SK securities Happiness Partner

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

SKS Energy Daily

1. News Summary (3 page)

2016년 3월 14일

News		Conclusion
WTI comment	IEA의 유가바닥 전망에 상승	
Headline	[주간가격] 에틸렌 8개월래 최고치, 공급부족+SM 수요강세	성수기 진입과 T/A 시즌 감안할 때 당분간 가격상승세 지속 가능함
News 1.	[주간가격] polyester 계열 소폭 상승세 지속	성수기 진입과 T/A 시즌 감안할 때 당분간 가격상승세 지속 가능함
News 2.	[주간가격] 합성고무, 부타디엔 가격 상승분 반영하여 급등	타이어 수요약세 불구 부타디엔 상승세가 합성고무 급등으로 연결됨
News 3.	중동/북미 업체, 3~4월 PE 가격 일제히 상향 조정발표	현재의 가격상승세는 3~4월에도 이어질 것으로 전망됨
News 4.	LG화학/LG전자, GM으로부터 최우수협력사 '오버드라이브상' 수상	LG화학 뿐만 아니라 LG그룹 전반의 전기차 부품업체로서 위상 상승

2. Prices Summary (4~7 page)

Daily	Unit	Price	1D	1W	1M	3M	12M
Refinery			%	%	%	%	%
WTI	$/bbl	38.5	1.7	7.2	40.3	8.1	(18.2)
Dubai	$/bbl	36.4	0.3	13.1	38.8	0.5	(34.4)
Gasoline	$/bbl	54.3	0.2	11.9	35.2	(4.7)	(26.9)
Diesel	$/bbl	47.6	0.6	11.6	37.2	(3.7)	(33.5)
Complex margin	$/bbl	7.5	0.0	0.2	0.9	(2.5)	(3.4)
1M lagging	$/bbl	14.8	(0.5)	1.5	14.2	13.2	(5.9)
Petrochemical			%	%	%	%	%
Naphtha	$/t	371	(0.4)	8.3	26.8	(14.0)	(27.7)
Butadiene	$/t	1,080	7.5	7.5	35.0	57.7	30.9
HDPE	$/t	1,130	0.0	1.3	5.6	8.1	(8.1)
MEG	$/t	700	(2.1)	0.3	14.8	23.9	(14.9)
PX	$/t	772	0.3	2.2	9.4	1.9	(7.5)
SM	$/t	1,094	(0.6)	(1.4)	16.9	21.0	(2.8)
Commodity			%	%	%	%	%
Natural Gas	$/mmbtu	1.82	1.9	9.4	(10.2)	(16.9)	(40.6)
Natural rubber	$/t	1,260	(0.8)	(3.1)	20.0	10.5	(9.4)
Cotton	C/lbs	57.2	0.6	0.1	(2.5)	(11.4)	(9.9)

*참고: 정제마진의 변동률은 %가 아닌 $/bbl임

Weekly	Update	Unit	Price	1W	1M	3M	12M
Petrochemical				%	%	%	%
Ethylene	03/07	$/t	1,085	9.6	21.9	0.9	(1.8)
Propylene	03/07	$/t	655	3.1	0.8	6.5	(34.5)
Benzene	03/07	$/t	598	6.2	8.6	(3.2)	(9.8)
Toluene	03/07	$/t	620	5.1	6.0	(5.3)	(8.8)
Xylene	03/07	$/t	588	1.3	0.0	(13.0)	(13.0)
PP	03/07	$/t	895	1.7	6.5	1.1	(25.4)
PVC	03/07	$/t	755	1.3	4.1	5.6	(8.5)
ABS	03/07	$/t	1,215	5.2	8.5	8.7	(20.6)
SBR	03/07	$/t	1,250	1.6	4.6	13.1	0.8
SM	03/07	$/t	1,105	6.3	13.9	20.4	4.7
BPA	03/07	$/t	1,183	2.2	4.0	(18.2)	(40.7)
Caustic	03/07	$/t	285	(0.9)	(0.9)	(1.7)	2.7
2-EH	03/07	$/t	710	1.4	4.4	3.6	(33.3)
Caprolactam	03/07	$/t	1,150	0.0	3.6	(11.5)	(29.4)
Solar				%	%	%	%
Polysilicon	03/10	$/kg	13.8	1.0	6.7	1.8	(24.3)
Module	03/10	$/W	0.54	(0.5)	(1.4)	(2.5)	(8.1)

3. Global Peers Summary (8~9 page)

	Unit	Price	1D	1W	1M	3M	12M
E&P			%	%	%	%	%
ExxonMobil	USD	82.2	0.0	(0.1)	3.3	10.6	(2.2)
Shell	EUR	1,669	1.9	(0.5)	15.8	14.8	(13.8)
Petrochina	CNY	7.69	0.0	(1.7)	6.4	(7.3)	(28.5)
Gazprom	RUB	144.3	(1.8)	(1.3)	10.6	7.8	(1.2)
Petrobras	BRL	8.1	1.8	12.0	91.3	11.6	(8.0)
Refinery							
Phillips66	USD	86.4	1.2	0.8	18.6	4.4	15.9
Valero	USD	65.4	1.9	2.3	17.6	(3.2)	13.2
JX	JPY	457.8	(0.2)	(4.5)	3.3	(10.3)	(5.5)
Neste Oil	EUR	29.6	0.2	2.6	15.0	14.3	27.8

	Unit	Price	1D	1W	1M	3M	12M
Petrochemical			%	%	%	%	%
BASF	EUR	64.5	3.2	2.2	12.8	(5.9)	(28.4)
Dow Chemical	USD	50.6	3.0	0.7	13.0	(5.2)	8.2
SABIC	SAR	76.5	0.0	2.9	20.0	(12.6)	(17.4)
Formosa Pla.	TWD	79.0	0.0	(1.3)	4.9	9.7	7.5
Shin-Etsu	JPY	5,993	0.2	(1.0)	9.0	(12.0)	(25.0)
Renewable							
Wacker	EUR	76.1	2.1	(3.3)	29.5	3.0	(33.9)
Yingli	USD	4.91	6.7	7.9	31.6	(13.2)	(77.1)
Tesla	USD	207.5	1.1	3.2	37.9	(4.4)	7.1
BYD	CNY	51.3	(0.5)	(4.5)	2.4	(16.8)	2.5

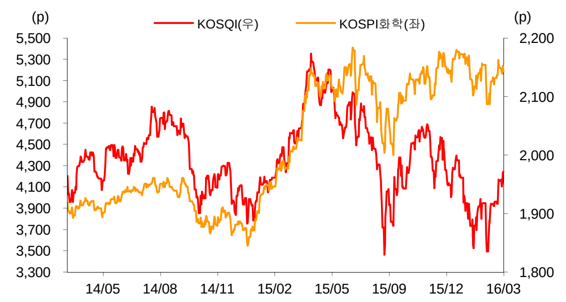
4. Coverage Summary

	03/11	1D	1W	1M	3M	6M	12M	투자의견	TP	%	P/E	P/B
KOSPI	1,971	0.1	0.8	2.8	1.2	0.5	(0.5)				* 추정치는 12M fwd 기준임	
KOSPI화학	5,184	(1.0)	(0.7)	(1.2)	(0.2)	9.3	21.5				* 모든 coverage 업체의 실적은 연결기준임	
LG화학	296,500	0.5	(0.5)	(1.5)	(9.2)	25.6	26.7	매수	380,000	28.2	14.40	1.64
롯데케미칼	315,500	(1.7)	0.6	9.7	37.2	23.5	59.7	매수	290,000	(8.1)	14.26	1.32
한화케미칼	24,050	0.2	(1.4)	(2.8)	(9.6)	30.7	51.7	매수	30,000	24.7	8.50	0.69
금호석유화학	61,100	0.3	2.9	8.1	9.9	12.1	(26.5)	매수	70,000	14.6	16.63	1.25
KCC	411,500	(1.1)	(2.6)	(5.6)	(7.0)	1.6	(23.8)	매수	550,000	33.7	14.22	0.64
OCI	93,500	(2.5)	(2.6)	35.5	26.5	15.6	(21.8)	매수	85,000	(9.1)	22.25	0.93
SKC	31,550	(2.5)	0.6	5.5	(7.6)	(14.5)	0.3	매수	43,000	36.3	9.82	0.80
국도화학	64,000	1.1	3.2	13.5	10.7	(11.7)	29.8	매수	100,000	56.3	7.92	0.77
SK이노베이션	154,500	(0.6)	3.3	8.8	21.2	55.1	61.8	매수	150,000	(2.9)	12.21	0.96
S-Oil	84,800	(1.7)	0.7	1.0	13.1	41.8	35.7	매수	85,000	0.2	13.76	1.58
GS	53,100	(1.1)	(2.0)	1.9	5.4	14.3	24.4	매수	60,000	13.0	5.49	0.88
SK가스	78,400	4.1	7.5	4.7	11.2	(5.7)	(14.5)	매수	90,000	14.8	9.81	0.70
대우인터내셔널	20,800	(3.0)	0.7	26.8	22.0	(4.4)	(24.5)	매수	22,000	5.8	11.52	0.99
LG상사	35,750	(0.1)	(2.1)	8.8	5.8	26.5	0.7	매수	40,000	11.9	13.75	1.00

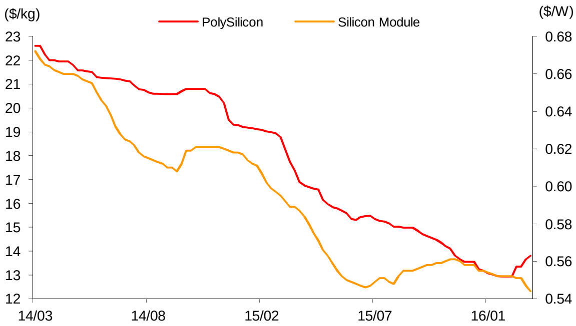
Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

Key Chart

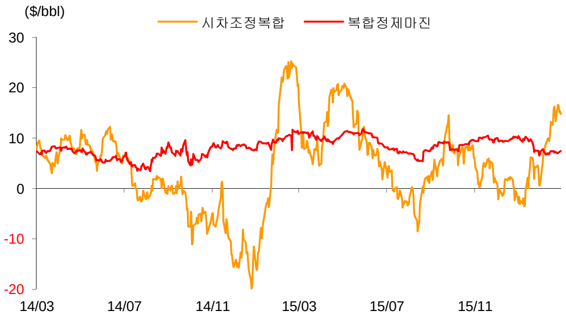
KOSPI/KOSPI화학



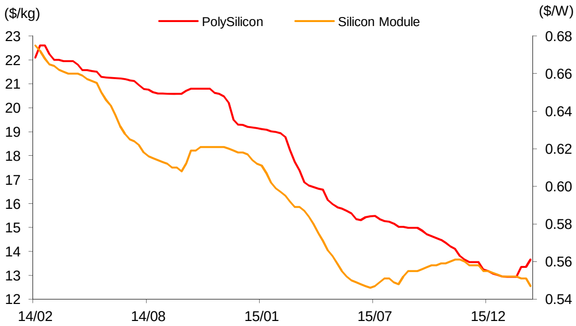
WTI/Dubai



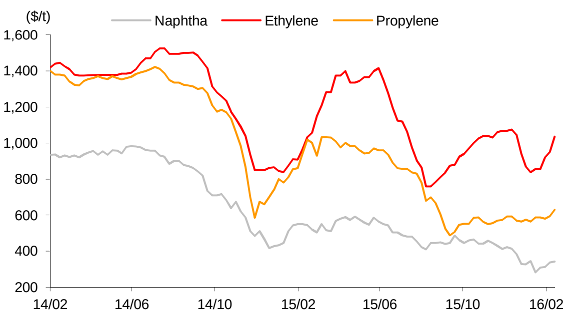
Complex & 1M lagging margin



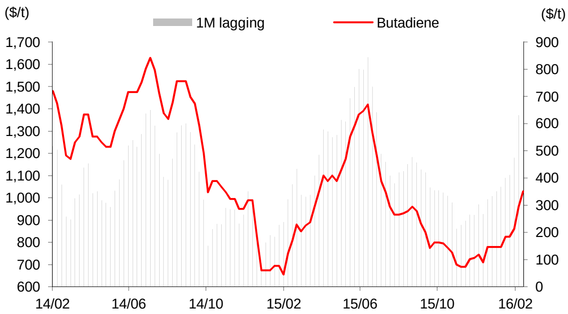
Polysilicon & Module prices



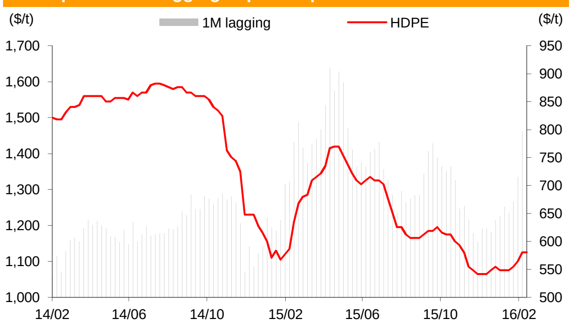
Naphtha/Ethylene/Propylene prices



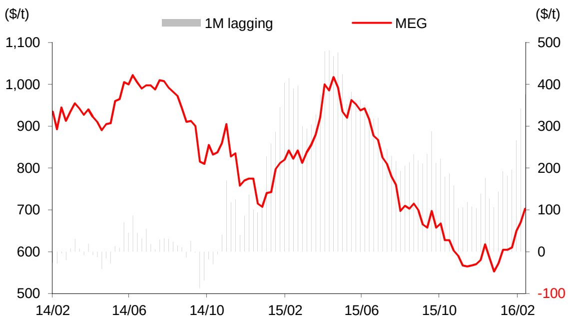
Butadiene price & 1M lagging naphtha spread



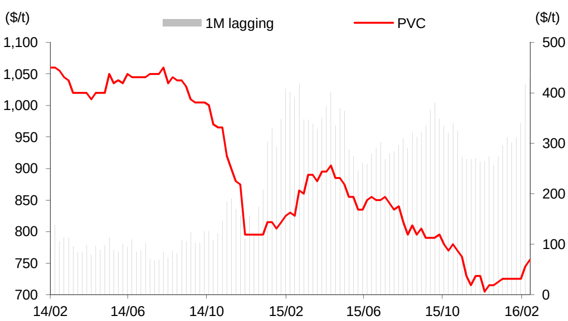
HDPE price & 1M lagging naphtha spread



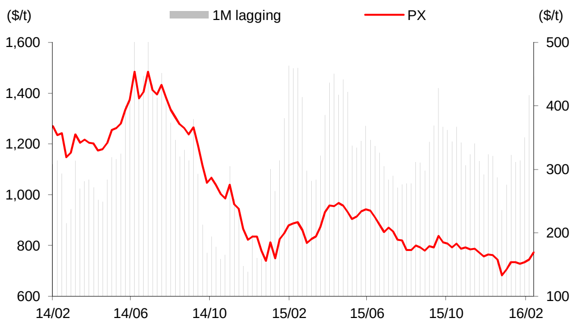
MEG price & 1M lagging naphtha spread



PVC price & 1M lagging naphtha spread



PX price & 1M lagging naphtha spread



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

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

News Comment

Headline (출처: Platts)

제목 [주간가격] 에틸렌 8개월래 최고치, 공급부족+SM 수요강세

결론 성수기 진입과 T/A 시즌 감안할 때 당분간 가격상승세 지속 가능함

세부

1) Ethylene $1,130/t(WoW +$40/t), Propylene $670/t(WoW +$55/t)
2) 에틸렌 8개월래 최고치, 공급부족과 SM 생산자들의 구매지속 때문
3) 북미 arbitrage 들어오고 있지만 충분하지는 않은 상황임
4) 프로필렌도 중국 산둥지역의 수요강세와 정기보수 이유로 상승세임
5) 성수기 진입과 T/A 시즌 감안할 때 당분간 가격상승세 지속 가능함

WTI Comment (출처: 연합뉴스)

제목 IEA의 유가바닥 전망에 상승

상승 요인 IEA, 미국과 OPEC 비회원의 산유량 감소로 유가상승 전망
미국 원유rig 전주대비 6개 감소한 386개

하락 요인

Issue 1 (출처: Platts)

제목 [주간가격] polyester 계열 소폭 상승세 지속

결론 성수기 진입과 T/A 시즌 감안할 때 당분간 가격상승세 지속 가능함

세부

1) MEG $700/t(WoW +$2/t), PX $771.5/t(+$16.7/t), PTA $598/t(WoW +$22/t)
2) MEG 상승폭 주춤, 일본 트레이더 "대다수 포지션 청산하고 이익실현"
3) 그러나 MEGlobal 등 아시아 다수 설비의 트러블/정기보수 요인은 지속
4) 중국 동부 MEG 재고 또한 전주대비 5만톤 하락한 65.4만톤
5) 성수기 진입과 T/A 시즌 감안할 때 당분간 가격상승세 지속 가능함

Issue 2 (출처: Platts)

제목 [주간가격] 합성고무, 부타디엔 가격 상승분 반영하여 급등

결론 타이어 수요약세 불구 부타디엔 상승세가 합성고무 급등으로 연결됨

세부

1) 부타디엔 $1,080/t(WoW +$75/t), SBR $1,395/t(WoW +$145/t)
2) 부타디엔 강세는 지속적으로 아시아 설비의 다수 정기보수 진행 때문
3) 합성고무 역시 원재료 부타디엔 강세와 동반하여 전주대비 급등 시현
4) 일부 합성고무 업체는 $1,500/t까지 인상할 계획을 지니고 있음
5) 타이어 수요약세 불구 부타디엔 상승세가 합성고무 급등으로 연결됨

Issue 3 (출처: Platts)

제목 중동/북미 업체, 3~4월 PE 가격 일제히 상향 조정발표

결론 현재의 가격상승세는 3~4월에도 이어질 것으로 전망됨

세부

1) ExxonMobil, 4월 PE 가격 전월대비 약 $90/t 상향 발표
2) 정확한 코멘트 없었지만, 미국 2월 재고는 수출/내수 호조로 감소했음
3) 중동의 사우디, UAE, 쿠웨이트 역시 전월대비 $50/t 내외를 상향 발표
4) PE 뿐만 아니라 PP, SM까지 포함해서 발표했었음
5) 현재의 가격상승세는 3~4월에도 이어질 것으로 전망됨

Issue 4 (출처: 각종언론)

제목 LG화학/LG전자, GM으로부터 최우수협력사 '오버드라이브상' 수상

결론 LG화학 뿐만 아니라 LG그룹 전반의 전기차 부품업체로서 위상 상승

세부

1) GM은 전세계 협력사 대상으로 2013년부터 오버드라이브상 선정
2) 금번 수상은 올 해부터 판매되는 200mile BEV 'Bolt' 영향으로 판단함
3) LG전자 VC 사업부 이우종 사장, "Bolt EV 상용화 위해 긴밀협력 결과."
4) "GM과 파트너쉽 공고히 해 미래 자동차 핵심부품개발사 될 것"
5) LG화학 뿐만 아니라 LG그룹 전반의 전기차 부품업체로서 위상 상승

Issue 5

제목

결론

세부

1)
2)
3)
4)
5)

Issue 6

제목

결론

세부

1)
2)
3)
4)
5)

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

Commodity Price Data

Daily Price		Today	1D	1W	1M	3M	6M	12M	YTD	2013avg.	2014avg.	2015acc.
F/X	**USD/EUR**	0.897	0.895	0.909	0.883	0.910	0.882	0.948	0.921	0.753	0.754	0.901
	Change, %		*0.3*	*(1.3)*	*1.6*	*(1.4)*	*1.7*	*(5.4)*	*(2.6)*	*(3.9)*	*13.7*	*(0.5)*
	USD/JPY	113.9	113.2	113.7	112.4	121.0	120.6	121.5	120.6	97.7	105.9	121.1
	Change, %		*0.6*	*0.1*	*1.3*	*(5.9)*	*(5.6)*	*(6.2)*	*(5.5)*	*21.5*	*13.8*	*(5.9)*
	USD/KRW	1,193.1	1,203.4	1,203.4	1,202.7	1,179.6	1,184.5	1,126.4	1,172.6	1,094.6	1,053.0	1,131.2
	Change, %		*(0.9)*	*(0.9)*	*(0.8)*	*1.1*	*0.7*	*5.9*	*1.8*	*50.3*	*3.3*	*5.5*
Agriculture	**Corn**	366.0	362.5	354.5	360.3	373.0	374.5	384.0	358.8	579.2	415.6	376.8
	Change, %		*1.0*	*3.2*	*1.6*	*(1.9)*	*(2.3)*	*(4.7)*	*2.0*	*(39.6)*	*(5.9)*	*(2.9)*
	Soybean	888.0	881.8	870.5	873.5	870.8	887.8	989.0	871.3	1,407.0	1,245.5	945.4
	Change, %		*0.7*	*2.0*	*1.7*	*2.0*	*0.0*	*(10.2)*	*1.9*	*(7.5)*	*(22.3)*	*(6.1)*
	Wheat	469.8	471.5	454.8	458.3	482.8	475.5	503.0	470.0	684.3	588.0	508.1
	Change, %		*(0.4)*	*3.3*	*2.5*	*(2.7)*	*(1.2)*	*(6.6)*	*(0.1)*	*(22.2)*	*(2.6)*	*(7.6)*
	Rice	10.1	10.1	10.3	11.0	11.1	12.6	10.5	11.6	15.5	14.0	11.1
	Change, %		*(0.1)*	*(1.7)*	*(8.4)*	*(8.7)*	*(19.9)*	*(3.9)*	*(12.7)*	*4.4*	*(25.9)*	*(8.7)*
	Oats	181.0	177.8	170.3	191.5	256.5	236.0	280.5	217.3	367.5	373.1	250.2
	Change, %		*1.8*	*6.3*	*(5.5)*	*(29.4)*	*(23.3)*	*(35.5)*	*(16.7)*	*1.9*	*(14.3)*	*(27.7)*
MYR/mt	**Palm Oil**	2,549.0	2,489.0	2,464.0	2,490.0	2,222.0	2,032.0	2,286.0	2,398.0	2,405.0	2,415.1	2,190.3
	Change, %		*2.4*	*3.4*	*2.4*	*14.7*	*25.4*	*11.5*	*6.3*	*13.3*	*(12.8)*	*16.4*
	Cocoa	3,031.0	3,031.0	3,001.0	2,766.0	3,348.0	3,248.0	2,940.0	3,211.0	2,403.9	3,006.8	3,091.6
	Change, %		*0.0*	*1.0*	*9.6*	*(9.5)*	*(6.7)*	*3.1*	*(5.6)*	*21.2*	*7.4*	*(2.0)*
	Cotton	57.2	56.8	58.9	58.4	63.7	64.1	60.3	63.3	83.3	76.4	63.3
	Change, %		*0.6*	*(3.0)*	*(2.2)*	*(10.3)*	*(10.8)*	*(5.3)*	*(9.7)*	*12.6*	*(28.8)*	*(9.7)*
	Sugar	15.1	14.8	14.8	13.1	14.6	11.7	13.1	15.2	17.5	16.3	13.1
	Change, %		*2.1*	*2.0*	*15.8*	*3.8*	*29.8*	*15.1*	*(0.7)*	*(15.9)*	*(11.5)*	*15.1*
	Coffee	124.4	120.6	118.8	113.0	118.1	113.4	128.4	126.7	126.0	177.1	132.6
	Change, %		*3.2*	*4.7*	*10.1*	*5.3*	*9.7*	*(3.1)*	*(1.8)*	*(23.0)*	*50.5*	*(6.2)*
Energy	**WTI**	38.5	37.8	35.9	26.2	35.6	44.6	48.2	37.0	98.0	92.9	48.8
	Change, %		*1.7*	*7.2*	*46.9*	*8.1*	*(13.7)*	*(20.1)*	*3.9*	*7.2*	*(45.9)*	*(21.2)*
	Brent	40.4	40.1	38.7	30.1	37.9	48.1	57.5	37.3	108.7	99.5	53.7
	Change, %		*0.8*	*4.3*	*34.4*	*6.5*	*(16.1)*	*(29.8)*	*8.3*	*(0.3)*	*(48.3)*	*(24.7)*
	Natural Gas	1.8	1.8	1.7	2.0	2.0	2.7	2.8	2.3	3.7	4.3	2.6
	Change, %		*1.9*	*9.4*	*(8.6)*	*(8.4)*	*(32.3)*	*(35.5)*	*(22.0)*	*26.2*	*(31.7)*	*(30.7)*
	Ethanol	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.4	2.3	2.1	1.5
	Change, %		*0.2*	*3.2*	*4.2*	*(1.7)*	*(4.0)*	*(4.1)*	*2.1*	*(12.7)*	*(14.9)*	*(5.3)*
	RBOB Gasoline	144.4	143.9	133.2	94.2	128.2	137.0	182.6	126.7	285.0	262.6	163.6
	Change, %		*0.4*	*8.4*	*53.4*	*12.7*	*5.4*	*(20.9)*	*14.0*	*(0.9)*	*(48.5)*	*(11.7)*
	Coal	43.5	43.5	43.6	43.1	43.1	42.5	52.5	43.3	56.1	57.5	45.2
	Change, %		*0.0*	*(0.1)*	*0.9*	*1.0*	*2.4*	*(17.1)*	*0.4*	*(1.0)*	*(15.5)*	*(3.7)*
Metal	**Gold**	1,250.7	1,272.3	1,259.3	1,246.7	1,074.7	1,107.8	1,155.3	1,061.4	1,410.4	1,266.5	1,160.6
	Change, %		*(1.7)*	*(0.7)*	*0.3*	*16.4*	*12.9*	*8.3*	*17.8*	*(28.0)*	*(1.3)*	*7.8*
	Silver	15.4	15.6	15.5	15.8	13.9	14.6	15.5	13.8	23.8	19.1	15.7
	Change, %		*(1.5)*	*(1.1)*	*(2.5)*	*10.4*	*5.1*	*(0.9)*	*11.2*	*(35.8)*	*(18.9)*	*(2.3)*
	Platinum	962.5	979.4	979.1	960.3	840.3	970.0	1,120.3	891.1	1,485.7	1,384.6	1,055.7
	Change, %		*(1.7)*	*(1.7)*	*0.2*	*14.5*	*(0.8)*	*(14.1)*	*8.0*	*(11.2)*	*(11.5)*	*(8.8)*
	Palladium	574.7	571.7	555.3	523.9	542.7	597.7	789.4	563.0	725.9	803.4	691.9
	Change, %		*0.5*	*3.5*	*9.7*	*5.9*	*(3.8)*	*(27.2)*	*2.1*	*1.7*	*11.4*	*(16.9)*
	Copper	4,970.0	4,890.0	5,027.5	4,445.0	4,703.0	5,370.0	5,730.0	4,705.0	7,352.6	6,828.1	5,503.1
	Change, %		*1.6*	*(1.1)*	*11.8*	*5.7*	*(7.4)*	*(13.3)*	*5.6*	*(7.2)*	*(14.4)*	*(9.7)*
	Uranium	28.5	28.5	31.4	34.2	36.2	37.3	39.4	34.4	38.5	33.5	36.9
	Change, %		*0.0*	*(9.2)*	*(16.5)*	*(21.2)*	*(23.5)*	*(27.7)*	*(17.2)*	*(20.9)*	*2.5*	*(22.7)*
	HR Coil	414.0	407.0	405.0	397.0	364.0	449.5	495.0	391.0	630.4	653.2	461.5
	Change, %		*1.7*	*2.2*	*4.3*	*13.7*	*(7.9)*	*(16.4)*	*5.9*	*3.1*	*(10.4)*	*(10.3)*
	Scrap	250.0	250.0	250.0	250.0	250.0	255.0	255.0	250.0	396.9	401.3	252.9
	Change, %		*0.0*	*0.0*	*0.0*	*0.0*	*(2.0)*	*(2.0)*	*0.0*	*(1.2)*	*(16.5)*	*(1.2)*
	Zinc	1,802.5	1,766.0	1,857.0	1,706.0	1,552.0	1,813.0	1,996.0	1,609.0	1,940.3	2,165.0	1,941.9
	Change, %		*2.1*	*(2.9)*	*5.7*	*16.1*	*(0.6)*	*(9.7)*	*12.0*	*(1.2)*	*6.0*	*(7.2)*

자료: Bloomberg
참고) NYMEX, ICE, LME 중 대표지수를 사용

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

Refining Price Data

Daily Price		03/11	1D	1W	1M	3M	6M	12M	YTD	2014avg.	2015avg.	2016acc.
Crude Oil	**WTI**	38.5	37.8	35.9	27.5	35.6	44.0	47.1	37.0	93.1	48.8	32.2
	Change, %		*1.7*	*7.2*	*40.3*	*8.1*	*(12.5)*	*(18.2)*	*3.9*	*(58.7)*	*(21.1)*	*19.7*
	Dubai	36.4	36.3	32.2	26.2	36.2	45.5	55.4	32.2	96.7	50.8	29.1
	Change, %		*0.3*	*13.1*	*38.8*	*0.5*	*(20.0)*	*(34.4)*	*13.0*	*(62.4)*	*(28.4)*	*25.2*
Crude Oil Product	**Gasoline(휘발유)**	54.3	54.2	48.6	40.2	57.0	64.2	74.3	54.8	110.9	69.5	48.5
	Change, %		*0.2*	*11.9*	*35.2*	*(4.7)*	*(15.3)*	*(26.9)*	*(0.8)*	*(51.0)*	*(21.8)*	*12.1*
	Kerosene(등유)	49.1	48.8	44.6	37.1	49.7	58.2	71.2	44.2	112.6	64.7	40.7
	Change, %		*0.6*	*10.2*	*32.3*	*(1.1)*	*(15.6)*	*(31.0)*	*11.1*	*(56.4)*	*(24.2)*	*20.6*
	Diesel(경유)	47.6	47.3	42.6	34.7	49.4	59.0	71.6	43.2	112.8	64.8	38.7
	Change, %		*0.6*	*11.6*	*37.2*	*(3.7)*	*(19.4)*	*(33.5)*	*10.0*	*(57.8)*	*(26.6)*	*22.8*
	Bunker-C	27.9	27.8	25.1	22.1	29.3	35.8	52.8	25.3	86.5	45.3	23.9
	Change, %		*0.3*	*11.2*	*26.1*	*(4.8)*	*(22.2)*	*(47.2)*	*10.2*	*(67.8)*	*(38.4)*	*16.5*
	Naphtha	38.3	38.2	36.5	31.0	45.9	46.0	57.8	43.5	94.3	52.6	35.8
	Change, %		*0.2*	*5.0*	*23.4*	*(16.7)*	*(16.8)*	*(33.8)*	*(11.9)*	*(59.4)*	*(27.3)*	*6.9*
Dubai Spread	**Gasoline(휘발유)**	18.0	18.0	16.4	14.0	20.8	18.7	18.9	22.6	14.2	18.7	19.4
	Change		*(0.0)*	*1.6*	*4.0*	*(2.8)*	*(0.7)*	*(0.9)*	*(4.6)*	*3.7*	*(0.8)*	*(1.4)*
	Kerosene(등유)	12.7	12.6	12.4	10.9	13.5	12.7	15.8	12.0	15.9	14.0	11.6
	Change		*0.2*	*0.3*	*1.8*	*(0.7)*	*0.0*	*(3.0)*	*0.7*	*(3.2)*	*(1.2)*	*1.1*
	Diesel(경유)	11.2	11.0	10.5	8.5	13.2	13.6	16.2	11.0	16.0	14.0	9.7
	Change		*0.2*	*0.7*	*2.7*	*(2.0)*	*(2.4)*	*(5.0)*	*0.2*	*(4.9)*	*(2.8)*	*1.5*
	Bunker-C	(8.5)	(8.5)	(7.1)	(4.1)	(6.9)	(9.7)	(2.6)	(6.9)	(10.3)	(5.5)	(5.1)
	Change		*(0.0)*	*(1.4)*	*(4.4)*	*(1.6)*	*1.1*	*(5.9)*	*(1.6)*	*1.8*	*(3.0)*	*(3.4)*
	Naphtha	1.9	2.0	4.3	4.8	9.7	0.5	2.4	11.3	(2.4)	1.8	6.8
	Change		*(0.1)*	*(2.4)*	*(2.9)*	*(7.8)*	*1.4*	*(0.5)*	*(9.4)*	*4.3*	*0.1*	*(4.9)*
Refining Margin	**Simple(단순)**	1.4	1.4	1.9	2.5	3.4	1.2	5.3	3.2	(0.1)	3.3	3.1
	Change		*0.0*	*(0.5)*	*(1.1)*	*(2.0)*	*0.2*	*(3.9)*	*(1.8)*	*1.5*	*(1.9)*	*(1.7)*
	Complex(복합)	7.5	7.4	7.3	6.6	9.9	8.1	10.9	9.7	7.1	9.3	8.4
	Change		*0.0*	*0.2*	*0.9*	*(2.5)*	*(0.7)*	*(3.4)*	*(2.2)*	*0.4*	*(1.8)*	*(0.9)*
	Complex(lagging)	14.8	15.3	13.3	0.6	1.6	3.4	20.7	2.3	2.2	6.5	5.2
	Change		*(0.5)*	*1.5*	*14.2*	*13.2*	*11.4*	*(5.9)*	*12.5*	*12.6*	*8.3*	*9.6*

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

SK securities Happiness Partner | **SKS Energy Daily**

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

Petrochemical Price Data

Daily Price			03/11	03/10	03/09	03/08	03/07	03/04	03/03	03/02	03/01	02/29
Spot Price	**Naphtha**	CFR Japan	370.5	372.0	353.0	357.5	354.0	342.3	348.5	344.8	326.5	326.5
	Ethylene	CFR SE Asia	1,130.0	1,090.0	1,090.0	1,090.0	1,090.0	1,090.0	1,015.0	1,015.0	1,015.0	1,010.0
	Propylene	FOB Korea	670.0	630.0	620.0	620.0	615.0	615.0	615.0	610.0	610.0	605.0
	Butadiene	FOB Korea	1,080.0	1,005.0	1,005.0	1,005.0	1,005.0	1,005.0	1,005.0	965.0	965.0	965.0
	HDPE	CFR FE Asia	1,130.0	1,130.0	1,130.0	1,120.0	1,115.0	1,115.0	1,110.0	1,110.0	1,115.0	1,115.0
	LDPE	CFR FE Asia	1,160.0	1,160.0	1,160.0	1,160.0	1,130.0	1,130.0	1,125.0	1,125.0	1,125.0	1,135.0
	LLDPE	CFR FE Asia	1,110.0	1,110.0	1,110.0	1,110.0	1,105.0	1,105.0	1,100.0	1,100.0	1,100.0	1,100.0
	MEG	CFR China	700.0	715.0	735.0	738.0	740.0	698.0	680.0	685.0	684.0	676.0
	PP	CFR FE Asia	905.0	910.0	905.0	910.0	900.0	880.0	890.0	870.0	860.0	860.0
	PX	CFR China	771.5	769.0	773.3	778.5	777.3	754.8	749.3	745.3	740.2	722.0
	PTA	CFR China	598.0	595.0	595.0	590.0	590.0	576.0	577.0	575.0	571.0	563.0
	Benzene	FOB Korea	637.0	644.0	655.0	673.0	651.0	622.0	619.0	600.0	580.0	562.0
	Toluene	FOB Korea	624.0	614.0	615.0	645.0	644.0	620.0	616.0	602.5	584.0	570.5
	Xylene	FOB Korea	632.0	629.0	629.0	646.0	636.0	615.5	615.5	610.5	610.5	589.5
	SM	FOB Korea	1,094.0	1,101.0	1,114.0	1,116.0	1,128.0	1,110.0	1,096.0	1,061.0	1,041.0	1,021.5

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2014avg.	2015avg.	2016acc.
Spot Price	**Naphtha**	CFR Japan	343.5	338.0	283.5	446.5	465.5	544.5	413.5	865.9	493.0	338.5
	Change, %			*1.6*	*21.2*	*(23.1)*	*(26.2)*	*(36.9)*	*(16.9)*	*(60.3)*	*(30.3)*	*1.5*
	Ethylene	CFR SE Asia	1,085.0	990.0	890.0	1,075.0	1,065.0	1,105.0	1,090.0	1,401.1	1,103.7	980.0
	Change, %			*9.6*	*21.9*	*0.9*	*1.9*	*(1.8)*	*(0.5)*	*(22.6)*	*(1.7)*	*10.7*
	Propylene	CFR SE Asia	655.0	635.0	650.0	615.0	615.0	1,000.0	650.0	1,254.2	770.0	584.8
	Change, %			*3.1*	*0.8*	*6.5*	*6.5*	*(34.5)*	*0.8*	*(47.8)*	*(14.9)*	*12.0*
	Butadiene	CFR SE Asia	990.0	920.0	785.0	640.0	725.0	760.0	720.0	1,281.7	877.5	798.0
	Change, %			*7.6*	*26.1*	*54.7*	*36.6*	*30.3*	*37.5*	*(22.8)*	*12.8*	*24.1*
	Benzene	CFR SE Asia	597.5	562.5	550.0	617.5	620.0	662.5	580.0	1,243.1	690.0	559.3
	Change, %			*6.2*	*8.6*	*(3.2)*	*(3.6)*	*(9.8)*	*3.0*	*(51.9)*	*(13.4)*	*6.8*
	Toluene	CFR SE Asia	620.0	590.0	585.0	655.0	690.0	680.0	630.0	1,082.5	700.8	595.5
	Change, %			*5.1*	*6.0*	*(5.3)*	*(10.1)*	*(8.8)*	*(1.6)*	*(42.7)*	*(11.5)*	*4.1*
	Xylene	CFR SE Asia	587.5	580.0	587.5	675.0	695.0	675.0	625.0	1,055.7	699.3	593.5
	Change, %			*1.3*	*0.0*	*(13.0)*	*(15.5)*	*(13.0)*	*(6.0)*	*(44.4)*	*(16.0)*	*(1.0)*
Spread	**Ethylene**	-Naphtha	741.5	652.0	606.5	628.5	599.5	560.5	676.5	535.2	610.6	641.5
	Change, %			*13.7*	*22.3*	*18.0*	*23.7*	*32.3*	*9.6*	*38.5*	*21.4*	*15.6*
	Propylene	-Naphtha	311.5	297.0	366.5	168.5	149.5	455.5	236.5	388.3	277.0	246.3
	Change, %			*4.9*	*(15.0)*	*84.9*	*108.4*	*(31.6)*	*31.7*	*(19.8)*	*12.5*	*26.5*
	Butadiene	-Naphtha	646.5	582.0	501.5	193.5	259.5	215.5	306.5	415.9	384.5	459.5
	Change, %			*11.1*	*28.9*	*234.1*	*149.1*	*200.0*	*110.9*	*55.5*	*68.2*	*40.7*
	Benzene	-Naphtha	254.0	224.5	266.5	171.0	154.5	118.0	166.5	377.3	197.0	220.8
	Change, %			*13.1*	*(4.7)*	*48.5*	*64.4*	*115.3*	*52.6*	*(32.7)*	*28.9*	*15.1*
	Toluene	-Naphtha	276.5	252.0	301.5	208.5	224.5	135.5	216.5	216.6	207.8	257.0
	Change, %			*9.7*	*(8.3)*	*32.6*	*23.2*	*104.1*	*27.7*	*27.6*	*33.1*	*7.6*
	Xylene	-Naphtha	244.0	242.0	304.0	228.5	229.5	130.5	211.5	189.9	206.3	255.0
	Change, %			*0.8*	*(19.7)*	*6.8*	*6.3*	*87.0*	*15.4*	*28.5*	*18.3*	*(4.3)*

자료 : Cischem, Platts, Bloomberg, SK증권
참고 : Spread는 Polymer와 Naphtha의 가격차이임

SK securities Happiness Partner

SKS Energy Daily

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2014avg.	2015avg.	2016acc.
Spot Price	**HDPE**	CFR SE Asia	1,125.0	1,125.0	1,075.0	1,085.0	1,175.0	1,210.0	1,065.0	1,524.9	1,230.1	1,088.5
	Change, %			0.0	4.7	3.7	(4.3)	(7.0)	5.6	(26.2)	(8.5)	3.4
	MEG	CFR SE Asia	702.5	670.0	605.0	565.0	627.5	822.5	617.5	934.1	780.8	617.0
	Change, %			4.9	16.1	24.3	12.0	(14.6)	13.8	(24.8)	(10.0)	13.9
	PVC	CFR SE Asia	755.0	745.0	725.0	715.0	780.0	825.0	715.0	1,013.9	820.8	727.5
	Change, %			1.3	4.1	5.6	(3.2)	(8.5)	5.6	(25.5)	(8.0)	3.8
	PP	CFR SE Asia	895.0	880.0	840.0	885.0	975.0	1,200.0	835.0	1,503.0	1,109.8	846.5
	Change, %			1.7	6.5	1.1	(8.2)	(25.4)	7.2	(40.5)	(19.4)	5.7
	2-EH	CFR Korea	710.0	700.0	680.0	685.0	725.0	1,065.0	680.0	1,397.1	930.1	688.5
	Change, %			1.4	4.4	3.6	(2.1)	(33.3)	4.4	(49.2)	(23.7)	3.1
	ABS	CFR SE Asia	1,215.0	1,155.0	1,120.0	1,117.5	1,245.0	1,530.0	1,130.0	1,897.7	1,431.1	1,134.0
	Change, %			5.2	8.5	8.7	(2.4)	(20.6)	7.5	(36.0)	(15.1)	7.1
	SBR	CFR SE Asia	1,250.0	1,230.0	1,195.0	1,105.0	1,175.0	1,240.0	1,150.0		1,332.1	1,204.5
	Change, %			1.6	4.6	13.1	6.4	0.8	8.7		(6.2)	3.8
	SM	CFR SE Asia	1,105.0	1,040.0	970.0	917.5	947.5	1,055.0	910.0	1,547.1	1,100.7	973.0
	Change, %			6.3	13.9	20.4	16.6	4.7	21.4	(28.6)	0.4	13.6
	Caustic	FOB NEA	285.0	287.5	287.5	290.0	300.0	277.5	285.0	310.0	296.8	286.5
	Change, %			(0.9)	(0.9)	(1.7)	(5.0)	2.7	0.0	(8.1)	(4.0)	(0.5)
	PX	CFR SE Asia	772.5	745.0	735.0	787.5	807.5	892.5	762.5	1,228.5	842.9	734.5
	Change, %			3.7	5.1	(1.9)	(4.3)	(13.4)	1.3	(37.1)	(8.3)	5.2
	PO	CFR China	1,182.5	1,157.5	1,137.5	1,445.0	1,545.0	1,992.5	1,257.5	2,179.2	1,683.4	1,149.5
	Change, %			2.2	4.0	(18.2)	(23.5)	(40.7)	(6.0)	(45.7)	(29.8)	2.9
	Caprolactam	CFR SE Asia	1,150.0	1,150.0	1,110.0	1,300.0	1,360.0	1,630.0	1,260.0	2,233.4	1,581.5	1,188.0
	Change, %			0.0	3.6	(11.5)	(15.4)	(29.4)	(8.7)	(48.5)	(27.3)	(3.2)
	PTA	CFR SE Asia	585.0	580.0	580.0	620.0	625.0	662.5	585.0	911.7	648.0	575.3
	Change, %			0.9	0.9	(5.6)	(6.4)	(11.7)	0.0	(35.8)	(9.7)	1.7
Spread	**HDPE**		781.5	787.0	791.5	638.5	709.5	665.5	651.5	659.0	737.1	750.0
	Change, %			(0.7)	(1.3)	22.4	10.1	17.4	20.0	18.6	6.0	4.2
	MEG		359.0	332.0	321.5	118.5	162.0	278.0	204.0	68.2	287.8	278.5
	Change, %			8.1	11.7	203.0	121.6	29.1	76.0	426.1	24.7	28.9
	PVC		411.5	407.0	441.5	268.5	314.5	280.5	301.5	148.0	327.8	389.0
	Change, %			1.1	(6.8)	53.3	30.8	46.7	36.5	178.0	25.5	5.8
	PP		551.5	542.0	556.5	438.5	509.5	655.5	421.5	637.1	616.8	508.0
	Change, %			1.8	(0.9)	25.8	8.2	(15.9)	30.8	(13.4)	(10.6)	8.6
	2-EH		366.5	362.0	396.5	238.5	259.5	520.5	266.5	531.3	437.0	350.0
	Change, %			1.2	(7.6)	53.7	41.2	(29.6)	37.5	(31.0)	(16.1)	4.7
	ABS		871.5	817.0	836.5	671.0	779.5	985.5	716.5	1,031.9	938.1	795.5
	Change, %			6.7	4.2	29.9	11.8	(11.6)	21.6	(15.5)	(7.1)	9.6
	SBR	BD spread	260.0	310.0	410.0	465.0	450.0	480.0	430.0		454.7	406.5
	Change, %			(16.1)	(36.6)	(44.1)	(42.2)	(45.8)	(39.5)		(42.8)	(36.0)
	SM		761.5	702.0	686.5	471.0	482.0	510.5	496.5	681.2	607.7	634.5
	Change, %			8.5	10.9	61.7	58.0	49.2	53.4	11.8	25.3	20.0
	Caustic											
	Change, %											
	PX		429.0	407.0	451.5	341.0	342.0	348.0	349.0	362.6	349.9	396.0
	Change, %			5.4	(5.0)	25.8	25.4	23.3	22.9	18.3	22.6	8.3
	PO	propylene sprea	527.5	522.5	487.5	830.0	930.0	992.5	607.5	925.0	913.4	564.8
	Change, %			1.0	8.2	(36.4)	(43.3)	(46.9)	(13.2)	(43.0)	(42.2)	(6.6)
	Caprolactam	benzene sprea	552.5	587.5	560.0	682.5	740.0	967.5	680.0	990.3	891.6	628.8
	Change, %			(6.0)	(1.3)	(19.0)	(25.3)	(42.9)	(18.8)	(44.2)	(38.0)	(12.1)
	PTA	px spread	44.3	58.5	65.5	68.8	59.8	37.8	51.3	51.8	58.0	61.1
	Change, %			(24.4)	(32.4)	(35.6)	(25.9)	17.2	(13.7)	(14.5)	(23.7)	(27.6)

자료 : Cischem, Platts, SK증권

참고 : Spread는 Naphtha spread로 일괄적용

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

Global peers

	Currency	03/11	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER 15	PER 16E	PBR 15	PBR 16E	EV/EBITDA 15	EV/EBITDA 16E
Petrochemical																
Dow Chemical	USD	50.6	3.0	0.7	13.0	(5.2)	15.6	8.2	(1.7)	56,548	14.6	12.7	2.3	2.3	7.7	7.0
Du Pont	USD	63.8	2.7	1.0	12.7	(9.4)	31.8	(15.3)	(4.2)	55,639	21.1	18.2	6.0	4.9	11.6	10.3
Eastman	USD	71.4	2.9	2.5	22.2	5.8	2.2	1.5	5.8	10,555	10.2	9.2	2.3	2.0	7.9	7.5
BASF	EUR	64.5	3.2	2.2	12.8	(5.9)	(7.8)	(28.4)	(8.8)	66,099	14.4	12.9	1.9	1.8	7.3	6.8
Akzo Nobel	EUR	56.3	2.5	1.2	12.0	(8.2)	(5.4)	(18.1)	(8.8)	15,624	13.5	12.8	2.1	2.0	7.2	6.9
Arkema	EUR	63.7	3.5	2.0	30.6	2.8	3.7	(13.6)	(1.3)	5,296	12.9	10.9	1.3	1.2	5.6	5.2
Lanxess	EUR	41.6	2.6	0.3	24.6	(2.2)	(7.5)	(14.9)	(2.6)	4,243	15.5	12.7	1.5	1.4	5.5	5.0
Sumitomo Chemical	JPY	492	(0.8)	(5.0)	0.0	(28.3)	(20.6)	(15.6)	(29.8)	7,162	8.7	7.6	0.9	0.8	6.7	6.2
Mitsubishi Chemical	JPY	609	0.5	(3.1)	1.5	(21.1)	(7.3)	(13.3)	(21.3)	8,066	9.6	8.5	0.8	0.8	5.8	5.5
Shin-Etsu Chemical	JPY	5,993	0.2	(1.0)	9.0	(12.0)	(4.6)	(25.0)	(9.4)	22,770	16.9	15.6	1.2	1.1	5.9	5.4
Asahi Kasei	JPY	677	1.3	(2.3)	(3.1)	(16.3)	(26.1)	(44.7)	(17.8)	8,347	9.7	8.7	0.8	0.7	4.9	4.7
JSR	JPY	1,762	2.0	2.6	12.0	(4.9)	(2.3)	(15.9)	(7.2)	3,503	13.0	12.1	1.0	1.0	5.3	5.1
Nitto Denko	JPY	6,900	2.7	3.1	20.6	(21.7)	(5.4)	(7.1)	(22.6)	10,542	13.6	13.0	1.6	1.5	5.9	5.7
SABIC	SAR	76.5	0.0	2.9	20.0	(12.6)	(5.4)	(17.4)	(0.1)	61,153	15.6	13.1	1.3	1.3	7.4	6.6
Yansab	SAR	38.3	0.0	4.5	44.0	(5.4)	(12.2)	(23.6)	18.3	5,750	17.3	13.4	1.4	1.4	8.8	8.1
Formosa Plastics	TWD	79.0	0.0	(1.3)	4.9	9.7	12.5	7.5	2.6	15,422	16.5	15.5	1.6	1.5	24.8	23.8
Formosa Fiber	TWD	78.0	1.0	1.2	10.6	15.2	13.0	13.9	5.4	14,020	17.6	17.1	1.5	1.4	14.7	14.4
Nan Ya Plastics	TWD	65.8	0.0	(0.3)	11.9	15.8	12.1	(1.9)	7.9	16,003	15.5	14.8	1.5	1.4	15.2	14.0
Sinopec Shanghai	CNY	6.07	0.2	(4.4)	10.8	(1.5)	(10.5)	21.6	(6.3)	8,485	18.9	19.1	3.0	2.7	9.1	8.8
Sinopec Yizheng(Fibe	CNY	4.82	(4.0)	(14.8)	(23.7)	(39.8)	(30.8)	(31.6)	(40.9)	9,437	#N/A N/A	130.3	2.9	2.8	16.5	13.1
Reliance	INR	1,015	0.3	0.8	9.7	6.5	17.8	18.5	(0.1)	49,100	11.1	9.8	1.2	1.1	8.4	7.1
Industries Qatar	QAR	109.4	0.0	1.7	9.5	6.5	(19.0)	(24.7)	(1.5)	18,175	13.6	12.8	1.9	1.9	54.7	50.7
PTT Chemical	THB	59.5	1.7	6.7	19.0	22.1	7.7	11.2	19.0	7,570	10.7	9.7	1.0	1.0	5.6	5.2
Petronas	MYR	6.8	(1.2)	(3.3)	(3.0)	1.0	11.6	32.6	(7.2)	13,261	18.6	17.2	2.1	2.0	9.3	8.5
LG화학	KRW	296,500	0.5	(0.5)	3.7	(9.2)	28.6	26.7	(9.7)	16,578	0.0	14.7	0.0	1.5	0.0	6.0
롯데케미칼	KRW	315,500	(1.7)	0.6	12.7	37.2	20.7	59.7	29.6	9,124	0.0	8.8	0.0	1.3	0.0	4.7
한화케미칼	KRW	24,050	0.2	(1.4)	(1.4)	(9.6)	32.5	51.7	(11.6)	3,286	0.0	9.8	0.0	0.8	0.0	8.6
금호석유	KRW	61,100	0.3	2.9	14.6	9.9	13.8	(26.5)	17.3	1,571	0.0	15.3	0.0	1.2	0.0	9.7
SKC	KRW	31,550	(2.5)	0.6	8.4	(7.6)	(15.1)	0.3	(6.7)	979	0.0	9.0	0.0	0.8	0.0	7.2
국도화학	KRW	64,000	1.1	3.2	18.7	10.7	(8.8)	29.8	7.9	314	0.0	7.6	0.0	0.8	0.0	4.7
효성	KRW	3,005	0.3	2.2	20.7	11.9	13.6	(24.2)	15.1	4,163	0.0	9.4	0.0	1.4	0.0	7.0
Average			**0.7**	**0.2**	**11.6**	**(2.1)**	**1.6**	**(2.5)**	**(2.9)**							
Refinery																
Valero	USD	65.4	1.9	2.3	17.6	(3.2)	3.9	13.2	(7.6)	30,750	9.1	8.7	1.4	1.2	4.8	4.8
Conoco Phillips	USD	40.5	3.8	(1.5)	27.1	(15.8)	(14.4)	(33.9)	(13.2)	50,091	#N/A N/A	70.8	1.3	1.3	11.3	6.6
Formosa Petrochemi	TWD	87.6	0.6	0.0	9.0	19.2	18.1	30.6	11.2	25,590	19.5	18.9	3.0	2.9	13.0	13.1
Tesoro	USD	88.9	3.2	4.8	23.4	(11.7)	(7.0)	2.5	(15.7)	10,653	10.4	11.1	1.7	1.6	5.7	5.9
Marathon Petroleum	USD	37.7	3.8	1.8	22.3	(24.0)	(21.2)	(22.1)	(27.2)	19,962	8.7	8.1	1.5	1.3	6.1	5.7
Devon Energy	USD	24.8	10.2	6.3	16.6	(26.1)	(36.2)	(57.2)	(22.6)	12,645	#N/A N/A	34.0	1.4	1.4	12.6	7.9
Hollyfrontier	USD	36.3	2.4	3.9	21.1	(16.7)	(24.6)	(6.7)	(9.1)	6,399	11.9	9.5	1.2	1.1	5.9	5.5
Phillips 66	USD	86.4	1.2	0.8	18.6	4.4	7.2	15.9	5.7	45,588	13.4	11.5	1.9	1.7	7.7	6.9
Murphy Oil	USD	23.7	3.3	0.0	48.5	5.0	(11.5)	(49.8)	5.6	4,079	#N/A N/A	#N/A N/A	0.7	0.7	8.2	5.4
JX Holdings	JPY	457.8	(0.2)	(4.5)	3.3	(10.3)	1.5	(5.5)	(10.0)	10,045	8.5	7.8	0.7	0.6	10.2	9.7
Cosmo Oil	JPY	164.0	0.0	0.0	0.0	0.0	(6.3)	(3.5)	0.0	1,151	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
Idemitsu	JPY	1,901.0	1.8	0.6	11.7	(6.0)	(1.6)	(11.2)	(1.9)	2,674	5.8	5.5	0.5	0.5	8.0	8.0
Tonengeneral	JPY	939.0	4.6	0.6	0.5	(17.6)	(20.1)	(17.2)	(8.1)	3,022	10.5	8.6	1.4	1.3	12.4	7.0
Nesteoil	EUR	29.6	0.2	2.6	15.0	14.3	22.7	27.8	7.1	0	11.1	12.2	2.1	2.0	7.1	7.6
Ashland	USD	101.4	2.9	0.6	13.6	(3.1)	(4.0)	(18.5)	(1.3)	6,408	14.2	12.8	2.5	2.2	8.5	8.2
Fuchs Petrolub	EUR	39.2	4.2	2.1	15.2	(6.5)	(0.8)	3.2	(10.0)	5,719	21.2	20.1	4.6	4.1	12.4	11.8
SK이노베이션	KRW	154,500	(0.6)	3.3	17.0	21.2	58.5	61.8	18.8	12,053	0.0	9.7	0.0	0.9	0.0	6.0
S-Oil	KRW	84,800	(1.7)	0.7	10.4	13.1	42.8	35.7	6.8	8,055	0.0	10.4	0.0	1.6	0.0	7.0
GS	KRW	53,100	(1.1)	(2.0)	4.9	5.4	14.1	24.4	4.7	4,163	0.0	7.5	0.0	0.7	0.0	6.7
Average			**2.1**	**1.2**	**15.6**	**(3.1)**	**1.1**	**(0.6)**	**(3.5)**							

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임
* 국내업체의 multiple은 Dataguidepro 기준임

Analyst 손 지 우
T. 3773-8827
E. jwshon@sk.com

Global peers

	Currency	03/11	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER 15	PER 16E	PBR 15	PBR 16E	EV/EBITDA 15	EV/EBITDA 16E
E&P/Shale																
Exxon Mobil	USD	82	0.0	(0.1)	3.3	10.6	13.1	(2.2)	5.4	341,315	32.9	19.4	2.0	2.0	10.9	8.0
BP	GBP	348	1.5	(5.3)	12.3	3.1	4.5	(18.1)	(1.6)	92,762	26.8	12.6	1.0	1.0	5.4	4.3
Shell	EUR	1,669	1.9	(0.5)	15.8	14.8	3.5	(13.8)	9.4	191,635	20.1	11.9	0.9	0.9	5.9	4.4
Chevron	USD	95	0.7	7.6	14.0	9.4	24.8	(8.7)	5.1	178,109	64.9	19.4	1.2	1.2	8.3	5.8
Total	EUR	42	3.8	(0.8)	19.9	1.3	6.7	(6.9)	2.6	115,941	16.1	11.6	1.2	1.2	7.0	5.4
Sinopec	CNY	5	0.7	(2.3)	5.5	(5.2)	(8.8)	(24.4)	(7.7)	83,838	17.0	11.1	0.8	0.8	5.4	4.6
Petrochina	CNY	8	0.0	(1.7)	6.4	(7.3)	(12.7)	(28.5)	(7.9)	206,959	57.0	25.0	1.2	1.1	7.8	6.7
CNOOC	CNY	13	0.7	(5.1)	(0.5)	(19.3)	(24.6)	(33.4)	(18.6)	7,273	50.2	26.5	1.3	1.2	12.6	10.7
Gazprom	RUB	144	(1.8)	(1.3)	10.6	7.8	1.3	(1.2)	6.0	48,904	3.1	2.8	0.3	0.2	3.3	2.9
Rosneft	RUB	302	0.0	(0.2)	13.9	23.2	22.7	19.9	19.1	45,759	8.2	5.5	0.8	0.7	3.9	3.3
Anadarko	USD	46	8.9	2.3	29.7	(6.6)	(29.5)	(41.8)	(4.7)	23,536	#N/A N/A	#N/A N/A	1.8	2.0	11.8	7.8
Petrobras	BRL	8	1.8	12.0	91.3	11.6	5.6	(8.0)	20.7	33,301	14.3	5.4	0.4	0.4	6.3	5.3
Lukoil	USD	2,669	(0.9)	(3.8)	11.6	8.9	7.3	(2.1)	13.8	32,321	7.9	5.2	0.3	0.3	N/A	N/A
Kinder	USD	19	5.1	0.5	33.4	11.8	(38.1)	(53.2)	24.8	47,497	26.7	22.5	1.1	1.1	11.1	10.3
Statoil	NOK	130	(0.8)	(3.2)	17.2	7.0	10.4	(5.4)	4.7	49,027	32.6	15.2	1.2	1.2	3.5	2.8
BHP	AUD	18	(0.5)	(0.3)	15.6	2.4	(25.7)	(37.9)	(1.4)	67,550	38.1	19.3	1.3	1.3	7.9	6.3
PTT E&P	THB	77	2.0	5.5	41.7	36.6	2.3	(29.5)	33.6	8,663	27.6	16.6	0.8	0.7	3.0	2.7
Petronas gas	MYR	22	0.0	(0.2)	0.0	(1.8)	3.9	(0.9)	(1.9)	10,826	24.0	23.5	3.7	3.5	13.8	13.4
Chesapeake	USD	5	2.0	(7.5)	164.0	13.0	(37.9)	(67.1)	4.4	3,125	#N/A N/A	18.3	2.0	2.1	14.7	9.9
Noble Energy	USD	34	4.9	3.4	20.2	2.8	7.5	(24.4)	1.9	14,543	#N/A N/A	#N/A N/A	1.5	1.6	10.6	9.5
Average		**0**	**1.5**	**(0.0)**	**26.3**	**6.2**	**(3.2)**	**(19.4)**	**5.4**							
PV																
WACKER	EUR	76.1	2.1	(3.3)	29.5	3.0	0.5	(33.9)	(1.9)	4,425	25.0	15.2	1.6	1.4	5.1	4.6
GCL-Poly	HKD	1.3	0.8	5.7	31.6	(2.2)	(4.3)	(33.3)	11.2	3,090	8.2	6.9	0.9	0.8	7.5	6.4
REC	NOK	107.5	0.0	0.0	0.0	0.0	0.0	6.4	0.0	519	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
SunEdison	USD	1.9	6.7	7.9	(5.9)	(53.7)	(83.0)	(91.7)	(62.3)	708	#N/A N/A	#N/A N/A	0.2	0.1	24.6	15.6
Canadian Solar	USD	19.9	5.1	(11.9)	25.7	(15.4)	4.7	(37.8)	(31.5)	1,111	8.5	6.3	1.1	0.9	5.3	3.7
JA Solar	USD	9.1	0.4	(1.0)	12.5	2.0	13.4	0.8	(6.4)	458	5.4	5.3	0.4	0.4	3.4	3.0
Trina Solar	USD	10.6	1.7	1.0	24.4	10.9	16.2	(5.4)	(3.9)	976	7.6	6.4	0.7	0.6	5.8	4.9
Solar City	USD	25.7	(1.8)	14.7	54.1	(30.6)	(46.6)	(48.6)	(49.6)	2,515	#N/A N/A	#N/A N/A	2.7	2.5	#N/A N/A	#N/A N/A
Yingli	USD	4.9	6.7	7.9	31.6	(13.2)	(17.4)	(77.1)	8.4	89	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	9.2	9.1
First Solar	USD	70.3	1.5	1.2	14.6	27.3	44.1	18.6	6.6	7,156	16.4	18.2	1.2	1.1	10.3	8.7
한화솔라원	USD	16.5	1.5	(5.3)	11.1	(25.6)	36.4	43.5	(24.8)	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
OCI	KRW	93,500	(2.5)	(2.6)	43.6	26.5	15.9	(21.8)	24.7	1,881	0.0	14.5	0.0	0.7	0.0	10.7
웅진에너지	KRW	1,690	(1.7)	1.2	(1.5)	0.6	16.6	(8.6)	(2.3)	114	N/A	0.0	0.7	0.0	10.7	0.0
신성솔라에너지	KRW	1,835	(2.7)	(2.9)	6.7	0.8	53.6	19.5	(9.2)	117	N/A	0.7	0.0	10.7	0.0	9.4
Average			**1.3**	**0.9**	**19.9**	**(5.0)**	**3.6**	**(19.2)**	**(10.1)**							
Gas Company																
Towngas China	HKD	4.4	1.6	(0.2)	22.5	1.8	(16.0)	(39.8)	(2.0)	1,515	8.5	8.1	0.8	0.7	10.3	9.6
Kulun	HKD	6.4	1.3	3.4	11.6	(1.5)	11.0	(11.9)	(7.7)	6,627	13.3	10.9	0.9	0.8	5.7	5.3
Beijing Enterprise	HKD	40.7	1.9	3.8	24.7	(12.0)	(17.7)	(32.2)	(13.3)	6,729	8.3	7.6	0.8	0.7	12.5	11.5
ENN Energy	HKD	39.2	0.5	(2.2)	19.7	2.2	(5.0)	(13.2)	(5.2)	5,469	12.2	10.8	2.1	1.9	8.1	7.2
China Resources Gas	HKD	21.6	(0.5)	(3.8)	11.8	1.2	0.2	1.9	(6.7)	6,192	14.0	12.2	2.3	2.0	8.8	7.9
China Gas Holdings	HKD	11.0	3.4	(1.4)	16.7	8.4	(2.0)	(12.7)	(1.3)	7,023	12.3	10.8	2.2	1.9	10.2	9.1
Shenzen Gas	HKD	12.1	1.2	(1.5)	2.2	(7.9)	11.0	15.6	(15.3)	2,971	10.7	9.6	1.1	1.0	8.8	8.0
Shann Xi	CNY	8.5	(0.8)	(1.8)	(4.8)	(29.6)	(31.0)	(38.6)	(32.4)	1,463	12.8	10.4	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
Suntien	HKD	1.0	1.1	(5.9)	18.5	(11.9)	(26.2)	(43.2)	(22.6)	460	8.4	6.5	0.4	0.4	6.8	5.7
China Oil & Gas	HKD	0.4	1.1	(3.3)	(4.3)	(22.8)	(15.4)	(55.2)	(17.0)	330	7.2	6.5	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
Average			**1.1**	**(1.3)**	**11.8**	**(7.2)**	**(9.1)**	**(22.9)**	**(12.3)**							
EV																
LG화학	KRW	296,500	0.5	(0.5)	3.7	(9.2)	28.6	26.7	(9.7)	16,578	13.8	12.2	1.5	1.4	6.0	5.5
삼성SDI	KRW	100,000	(1.0)	2.7	8.1	(22.2)	14.2	(24.2)	(12.3)	5,802	17.5	20.1	0.6	0.6	10.0	7.5
Panasonic	JPY	982.4	0.2	(3.3)	14.7	(23.3)	(23.5)	(34.8)	(20.8)	21,189	10.6	9.4	1.1	1.0	3.3	3.1
GS Yuasa	JPY	486.0	1.0	(1.8)	10.0	5.2	8.5	(15.3)	7.5	1,767	13.4	11.9	1.1	1.1	6.4	6.0
NEC	JPY	278.0	1.8	3.7	3.3	(28.4)	(27.8)	(21.9)	(27.8)	6,367	9.7	8.6	0.8	0.7	5.7	5.5
BYD Auto	CNY	51.3	(0.5)	(4.5)	2.4	(16.8)	(3.0)	2.5	(20.4)	17,258	41.3	27.7	3.8	3.5	15.2	13.2
Tesla Motors	USD	207.5	1.1	3.2	37.9	(4.4)	(17.1)	7.1	(13.5)	27,402	173.2	68.3	22.5	17.1	37.0	23.4
Kandi Technologies	USD	7.8	3.7	8.5	24.2	(18.7)	24.4	(42.8)	(28.9)	364	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
Average			**0.9**	**1.0**	**13.0**	**(14.7)**	**0.5**	**(12.8)**	**(15.7)**							

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임