SK Energy Daily

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SK 증권

1. News Summary (3 page)

2017년 12월 12일

News		Conclusion
WTI comment	북해산 원유수급 우려로 상승…WTI 1.1%↑	
Headline	월성 1호기 내년 폐쇄…신규화력 9기 중 2기만 LNG로 전환	향후 한국 전력수급계획에서 중장기적으로 가스 발전 비중 늘어날 것
News 1.	8차 전력수급계획 신규 설비 LNG 4GW, 신재생 5.5GW	가스발전 설비 증설되며 터빈 및 국내 기자재 업체 수혜 예상됨
News 2.	-	-
News 3.	-	-
News 4.	-	-

2. Prices Summary (4~7 page)

Daily	Unit	Price	1D	1W	1M	3M	12M
Refinery			%	%	%	%	%
WTI	$/bbl	58.0	1.1	0.9	2.2	20.6	9.8
Dubai	$/bbl	61.0	1.2	(0.0)	(1.8)	14.6	12.5
Gasoline	$/bbl	75.1	0.5	(0.5)	(2.9)	6.7	11.1
Diesel	$/bbl	74.6	0.9	0.7	1.8	10.0	14.9
Complex margin	$/bbl	8.0	(0.1)	(0.1)	0.4	(1.4)	1.1
1M lagging	$/bbl	7.1	1.2	(2.3)	(8.5)	(4.2)	(10.3)
Petrochemical			%	%	%	%	%
Naphtha	$/t	596	0.9	0.9	0.6	19.1	28.4
Butadiene	$/t	1,090	0.0	7.9	15.3	(25.9)	(35.1)
HDPE	$/t	1,290	0.0	(1.1)	3.2	8.4	12.7
MEG	$/t	914	0.1	(1.0)	0.1	(2.7)	8.4
PX	$/t	883	(0.2)	(0.8)	0.2	6.5	9.6
SM	$/t	1,303	(0.4)	1.2	3.7	(5.2)	5.5
Commodity			%	%	%	%	%
Natural Gas	$/mmbtu	2.80	1.1	(6.1)	(14.1)	(14.8)	(22.4)
Natural rubber	$/t	1,390	(1.4)	(6.1)	(2.1)	(16.8)	(21.9)
Cotton	C/lbs	73.0	(1.0)	(2.7)	6.0	(1.0)	1.8

*참고: 정제마진의 변동률은 %가 아닌 $/bbl임

Weekly	Update	Unit	Price	1W	1M	3M	12M
Petrochemical				%	%	%	%
Ethylene	12/04	$/t	1,200	0.4	6.2	0.8	23.1
Propylene	12/04	$/t	845	1.2	9.0	5.6	23.4
Benzene	12/04	$/t	893	1.7	9.2	9.2	15.9
Toluene	12/04	$/t	715	0.0	1.4	8.3	7.1
Xylene	12/04	$/t	695	0.0	4.9	9.4	6.1
PP	12/04	$/t	1,148	0.0	1.8	1.8	13.6
PVC	12/04	$/t	850	0.0	(4.5)	(9.1)	(12.4)
ABS	12/04	$/t	2,000	2.0	5.8	(0.5)	26.2
SBR	12/04	$/t	1,640	1.9	4.5	(3.0)	(10.9)
SM	12/04	$/t	1,328	1.7	11.1	(2.0)	12.5
BPA	12/04	$/t	1,733	3.3	(7.5)	(13.0)	6.1
Caustic	12/04	$/t	705	0.7	8.3	49.7	76.3
2-EH	12/04	$/t	1,030	1.0	3.0	4.0	22.6
Caprolactam	12/04	$/t	2,020	0.0	(6.9)	16.1	36.5
Solar				%	%	%	%
Polysilicon	12/06	$/kg	17.0	0.9	1.9	1.6	16.2
Module	12/06	$/W	0.31	0.0	(0.6)	(2.8)	(18.2)

3. Global Peers Summary (8~9 page)

	Unit	Price	1D	1W	1M	3M	12M
E&P			%	%	%	%	%
ExxonMobil	USD	83.0	0.4	(0.6)	0.1	4.8	(6.7)
Shell	EUR	2,386	1.2	0.5	(1.3)	11.2	14.3
Petrochina	CNY	8.09	0.4	(1.0)	(3.6)	0.1	5.8
Gazprom	RUB	134.7	1.5	0.7	1.6	11.3	(12.0)
Petrobras	BRL	15.4	0.2	(0.6)	(8.0)	2.6	(1.3)
Refinery							
Phillips66	USD	99.7	0.2	2.2	6.5	17.1	14.4
Valero	USD	87.2	(0.5)	4.3	7.2	24.9	28.2
JX	JPY	676.3	3.0	3.1	6.0	25.8	31.0
Neste Oil	EUR	51.9	1.8	(0.4)	8.1	43.4	40.3

	Unit	Price	1D	1W	1M	3M	12M
Petrochemical			%	%	%	%	%
BASF	EUR	94.0	(0.0)	(0.1)	(0.2)	9.7	10.3
DowDuPont	USD	70.8	0.1	(1.8)	1.2	5.9	22.7
SABIC	SAR	101.1	(0.4)	(0.2)	1.3	1.1	4.3
Formosa Pla.	TWD	92.9	(0.1)	(0.4)	0.9	(3.1)	1.1
Shin-Etsu	JPY	12,060	1.2	0.9	(3.1)	23.2	32.2
Renewable							
Wacker	EUR	151.0	5.7	8.9	11.9	34.5	66.1
First Solar	USD	70.05	0.0	22.3	13.7	48.5	108.9
GCL-Poly	HKD	1.25	(0.8)	(0.8)	(13.2)	40.4	21.4
Tesla Motors	USD	328.9	4.4	7.8	8.6	(9.6)	71.1

4. Coverage Summary

	12/11	1D	1W	1M	3M	6M	12M	투자의견	TP	%	P/E	P/B
KOSPI	2,471	0.3	(1.2)	(2.8)	4.5	3.8	22.1				* 추정치는 12M fwd 기준임	
KOSPI화학	6,063	1.3	(2.1)	(0.3)	4.9	9.5	20.4				* 모든 coverage 업체의 실적은 연결기준임	
LG화학	400,000	0.4	(4.8)	(1.6)	2.6	36.8	59.0	매수	400,000	0.0	12.67	2.09
롯데케미칼	364,500	2.1	(1.2)	(2.5)	(12.2)	3.6	1.3	매수	410,000	12.5	5.73	1.26
한화케미칼	31,300	4.7	3.5	2.0	(15.5)	6.1	22.5	매수	39,000	24.6	5.28	0.87
금호석유화학	90,200	4.6	(0.9)	24.2	12.5	19.0	19.9	매수	100,000	10.9	15.29	1.68
KCC	382,000	0.0	(2.3)	(5.7)	1.6	(4.7)	3.4	매수	450,000	17.8	21.20	0.56
OCI	125,000	3.7	3.7	1.2	23.2	41.6	61.7	매수	120,000	(4.0)	15.87	0.96
SKC	42,600	5.1	1.9	1.4	6.8	36.1	36.1	매수	45,000	5.6	11.77	1.16
SK이노베이션	202,000	(0.5)	(2.7)	(4.3)	5.5	28.7	33.3	매수	210,000	4.0	8.15	1.08
S-Oil	119,000	0.0	(0.8)	(5.6)	(2.9)	22.6	43.2	매수	140,000	17.6	12.87	2.25
GS	59,500	(1.2)	(2.3)	(10.3)	(11.7)	(16.0)	7.0	매수	80,000	34.5	5.65	0.88
SK가스	92,800	(2.8)	(3.7)	(4.4)	(12.5)	(21.7)	(21.4)	매수	130,000	40.1	7.01	0.69
포스코대우	17,700	0.6	(2.7)	(10.8)	(15.9)	(23.5)	(35.5)	매수	25,000	41.2	9.92	0.77
LG상사	27,400	1.5	(0.7)	(6.8)	(4.7)	(15.6)	(15.3)	매수	38,000	38.7	9.97	0.88
한국전력	37,900	(0.3)	0.1	(1.8)	(7.7)	(13.2)	(17.4)	매수	55,000	45.1	7.27	0.30
한국가스공사	41,800	(0.1)	(4.7)	(2.3)	(4.3)	(15.8)	(11.5)	매수	60,000	43.5	8.54	0.54

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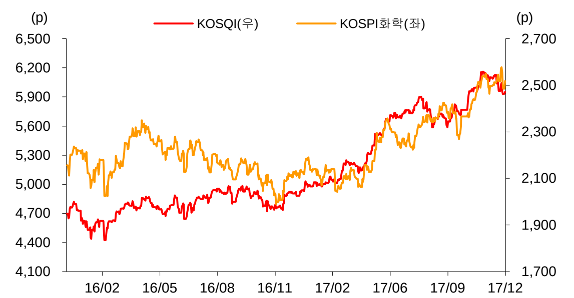
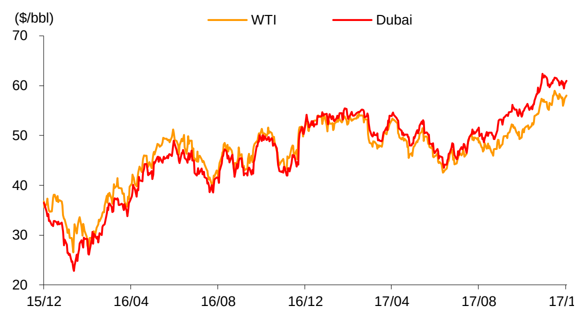
Key Chart

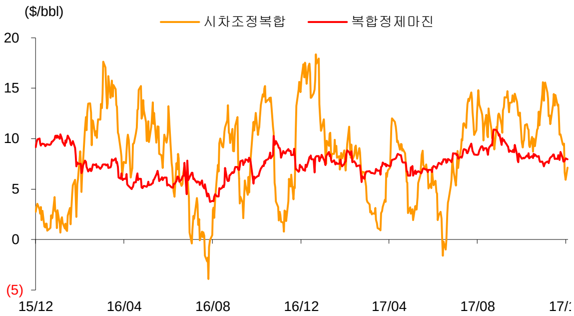
KOSPI/KOSPI화학



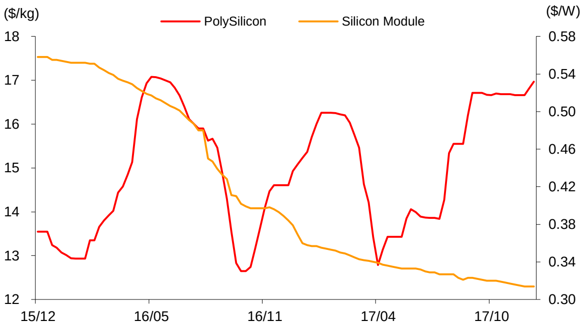
WTI/Dubai



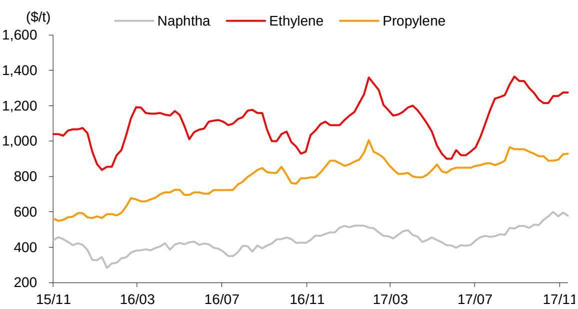
Complex & 1M lagging margin



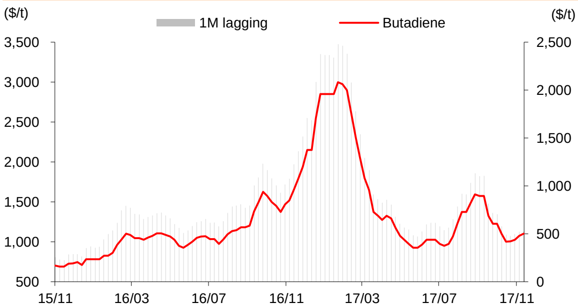
Polysilicon & Module prices



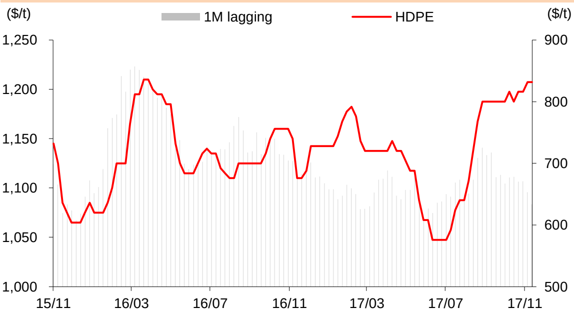
Naphtha/Ethylene/Propylene prices



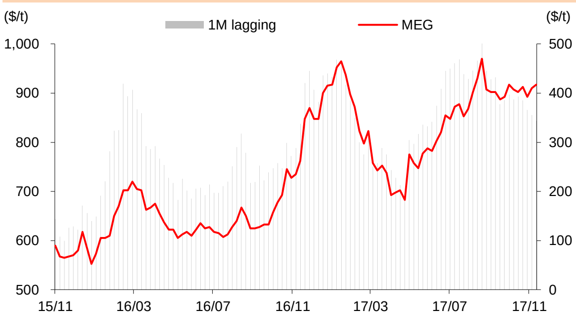
Butadiene price & 1M lagging naphtha spread



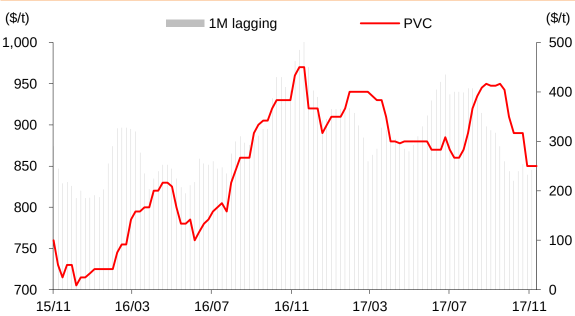
HDPE price & 1M lagging naphtha spread



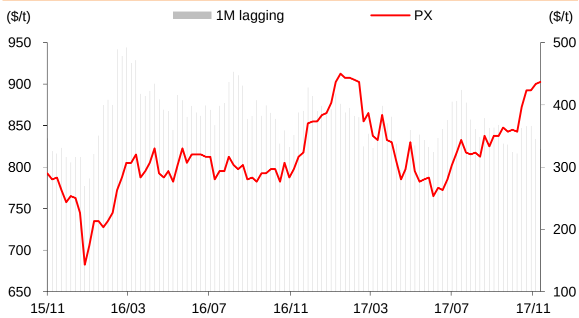
MEG price & 1M lagging naphtha spread



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

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News Comment

Headline	(출처: 서울경제)
제목	월성 1호기 내년 폐쇄…신규화력 9기 중 2기만 LNG로 전환
결론	향후 한국 전력수급계획에서 중장기적으로 가스 발전 비중 늘어날 것
세부	
	1) 정부가 원전 월성 1호기를 내년 조기 폐기하기로 확정지음
	2) 재검토했던 석탄발전소 중 당진에코파워 1·2호기만 LNG 발전으로 대체
	3) 신한울 3·4호기와 천지 1·2호기를 포함한 신규원전 6기 건설 계획 폐지
	4) 삼척 포스파워 석탄발전소 1·2호기는 계획대로 석탄발전소로 추진됨
	5) 향후 한국 전력수급계획에서 중장기적으로 가스 발전 비중 늘어날 것

WTI Comment	(출처: 연합뉴스)
제목	북해산 원유수급 우려로 상승…WTI 1.1%↑
상승	북해에서 스코틀랜드로 수송되는 포티스 원유 공급 차질
요인	뉴욕 맨해튼 폭발 사고가 테러 기도로 파악되고 있음
하락	
요인	

Issue 1	(출처: 전기신문)
제목	8차 전력수급계획 신규 설비 LNG 4GW, 신재생 5.5GW
결론	가스발전 설비 증설되며 터빈 및 국내 기자재 업체 수혜 예상됨
세부	
	1) 정부는 2022년까지는 약 5GW의 전력설비 초과를 예상함
	2) 원전 감축이 본격화되는 2023년 이후에는 20.7GW의 설비 감소 전망
	3) 신재생에너지 간헐성 보완키 위해 2031년에는 9.5GW의 설비 확충 전망
	4) 따라서 앞으로 15년 동안 신재생에너지 5.5GW, LNG발전소 4GW 건설
	5) 가스발전 설비 증설되며 터빈 및 국내 기자재 업체 수혜 예상됨

Issue 2	
제목	
결론	
세부	
	1)
	2)
	3)
	4)
	5)

Issue 3	
제목	
결론	
세부	
	1)
	2)
	3)
	4)
	5)

Issue 4	
제목	
결론	
세부	
	1)
	2)
	3)
	4)
	5)

Issue 5	
제목	
결론	
세부	
	1)
	2)
	3)
	4)
	5)

Issue 6	
제목	
결론	
세부	
	1)
	2)
	3)
	4)
	5)

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Commodity Price Data

Daily Price		Today	1D	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.
F/X	USD/EUR	0.850	0.849	0.843	0.857	0.837	0.893	0.947	0.951	0.901	0.904	0.889
	Change, %		*0.0*	*0.8*	*(0.9)*	*1.6*	*(4.9)*	*(10.3)*	*(10.6)*	*(5.7)*	*(6.0)*	*(4.4)*
	USD/JPY	113.6	113.5	112.4	113.5	109.4	110.3	115.3	117.0	121.1	108.8	112.1
	Change, %		*0.1*	*1.0*	*0.0*	*3.8*	*2.9*	*(1.5)*	*(2.9)*	*(6.2)*	*4.4*	*1.3*
	USD/KRW	1,092.1	1,092.5	1,088.9	1,117.0	1,131.9	1,123.2	1,165.9	1,205.8	1,131.2	1,160.5	1,133.7
	Change, %		*(0.0)*	*0.3*	*(2.2)*	*(3.5)*	*(2.8)*	*(6.3)*	*(9.4)*	*(3.5)*	*(5.9)*	*(3.7)*
Agriculture	Corn	336.5	340.0	339.5	343.5	345.5	387.8	352.5	352.0	376.8	358.5	359.9
	Change, %		*(1.0)*	*(0.9)*	*(2.0)*	*(2.6)*	*(13.2)*	*(4.5)*	*(4.4)*	*(10.7)*	*(6.1)*	*(6.5)*
	Soybean	982.5	989.8	998.5	977.3	954.8	941.5	1,037.5	996.5	945.4	987.5	976.9
	Change, %		*(0.7)*	*(1.6)*	*0.5*	*2.9*	*4.4*	*(5.3)*	*(1.4)*	*3.9*	*(0.5)*	*0.6*
	Wheat	387.8	392.0	410.3	431.5	412.3	445.8	400.3	408.0	508.1	436.4	436.9
	Change, %		*(1.1)*	*(5.5)*	*(10.1)*	*(5.9)*	*(13.0)*	*(3.1)*	*(5.0)*	*(23.7)*	*(11.1)*	*(11.2)*
	Rice	12.2	12.1	12.2	11.2	12.4	11.3	9.9	9.4	11.1	10.3	11.0
	Change, %		*1.3*	*0.3*	*9.4*	*(1.5)*	*8.0*	*23.2*	*30.6*	*10.5*	*18.2*	*10.9*
	Oats	227.5	226.3	241.3	272.0	235.5	252.3	214.0	228.5	250.2	196.3	252.7
	Change, %		*0.6*	*(5.7)*	*(16.4)*	*(3.4)*	*(9.8)*	*6.3*	*(0.4)*	*(9.1)*	*15.9*	*(10.0)*
MYR/mt	Palm Oil	2,350.0	2,379.0	2,480.0	2,740.0	2,803.0	2,680.0	3,123.0	3,218.0	2,190.3	2,653.8	2,807.8
	Change, %		*(1.2)*	*(5.2)*	*(14.2)*	*(16.2)*	*(12.3)*	*(24.8)*	*(27.0)*	*7.3*	*(11.4)*	*(16.3)*
	Cocoa	1,917.0	1,892.0	2,002.0	2,223.0	1,973.0	2,020.0	2,163.0	2,126.0	3,091.6	2,854.0	2,012.5
	Change, %		*1.3*	*(4.2)*	*(13.8)*	*(2.8)*	*(5.1)*	*(11.4)*	*(9.8)*	*(38.0)*	*(32.8)*	*(4.7)*
	Cotton	73.0	73.7	75.0	69.1	73.7	75.7	70.8	70.7	63.3	65.6	73.3
	Change, %		*(1.0)*	*(2.7)*	*5.7*	*(1.0)*	*(3.6)*	*3.1*	*3.3*	*15.4*	*11.3*	*(0.5)*
	Sugar	14.0	14.1	15.1	15.0	14.3	14.3	19.2	19.5	13.1	18.2	15.9
	Change, %		*(0.7)*	*(7.4)*	*(6.8)*	*(2.4)*	*(2.2)*	*(27.5)*	*(28.5)*	*6.2*	*(23.1)*	*(12.2)*
	Coffee	119.0	120.6	126.8	127.6	130.6	126.6	135.6	137.1	132.6	136.1	133.6
	Change, %		*(1.3)*	*(6.1)*	*(6.7)*	*(8.9)*	*(6.0)*	*(12.2)*	*(13.2)*	*(10.3)*	*(12.5)*	*(10.9)*
Energy	WTI	58.0	57.4	57.5	56.7	48.1	45.8	51.5	53.7	48.8	43.4	50.6
	Change, %		*1.2*	*1.0*	*2.3*	*20.7*	*26.6*	*12.7*	*8.0*	*18.8*	*33.8*	*14.8*
	Brent	64.7	63.4	62.5	63.5	53.8	48.2	54.3	56.8	53.7	45.1	54.3
	Change, %		*2.1*	*3.7*	*1.9*	*20.2*	*34.5*	*19.2*	*13.9*	*20.6*	*43.6*	*19.2*
	Natural Gas	2.8	2.8	3.0	3.2	3.0	3.0	3.7	3.7	2.6	2.6	3.0
	Change, %		*1.1*	*(6.1)*	*(12.8)*	*(5.0)*	*(7.8)*	*(25.2)*	*(24.8)*	*6.6*	*9.8*	*(7.8)*
	Ethanol	1.3	1.3	1.3	1.5	1.5	1.6	1.7	1.6	1.5	1.5	1.5
	Change, %		*(1.4)*	*(2.7)*	*(10.0)*	*(15.2)*	*(15.5)*	*(22.2)*	*(18.4)*	*(13.2)*	*(13.5)*	*(13.1)*
	RBOB Gasoline	172.7	171.7	169.2	181.2	163.5	150.2	150.7	166.5	163.6	140.0	162.3
	Change, %		*0.6*	*2.0*	*(4.7)*	*5.6*	*15.0*	*14.6*	*3.7*	*5.5*	*23.4*	*6.4*
	Coal	98.1	97.6	97.3	97.7	99.6	79.5	84.4	88.4	59.0	65.5	87.5
	Change, %		*0.5*	*0.8*	*0.4*	*(1.5)*	*23.4*	*16.2*	*10.9*	*66.3*	*49.8*	*12.0*
Metal	Gold	1,241.8	1,248.5	1,276.1	1,275.5	1,327.5	1,266.6	1,160.0	1,152.3	1,160.6	1,248.5	1,257.8
	Change, %		*(0.5)*	*(2.7)*	*(2.6)*	*(6.5)*	*(2.0)*	*7.1*	*7.8*	*7.0*	*(0.5)*	*(1.3)*
	Silver	15.7	15.9	16.3	16.9	17.8	17.2	16.9	15.9	15.7	17.1	17.1
	Change, %		*(0.9)*	*(3.7)*	*(6.9)*	*(11.7)*	*(8.7)*	*(6.9)*	*(1.3)*	*(0.1)*	*(8.2)*	*(8.2)*
	Copper	6,670.0	6,571.0	6,826.0	6,786.0	6,748.0	5,804.0	5,826.0	5,535.5	5,503.1	4,872.0	6,152.5
	Change, %		*1.5*	*(2.3)*	*(1.7)*	*(1.2)*	*14.9*	*14.5*	*20.5*	*21.2*	*36.9*	*8.4*
	Nickel	721.3	706.4	732.2	789.5	753.3	576.6	772.6	682.0	759.5	646.4	675.9
	Change, %		*2.1*	*(1.5)*	*(8.6)*	*(4.2)*	*25.1*	*(6.6)*	*5.8*	*(5.0)*	*11.6*	*6.7*
	Zinc	3,125.0	3,082.5	3,178.0	3,219.0	3,083.0	2,533.0	2,711.0	2,576.0	1,941.9	2,097.5	2,868.8
	Change, %		*1.4*	*(1.7)*	*(2.9)*	*1.4*	*23.4*	*15.3*	*21.3*	*60.9*	*49.0*	*8.9*
	Lead	2,495.5	2,448.8	2,511.0	2,514.8	2,248.0	2,082.5	2,309.3	2,003.5	1,791.2	1,868.3	2,304.8
	Change, %		*1.9*	*(0.6)*	*(0.8)*	*11.0*	*19.8*	*8.1*	*24.6*	*39.3*	*33.6*	*8.3*
	Aluminum	14,085.0	14,055.0	14,490.0	15,340.0	15,925.0	13,605.0	13,395.0	12,765.0	12,184.0	12,373.5	14,559.5
	Change, %		*0.2*	*(2.8)*	*(8.2)*	*(11.6)*	*3.5*	*5.2*	*10.3*	*15.6*	*13.8*	*(3.3)*
	Cobalt	74,750.0	74,500.0	68,776.0	60,750.0	60,850.0	56,000.0	31,455.0	32,734.0	28,444.4	25,480.1	54,912.9
	Change, %		*0.3*	*8.7*	*23.0*	*22.8*	*33.5*	*137.6*	*128.4*	*162.8*	*193.4*	*36.1*
	HR Coil	641.0	635.0	629.0	609.0	638.0	600.0	570.0	633.0	461.5	519.3	618.8
	Change, %		*0.9*	*1.9*	*5.3*	*0.5*	*6.8*	*12.5*	*1.3*	*38.9*	*23.4*	*3.6*
	Scrap	349.0	349.0	349.0	328.9	374.9	355.0	275.0	302.0	252.9	275.7	343.7
	Change, %		*0.0*	*0.0*	*6.1*	*(6.9)*	*(1.7)*	*26.9*	*15.6*	*38.0*	*26.6*	*1.5*

자료: Bloomberg

참고) NYMEX, ICE, LME 중 대표지수를 사용

SK Energy Daily

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Refining Price Data

Daily Price		12/11	1D	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.
Crude Oil	**WTI**	58.0	57.4	57.5	56.7	48.1	46.1	52.8	53.7	48.8	43.4	50.5
	Change, %		*1.1*	*0.9*	*2.2*	*20.6*	*25.8*	*9.8*	*7.9*	*18.9*	*33.7*	*14.9*
	Dubai	61.0	60.3	61.0	62.1	53.2	47.0	54.2	53.8	50.8	41.3	52.6
	Change, %		*1.2*	*(0.0)*	*(1.8)*	*14.6*	*29.6*	*12.5*	*13.2*	*20.0*	*47.6*	*15.9*
Crude Oil Product	**Gasoline(휘발유)**	75.1	74.8	75.5	77.3	70.4	60.9	67.6	69.8	69.5	56.3	67.6
	Change, %		*0.5*	*(0.5)*	*(2.9)*	*6.7*	*23.5*	*11.1*	*7.6*	*8.1*	*33.6*	*11.2*
	Kerosene(등유)	74.9	74.0	74.6	75.0	66.6	57.2	66.0	66.4	64.7	52.9	64.6
	Change, %		*1.2*	*0.5*	*(0.1)*	*12.4*	*31.0*	*13.5*	*12.7*	*15.7*	*41.6*	*15.9*
	Diesel(경유)	74.6	73.9	74.1	73.3	67.9	57.7	65.0	65.5	64.8	52.1	65.0
	Change, %		*0.9*	*0.7*	*1.8*	*10.0*	*29.3*	*14.9*	*13.9*	*15.2*	*43.2*	*14.8*
	Bunker-C	55.2	54.4	56.6	58.0	49.3	45.4	51.7	52.1	45.3	35.5	49.2
	Change, %		*1.5*	*(2.5)*	*(4.8)*	*12.0*	*21.7*	*6.7*	*6.0*	*22.0*	*55.4*	*12.2*
	Naphtha	65.3	64.8	64.4	65.6	53.7	45.4	51.7	53.5	52.6	42.6	53.1
	Change, %		*0.8*	*1.4*	*(0.6)*	*21.5*	*43.7*	*26.2*	*22.1*	*24.1*	*53.2*	*23.0*
Dubai Spread	**Gasoline(휘발유)**	14.2	14.5	14.5	15.3	17.2	13.8	13.4	16.0	18.7	14.9	15.0
	Change		*(0.3)*	*(0.4)*	*(1.1)*	*(3.1)*	*0.3*	*0.7*	*(1.8)*	*(4.6)*	*(0.8)*	*(0.8)*
	Kerosene(등유)	13.9	13.7	13.6	12.9	13.4	10.2	11.8	12.6	14.0	11.6	12.0
	Change		*0.2*	*0.4*	*1.0*	*0.5*	*3.8*	*2.2*	*1.3*	*(0.0)*	*2.4*	*1.9*
	Diesel(경유)	13.7	13.7	13.1	11.3	14.7	10.7	10.8	11.7	14.0	10.8	12.4
	Change		*(0.0)*	*0.5*	*2.4*	*(1.0)*	*3.0*	*2.9*	*2.0*	*(0.3)*	*2.9*	*1.2*
	Bunker-C	(5.8)	(5.9)	(4.4)	(4.1)	(3.9)	(1.7)	(2.4)	(1.8)	(5.5)	(5.8)	(3.4)
	Change		*0.1*	*(1.4)*	*(1.7)*	*(1.9)*	*(4.1)*	*(3.3)*	*(4.0)*	*(0.2)*	*0.0*	*(2.4)*
	Naphtha	4.3	4.5	3.4	3.6	0.5	(1.6)	(2.5)	(0.4)	1.8	1.3	0.5
	Change		*(0.2)*	*0.9*	*0.7*	*3.8*	*5.9*	*6.8*	*4.7*	*2.5*	*3.0*	*3.8*
Refining Margin	**Simple(단순)**	2.4	2.4	2.9	2.6	3.9	3.2	2.8	3.8	3.3	1.9	3.2
	Change		*(0.0)*	*(0.5)*	*(0.2)*	*(1.4)*	*(0.8)*	*(0.4)*	*(1.4)*	*(0.9)*	*0.5*	*(0.7)*
	Complex(복합)	8.0	8.0	8.1	7.6	9.4	7.2	6.9	8.3	9.3	7.0	8.0
	Change		*(0.1)*	*(0.1)*	*0.4*	*(1.4)*	*0.8*	*1.1*	*(0.3)*	*(1.3)*	*1.0*	*0.0*
	Complex(lagging)	7.1	5.9	9.4	15.6	11.3	5.8	17.4	18.0	7.3	8.5	8.8
	Change		*1.2*	*(2.3)*	*(8.5)*	*(4.2)*	*1.3*	*(10.3)*	*(10.8)*	*(0.1)*	*(1.4)*	*(1.7)*

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

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Petrochemical Price Data

Daily Price			12/11	12/08	12/07	12/06	12/05	12/04	12/01	11/30	11/29	11/28
Spot Price	**Naphtha**	CFR Japan	596.3	590.8	581.8	585.6	579.5	591.0	588.5	588.5	593.0	598.0
	Ethylene	CFR SE Asia	1,180.0	1,180.0	1,180.0	1,180.0	1,180.0	1,180.0	1,180.0	1,175.0	1,175.0	1,175.0
	Propylene	FOB Korea	913.0	903.0	903.0	903.0	899.0	899.0	897.0	899.0	901.0	901.0
	Butadiene	FOB Korea	1,090.0	1,090.0	1,020.0	1,010.0	1,010.0	1,010.0	1,010.0	1,010.0	1,010.0	1,010.0
	HDPE	CFR FE Asia	1,290.0	1,290.0	1,290.0	1,290.0	1,305.0	1,305.0	1,300.0	1,300.0	1,300.0	1,300.0
	LDPE	CFR FE Asia	1,230.0	1,240.0	1,240.0	1,240.0	1,245.0	1,250.0	1,250.0	1,250.0	1,250.0	1,250.0
	LLDPE	CFR FE Asia	1,170.0	1,170.0	1,170.0	1,170.0	1,175.0	1,180.0	1,180.0	1,180.0	1,180.0	1,180.0
	MEG	CFR China	914.0	913.0	913.0	920.0	926.0	923.0	915.0	915.0	912.0	910.0
	PP	CFR FE Asia	1,125.0	1,130.0	1,130.0	1,140.0	1,140.0	1,120.0	1,120.0	1,110.0	1,120.0	1,115.0
	PX	CFR China	882.7	884.0	883.0	888.2	885.7	889.8	889.0	877.7	883.2	883.7
	PTA	CFR China	715.0	715.0	715.0	715.0	715.0	710.0	705.0	705.0	700.0	700.0
	Benzene	FOB Korea	899.0	902.0	910.0	908.0	885.0	875.0	873.0	869.5	879.5	893.5
	Toluene	FOB Korea	699.0	698.0	695.0	695.0	699.0	701.0	689.0	698.0	702.0	707.5
	Xylene	FOB Korea	702.0	703.0	703.0	707.0	707.0	713.0	711.0	699.0	702.5	702.0
	SM	FOB Korea	1,303.0	1,308.0	1,322.0	1,318.0	1,299.0	1,287.0	1,281.0	1,297.0	1,302.0	1,297.0

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.
Spot Price	**Naphtha**	CFR Japan	579.0	595.5	574.0	470.0	464.0	465.5	484.5	493.0	399.5	486.4
	Change, %			*(2.8)*	*0.9*	*23.2*	*24.8*	*24.4*	*19.5*	*17.4*	*44.9*	*19.0*
	Ethylene	CFR SE Asia	1,200.0	1,195.0	1,130.0	1,190.0	1,030.0	975.0	990.0	1,103.7	1,040.9	1,078.9
	Change, %			*0.4*	*6.2*	*0.8*	*16.5*	*23.1*	*21.2*	*8.7*	*15.3*	*11.2*
	Propylene	CFR SE Asia	845.0	835.0	775.0	800.0	770.0	685.0	815.0	770.0	705.7	879.6
	Change, %			*1.2*	*9.0*	*5.6*	*9.7*	*23.4*	*3.7*	*9.7*	*19.7*	*(3.9)*
	Butadiene	CFR SE Asia	1,050.0	1,025.0	950.0	1,325.0	925.0	1,600.0	2,100.0	877.5	1,116.8	1,507.9
	Change, %			*2.4*	*10.5*	*(20.8)*	*13.5*	*(34.4)*	*(50.0)*	*19.7*	*(6.0)*	*(30.4)*
	Benzene	CFR SE Asia	892.5	877.5	817.5	817.5	750.0	770.0	822.5	690.0	646.7	834.2
	Change, %			*1.7*	*9.2*	*9.2*	*19.0*	*15.9*	*8.5*	*29.3*	*38.0*	*7.0*
	Toluene	CFR SE Asia	715.0	715.0	705.0	660.0	650.0	667.5	690.0	700.8	630.5	687.0
	Change, %			*0.0*	*1.4*	*8.3*	*10.0*	*7.1*	*3.6*	*2.0*	*13.4*	*4.1*
	Xylene	CFR SE Asia	695.0	695.0	662.5	635.0	632.5	655.0	675.0	699.3	627.7	665.5
	Change, %			*0.0*	*4.9*	*9.4*	*9.9*	*6.1*	*3.0*	*(0.6)*	*10.7*	*4.4*
Spread	**Ethylene**	-Naphtha	621.0	599.5	556.0	720.0	566.0	509.5	505.5	610.6	641.4	592.6
	Change, %			*3.6*	*11.7*	*(13.8)*	*9.7*	*21.9*	*22.8*	*1.7*	*(3.2)*	*4.8*
	Propylene	-Naphtha	266.0	239.5	201.0	330.0	306.0	219.5	330.5	277.0	306.2	393.2
	Change, %			*11.1*	*32.3*	*(19.4)*	*(13.1)*	*21.2*	*(19.5)*	*(4.0)*	*(13.1)*	*(32.4)*
	Butadiene	-Naphtha	471.0	429.5	376.0	855.0	461.0	1,134.5	1,615.5	384.5	717.3	1,021.5
	Change, %			*9.7*	*25.3*	*(44.9)*	*2.2*	*(58.5)*	*(70.8)*	*22.5*	*(34.3)*	*(53.9)*
	Benzene	-Naphtha	313.5	282.0	243.5	347.5	286.0	304.5	338.0	197.0	247.2	347.8
	Change, %			*11.2*	*28.7*	*(9.8)*	*9.6*	*3.0*	*(7.2)*	*59.2*	*26.8*	*(9.9)*
	Toluene	-Naphtha	136.0	119.5	131.0	190.0	186.0	202.0	205.5	207.8	231.0	200.6
	Change, %			*13.8*	*3.8*	*(28.4)*	*(26.9)*	*(32.7)*	*(33.8)*	*(34.5)*	*(41.1)*	*(32.2)*
	Xylene	-Naphtha	116.0	99.5	88.5	165.0	168.5	189.5	190.5	206.3	228.2	179.1
	Change, %			*16.6*	*31.1*	*(29.7)*	*(31.2)*	*(38.8)*	*(39.1)*	*(43.8)*	*(49.2)*	*(35.2)*

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

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Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2015avg.	2016avg.	2017acc.
Spot Price	HDPE	CFR SE Asia	1,207.5	1,207.5	1,187.5	1,137.5	1,077.5	1,110.0	1,142.5	1,230.1	1,134.6	1,138.3
	Change, %			*0.0*	*1.7*	*6.2*	*12.1*	*8.8*	*5.7*	*(1.8)*	*6.4*	*6.1*
	MEG	CFR SE Asia	917.5	910.0	902.5	930.0	877.5	762.5	847.5	780.8	660.8	846.7
	Change, %			*0.8*	*1.7*	*(1.3)*	*4.6*	*20.3*	*8.3*	*17.5*	*38.9*	*8.4*
	PVC	CFR SE Asia	850.0	850.0	890.0	935.0	860.0	970.0	920.0	820.8	823.4	901.9
	Change, %			*0.0*	*(4.5)*	*(9.1)*	*(1.2)*	*(12.4)*	*(7.6)*	*3.6*	*3.2*	*(5.8)*
	PP	CFR SE Asia	1,147.5	1,147.5	1,127.5	1,127.5	1,087.5	1,010.0	1,032.5	1,109.8	978.4	1,094.3
	Change, %			*0.0*	*1.8*	*1.8*	*5.5*	*13.6*	*11.1*	*3.4*	*17.3*	*4.9*
	2-EH	CFR Korea	1,030.0	1,020.0	1,000.0	990.0	960.0	840.0	865.0	930.1	772.4	963.9
	Change, %			*1.0*	*3.0*	*4.0*	*7.3*	*22.6*	*19.1*	*10.7*	*33.4*	*6.9*
	ABS	CFR SE Asia	2,000.0	1,960.0	1,890.0	2,010.0	1,850.0	1,585.0	1,635.0	1,431.1	1,347.1	1,829.3
	Change, %			*2.0*	*5.8*	*(0.5)*	*8.1*	*26.2*	*22.3*	*39.8*	*48.5*	*9.3*
	SBR	CFR SE Asia	1,640.0	1,610.0	1,570.0	1,690.0	1,490.0	1,840.0	2,000.0	1,332.1	1,483.0	2,003.2
	Change, %			*1.9*	*4.5*	*(3.0)*	*10.1*	*(10.9)*	*(18.0)*	*23.1*	*10.6*	*(18.1)*
	SM	CFR SE Asia	1,327.5	1,305.0	1,195.0	1,355.0	1,150.0	1,180.0	1,205.0	1,100.7	1,064.6	1,246.9
	Change, %			*1.7*	*11.1*	*(2.0)*	*15.4*	*12.5*	*10.2*	*20.6*	*24.7*	*6.5*
	Caustic	FOB NEA	705.0	700.0	651.0	471.0	467.5	400.0	422.5	296.8	316.6	479.2
	Change, %			*0.7*	*8.3*	*49.7*	*50.8*	*76.3*	*66.9*	*137.6*	*122.7*	*47.1*
	PX	CFR SE Asia	902.5	900.0	872.5	812.5	832.5	812.5	855.0	842.9	790.4	840.2
	Change, %			*0.3*	*3.4*	*11.1*	*8.4*	*11.1*	*5.6*	*7.1*	*14.2*	*7.4*
	PO	CFR China	1,732.5	1,677.5	1,872.5	1,992.5	1,542.5	1,632.5	1,562.5	1,683.4	1,396.8	1,580.0
	Change, %			*3.3*	*(7.5)*	*(13.0)*	*12.3*	*6.1*	*10.9*	*2.9*	*24.0*	*9.7*
	Caprolactam	CFR SE Asia	2,020.0	2,020.0	2,170.0	1,740.0	1,760.0	1,480.0	1,850.0	1,581.5	1,344.9	1,923.4
	Change, %			*0.0*	*(6.9)*	*16.1*	*14.8*	*36.5*	*9.2*	*27.7*	*50.2*	*5.0*
	PTA	CFR SE Asia	715.0	712.5	670.0	657.5	657.5	620.0	642.5	648.0	613.7	663.7
	Change, %			*0.4*	*6.7*	*8.7*	*8.7*	*15.3*	*11.3*	*10.3*	*16.5*	*7.7*
Spread	HDPE		628.5	612.0	613.5	667.5	613.5	644.5	658.0	737.1	735.1	651.9
	Change, %			*2.7*	*2.4*	*(5.8)*	*2.4*	*(2.5)*	*(4.5)*	*(14.7)*	*(14.5)*	*(3.6)*
	MEG		338.5	314.5	328.5	460.0	413.5	297.0	363.0	287.8	261.3	360.4
	Change, %			*7.6*	*3.0*	*(26.4)*	*(18.1)*	*14.0*	*(6.7)*	*17.6*	*29.6*	*(6.1)*
	PVC		271.0	254.5	316.0	465.0	396.0	504.5	435.5	327.8	423.9	415.6
	Change, %			*6.5*	*(14.2)*	*(41.7)*	*(31.6)*	*(46.3)*	*(37.8)*	*(17.3)*	*(36.1)*	*(34.8)*
	PP		568.5	552.0	553.5	657.5	623.5	544.5	548.0	616.8	578.9	608.0
	Change, %			*3.0*	*2.7*	*(13.5)*	*(8.8)*	*4.4*	*3.7*	*(7.8)*	*(1.8)*	*(6.5)*
	2-EH		451.0	424.5	426.0	520.0	496.0	374.5	380.5	437.0	372.9	477.6
	Change, %			*6.2*	*5.9*	*(13.3)*	*(9.1)*	*20.4*	*18.5*	*3.2*	*21.0*	*(5.6)*
	ABS		1,421.0	1,364.5	1,316.0	1,540.0	1,386.0	1,119.5	1,150.5	938.1	947.6	1,342.9
	Change, %			*4.1*	*8.0*	*(7.7)*	*2.5*	*26.9*	*23.5*	*51.5*	*50.0*	*5.8*
	SBR	BD spread	590.0	585.0	620.0	365.0	565.0	240.0	(100.0)	454.7	366.2	495.3
	Change, %			*0.9*	*(4.8)*	*61.6*	*4.4*	*145.8*	*(690.0)*	*29.8*	*61.1*	*19.1*
	SM		748.5	709.5	621.0	885.0	686.0	714.5	720.5	607.7	665.1	760.6
	Change, %			*5.5*	*20.5*	*(15.4)*	*9.1*	*4.8*	*3.9*	*23.2*	*12.5*	*(1.6)*
	Caustic											
	Change, %											
	PX		323.5	304.5	298.5	342.5	368.5	347.0	370.5	349.9	390.9	353.8
	Change, %			*6.2*	*8.4*	*(5.5)*	*(12.2)*	*(6.8)*	*(12.7)*	*(7.5)*	*(17.2)*	*(8.6)*
	PO	propylene sprea	887.5	842.5	1,097.5	1,192.5	772.5	947.5	747.5	913.4	691.1	700.4
	Change, %			*5.3*	*(19.1)*	*(25.6)*	*14.9*	*(6.3)*	*18.7*	*(2.8)*	*28.4*	*26.7*
	Caprolactam	benzene spreac	1,127.5	1,142.5	1,352.5	922.5	1,010.0	710.0	1,027.5	891.6	698.2	1,089.2
	Change, %			*(1.3)*	*(16.6)*	*22.2*	*11.6*	*58.8*	*9.7*	*26.5*	*61.5*	*3.5*
	PTA	px spread	83.3	82.5	59.3	88.8	74.8	51.3	44.0	58.0	60.4	75.6
	Change, %			*0.9*	*40.5*	*(6.2)*	*11.4*	*62.4*	*89.2*	*43.5*	*37.8*	*10.1*

자료 : Cischem, Platts, SK증권

참고 : Spread는 Naphtha spread로 일괄적용

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Global peers

	Currency	12/11	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER 17E	PER 18E	PBR 17E	PBR 18E	EV/EBITDA 17E	EV/EBITDA 18E
Petrochemical																
DowDuPont	USD	70.8	0.1	(1.8)	1.2	5.9	9.4	22.7	23.8	165,695	21.2	17.4	1.6	1.7	11.8	10.1
Eastman	USD	92.8	0.7	1.5	2.3	8.4	12.4	20.2	23.4	13,339	13.2	11.4	2.7	2.5	9.4	8.6
BASF	EUR	94.0	(0.0)	(0.1)	(0.2)	9.7	9.2	10.3	6.4	101,757	15.2	15.0	2.6	2.4	8.2	8.0
Akzo Nobel	EUR	74.6	0.4	2.6	(4.6)	(4.5)	(2.9)	24.2	25.5	22,211	18.2	17.4	3.2	3.1	9.9	9.5
Arkema	EUR	102.0	0.5	(1.4)	(4.2)	6.9	6.1	8.5	9.7	9,120	14.4	13.3	1.9	1.7	6.6	6.3
Lanxess	EUR	63.4	0.7	0.3	(5.4)	(1.1)	(10.0)	2.3	1.7	6,847	16.5	14.8	2.2	2.0	7.2	8.8
Sumitomo Chemical	JPY	790	0.6	(0.1)	(5.8)	18.8	33.7	33.0	42.1	11,529	9.9	9.9	1.4	1.3	7.4	7.3
Mitsubishi Chemical	JPY	1,254	1.0	4.1	4.3	22.2	42.4	60.0	65.4	16,644	9.5	9.3	1.5	1.3	6.5	6.3
Shin-Etsu Chemical	JPY	12,060	1.2	0.9	(3.1)	23.2	19.8	32.2	33.0	45,938	22.8	19.7	2.2	2.1	10.2	8.7
Asahi Kasei	JPY	1,432	(0.1)	3.0	(4.9)	8.5	25.9	34.5	40.5	17,706	14.5	14.2	1.6	1.5	7.5	7.3
JSR	JPY	2,313	2.4	7.4	1.8	9.5	22.9	26.8	25.5	4,611	15.9	15.3	1.3	1.2	8.7	8.0
Nitto Denko	JPY	10,320	(0.9)	(5.5)	(8.4)	8.7	13.2	20.7	15.1	15,807	18.3	16.7	2.4	2.2	8.4	7.7
SABIC	SAR	101.1	(0.4)	(0.2)	1.3	1.1	2.4	4.3	10.5	80,850	15.1	14.4	1.8	1.7	7.5	7.3
Yansab	SAR	57.6	(2.5)	(5.2)	2.0	1.2	4.7	11.3	5.7	8,636	14.4	13.4	2.2	2.1	9.0	8.8
Formosa Plastics	TWD	92.9	(0.1)	(0.4)	0.9	(3.1)	3.2	1.1	4.1	19,711	12.7	13.9	1.8	1.7	17.3	18.2
Formosa Fiber	TWD	93.8	(0.6)	(1.3)	0.4	(1.9)	4.1	(5.3)	(2.6)	18,325	11.9	12.7	1.7	1.6	10.4	10.7
Nan Ya Plastics	TWD	74.2	(0.4)	(1.9)	(0.5)	(1.7)	3.1	3.5	4.2	19,614	14.2	14.5	1.7	1.7	14.9	15.3
Sinopec Shanghai	CNY	6.41	(1.1)	0.8	(0.5)	0.6	(2.1)	4.4	(0.5)	9,116	12.3	11.7	2.5	2.2	6.7	6.6
Sinopec Yizheng(Fibe	CNY	2.82	(1.1)	(4.1)	(7.8)	(11.9)	(21.7)	(30.5)	(31.2)	5,465	#N/A N/A	52.2	5.4	5.5	27.2	14.2
Reliance	INR	916	(0.5)	1.6	3.7	12.0	37.2	78.1	69.3	92,568	16.9	14.5	1.9	1.7	11.7	9.5
Industries Qatar	QAR	89.5	0.2	(1.1)	(5.0)	2.3	(8.2)	(20.1)	(23.8)	14,734	15.7	13.2	1.6	1.5	58.1	46.5
PTT Chemical	THB	82.3	0.0	3.1	4.1	7.5	21.4	27.0	30.6	11,366	10.2	10.4	1.4	1.3	5.4	5.3
Petronas	MYR	7.4	(0.1)	(0.3)	(0.4)	(0.8)	2.9	7.9	6.2	14,555	15.1	15.2	2.0	1.9	8.6	8.6
LG화학	KRW	400,000	0.4	(4.8)	(1.6)	2.0	36.8	59.0	53.3	25,938	14.8	14.0	1.9	1.8	6.6	6.2
롯데케미칼	KRW	364,500	2.1	(1.2)	(2.5)	(12.5)	3.6	1.3	(1.2)	11,476	5.4	5.4	1.1	0.9	3.7	3.3
한화케미칼	KRW	31,300	4.7	3.5	2.0	(15.5)	6.1	22.5	26.7	4,739	5.1	5.6	0.8	0.7	6.8	6.5
금호석유	KRW	90,200	4.6	(0.9)	24.2	11.2	19.0	19.9	10.0	2,524	15.5	14.4	1.6	1.5	10.6	9.5
SKC	KRW	42,600	5.1	1.9	1.4	6.9	36.1	36.1	29.1	1,469	11.3	10.1	1.0	1.0	9.8	8.4
국도화학	KRW	68,400	3.0	6.9	16.3	36.5	28.6	21.5	24.6	365	0.0	0.0	0.0	0.0	0.0	0.0
효성	KRW	7,820	2.2	(3.5)	1.7	17.6	17.4	49.0	15.0	4,355	8.1	8.1	1.2	1.1	7.2	6.4
Average			**0.7**	**0.1**	**0.4**	**5.6**	**12.6**	**19.6**	**18.1**							
Refinery																
Valero	USD	87.2	(0.5)	4.3	7.2	24.9	33.6	28.2	27.6	38,157	17.3	13.6	1.9	1.9	7.5	6.5
Conoco Phillips	USD	51.7	0.2	0.8	(2.5)	15.0	15.3	1.8	3.1	61,796	94.0	32.2	2.1	2.1	8.8	6.8
Formosa Petrochemic	TWD	109.0	0.9	(0.5)	2.8	2.8	1.9	(4.0)	(2.7)	34,609	15.1	18.0	3.2	3.2	9.6	11.4
Andeavor	USD	111.0	(0.1)	3.7	3.5	8.6	20.9	23.0	26.9	17,309	15.5	13.0	1.7	1.7	9.0	7.2
Marathon Petroleum	USD	64.5	(0.4)	1.8	4.4	19.9	17.8	30.4	28.0	31,483	16.6	15.3	2.6	2.5	8.4	7.6
Devon Energy	USD	38.5	1.2	(0.4)	(4.8)	21.0	18.1	(19.9)	(15.7)	20,226	21.5	17.2	2.8	2.4	9.1	8.0
Hollyfrontier	USD	46.6	2.0	5.2	10.8	42.5	81.6	40.9	42.3	8,263	19.3	16.3	1.7	1.6	8.7	7.6
Phillips 66	USD	99.7	0.2	2.2	6.5	17.1	25.3	14.4	15.4	50,532	21.7	15.8	2.3	2.2	10.8	8.9
Murphy Oil	USD	28.9	1.4	(0.2)	(1.0)	23.0	14.4	(12.5)	(7.3)	4,979	#N/A N/A	193.6	1.1	1.1	5.3	4.6
JX Holdings	JPY	676.3	3.0	3.1	6.0	25.8	39.6	31.0	36.7	20,430	8.0	8.1	0.9	0.9	7.0	6.8
Idemitsu	JPY	4,075.0	3.4	3.6	14.3	46.7	29.0	30.2	31.2	7,472	7.6	7.2	1.1	0.9	6.7	6.5
Nesteoil	EUR	51.9	1.8	(0.4)	8.1	43.4	48.8	40.3	42.2	15,692	16.6	16.2	3.1	2.8	9.6	10.0
Ashland	USD	70.7	0.8	(3.5)	7.1	11.2	5.2	23.8	32.3	4,401	17.6	21.4	1.4	1.3	8.0	9.9
Fuchs Petrolub	EUR	43.9	0.1	1.2	(6.1)	(10.0)	(12.9)	13.9	10.1	6,943	23.2	21.8	4.5	4.1	13.6	12.9
SK이노베이션	KRW	202,000	(0.5)	(2.7)	(4.3)	5.8	28.7	33.3	37.9	17,158	8.0	7.7	1.0	0.9	4.9	4.4
S-Oil	KRW	119,000	0.0	(0.8)	(5.6)	(4.0)	22.6	43.2	40.5	12,307	11.8	9.0	2.1	1.8	9.1	6.7
GS	KRW	59,500	(1.2)	(2.3)	(10.3)	(12.1)	(16.0)	7.0	10.0	5,078	5.7	5.5	0.7	0.7	6.9	6.6
Average			**0.7**	**0.9**	**2.1**	**16.6**	**22.0**	**19.1**	**21.1**							

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

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SK 증권

Global peers

	Currency	12/11	1D	1W	1M	3M	6M	12M	YTD	MKT CAP (mil USD)	PER 17E	PER 18E	PBR 17E	PBR 18E	EV/EBITDA 17E	EV/EBITDA 18E
E&P/Shale																
Exxon Mobil	USD	83	0.4	(0.6)	0.1	4.8	1.1	(6.7)	(8.0)	351,807	22.9	20.2	2.0	1.9	10.0	8.9
BP	GBP	499	1.2	1.2	(1.6)	11.0	6.6	4.7	(2.1)	131,663	22.3	16.9	1.4	1.4	6.5	5.8
Shell	EUR	2,386	1.2	0.5	(1.3)	11.2	13.2	14.3	6.4	265,374	16.9	15.1	1.3	1.3	6.9	6.3
Chevron	USD	120	0.4	(0.3)	2.8	7.0	13.2	4.0	2.3	228,723	29.5	23.0	1.6	1.6	8.4	7.2
Total	EUR	47	0.1	(1.5)	(2.0)	6.1	3.1	1.4	(3.3)	140,421	13.2	12.7	1.3	1.2	6.2	5.5
Sinopec	CNY	6	0.0	0.0	(1.0)	0.8	(1.3)	11.5	11.5	105,141	13.8	12.8	1.0	1.0	4.5	4.3
Petrochina	CNY	8	0.4	(1.0)	(3.6)	0.1	4.7	5.8	1.8	212,078	50.9	31.4	1.2	1.2	6.6	6.1
CNOOC	CNY	11	0.5	(4.2)	(10.5)	(6.3)	(7.8)	(19.5)	(17.8)	60,626	12.9	11.0	1.0	1.0	4.1	3.9
Gazprom	RUB	135	1.5	0.7	1.6	11.3	11.7	(12.0)	(12.9)	54,068	4.4	4.2	0.3	0.2	4.0	3.7
Rosneft	RUB	298	1.3	1.7	(9.7)	(5.3)	(2.8)	(19.8)	(26.1)	53,489	10.8	7.3	0.8	0.7	5.4	4.6
Anadarko	USD	48	0.8	(0.6)	(5.5)	17.7	0.7	(31.5)	(30.7)	26,428	#N/A N/A	#N/A N/A	1.9	1.8	7.5	6.6
Petrobras	BRL	15	0.2	(0.6)	(8.0)	2.6	19.7	(1.3)	3.4	62,147	13.4	9.2	0.6	0.6	5.0	4.5
Lukoil	USD	3,433	1.3	1.2	2.6	18.0	23.7	1.8	(0.5)	49,163	6.9	6.4	0.8	0.7	N/A	N/A
Kinder	USD	18	1.0	4.1	1.6	(7.6)	(5.9)	(14.8)	(13.3)	47,497	28.1	25.6	1.1	1.1	11.2	10.8
Statoil	NOK	169	1.1	(0.8)	(0.3)	13.7	15.2	9.6	6.5	66,623	16.0	16.6	1.7	1.7	3.5	3.4
BHP	AUD	27	0.1	(2.9)	(3.1)	1.5	15.5	4.7	8.5	104,512	14.1	16.9	1.8	1.8	5.8	6.3
PTT E&P	THB	94	0.0	0.5	(0.3)	5.4	7.5	1.9	(2.9)	11,377	15.2	12.9	0.9	0.9	3.5	3.2
Petronas gas	MYR	16	0.2	0.6	(9.9)	(11.4)	(16.5)	(25.9)	(24.7)	7,793	17.9	16.8	2.5	2.4	10.2	9.5
Chesapeake	USD	4	4.1	(3.0)	(7.5)	5.5	(22.9)	(50.4)	(45.4)	3,480	5.5	5.3	#N/A N/A	#N/A N/A	7.5	6.5
Noble Energy	USD	27	(0.2)	0.1	(4.4)	7.3	(7.7)	(31.6)	(29.4)	13,080	#N/A N/A	488.7	1.4	1.4	7.9	7.3
Average		**0**	**0.8**	**(0.2)**	**(3.0)**	**4.7**	**3.6**	**(7.7)**	**(8.8)**							
PV																
WACKER	EUR	151.0	5.7	8.9	11.9	34.5	58.2	66.1	52.7	9,283	33.5	24.2	2.4	2.3	8.3	7.7
GCL-Poly	HKD	1.3	(0.8)	(0.8)	(13.2)	40.4	64.5	21.4	34.4	2,976	8.6	8.1	0.9	0.8	6.5	6.0
SunPower	USD	9.2	10.7	30.3	6.1	10.4	15.2	20.7	39.6	1,288	#N/A N/A	#N/A N/A	1.7	1.7	16.8	12.8
Canadian Solar	USD	17.8	3.1	10.4	0.0	6.8	40.9	39.2	46.1	1,032	12.3	9.9	1.0	0.9	9.8	11.1
JA Solar	USD	7.5	0.4	3.0	(5.9)	(6.5)	18.8	42.9	56.7	355	8.9	14.1	1.8	1.7	4.1	3.9
Yingli	USD	1.9	(6.5)	(5.6)	(17.3)	(17.3)	(1.1)	(40.4)	(28.5)	34	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
First Solar	USD	70.1	0.0	22.3	13.7	48.5	91.1	108.9	118.3	7,316	27.7	47.2	1.1	1.2	15.4	13.8
한화큐셀	USD	7.4	1.4	(0.8)	(11.5)	(2.0)	11.8	(9.8)	(9.3)	616	64.3	33.6	#N/A N/A	#N/A N/A	8.7	8.1
OCI	KRW	125,000	3.7	3.7	1.2	20.8	41.6	61.7	58.8	2,738	14.2	15.6	0.9	0.8	7.7	6.4
웅진에너지	KRW	9,500	6.3	8.8	21.5	3.0	47.3	133.4	100.6	219	N/A	0.9	0.8	7.7	6.4	8.1
신성솔라에너지	KRW	2,090	4.8	2.5	18.1	2.2	9.4	13.6	(5.4)	332	N/A	0.8	7.7	6.4	8.1	8.1
Average			**2.6**	**7.5**	**2.2**	**12.8**	**36.2**	**41.6**	**42.2**							
Gas Company																
Towngas China	HKD	6.1	0.7	(1.5)	(4.5)	17.5	28.4	51.6	49.8	2,167	13.8	12.5	1.1	1.1	12.7	11.6
Kulun	HKD	7.2	(0.4)	2.6	0.8	(4.0)	7.6	22.9	23.8	7,425	11.5	10.5	1.3	1.2	5.8	5.6
Beijing Enterprise	HKD	44.1	(1.6)	(1.2)	(3.9)	3.5	16.8	24.9	20.3	7,130	8.4	7.8	0.9	0.8	15.6	13.6
ENN Energy	HKD	56.2	0.1	(1.2)	(2.3)	4.1	34.8	67.4	76.0	7,789	15.0	13.1	2.9	2.5	9.1	8.1
China Resources Gas	HKD	29.3	1.0	0.0	1.4	8.3	23.6	27.9	34.4	8,348	16.7	14.9	3.2	2.8	9.8	8.9
China Gas Holdings	HKD	23.9	(0.4)	(1.6)	(1.6)	13.8	89.7	132.9	127.2	15,212	19.6	16.3	4.8	3.9	15.3	12.9
Shenzen Gas	HKD	13.9	(1.1)	(3.6)	(5.2)	(4.7)	0.0	21.8	22.8	3,607	11.3	10.9	1.3	1.2	8.7	8.1
Shann Xi	CNY	8.2	2.7	0.0	(0.1)	(5.3)	(6.4)	(17.0)	(14.2)	1,385	17.4	15.6	1.7	1.5	#N/A N/A	#N/A N/A
Suntien	HKD	1.9	0.5	(2.6)	(7.5)	2.2	21.6	78.8	86.0	885	6.9	6.0	0.7	0.6	9.7	8.3
China Oil & Gas	HKD	0.6	0.0	(1.7)	9.4	1.8	3.6	(4.9)	(4.9)	433	9.5	8.1	1.0	0.9	6.4	5.7
Average			**0.2**	**(1.1)**	**(1.4)**	**3.7**	**22.0**	**40.6**	**42.1**							
EV																
LG화학	KRW	400,000	0.4	(4.8)	(1.6)	2.0	36.8	59.0	53.3	25,938	13.9	13.4	1.9	1.7	6.6	6.4
삼성SDI	KRW	210,000	0.2	(1.9)	(5.0)	3.7	35.0	123.6	92.7	13,265	21.4	13.1	1.3	1.2	23.8	14.9
Panasonic	JPY	1606.0	0.6	(1.4)	(8.1)	8.4	9.3	25.5	35.0	34,729	20.6	15.8	2.2	2.0	6.9	5.9
GS Yuasa	JPY	561.0	0.5	(2.1)	(1.9)	3.3	11.1	15.4	15.4	2,045	17.2	15.4	1.4	1.3	7.7	7.1
NEC	JPY	3040.0	0.8	2.3	(0.8)	5.2	4.5	(6.2)	(1.9)	6,980	15.8	17.9	0.9	0.9	7.4	6.9
BYD Auto	CNY	62.6	4.8	(1.3)	(7.5)	20.7	24.6	18.7	26.0	24,979	36.6	26.1	3.1	2.8	15.5	12.6
Tesla Motors	USD	328.9	4.4	7.8	8.6	(9.6)	(8.0)	71.1	53.9	55,279	#N/A N/A	#N/A N/A	11.7	11.6	136.7	32.9
Kandi Technologies	USD	7.1	(2.7)	(2.1)	0.0	79.7	75.3	37.9	44.9	341	#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			**1.1**	**(0.4)**	**(2.0)**	**14.2**	**23.6**	**43.1**	**39.9**							

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임