6	31,135.7
	Change, %		0.0	0.0	0.0	(10.6)	(16.2)	(7.6)	(8.5)	(59.4)	(11.0)	(5.1)
HR Coil	517.0	510.0	515.0	483.0	588.0	565.0	578.0	588.0	828.8	603.3	543.6	
Change, %		1.4	0.4	7.0	(12.1)	(8.5)	(10.6)	(12.1)	(37.6)	(14.3)	(4.9)	
Scrap	315.0	314.0	330.0	308.0	287.0	267.0	298.0	288.0	390.2	301.1	289.5	
Change, %		0.3	(4.5)	2.3	9.8	18.0	5.7	9.4	(19.3)	4.6	8.8	

자료: Bloomberg

참고) NYMEX, ICE, LME 중 대표지수를 사용

Refining Price Data

Daily Price		06/04	1D	1W	1M	3M	6M	12M	YTD	2018avg.	2019avg.	2020acc.	
Crude Oil	WTI	37.4	37.3	33.7	20.4	45.9	58.4	53.5	61.2	64.7	56.3	36.7	
	Change, %		0.3	11.0	83.5	(18.5)	(36.0)	(30.0)	(38.9)	(42.2)	(33.6)	1.8	
	Dubai	38.8	39.9	33.2	24.3	50.8	62.7	60.0	65.7	69.3	62.6	40.3	
	Change, %		(2.7)	17.0	59.6	(23.6)	(38.1)	(35.3)	(40.9)	(44.0)	(38.0)	(3.7)	
Crude Oil Product	Gasoline(휘발유)	42.2	43.6	35.6	22.9	58.7	75.3	65.2	73.7	79.8	71.9	44.8	
	Change, %		(3.3)	18.5	83.9	(28.1)	(44.0)	(35.4)	(42.8)	(47.2)	(41.3)	(5.8)	
	Kerosene(등유)	38.8	39.5	33.9	16.3	57.4	74.9	72.8	80.3	84.7	76.2	45.1	
	Change, %		(1.9)	14.4	137.9	(32.5)	(48.3)	(46.8)	(51.7)	(54.2)	(49.1)	(14.1)	
	Diesel(경유)	42.4	42.9	37.1	27.0	58.9	75.7	72.6	80.7	84.0	76.3	49.1	
	Change, %		(1.3)	14.1	56.6	(28.1)	(44.1)	(41.7)	(47.5)	(49.6)	(44.5)	(13.8)	
	Bunker-C	36.7	35.8	28.9	18.7	43.1	37.9	58.3	49.1	65.1	57.0	35.8	
	Change, %		2.4	26.7	95.7	(15.0)	(3.3)	(37.2)	(25.4)	(43.7)	(35.7)	2.3	
	Naphtha	36.3	36.9	30.6	15.7	45.7	62.7	49.4	63.0	67.0	56.3	37.1	
	Change, %		(1.5)	18.6	131.5	(20.4)	(42.0)	(26.4)	(42.3)	(45.8)	(35.5)	(2.0)	
	Dubai Spread	Gasoline(휘발유)	3.4	3.7	2.4	(1.4)	7.9	12.6	5.2	8.0	10.5	9.3	4.5
		Change		(0.4)	0.9	4.8	(4.5)	(9.3)	(1.9)	(4.7)	(7.2)	(5.9)	(1.1)
Kerosene(등유)		(0.1)	(0.4)	0.7	(8.0)	6.6	12.2	12.8	14.6	15.3	13.6	4.8	
Change			0.3	(0.8)	8.0	(6.7)	(12.3)	(12.8)	(14.7)	(15.4)	(13.6)	(4.9)	
Diesel(경유)		3.5	3.0	4.0	2.7	8.1	13.0	12.6	15.0	14.6	13.7	8.8	
Change			0.5	(0.4)	0.8	(4.6)	(9.5)	(9.1)	(11.4)	(11.1)	(10.2)	(5.3)	
Bunker-C		(2.2)	(4.1)	(4.3)	(5.6)	(7.6)	(24.8)	(1.7)	(16.6)	(4.2)	(5.6)	(4.5)	
Change		1.9	2.1	3.4	5.5	22.7	(0.5)	14.4	2.0	3.4	2.3		
Refining Margin	Naphtha	(2.5)	(3.0)	(2.5)	(8.6)	(5.1)	(0.0)	(10.7)	(2.7)	(2.3)	(6.3)	(3.2)	
	Change		0.5	0.1	6.2	2.6	(2.5)	8.2	0.3	(0.2)	3.8	0.7	
	Simple(단순)	(0.8)	(1.9)	(1.6)	(3.9)	(1.5)	(7.2)	2.1	(3.4)	2.5	1.3	(0.1)	
Refining Margin	Change		1.1	0.8	3.1	0.6	6.3	(3.0)	2.5	(3.4)	(2.2)	(0.8)	
	Complex(복합)	1.2	0.6	0.7	(1.8)	2.9	2.6	4.9	3.9	7.2	5.9	3.1	
	Change		0.6	0.5	3.0	(1.7)	(1.5)	(3.8)	(2.7)	(6.0)	(4.7)	(2.0)	
Refining Margin	Complex(lagging)	15.6	19.7	15.9	1.3	(1.6)	4.6	(6.5)	6.2	6.8	6.3	(3.7)	
	Change		(4.1)	(0.3)	14.3	17.2	11.0	22.1	9.4	8.8	9.4	19.3	

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

Utility SMP Data

Daily Price		06/04	1D	1W	1M	3M	6M	12M	YTD	2018avg.	2019avg.	2020acc.
Electricity	SMP	70.7	70.4	70.8	72.2	85.2	84.9	79.8	81.9	94.5	90.3	85.0
	Change, %		0.5	(0.2)	(2.1)	(17.0)	(16.7)	(11.4)	(13.6)	(25.2)	(21.7)	(16.9)

자료 : EPSIS, SK증권

Petrochemical Price Data

Daily Price			06/04	06/03	06/02	06/01	05/29	05/28	05/27	05/26	05/25	05/22
Spot Price	Naphtha	CFR Japan	339.6	346.6	337.9	329.8	297.5	301.5	312.8	313.0	289.1	289.1
	Ethylene	CFR SE Asia	680.0	680.0	680.0	680.0	640.0	640.0	640.0	640.0	615.0	615.0
	Propylene	FOB Korea	735.0	725.0	720.0	720.0	720.0	720.0	725.0	735.0	750.0	750.0
	Butadiene	FOB Korea	330.0	330.0	330.0	330.0	330.0	330.0	340.0	325.0	310.0	310.0
	HDPE	CFR FE Asia	780.0	780.0	780.0	770.0	770.0	760.0	760.0	760.0	760.0	760.0
	LDPE	CFR FE Asia	840.0	840.0	835.0	835.0	835.0	830.0	830.0	820.0	820.0	820.0
	LLDPE	CFR FE Asia	750.0	750.0	740.0	740.0	750.0	750.0	750.0	750.0	730.0	730.0
	MEG	CFR China	432.0	429.0	427.0	427.0	419.0	416.0	418.0	425.0	418.0	418.0
	PP	CFR FE Asia	855.0	855.0	850.0	840.0	835.0	825.0	825.0	815.0	805.0	805.0
	PX	CFR China	487.8	488.3	471.5	466.0	455.5	457.5	463.2	470.7	468.2	468.2
	PTA	CFR China	430.0	435.0	435.0	430.0	430.0	430.0	430.0	430.0	425.0	425.0
	Benzene	FOB Korea	418.0	421.3	408.7	404.0	398.0	407.0	407.0	431.8	404.7	404.7
	Toluene	FOB Korea	391.5	398.0	391.0	384.0	379.0	378.0	380.0	380.0	373.0	373.0
	Xylene	FOB Korea	420.0	422.0	415.0	418.0	412.0	406.5	408.5	413.0	404.0	404.0
	SM	FOB Korea	630.0	636.0	625.0	625.0	606.5	607.5	615.5	610.5	603.5	603.5

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2018avg.	2019avg.	2020acc.	
Spot Price	Naphtha	CFR Japan	297.0	290.0	213.0	432.0	575.5	501.5	588.5	614.2	523.8	369.1	
		Change, %		2.4	39.4	(31.3)	(48.4)	(40.8)	(49.5)	(51.6)	(43.3)	(19.5)	
	Ethylene	CFR SE Asia	690.0	645.0	385.0	690.0	765.0	810.0	665.0	1,145.9	829.1	596.7	
		Change, %		7.0	79.2	0.0	(9.8)	(14.8)	3.8	(39.8)	(16.8)	15.6	
	Propylene	CFR SE Asia	687.5	707.5	615.0	785.0	835.0	815.0	815.0	987.0	839.4	726.2	
		Change, %		(2.8)	11.8	(12.4)	(17.7)	(15.6)	(15.6)	(30.3)	(18.1)	(5.3)	
	Butadiene	CFR SE Asia	315.0	325.0	305.0	680.0	875.0	1,030.0	885.0	1,391.5	1,045.4	615.4	
		Change, %		(3.1)	3.3	(53.7)	(64.0)	(69.4)	(64.4)	(77.4)	(69.9)	(48.8)	
	Benzene	CFR SE Asia	412.5	397.5	327.5	630.0	655.0	630.0	750.0	827.8	643.2	524.4	
		Change, %		3.8	26.0	(34.5)	(37.0)	(34.5)	(45.0)	(50.2)	(35.9)	(21.3)	
	Toluene	CFR SE Asia	400.0	395.0	340.0	605.0	695.0	660.0	730.0	773.5	680.4	523.9	
		Change, %		1.3	17.6	(33.9)	(42.4)	(39.4)	(45.2)	(48.3)	(41.2)	(23.7)	
	Xylene	CFR SE Asia	420.0	410.0	355.0	617.5	700.0	695.0	710.0	802.5	705.3	535.4	
		Change, %		2.4	18.3	(32.0)	(40.0)	(39.6)	(40.8)	(47.7)	(40.5)	(21.6)	
	Spread	Ethylene	-Naphtha	393.0	355.0	172.0	258.0	189.5	308.5	76.5	531.7	305.3	227.5
			Change, %		10.7	128.5	52.3	107.4	27.4	413.7	(26.1)	28.7	72.7
Propylene		-Naphtha	390.5	417.5	402.0	353.0	259.5	313.5	226.5	372.8	315.7	357.1	
		Change, %		(6.5)	(2.9)	10.6	50.5	24.6	72.4	4.7	23.7	9.4	
Butadiene		-Naphtha	18.0	35.0	92.0	248.0	299.5	528.5	296.5	777.3	521.6	246.3	
		Change, %		(48.6)	(80.4)	(92.7)	(94.0)	(96.6)	(93.9)	(97.7)	(96.5)	(92.7)	
Benzene		-Naphtha	115.5	107.5	114.5	198.0	79.5	128.5	161.5	213.6	119.4	155.3	
		Change, %		7.4	0.9	(41.7)	45.3	(10.1)	(28.5)	(45.9)	(3.3)	(25.6)	
Toluene		-Naphtha	103.0	105.0	127.0	173.0	119.5	158.5	141.5	159.3	156.7	154.8	
		Change, %		(1.9)	(18.9)	(40.5)	(13.8)	(35.0)	(27.2)	(35.3)	(34.3)	(33.5)	
Xylene		-Naphtha	123.0	120.0	142.0	185.5	124.5	193.5	121.5	188.3	181.5	166.3	
		Change, %		2.5	(13.4)	(33.7)	(1.2)	(36.4)	1.2	(34.7)	(32.2)	(26.0)	

자료 : Cischem, Platts, Bloomberg, SK증권

참고 : Spread는 Polymer와 Naphtha의 가격차이임

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2018avg.	2019avg.	2020acc.
Spot Price	HDPE	CFR SE Asia	747.5	722.5	677.5	797.5	807.5	977.5	817.5	1,211.4	933.9	770.8
	Change, %			3.5	10.3	(6.3)	(7.4)	(23.5)	(8.6)	(38.3)	(20.0)	(3.0)
	MEG	CFR SE Asia	422.5	422.5	412.5	517.5	560.0	552.5	567.5	918.4	579.6	482.3
	Change, %			0.0	2.4	(18.4)	(24.6)	(23.5)	(25.6)	(54.0)	(27.1)	(12.4)
	PVC	CFR SE Asia	695.0	690.0	620.0	860.0	820.0	840.0	830.0	920.1	858.4	778.3
	Change, %			0.7	12.1	(19.2)	(15.2)	(17.3)	(16.3)	(24.5)	(19.0)	(10.7)
	PP	CFR SE Asia	837.5	817.5	767.5	907.5	952.5	1,092.5	952.5	1,236.5	1,061.5	883.4
	Change, %			2.4	9.1	(7.7)	(12.1)	(23.3)	(12.1)	(32.3)	(21.1)	(5.2)
	2-EH	CFR Korea	765.0	765.0	670.0	900.0	850.0	995.0	830.0	1,117.0	965.2	805.0
	Change, %			0.0	14.2	(15.0)	(10.0)	(23.1)	(7.8)	(31.5)	(20.7)	(5.0)
	ABS	CFR SE Asia	1,250.0	1,200.0	1,120.0	1,350.0	1,350.0	1,420.0	1,400.0	1,902.0	1,461.5	1,283.3
	Change, %			4.2	11.6	(7.4)	(7.4)	(12.0)	(10.7)	(34.3)	(14.5)	(2.6)
	SBR	CFR SE Asia	1,000.0	1,050.0	1,150.0	1,260.0	1,380.0	1,395.0	1,390.0	1,701.4	1,389.6	1,240.0
	Change, %			(4.8)	(13.0)	(20.6)	(27.5)	(28.3)	(28.1)	(41.2)	(28.0)	(19.4)
	SM	CFR SE Asia	640.0	635.0	600.0	795.0	850.0	1,065.0	890.0	1,343.7	1,007.1	736.2
	Change, %			0.8	6.7	(19.5)	(24.7)	(39.9)	(28.1)	(52.4)	(36.4)	(13.1)
	Caustic	FOB NEA	251.0	264.0	264.0	245.0	290.0	349.0	270.0	483.2	312.2	253.4
	Change, %			(4.9)	(4.9)	2.4	(13.4)	(28.1)	(7.0)	(48.1)	(19.6)	(1.0)
	PX	CFR SE Asia	455.0	475.0	455.0	675.0	787.5	845.0	850.0	1,056.0	891.8	615.1
	Change, %			(4.2)	0.0	(32.6)	(42.2)	(46.2)	(46.5)	(56.9)	(49.0)	(26.0)
PO	CFR China	1,350.0	1,372.5	1,212.5	1,285.0	1,395.0	1,397.5	1,457.5	1,829.5	1,464.2	1,273.0	
Change, %			(1.6)	11.3	5.1	(3.2)	(3.4)	(7.4)	(26.2)	(7.8)	6.0	
Caprolactam	CFR SE Asia	1,020.0	1,000.0	930.0	1,250.0	1,170.0	1,620.0	1,210.0	2,092.4	1,508.2	1,112.6	
Change, %			2.0	9.7	(18.4)	(12.8)	(37.0)	(15.7)	(51.3)	(32.4)	(8.3)	
PTA	CFR SE Asia	437.5	432.5	412.5	552.5	610.0	755.0	642.5	869.4	745.1	517.7	
Change, %			1.2	6.1	(20.8)	(28.3)	(42.1)	(31.9)	(49.7)	(41.3)	(15.5)	
Spread	HDPE		450.5	432.5	464.5	365.5	232.0	476.0	229.0	597.2	410.2	401.7
	Change, %			4.2	(3.0)	23.3	94.2	(5.4)	96.7	(24.6)	9.8	12.2
	MEG		125.5	132.5	199.5	85.5	(15.5)	51.0	(21.0)	304.2	55.9	113.2
	Change, %			(5.3)	(37.1)	46.8	(909.7)	146.1	(697.6)	(58.7)	124.6	10.9
	PVC		398.0	400.0	407.0	428.0	244.5	338.5	241.5	305.9	334.7	409.2
	Change, %			(0.5)	(2.2)	(7.0)	62.8	17.6	64.8	30.1	18.9	(2.7)
	PP		540.5	527.5	554.5	475.5	377.0	591.0	364.0	622.3	537.8	514.3
	Change, %			2.5	(2.5)	13.7	43.4	(8.5)	48.5	(13.1)	0.5	5.1
	2-EH		468.0	475.0	457.0	468.0	274.5	493.5	241.5	502.8	441.4	435.9
	Change, %			(1.5)	2.4	0.0	70.5	(5.2)	93.8	(6.9)	6.0	7.4
	ABS		953.0	910.0	907.0	918.0	774.5	918.5	811.5	1,287.8	937.8	914.2
	Change, %			4.7	5.1	3.8	23.0	3.8	17.4	(26.0)	1.6	4.2
	SBR	BD spread	685.0	725.0	845.0	580.0	505.0	365.0	505.0	310.0	344.2	624.6
	Change, %			(5.5)	(18.9)	18.1	35.6	87.7	35.6	121.0	99.0	9.7
	SM		343.0	345.0	387.0	363.0	274.5	563.5	301.5	729.5	483.3	367.1
	Change, %			(0.6)	(11.4)	(5.5)	25.0	(39.1)	13.8	(53.0)	(29.0)	(6.6)
	Caustic											
	Change, %											
	PX		158.0	185.0	242.0	243.0	212.0	343.5	261.5	441.8	368.0	246.0
	Change, %			(14.6)	(34.7)	(35.0)	(25.5)	(54.0)	(39.6)	(64.2)	(57.1)	(35.8)
PO	propylene spreac	662.5	665.0	597.5	500.0	560.0	582.5	642.5	842.5	624.8	546.8	
Change, %			(0.4)	10.9	32.5	18.3	13.7	3.1	(21.4)	6.0	21.1	
Caprolactam	benzene spreac	607.5	602.5	602.5	620.0	515.0	990.0	460.0	1,264.6	865.0	588.2	
Change, %			0.8	0.8	(2.0)	18.0	(38.6)	32.1	(52.0)	(29.8)	3.3	
PTA	px spread	119.0	100.0	94.0	80.0	58.8	163.5	47.5	130.2	120.9	87.1	
Change, %			19.0	26.6	48.7	102.6	(27.2)	150.5	(8.6)	(1.5)	36.6	

자료 : Cischem, Platts, SK증권

참고 : Spread는 Naphtha spread로 일괄적용

Global peers

	Currency	06/04	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER		PBR		EV/EBITDA	
											20E	21E	20E	21E	20E	21E
Petrochemical																
DuPont	USD	55.0	0.7	8.9	22.9	24.5	(12.4)	(25.8)	(14.4)	40,344	19.0	16.0	1.0	1.0	12.0	11.0
Corteva	USD	1,580.0	5.9	11.8	18.7	4.4	21.5	8.7	2.1	22,606	21.0	19.0	1.0	1.0	11.0	10.0
Eastman	USD	73.0	2.0	7.1	20.9	16.5	(2.3)	2.8	(7.5)	9,962	12.0	11.0	2.0	2.0	9.0	8.0
BASF	EUR	55.0	(0.3)	10.0	20.5	0.2	(19.3)	(10.4)	(18.0)	57,469	23.0	16.0	1.0	1.0	10.0	9.0
Akzo Nobel	EUR	78.0	(0.1)	2.6	14.6	6.3	(11.3)	0.8	(14.4)	16,993	25.0	19.0	3.0	2.0	13.0	11.0
Arkema	EUR	87.0	0.1	9.4	19.5	5.7	(8.0)	9.6	(8.6)	7,527	16.0	12.0	1.0	1.0	8.0	7.0
Lanxess	EUR	50.0	(0.5)	3.6	15.4	6.8	(16.4)	6.6	(16.4)	4,955	16.0	13.0	1.0	1.0	7.0	6.0
Sumitomo Chemical	JPY	345	(1.4)	(3.1)	8.5	(11.5)	(30.4)	(26.9)	(30.7)	5,241	15.0	10.0	1.0	1.0	10.0	8.0
Mitsubishi Chemical	JPY	658	(0.4)	0.1	10.8	(8.3)	(19.4)	(8.4)	(19.5)	9,093	17.0	9.0	1.0	1.0	8.0	7.0
Shin-Etsu Chemical	JPY	12,630	(0.5)	(0.8)	9.7	7.8	6.4	40.2	4.7	48,293	18.0	16.0	2.0	2.0	8.0	8.0
Asahi Kasei	JPY	912	2.1	3.6	23.7	3.9	(25.9)	(17.0)	(26.1)	11,661	14.0	11.0	1.0	1.0	8.0	6.0
JSR	JPY	2,027	(0.4)	(3.1)	3.3	5.0	6.7	29.9	0.7	4,206	27.0	16.0	1.0	1.0	9.0	8.0
Nitto Denko	JPY	6,100	0.7	3.7	15.7	14.9	0.7	27.8	(1.3)	8,887	22.0	19.0	1.0	1.0	6.0	6.0
SABIC	SAR	88.0	0.1	6.1	27.7	12.2	(3.0)	(21.2)	(5.4)	70,396	58.0	29.0	2.0	2.0	11.0	9.0
Yansab	SAR	52.0	0.6	3.6	16.8	4.8	5.7	(18.7)	(7.7)	7,746	41.0	26.0	2.0	2.0	15.0	12.0
Formosa Plastics	TWD	87.0	0.8	3.6	1.5	(6.2)	(11.0)	(20.4)	(13.0)	18,472	20.0	16.0	2.0	2.0	21.0	17.0
Formosa Fiber	TWD	75.0	0.3	4.3	3.0	(8.2)	(13.8)	(29.5)	(14.2)	14,716	21.0	19.0	1.0	1.0	16.0	15.0
Nan Ya Plastics	TWD	65.0	0.0	4.0	2.4	(5.5)	(9.5)	(17.0)	(10.7)	17,234	24.0	18.0	1.0	1.0	16.0	16.0
Sinopec Shanghai	CNY	4.00	(0.8)	(0.6)	(10.2)	(12.4)	(5.5)	(31.2)	(6.7)	4,623	26.0	17.0	1.0	1.0	12.0	7.0
Sinopec Yizheng(Fiber)	CNY	2.00	0.6	3.0	(7.4)	(22.3)	(20.2)	(31.2)	(23.0)	3,691	31.0	24.0	4.0	3.0	9.0	8.0
Reliance	INR	1,580	2.5	7.3	11.1	19.0	1.7	16.9	5.6	133,971	22.0	16.0	2.0	2.0	13.0	10.0
Industries Qatar	QAR	9.0	0.1	8.0	21.6	8.1	(17.9)	(24.8)	(17.3)	14,003	31.0	21.0	2.0	2.0	4,062.0	267.0
PTT Chemical	THB	48.0	2.7	11.0	26.5	10.4	(9.0)	(21.4)	(16.2)	6,790	37.0	17.0	1.0	1.0	12.0	9.0
Petronas	MYR	7.0	6.7	12.6	29.1	26.7	(1.8)	(15.8)	(5.2)	13,051	30.0	22.0	2.0	2.0	13.0	10.0
LG화학	KRW	417,500	4.2	7.5	16.0	6.5	40.8	23.7	31.5	24,199	44.0	24.0	2.0	2.0	11.0	8.0
롯데케미칼	KRW	193,000	(3.0)	1.8	(1.5)	5.2	(10.0)	(26.6)	(13.8)	5,432	16.0	9.0	0.0	0.0	5.0	4.0
한화솔루션	KRW	17,000	(1.4)	4.3	23.2	(9.1)	(4.2)	(21.7)	(9.8)	2,231	10.0	7.0	0.0	0.0	8.0	7.0
금호석유	KRW	76,200	2.7	7.5	7.8	23.1	6.6	(21.0)	(1.7)	1,906	7.0	7.0	1.0	1.0	6.0	5.0
SKC	KRW	57,900	2.3	(1.0)	19.3	6.4	25.6	88.0	13.5	1,784	13.0	15.0	1.0	1.0	12.0	9.0
국도화학	KRW	40,050	(0.7)	0.9	(4.4)	(1.1)	(12.6)	(14.4)	(14.9)	191	-	-	-	-	-	-
효성	KRW	70,100	(1.3)	2.5	3.1	(0.6)	(11.7)	(6.5)	(11.4)	1,213	9.0	7.0	1.0	1.0	13.0	11.0
Average			0.8	4.5	12.4	4.3	(6.0)	(5.5)	(9.1)							
Refinery																
Valero	USD	70.0	(0.7)	4.3	10.0	9.2	(24.8)	(5.1)	(25.2)	28,559	-	17.0	2.0	2.0	19.0	8.0
Conoco Phillips	USD	45.0	(0.9)	4.0	10.8	(9.5)	(26.3)	(24.3)	(31.2)	47,948	-	306.0	2.0	2.0	13.0	8.0
Formosa Petrochemical	TWD	94.0	0.0	6.4	8.2	6.1	(2.2)	(18.7)	(4.1)	29,777	35.0	22.0	3.0	3.0	21.0	14.0
Marathon Petroleum	USD	38.0	(1.4)	8.1	20.6	(17.1)	(36.6)	(21.6)	(36.9)	24,736	-	16.0	1.0	1.0	12.0	7.0
Devon Energy	USD	13.0	1.6	9.1	11.4	(21.8)	(43.2)	(51.1)	(51.0)	4,868	-	-	1.0	1.0	6.0	6.0
Hollyfrontier	USD	34.0	2.1	9.4	5.8	5.0	(32.2)	(13.2)	(32.1)	5,572	128.0	16.0	1.0	1.0	12.0	7.0
Phillips 66	USD	83.0	(0.7)	5.8	13.1	11.4	(26.2)	(1.2)	(25.4)	36,301	33.0	13.0	2.0	1.0	15.0	8.0
Murphy Oil	USD	15.0	4.2	16.7	35.8	(22.4)	(39.0)	(40.5)	(45.0)	2,262	-	-	0.0	1.0	5.0	6.0
JX Holdings	JPY	417.0	(1.4)	(1.4)	9.1	(1.1)	(13.9)	(18.5)	(16.2)	12,364	14.0	7.0	1.0	1.0	8.0	7.0
Idemitsu	JPY	2,395.0	(0.9)	0.6	(1.6)	(9.2)	(18.3)	(20.4)	(21.0)	6,547	10.0	7.0	1.0	1.0	9.0	8.0
Nesteoil	EUR	36.0	2.8	(2.1)	18.5	(0.9)	20.7	20.3	15.8	31,311	24.0	20.0	4.0	4.0	15.0	13.0
Ashland	USD	71.0	2.2	5.4	20.8	(0.1)	(1.7)	(7.7)	(6.6)	4,321	32.0	24.0	1.0	1.0	13.0	11.0
Fuchs Petrolub	EUR	37.0	(0.8)	2.2	8.5	4.9	(6.3)	5.1	(15.9)	5,367	29.0	24.0	3.0	3.0	14.0	12.0
SK이노베이션	KRW	125,500	(1.6)	6.4	29.8	9.1	(12.8)	(23.0)	(16.3)	9,528	-	17.0	1.0	1.0	176.0	8.0
S-Oil	KRW	76,000	(1.0)	7.2	11.4	12.6	(13.7)	(7.7)	(20.3)	7,025	-	13.0	1.0	1.0	57.0	9.0
GS	KRW	40,400	(1.1)	3.6	8.5	(0.6)	(17.0)	(19.4)	(21.7)	3,082	12.0	6.0	0.0	0.0	9.0	7.0
Average			0.2	5.4	13.8	(1.5)	(18.3)	(15.4)	(22.1)							

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임

* 국내업체의 multiple은 Dataguidepro 기준임

Global peers

	Currency	06/04	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER		PBR		EV/EBITDA	
											20E	21E	20E	21E	20E	21E
E&P/Shale																
Exxon Mobil	USD	49	(0.3)	9.0	9.4	(6.3)	(28.5)	(33.3)	(29.6)	207,605	-	38.0	1.0	1.0	17.0	10.0
BP	GBP	336	(0.9)	7.1	11.8	(20.5)	(28.8)	(38.3)	(28.7)	85,832	265.0	11.0	1.0	1.0	7.0	6.0
Shell	EUR	1,389	(0.3)	5.4	9.8	(20.0)	(35.8)	(43.5)	(37.8)	134,112	43.0	14.0	1.0	1.0	7.0	5.0
Chevron	USD	96	(0.9)	6.0	5.3	(2.3)	(17.7)	(17.9)	(20.1)	179,753	-	47.0	1.0	1.0	12.0	9.0
Total	EUR	36	(0.9)	5.2	18.4	(9.6)	(23.5)	(23.5)	(26.6)	106,456	32.0	16.0	1.0	1.0	8.0	6.0
ARAMCO	SAR	32	(1.7)	(2.4)	5.6	(2.6)	-	-	(8.3)	1,715,300	35.0	24.0	6.0	6.0	14.0	11.0
Sinopec	CNY	4	(1.2)	0.0	(6.1)	(11.0)	(14.7)	(22.8)	(18.0)	67,928	28.0	12.0	1.0	1.0	6.0	5.0
Petrochina	CNY	4	(0.5)	0.7	(2.7)	(16.6)	(22.6)	(39.2)	(25.9)	105,831	-	35.0	1.0	1.0	7.0	6.0
CNOOC	CNY	13	(3.3)	3.6	5.9	(17.7)	(21.0)	37.1	(31.6)	52,712	32.0	12.0	1.0	1.0	5.0	4.0
Gazprom	RUB	201	(3.1)	2.3	8.5	0.7	(19.1)	(12.5)	(21.4)	68,895	9.0	5.0	0.0	0.0	5.0	4.0
Rosneft	RUB	390	(1.7)	3.3	17.8	(6.2)	(11.8)	(10.3)	(13.3)	59,715	26.0	7.0	1.0	1.0	7.0	5.0
OCCIDENTAL	USD	16	0.6	14.0	0.2	(52.8)	(78.6)	(78.0)	(62.3)	13,995	-	-	1.0	1.0	11.0	9.0
Petrobras	BRL	21	(0.2)	8.4	23.3	(20.3)	(27.7)	(18.2)	(29.0)	55,814	-	12.0	0.0	0.0	7.0	5.0
Lukoil	USD	5,430	(2.2)	0.7	12.0	(8.1)	(10.6)	5.0	(12.0)	54,348	15.0	9.0	1.0	1.0	5.0	4.0
Kinder	USD	16	0.5	3.2	10.8	(19.8)	(15.9)	(20.2)	(23.3)	36,704	23.0	18.0	1.0	1.0	10.0	10.0
Equinor ASA	NOK	147	(1.6)	(0.7)	9.9	(0.4)	(12.5)	(12.7)	(16.3)	52,455	119.0	19.0	1.0	1.0	5.0	3.0
BHP	AUD	36	(0.1)	3.3	21.5	7.9	(1.4)	(2.7)	(6.7)	118,545	17.0	16.0	2.0	2.0	7.0	7.0
PTT E&P	THB	93	4.2	10.1	9.8	(15.7)	(20.7)	(25.8)	(25.5)	11,671	17.0	16.0	1.0	1.0	3.0	3.0
Petronas gas	MYR	18	(0.1)	3.5	17.9	8.6	15.8	(2.7)	7.7	8,290	19.0	19.0	3.0	3.0	10.0	10.0
Noble Energy	USD	10	1.3	6.6	11.0	(33.8)	(51.5)	(52.9)	(59.2)	4,864	-	-	1.0	1.0	8.0	7.0
Average			(0.6)	4.5	10.0	(12.3)	(22.5)	(21.7)	(24.4)							
PV																
WACKER	EUR	61.9	2.2	4.9	20.3	(1.1)	(1.0)	(18.4)	(8.4)	3,660	71.0	21.0	2.0	1.0	8.0	6.0
GCL-Poly	HKD	0.2	1.7	5.4	9.8	(41.0)	2.6	(50.3)	(20.0)	604	-	36.0	0.0	0.0	9.0	8.0
SunPower	USD	7.6	(2.4)	8.1	6.6	(17.8)	3.0	(7.0)	(2.7)	1,290	-	60.0	26.0	14.0	37.0	13.0
Canadian Solar	USD	19.2	0.7	6.0	9.4	(10.4)	10.4	(6.7)	(13.0)	1,135	7.0	6.0	1.0	1.0	6.0	5.0
LONGI Green Energy	CNY	31.3	(2.1)	1.6	1.7	2.9	28.4	34.4	26.2	16,625	20.0	16.0	4.0	3.0	14.0	11.0
First Solar	USD	49.6	0.2	9.0	14.3	9.1	(9.5)	(18.5)	(11.3)	5,254	18.0	13.0	1.0	1.0	8.0	6.0
OCI	KRW	40,850	(1.2)	(5.8)	6.2	(18.5)	(32.8)	(56.1)	(34.7)	800	-	16.0	0.0	0.0	19.0	6.0
Average			(0.1)	4.2	9.8	(11.0)	0.2	(17.5)	(9.1)							
Gas Company																
Towngas China	HKD	3.7	(1.9)	5.7	1.6	(19.7)	(29.4)	(35.3)	(31.5)	1,371	7.0	7.0	1.0	1.0	8.0	8.0
Kulun	HKD	4.8	(0.4)	2.3	(4.2)	(10.1)	(27.4)	(30.9)	(29.8)	5,396	6.0	6.0	1.0	1.0	4.0	4.0
Beijing Enterprise	HKD	27.2	(0.2)	6.5	3.4	(18.2)	(20.2)	(31.5)	(23.9)	4,429	4.0	4.0	0.0	0.0	9.0	9.0
ENN Energy	HKD	94.9	(0.5)	7.7	11.6	7.8	14.0	32.9	11.5	13,782	16.0	14.0	3.0	3.0	11.0	9.0
China Resources Gas	HKD	43.0	0.2	7.5	(0.1)	5.1	(3.7)	16.2	0.4	12,824	18.0	16.0	3.0	3.0	10.0	9.0
China Gas Holdings	HKD	28.0	0.0	7.1	2.9	(5.1)	(5.4)	10.5	(4.1)	18,854	13.0	12.0	3.0	2.0	11.0	10.0
Shenzen Gas	HKD	13.0	0.0	0.9	(11.3)	(16.4)	(21.3)	(6.9)	(23.8)	3,638	9.0	7.0	1.0	1.0	6.0	6.0
Shaan Xi	CNY	6.3	0.3	(0.2)	3.6	(3.2)	(12.0)	(22.1)	(12.3)	984	14.0	13.0	-	-	-	-
Suntien	HKD	1.9	(0.5)	10.6	11.2	(1.1)	(12.6)	(8.7)	(16.4)	901	4.0	4.0	0.0	0.0	7.0	7.0
China Oil & Gas	HKD	0.2	2.2	2.6	(5.6)	(17.5)	(20.3)	(42.7)	(24.2)	175	-	-	-	-	-	-
Average			(0.1)	5.1	1.3	(7.8)	(13.8)	(11.8)	(15.4)							
EV																
LG화학	KRW	417,500	4.2	7.5	16.0	6.5	40.8	23.7	31.5	24,199	44.0	24.0	2.0	2.0	11.0	8.0
삼성SDI	KRW	370,500	1.2	3.2	33.8	17.6	65.4	62.1	57.0	20,919	47.0	26.0	2.0	2.0	17.0	13.0
Panasonic	JPY	974.1	0.2	(0.5)	23.3	(4.5)	(5.8)	13.2	(5.4)	21,931	17.0	11.0	1.0	1.0	6.0	5.0
GS Yuasa	JPY	1940.0	(0.4)	1.5	30.5	5.6	(14.9)	(2.4)	(18.0)	1,473	12.0	12.0	1.0	1.0	6.0	6.0
NEC	JPY	4925.0	3.8	1.9	20.3	16.6	9.9	27.8	9.0	11,772	16.0	13.0	1.0	1.0	7.0	6.0
CATL	CNY	150.0	1.0	1.5	3.9	4.4	73.0	124.3	41.0	46,558	65.0	51.0	7.0	7.0	32.0	25.0
GuoXuan	CNY	29.5	(5.3)	8.4	28.9	30.6	140.9	138.2	102.5	4,679	57.0	60.0	4.0	3.0	27.0	25.0
Wanxiang	CNY	5.1	3.9	4.3	2.6	(12.5)	(1.2)	(12.1)	(5.0)	1,975	-	-	-	-	-	-
BYD Auto	CNY	60.1	0.3	4.6	0.3	(9.7)	36.2	23.9	26.1	21,018	67.0	54.0	3.0	3.0	15.0	13.0
Tesla Motors	USD	864.4	(2.1)	7.3	13.6	15.3	159.6	346.5	106.6	160,352	234.0	73.0	16.0	12.0	46.0	27.0
Geely	CNY	11.5	0.3	(1.9)	(0.3)	(18.4)	(23.2)	(8.0)	(24.5)	13,670	11.0	9.0	2.0	1.0	7.0	6.0
NIO	CNY	6.0	6.6	55.9	78.7	54.3	146.7	96.4	48.5	6,641	-	-	-	-	-	-
Average			1.2	7.8	21.0	8.8	52.3	67.0	30.8							

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임