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1. News Summary (3 page)

2016년 6월 7일

News		Conclusion
WTI comment	공급차질 우려에 유가상승	
Headline	롯데케미칼, 미국 액시올에 인수제안서 제출	외형확대의미, 하지만 연이은 투자 재무부담과 북미 시황 피크아웃은 부담
News 1.	유럽 PE/PP 재고 과다, 시장 충격으로 인지 중	중동 PE CP 하향은 유럽시장 공략 위한 것으로 파악, 약세지속 예상
News 2.	Yingli 주가 +2.5%, 2011년 이후 첫 흑자 기대감	최근 모듈가격하락과 시황둔화 감안 시 기조적 부활으로 파악은 어려움
News 3.	-	-
News 4.	-	-

2. Prices Summary (4~7 page)

Daily	Unit	Price	1D	1W	1M	3M	12M
Refinery			%	%	%	%	%
WTI	$/bbl	49.7	2.2	0.7	11.3	36.1	(14.5)
Dubai	$/bbl	45.9	(0.8)	0.8	8.8	29.1	(23.8)
Gasoline	$/bbl	59.9	(1.0)	(1.4)	6.3	14.1	(28.3)
Diesel	$/bbl	58.1	(0.8)	1.9	12.0	25.2	(23.0)
Complex margin	$/bbl	6.1	(0.0)	0.1	0.8	(1.0)	(4.9)
1M lagging	$/bbl	9.6	(0.8)	1.2	(3.2)	(3.8)	3.4
Petrochemical			%	%	%	%	%
Naphtha	$/t	428	0.1	1.5	9.4	25.0	(24.0)
Butadiene	$/t	910	0.0	(3.7)	(15.0)	(9.5)	(22.6)
HDPE	$/t	1,095	(0.5)	(0.5)	(3.9)	(1.8)	(18.3)
MEG	$/t	609	0.0	1.0	(3.9)	(12.8)	(36.2)
PX	$/t	789	0.4	2.7	1.9	4.5	(12.8)
SM	$/t	962	(0.6)	0.5	(7.9)	(13.3)	(24.7)
Commodity			%	%	%	%	%
Natural Gas	$/mmbtu	2.47	2.8	13.7	10.6	24.2	(19.9)
Natural rubber	$/t	1,270	(0.8)	0.8	(9.3)	(5.9)	(18.1)
Cotton	C/lbs	65.5	2.6	2.6	7.4	14.5	0.1

Weekly	Update	Unit	Price	1W	1M	3M	12M
Petrochemical				%	%	%	%
Ethylene	05/30	$/t	1,090	(3.5)	(3.1)	10.1	(22.4)
Propylene	05/30	$/t	690	(0.7)	(5.5)	8.7	(21.1)
Benzene	05/30	$/t	625	(2.3)	(5.3)	11.1	(16.4)
Toluene	05/30	$/t	620	(4.6)	(7.5)	5.1	(22.5)
Xylene	05/30	$/t	640	(0.8)	(3.0)	10.3	(20.0)
PP	05/30	$/t	955	(1.0)	(6.4)	8.5	(29.5)
PVC	05/30	$/t	800	(3.0)	(2.4)	7.4	(6.4)
ABS	05/30	$/t	1,270	0.0	(5.6)	10.0	(23.5)
SBR	05/30	$/t	1,440	(4.6)	(6.2)	17.1	(4.0)
SM	05/30	$/t	1,018	(2.6)	(6.0)	(2.2)	(22.6)
BPA	05/30	$/t	1,235	(5.9)	1.0	6.7	(30.4)
Caustic	05/30	$/t	295	0.9	1.7	2.6	(4.1)
2-EH	05/30	$/t	790	(2.5)	(2.5)	12.9	(24.8)
Caprolactam	05/30	$/t	1,340	0.0	1.5	16.5	(26.0)
Solar				%	%	%	%
Polysilicon	06/01	$/kg	17.0	(0.2)	2.6	24.7	8.6
Module	06/01	$/W	0.51	(0.4)	(1.9)	(6.4)	(7.2)

*참고: 정제마진의 변동률은 %가 아닌 $/bbl임

3. Global Peers Summary (8~9 page)

	Unit	Price	1D	1W	1M	3M	12M
E&P			%	%	%	%	%
ExxonMobil	USD	89.3	1.1	(0.7)	0.9	8.6	6.0
Shell	EUR	1,701	1.5	1.6	(2.4)	1.4	(10.6)
Petrochina	CNY	7.34	(0.3)	1.5	0.0	(6.1)	(42.7)
Gazprom	RUB	146.4	2.1	(2.1)	(8.1)	0.2	2.8
Petrobras	BRL	8.5	(1.3)	1.0	(16.1)	17.2	(32.6)
Refinery							
Phillips66	USD	80.8	0.8	0.2	2.9	(5.9)	3.5
Valero	USD	54.9	(0.4)	0.6	(0.8)	(14.0)	(4.9)
JX	JPY	426.5	0.4	(1.8)	(5.8)	(11.0)	(22.5)
Neste Oil	EUR	30.8	0.7	2.4	8.8	6.8	31.7

	Unit	Price	1D	1W	1M	3M	12M
Petrochemical			%	%	%	%	%
BASF	EUR	69.0	1.0	(1.3)	0.6	9.3	(15.7)
Dow Chemical	USD	53.6	0.9	2.8	4.8	6.6	3.0
SABIC	SAR	81.4	1.2	1.8	(2.2)	5.8	(21.3)
Formosa Pla.	TWD	78.5	(0.4)	(0.8)	0.9	(1.9)	8.1
Shin-Etsu	JPY	6,158	0.4	(3.0)	1.5	1.7	(19.0)
Renewable							
Wacker	EUR	84.3	0.6	0.3	0.4	7.2	(16.1)
Yingli	USD	4.60	25.0	24.0	47.4	1.1	(64.9)
Tesla	USD	220.7	0.8	(1.1)	2.7	9.8	(11.4)
BYD	CNY	60.2	0.2	3.9	(1.7)	12.0	(24.3)

4. Coverage Summary

	06/03	1D	1W	1M	3M	6M	12M	투자의견	TP	%	P/E	P/B
KOSPI	1,986	0.0	0.8	0.5	1.5	(0.4)	(3.7)				* 추정치는 12M fwd 기준임	
KOSPI화학	5,367	(0.5)	(0.2)	(0.9)	2.8	1.2	7.9				* 모든 coverage 업체의 실적은 연결기준임	
LG화학	262,500	(2.4)	(4.5)	(9.0)	(11.9)	(16.8)	(0.2)	매수	400,000	52.4	11.57	1.38
롯데케미칼	270,000	(3.2)	(7.7)	(7.4)	(13.9)	9.5	6.9	매수	340,000	25.9	9.13	1.05
한화케미칼	23,200	(1.1)	(2.7)	(3.9)	(4.9)	(13.6)	19.3	매수	30,000	29.3	9.16	0.75
금호석유화학	62,300	1.8	(2.0)	(5.7)	4.9	5.8	(24.7)	매수	70,000	12.4	12.28	1.23
KCC	398,500	1.1	(2.6)	(1.0)	(5.7)	(12.4)	(22.8)	매수	550,000	38.0	14.18	0.61
OCI	94,300	0.4	(3.8)	(13.5)	(1.8)	13.9	(2.9)	매수	120,000	27.3	17.72	0.82
SKC	27,800	0.5	(0.7)	(1.1)	(11.3)	(20.3)	(29.4)	매수	37,000	33.1	8.67	0.68
국도화학	61,700	2.7	4.4	(2.8)	(0.5)	4.6	0.7	매수	100,000	62.1	7.02	0.71
SK이노베이션	156,000	(0.6)	(4.0)	2.3	4.3	21.4	32.2	매수	180,000	15.4	11.67	0.95
S-Oil	82,300	(2.3)	(6.2)	(3.2)	(2.3)	9.7	25.6	매수	100,000	21.5	11.60	1.43
GS	51,000	(0.8)	(3.6)	(3.4)	(5.9)	0.6	5.6	매수	65,000	27.5	7.30	0.85
SK가스	87,000	2.5	0.9	6.6	19.3	9.7	(17.1)	매수	100,000	14.9	12.34	0.76
대우인터내셔널	23,650	(1.0)	1.3	4.4	14.5	23.8	(10.8)	매수	27,000	14.2	10.94	1.05
LG상사	37,750	0.3	(3.6)	6.8	3.4	4.6	(7.1)	매수	42,000	11.3	11.15	0.97

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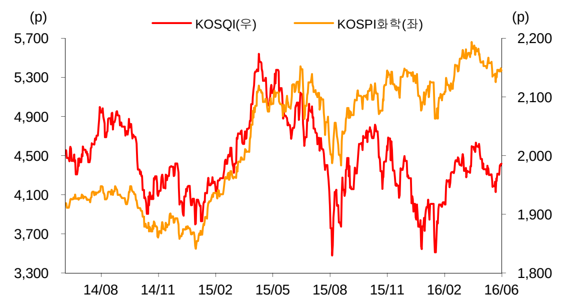
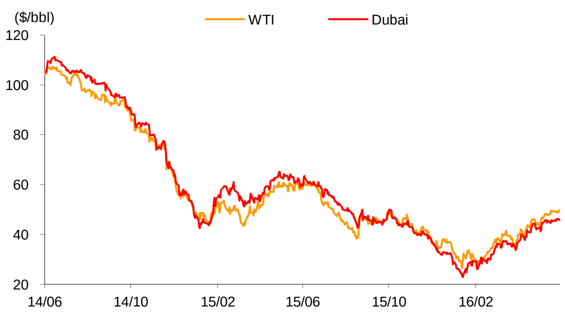
Key Chart

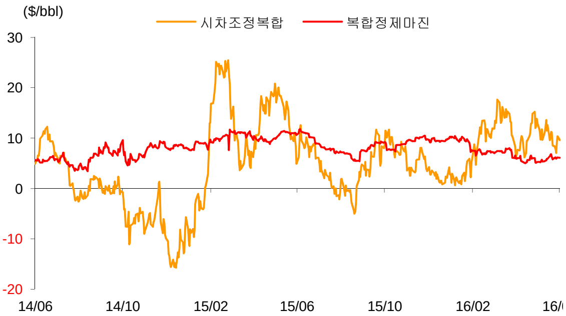
KOSPI/KOSPI화학



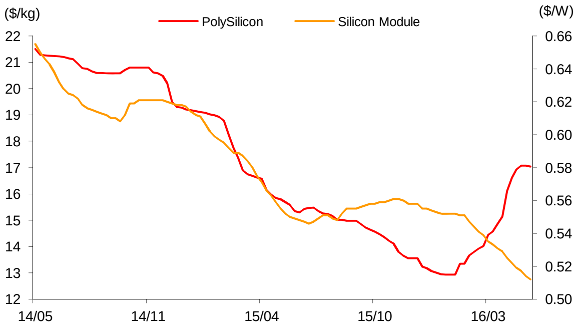
WTI/Dubai



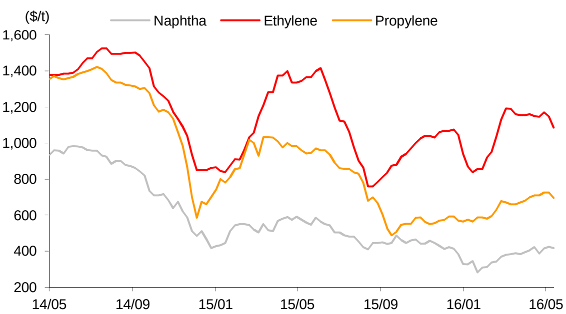
Complex & 1M lagging margin



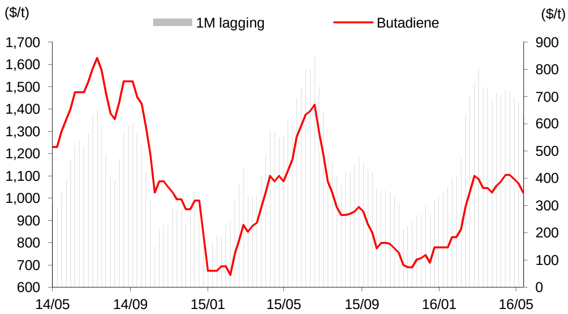
Polysilicon & Module prices



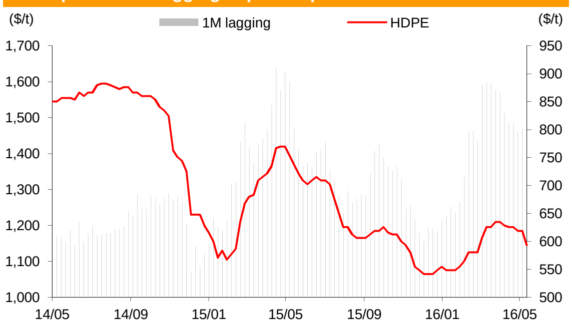
Naphtha/Ethylene/Propylene prices



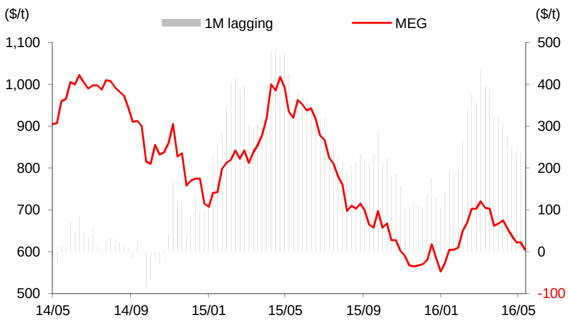
Butadiene price & 1M lagging naphtha spread



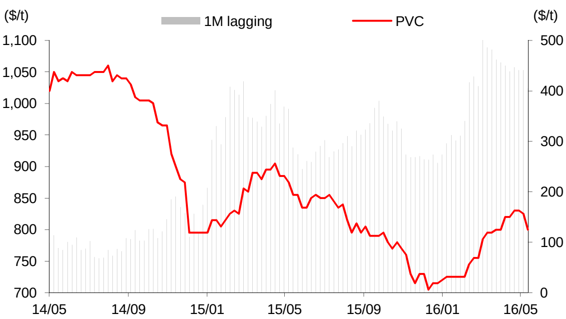
HDPE price & 1M lagging naphtha spread



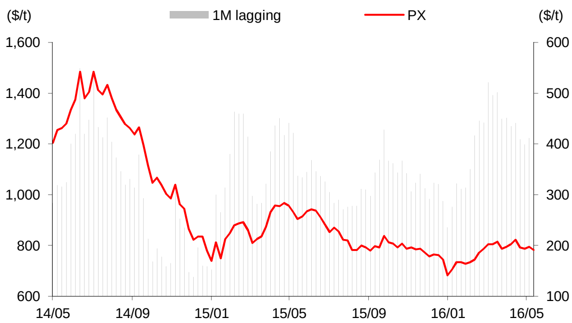
MEG price & 1M lagging naphtha spread



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: 각종언론)
제목	롯데케미칼, 미국 액시올에 인수제안서 제출
결론	외형확대의미, 하지만 연이은 투자 재무부담과 북미 시황 피크아웃은 부담
세부	
	1) 액시올(Axiall)은 북미지역 내 CA사업을 영위하고 있음
	2) 또한 롯데케미칼과 2018년 북미 ECC 건설 또한 추진하고 있음
	3) 웨스트레이크(Westlake) 역시 적대적M&A를 노리고 있는 상황임
	4) Westlake의 인수가격은 약 3.3조원으로 파악, 롯켐은 그 이상 가능
	5) 외형확대의미, 하지만 연이은 투자 재무부담과 북미 시황 피크아웃은 부담

WTI Comment	(출처: 연합뉴스)
제목	공급차질 우려에 유가상승
상승 요인	나이지리아 원유공급시설, 무장세력에 의해 공격
하락 요인	옐런, "올 해 점진적인 금리 인상 필요"

Issue 1	(출처: Platts)
제목	유럽 PE/PP 재고 과다, 시장 충격으로 인지 중
결론	중동 PE CP 하향은 유럽시장 공략 위한 것으로 파악, 약세지속 예상
세부	
	1) 과도한 수입물량과 PE/PP의 많은 재고물량으로 올 여름 수급충격 예상
	2) 2015년 일시적으로 심각한 shortage를 경험했던 것과는 상반된 상황임
	3) 수입물량충격을 주는 측은 중동, 중동은 16년말까지 136만톤/년 신설
	4) 중동수입물량은 PE YoY +17%, PP YoY +24%로 산출되었음
	5) 중동 PE CP 하향은 유럽시장 공략 위한 것으로 파악, 약세지속 예상

Issue 2	(출처: Bloomberg)
제목	Yingli 주가 +2.5%, 2011년 이후 첫 흑자 기대감
결론	최근 모듈가격하락과 시황둔화 감안 시 기조적 부활으로 파악은 어려움
세부	
	1) 일본으로 shipment 증대, 2011년 이후 첫 분기 순이익 기대
	2) 전월 $2.7억의 채무상환 실패하면서 디폴트 위기와 함께 주가 급락
	3) 현재 채무자들과 부채상환 연기시점에 대해 논의 중에 있음
	4) 2016년 첫 3개월 shipment는 505MW, GPM 19.5% 기대. 가이던스 상회
	5) 최근 모듈가격하락과 시황둔화 감안 시 기조적 부활으로 파악은 어려움

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	2014avg.	2015avg.	2016acc.
F/X	**USD/EUR**	0.881	0.880	0.898	0.877	0.909	0.919	0.900	0.921	0.754	0.901	0.897
	Change, %		*0.1*	*(1.9)*	*0.4*	*(3.1)*	*(4.2)*	*(2.1)*	*(4.4)*	*16.8*	*(2.3)*	*(1.8)*
	USD/JPY	107.6	106.5	111.1	107.1	113.7	123.1	125.6	120.6	105.9	121.1	112.7
	Change, %		*1.0*	*(3.2)*	*0.4*	*(5.4)*	*(12.6)*	*(14.4)*	*(10.8)*	*1.6*	*(11.1)*	*(4.5)*
	USD/KRW	1,166.9	1,183.6	1,191.8	1,169.7	1,203.4	1,156.5	1,111.1	1,172.6	1,053.0	1,131.2	1,184.4
	Change, %		*(1.4)*	*(2.1)*	*(0.2)*	*(3.0)*	*0.9*	*5.0*	*(0.5)*	*10.8*	*3.2*	*(1.5)*
Agriculture	**Corn**	427.3	418.3	412.8	376.0	354.5	376.3	360.5	358.8	415.6	376.8	372.5
	Change, %		*2.2*	*3.5*	*13.6*	*20.5*	*13.6*	*18.5*	*19.1*	*2.8*	*13.4*	*14.7*
	Soybean	1,138.3	1,132.0	1,086.5	1,026.3	870.5	906.0	937.8	871.3	1,245.5	945.4	941.0
	Change, %		*0.6*	*4.8*	*10.9*	*30.8*	*25.6*	*21.4*	*30.6*	*(8.6)*	*20.4*	*21.0*
	Wheat	507.5	497.3	481.5	453.3	454.8	471.3	517.0	470.0	588.0	508.1	467.9
	Change, %		*2.1*	*5.4*	*12.0*	*11.6*	*7.7*	*(1.8)*	*8.0*	*(13.7)*	*(0.1)*	*8.5*
	Rice	11.7	11.4	10.8	11.2	10.3	11.2	9.8	11.6	14.0	11.1	10.8
	Change, %		*2.9*	*8.7*	*4.4*	*14.0*	*4.7*	*19.4*	*1.2*	*(16.1)*	*5.9*	*8.3*
	Oats	193.8	188.0	193.0	181.3	170.3	260.5	258.8	217.3	373.1	250.2	191.3
	Change, %		*3.1*	*0.4*	*6.9*	*13.8*	*(25.6)*	*(25.1)*	*(10.8)*	*(48.1)*	*(22.6)*	*1.3*
MYR/mt	**Palm Oil**	2,671.0	2,680.0	2,621.0	2,640.0	2,464.0	2,189.0	2,320.0	2,398.0	2,415.1	2,190.3	2,535.6
	Change, %		*(0.3)*	*1.9*	*1.2*	*8.4*	*22.0*	*15.1*	*11.4*	*10.6*	*21.9*	*5.3*
	Cocoa	3,063.0	3,031.0	3,005.0	3,047.0	3,001.0	3,369.0	3,116.0	3,211.0	3,006.8	3,091.6	2,960.9
	Change, %		*1.1*	*1.9*	*0.5*	*2.1*	*(9.1)*	*(1.7)*	*(4.6)*	*1.9*	*(0.9)*	*3.4*
	Cotton	65.6	63.9	64.3	61.6	58.9	63.2	64.0	63.3	76.4	63.3	60.7
	Change, %		*2.6*	*2.0*	*6.4*	*11.2*	*3.7*	*2.4*	*3.6*	*(14.1)*	*3.6*	*7.9*
	Sugar	18.8	18.8	17.5	15.7	14.8	15.5	12.1	15.2	16.3	13.1	15.2
	Change, %		*0.2*	*7.2*	*19.3*	*26.6*	*21.3*	*55.9*	*23.2*	*15.1*	*42.9*	*23.9*
	Coffee	131.7	127.1	121.3	123.5	118.8	124.0	135.1	126.7	177.1	132.6	121.6
	Change, %		*3.6*	*8.6*	*6.7*	*10.9*	*6.2*	*(2.5)*	*3.9*	*(25.6)*	*(0.7)*	*8.3*
Energy	**WTI**	49.7	48.6	49.3	44.7	35.9	40.0	59.1	37.0	92.9	48.8	38.3
	Change, %		*2.2*	*0.7*	*11.3*	*38.3*	*24.3*	*(16.0)*	*34.2*	*(46.5)*	*1.7*	*29.6*
	Brent	50.6	49.6	49.8	45.4	38.7	43.0	63.3	37.3	99.5	53.7	39.9
	Change, %		*1.8*	*1.6*	*11.4*	*30.6*	*17.6*	*(20.2)*	*35.6*	*(49.2)*	*(5.8)*	*26.7*
	Natural Gas	2.5	2.4	2.2	2.1	1.7	2.2	2.6	2.3	4.3	2.6	2.0
	Change, %		*2.8*	*13.7*	*17.4*	*48.0*	*12.8*	*(4.8)*	*5.5*	*(42.2)*	*(6.2)*	*21.1*
	Ethanol	1.7	1.7	1.7	1.5	1.4	1.5	1.5	1.4	2.1	1.5	1.5
	Change, %		*1.9*	*3.0*	*12.8*	*23.1*	*13.1*	*10.3*	*21.9*	*(17.2)*	*13.0*	*16.4*
	RBOB Gasoline	158.9	160.8	163.2	149.6	133.2	127.0	203.0	126.7	262.6	163.6	133.4
	Change, %		*(1.2)*	*(2.6)*	*6.2*	*19.3*	*25.1*	*(21.7)*	*25.4*	*(39.5)*	*(2.9)*	*19.1*
	Coal	39.6	39.6	44.8	43.6	43.6	43.0	44.3	43.3	57.5	45.2	43.3
	Change, %		*0.0*	*(11.5)*	*(9.2)*	*(9.1)*	*(7.8)*	*(10.5)*	*(8.5)*	*(31.1)*	*(12.3)*	*(8.5)*
Metal	**Gold**	1,245.3	1,244.2	1,205.6	1,287.9	1,259.3	1,086.8	1,172.0	1,061.4	1,266.5	1,160.6	1,209.8
	Change, %		*0.1*	*3.3*	*(3.3)*	*(1.1)*	*14.6*	*6.3*	*17.3*	*(1.7)*	*7.3*	*2.9*
	Silver	16.5	16.4	16.0	17.5	15.5	14.6	16.0	13.8	19.1	15.7	15.6
	Change, %		*0.3*	*3.0*	*(5.7)*	*6.1*	*13.2*	*2.8*	*19.2*	*(13.7)*	*4.8*	*5.7*
	Platinum	995.8	987.3	969.5	1,080.5	979.1	880.5	1,096.3	891.1	1,384.6	1,055.7	956.8
	Change, %		*0.9*	*2.7*	*(7.8)*	*1.7*	*13.1*	*(9.2)*	*11.7*	*(28.1)*	*(5.7)*	*4.1*
	Palladium	557.9	554.2	542.1	607.7	555.3	567.3	752.7	563.0	803.4	691.9	546.7
	Change, %		*0.7*	*2.9*	*(8.2)*	*0.5*	*(1.6)*	*(25.9)*	*(0.9)*	*(30.6)*	*(19.4)*	*2.0*
	Copper	4,688.0	4,688.0	4,695.0	4,810.0	5,027.5	4,612.0	5,937.0	4,705.0	6,828.1	5,503.1	4,718.2
	Change, %		*0.0*	*(0.1)*	*(2.5)*	*(6.8)*	*1.6*	*(21.0)*	*(0.4)*	*(31.3)*	*(14.8)*	*(0.6)*
	Uranium	28.3	28.3	27.3	27.6	31.4	36.1	35.9	34.4	33.5	36.9	30.6
	Change, %		*(0.2)*	*3.7*	*2.5*	*(10.0)*	*(21.7)*	*(21.3)*	*(17.9)*	*(15.7)*	*(23.3)*	*(7.7)*
	HR Coil	615.0	615.0	608.0	560.0	405.0	368.0	464.0	391.0	653.2	461.5	463.6
	Change, %		*0.0*	*1.2*	*9.8*	*51.9*	*67.1*	*32.5*	*57.3*	*(5.8)*	*33.3*	*32.7*
	Scrap	265.0	265.0	270.0	275.0	250.0	161.0	250.0	250.0	401.3	252.9	301.3
	Change, %		*0.0*	*(1.9)*	*(3.6)*	*6.0*	*64.6*	*6.0*	*6.0*	*(34.0)*	*4.8*	*(12.1)*
	Zinc	2,027.0	1,992.0	1,899.0	1,888.0	1,857.0	1,552.0	2,130.0	1,609.0	2,165.0	1,941.9	1,771.8
	Change, %		*1.8*	*6.7*	*7.4*	*9.2*	*30.6*	*(4.8)*	*26.0*	*(6.4)*	*4.4*	*14.4*

자료: Bloomberg

참고) NYMEX, ICE, LME 중 대표지수를 사용

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Refining Price Data

Daily Price		06/03	1D	1W	1M	3M	6M	12M	YTD	2014avg.	2015avg.	2016acc.
Crude Oil	**WTI**	49.7	48.6	49.3	44.7	36.5	37.2	58.1	37.0	93.1	48.8	38.2
	Change, %		*2.2*	*0.7*	*11.3*	*36.1*	*33.7*	*(14.5)*	*34.2*	*(46.6)*	*1.9*	*30.0*
	Dubai	45.9	46.3	45.5	42.2	35.6	36.5	60.2	32.2	96.7	50.8	35.4
	Change, %		*(0.8)*	*0.8*	*8.8*	*29.1*	*25.8*	*(23.8)*	*42.6*	*(52.5)*	*(9.6)*	*29.7*
Crude Oil	**Gasoline(휘발유)**	59.9	60.5	60.8	56.4	52.5	54.4	83.6	54.8	110.9	69.5	52.8
Product	*Change, %*		*(1.0)*	*(1.4)*	*6.3*	*14.1*	*10.2*	*(28.3)*	*9.3*	*(46.0)*	*(13.9)*	*13.3*
	Kerosene(등유)	58.2	58.7	57.8	52.1	48.2	50.1	73.7	44.2	112.6	64.7	46.9
	Change, %		*(0.8)*	*0.6*	*11.7*	*20.6*	*16.2*	*(21.1)*	*31.6*	*(48.4)*	*(10.2)*	*24.1*
	Diesel(경유)	58.1	58.5	57.0	51.8	46.4	49.8	75.4	43.2	112.8	64.8	45.4
	Change, %		*(0.8)*	*1.9*	*12.0*	*25.2*	*16.6*	*(23.0)*	*34.3*	*(48.5)*	*(10.4)*	*28.0*
	Bunker-C	36.0	36.0	35.1	32.9	27.3	29.4	56.2	25.3	86.5	45.3	27.9
	Change, %		*0.1*	*2.5*	*9.5*	*31.9*	*22.2*	*(35.9)*	*42.3*	*(58.4)*	*(20.5)*	*28.9*
	Naphtha	45.3	45.7	44.4	42.0	37.5	45.8	59.8	43.5	94.3	52.6	39.5
	Change, %		*(0.9)*	*1.9*	*7.9*	*20.6*	*(1.2)*	*(24.3)*	*4.2*	*(52.0)*	*(13.9)*	*14.6*
Dubai	**Gasoline(휘발유)**	14.0	14.2	15.2	14.2	16.9	17.9	23.3	22.6	14.2	18.7	17.5
Spread	*Change*		*(0.2)*	*(1.2)*	*(0.2)*	*(2.9)*	*(3.9)*	*(9.4)*	*(8.6)*	*(0.2)*	*(4.8)*	*(3.5)*
	Kerosene(등유)	12.3	12.4	12.3	9.9	12.7	13.6	13.5	12.0	15.9	14.0	11.5
	Change		*(0.1)*	*(0.0)*	*2.4*	*(0.4)*	*(1.3)*	*(1.3)*	*0.2*	*(3.6)*	*(1.7)*	*0.8*
	Diesel(경유)	12.2	12.3	11.4	9.6	10.8	13.3	15.1	11.0	16.0	14.0	10.0
	Change		*(0.1)*	*0.7*	*2.5*	*1.3*	*(1.1)*	*(3.0)*	*1.1*	*(3.9)*	*(1.8)*	*2.2*
	Bunker-C	(9.9)	(10.3)	(10.4)	(9.3)	(8.3)	(7.1)	(4.0)	(6.9)	(10.3)	(5.5)	(7.5)
	Change		*0.4*	*0.5*	*(0.6)*	*(1.6)*	*(2.9)*	*(5.9)*	*(3.0)*	*0.3*	*(4.4)*	*(2.4)*
	Naphtha	(0.6)	(0.6)	(1.1)	(0.2)	2.0	9.3	(0.4)	11.3	(2.4)	1.8	4.1
	Change		*(0.0)*	*0.5*	*(0.4)*	*(2.6)*	*(10.0)*	*(0.2)*	*(11.9)*	*1.8*	*(2.5)*	*(4.8)*
Refining	**Simple(단순)**	0.1	(0.1)	(0.2)	(0.4)	1.3	3.0	4.4	3.2	(0.1)	3.3	1.5
Margin	*Change*		*0.1*	*0.3*	*0.5*	*(1.2)*	*(2.9)*	*(4.3)*	*(3.1)*	*0.2*	*(3.2)*	*(1.4)*
	Complex(복합)	6.1	6.2	6.0	5.3	7.1	9.1	11.0	9.7	7.1	9.3	7.2
	Change		*(0.0)*	*0.1*	*0.8*	*(1.0)*	*(3.0)*	*(4.9)*	*(3.6)*	*(0.9)*	*(3.1)*	*(1.1)*
	Complex(lagging)	9.6	10.4	8.4	12.8	13.4	2.8	6.2	2.1	2.3	7.3	9.2
	Change		*(0.8)*	*1.2*	*(3.2)*	*(3.8)*	*6.8*	*3.4*	*7.5*	*7.3*	*2.3*	*0.4*

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			06/06	06/03	06/02	06/01	05/31	05/30	05/27	05/26	05/25	05/24
Spot Price	**Naphtha**	CFR Japan	427.8	427.5	430.5	415.1	423.3	421.4	418.3	427.5	427.9	422.9
	Ethylene	CFR SE Asia	1,045.0	1,045.0	1,065.0	1,065.0	1,065.0	1,065.0	1,065.0	1,090.0	1,120.0	1,130.0
	Propylene	FOB Korea	699.0	699.0	699.0	699.0	695.0	695.0	700.0	690.0	690.0	695.0
	Butadiene	FOB Korea	910.0	910.0	930.0	935.0	945.0	945.0	945.0	1,050.0	1,060.0	1,065.0
	HDPE	CFR FE Asia	1,095.0	1,100.0	1,100.0	1,100.0	1,100.0	1,100.0	1,100.0	1,100.0	1,100.0	1,110.0
	LDPE	CFR FE Asia	1,100.0	1,115.0	1,115.0	1,115.0	1,115.0	1,115.0	1,130.0	1,130.0	1,130.0	1,120.0
	LLDPE	CFR FE Asia	1,095.0	1,090.0	1,090.0	1,090.0	1,090.0	1,090.0	1,110.0	1,110.0	1,110.0	1,100.0
	MEG	CFR China	609.0	609.0	610.0	602.0	611.0	603.0	602.0	602.0	603.0	604.0
	PP	CFR FE Asia	900.0	900.0	905.0	910.0	910.0	905.0	905.0	905.0	905.0	910.0
	PX	CFR China	788.5	785.0	773.7	771.5	776.5	767.8	765.3	766.3	759.3	759.7
	PTA	CFR China	605.0	603.0	602.0	602.0	602.0	600.0	600.0	598.0	598.0	598.0
	Benzene	FOB Korea	605.0	601.0	593.0	599.0	605.5	601.5	597.8	612.5	610.0	613.5
	Toluene	FOB Korea	572.0	573.0	573.0	574.0	569.5	566.5	568.5	573.5	576.5	578.5
	Xylene	FOB Korea	686.0	681.0	673.5	677.0	682.0	680.0	675.0	683.0	682.0	680.0
	SM	FOB Korea	962.0	968.0	968.0	970.0	972.0	957.0	950.0	961.0	974.0	972.0

Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2014avg.	2015avg.	2016acc.
Spot Price	**Naphtha**	CFR Japan	417.0	424.5	422.5	338.0	345.5	559.0	413.5	865.9	493.0	370.8
	Change, %			*(1.8)*	*(1.3)*	*23.4*	*20.7*	*(25.4)*	*0.8*	*(51.8)*	*(15.4)*	*12.5*
	Ethylene	CFR SE Asia	1,090.0	1,130.0	1,125.0	990.0	885.0	1,405.0	1,090.0	1,401.1	1,103.7	1,063.6
	Change, %			*(3.5)*	*(3.1)*	*10.1*	*23.2*	*(22.4)*	*0.0*	*(22.2)*	*(1.2)*	*2.5*
	Propylene	CFR SE Asia	690.0	695.0	730.0	635.0	645.0	875.0	650.0	1,254.2	770.0	642.3
	Change, %			*(0.7)*	*(5.5)*	*8.7*	*7.0*	*(21.1)*	*6.2*	*(45.0)*	*(10.4)*	*7.4*
	Butadiene	CFR SE Asia	985.0	1,025.0	1,065.0	920.0	740.0	1,125.0	720.0	1,281.7	877.5	921.4
	Change, %			*(3.9)*	*(7.5)*	*7.1*	*33.1*	*(12.4)*	*36.8*	*(23.2)*	*12.3*	*6.9*
	Benzene	CFR SE Asia	625.0	640.0	660.0	562.5	547.5	747.5	580.0	1,243.1	690.0	605.0
	Change, %			*(2.3)*	*(5.3)*	*11.1*	*14.2*	*(16.4)*	*7.8*	*(49.7)*	*(9.4)*	*3.3*
	Toluene	CFR SE Asia	620.0	650.0	670.0	590.0	575.0	800.0	630.0	1,082.5	700.8	627.5
	Change, %			*(4.6)*	*(7.5)*	*5.1*	*7.8*	*(22.5)*	*(1.6)*	*(42.7)*	*(11.5)*	*(1.2)*
	Xylene	CFR SE Asia	640.0	645.0	660.0	580.0	575.0	800.0	625.0	1,055.7	699.3	621.6
	Change, %			*(0.8)*	*(3.0)*	*10.3*	*11.3*	*(20.0)*	*2.4*	*(39.4)*	*(8.5)*	*3.0*
Spread	**Ethylene**	-Naphtha	673.0	705.5	702.5	652.0	539.5	846.0	676.5	535.2	610.6	692.8
	Change, %			*(4.6)*	*(4.2)*	*3.2*	*24.7*	*(20.4)*	*(0.5)*	*25.7*	*10.2*	*(2.9)*
	Propylene	-Naphtha	273.0	270.5	307.5	297.0	299.5	316.0	236.5	388.3	277.0	271.5
	Change, %			*0.9*	*(11.2)*	*(8.1)*	*(8.8)*	*(13.6)*	*15.4*	*(29.7)*	*(1.4)*	*0.6*
	Butadiene	-Naphtha	568.0	600.5	642.5	582.0	394.5	566.0	306.5	415.9	384.5	550.6
	Change, %			*(5.4)*	*(11.6)*	*(2.4)*	*44.0*	*0.4*	*85.3*	*36.6*	*47.7*	*3.2*
	Benzene	-Naphtha	208.0	215.5	237.5	224.5	202.0	188.5	166.5	377.3	197.0	234.2
	Change, %			*(3.5)*	*(12.4)*	*(7.3)*	*3.0*	*10.3*	*24.9*	*(44.9)*	*5.6*	*(11.2)*
	Toluene	-Naphtha	203.0	225.5	247.5	252.0	229.5	241.0	216.5	216.6	207.8	256.7
	Change, %			*(10.0)*	*(18.0)*	*(19.4)*	*(11.5)*	*(15.8)*	*(6.2)*	*(6.3)*	*(2.3)*	*(20.9)*
	Xylene	-Naphtha	223.0	220.5	237.5	242.0	229.5	241.0	211.5	189.9	206.3	250.8
	Change, %			*1.1*	*(6.1)*	*(7.9)*	*(2.8)*	*(7.5)*	*5.4*	*17.4*	*8.1*	*(11.1)*

자료 : Cischem, Platts, Bloomberg, SK증권

참고 : Spread는 Polymer와 Naphtha의 가격차이임

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Weekly Price			Last Week	1W	1M	3M	6M	12M	YTD	2014avg.	2015avg.	2016acc.
Spot Price	**HDPE**	CFR SE Asia	1,145.0	1,185.0	1,195.0	1,125.0	1,075.0	1,370.0	1,065.0	1,524.9	1,230.1	1,140.5
	Change, %			(3.4)	(4.2)	1.8	6.5	(16.4)	7.5	(24.9)	(6.9)	0.4
	MEG	CFR SE Asia	605.0	622.5	655.0	670.0	605.0	920.0	617.5	934.1	780.8	643.1
	Change, %			(2.8)	(7.6)	(9.7)	0.0	(34.2)	(2.0)	(35.2)	(22.5)	(5.9)
	PVC	CFR SE Asia	800.0	825.0	820.0	745.0	725.0	855.0	715.0	1,013.9	820.8	769.5
	Change, %			(3.0)	(2.4)	7.4	10.3	(6.4)	11.9	(21.1)	(2.5)	4.0
	PP	CFR SE Asia	955.0	965.0	1,020.0	880.0	835.0	1,355.0	835.0	1,503.0	1,109.8	935.9
	Change, %			(1.0)	(6.4)	8.5	14.4	(29.5)	14.4	(36.5)	(13.9)	2.0
	2-EH	CFR Korea	790.0	810.0	810.0	700.0	685.0	1,050.0	680.0	1,397.1	930.1	746.6
	Change, %			(2.5)	(2.5)	12.9	15.3	(24.8)	16.2	(43.5)	(15.1)	5.8
	ABS	CFR SE Asia	1,270.0	1,270.0	1,345.0	1,155.0	1,120.0	1,660.0	1,130.0	1,897.7	1,431.1	1,232.0
	Change, %			0.0	(5.6)	10.0	13.4	(23.5)	12.4	(33.1)	(11.3)	3.1
	SBR	CFR SE Asia	1,440.0	1,510.0	1,535.0	1,230.0	1,210.0	1,500.0	1,150.0		1,332.1	1,349.8
	Change, %			(4.6)	(6.2)	17.1	19.0	(4.0)	25.2		8.1	6.7
	SM	CFR SE Asia	1,017.5	1,045.0	1,082.5	1,040.0	940.0	1,315.0	910.0	1,547.1	1,100.7	1,040.5
	Change, %			(2.6)	(6.0)	(2.2)	8.2	(22.6)	11.8	(34.2)	(7.6)	(2.2)
	Caustic	FOB NEA	295.0	292.5	290.0	287.5	290.0	307.5	285.0	310.0	296.8	287.7
	Change, %			0.9	1.7	2.6	1.7	(4.1)	3.5	(4.8)	(0.6)	2.5
	PX	CFR SE Asia	782.5	795.0	822.5	745.0	735.0	905.0	762.5	1,228.5	842.9	769.3
	Change, %			(1.6)	(4.9)	5.0	6.5	(13.5)	2.6	(36.3)	(7.2)	1.7
	PO	CFR China	1,235.0	1,312.5	1,222.5	1,157.5	1,057.5	1,775.0	1,257.5	2,179.2	1,683.4	1,221.0
	Change, %			(5.9)	1.0	6.7	16.8	(30.4)	(1.8)	(43.3)	(26.6)	1.1
	Caprolactam	CFR SE Asia	1,340.0	1,340.0	1,320.0	1,150.0	1,240.0	1,810.0	1,260.0	2,233.4	1,581.5	1,247.3
	Change, %			0.0	1.5	16.5	8.1	(26.0)	6.3	(40.0)	(15.3)	7.4
	PTA	CFR SE Asia	627.5	627.5	632.5	580.0	562.5	707.5	585.0	911.7	648.0	601.0
	Change, %			0.0	(0.8)	8.2	11.6	(11.3)	7.3	(31.2)	(3.2)	4.4
Spread	**HDPE**		728.0	760.5	772.5	787.0	729.5	811.0	651.5	659.0	737.1	769.7
	Change, %			(4.3)	(5.8)	(7.5)	(0.2)	(10.2)	11.7	10.5	(1.2)	(5.4)
	MEG		188.0	198.0	232.5	332.0	259.5	361.0	204.0	68.2	287.8	272.3
	Change, %			(5.1)	(19.1)	(43.4)	(27.6)	(47.9)	(7.8)	175.5	(34.7)	(31.0)
	PVC		383.0	400.5	397.5	407.0	379.5	296.0	301.5	148.0	327.8	398.8
	Change, %			(4.4)	(3.6)	(5.9)	0.9	29.4	27.0	158.7	16.8	(3.9)
	PP		538.0	540.5	597.5	542.0	489.5	796.0	421.5	637.1	616.8	565.1
	Change, %			(0.5)	(10.0)	(0.7)	9.9	(32.4)	27.6	(15.6)	(12.8)	(4.8)
	2-EH		373.0	385.5	387.5	362.0	339.5	491.0	266.5	531.3	437.0	375.8
	Change, %			(3.2)	(3.7)	3.0	9.9	(24.0)	40.0	(29.8)	(14.7)	(0.7)
	ABS		853.0	845.5	922.5	817.0	774.5	1,101.0	716.5	1,031.9	938.1	861.3
	Change, %			0.9	(7.5)	4.4	10.1	(22.5)	19.1	(17.3)	(9.1)	(1.0)
	SBR	BD spread	455.0	485.0	470.0	310.0	470.0	375.0	430.0		454.7	428.4
	Change, %			(6.2)	(3.2)	46.8	(3.2)	21.3	5.8		0.1	6.2
	SM		600.5	620.5	660.0	702.0	594.5	756.0	496.5	681.2	607.7	669.7
	Change, %			(3.2)	(9.0)	(14.5)	1.0	(20.6)	20.9	(11.8)	(1.2)	(10.3)
	Caustic											
	Change, %											
	PX		365.5	370.5	400.0	407.0	389.5	346.0	349.0	362.6	349.9	398.5
	Change, %			(1.3)	(8.6)	(10.2)	(6.2)	5.6	4.7	0.8	4.5	(8.3)
	PO	propylene sprea	545.0	617.5	492.5	522.5	412.5	900.0	607.5	925.0	913.4	578.8
	Change, %			(11.7)	10.7	4.3	32.1	(39.4)	(10.3)	(41.1)	(40.3)	(5.8)
	Caprolactam	benzene spread	715.0	700.0	660.0	587.5	692.5	1,062.5	680.0	990.3	891.6	642.3
	Change, %			2.1	8.3	21.7	3.2	(32.7)	5.1	(27.8)	(19.8)	11.3
	PTA	px spread	79.8	71.0	56.8	58.5	48.0	74.0	51.3	51.8	58.0	62.5
	Change, %			12.3	40.5	36.3	66.1	7.8	55.6	54.1	37.5	27.6

자료 : Cischem, Platts, SK증권

참고 : Spread는 Naphtha spread로 일괄적용

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Global peers

	Currency	06/03	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	53.6	0.9	2.8	4.8	6.6	0.6	3.0	4.2	60,217	15.2	13.7	2.5	2.4	8.4	7.7
Du Pont	USD	68.8	(0.0)	2.4	7.0	8.8	1.5	4.8	3.2	60,054	21.9	18.7	6.3	5.0	12.4	10.7
Eastman	USD	73.9	1.6	0.2	(2.6)	6.1	0.8	(4.3)	9.5	10,928	10.6	9.6	2.3	2.1	8.1	7.7
BASF	EUR	69.0	1.0	(1.3)	0.6	9.3	(6.2)	(15.7)	(2.5)	72,080	15.1	13.7	2.0	1.9	7.8	7.2
Akzo Nobel	EUR	61.5	(0.1)	(0.8)	(0.0)	10.7	(3.3)	(8.7)	(0.3)	17,422	14.7	14.0	2.2	2.1	8.0	7.7
Arkema	EUR	73.5	0.4	0.6	8.9	17.6	11.1	11.1	13.7	6,310	14.7	12.7	1.4	1.4	6.3	5.9
Lanxess	EUR	43.4	0.9	1.1	(2.4)	4.7	(3.8)	(12.1)	1.6	4,514	20.1	15.5	1.6	1.5	5.6	5.2
Sumitomo Chemical	JPY	482	(0.4)	(2.8)	0.8	(6.9)	(33.2)	(37.0)	(31.2)	7,461	9.2	8.3	0.9	0.9	6.7	6.3
Mitsubishi Chemical	JPY	530	(1.2)	(5.4)	(5.5)	(15.7)	(33.2)	(29.7)	(31.6)	7,462	8.7	7.8	0.8	0.7	5.6	5.4
Shin-Etsu Chemical	JPY	6,158	0.4	(3.0)	1.5	1.7	(9.5)	(19.0)	(6.9)	24,882	17.3	16.2	1.2	1.2	6.0	5.5
Asahi Kasei	JPY	696	0.0	(5.3)	(5.7)	0.4	(15.6)	(35.3)	(15.5)	9,123	10.5	9.4	0.8	0.8	5.1	4.8
JSR	JPY	1,560	(2.0)	(2.9)	6.8	(9.2)	(17.9)	(30.2)	(17.9)	3,298	13.7	12.7	0.9	0.9	5.7	5.2
Nitto Denko	JPY	6,975	1.2	(2.3)	9.5	4.2	(19.0)	(25.6)	(21.7)	11,333	17.3	15.3	1.7	1.6	7.2	6.4
SABIC	SAR	81.4	1.2	1.8	(2.2)	5.8	(6.9)	(21.3)	6.4	65,128	16.5	14.7	1.4	1.4	7.6	6.9
Yansab	SAR	42.8	1.9	7.4	7.1	11.3	(3.6)	(18.1)	32.1	6,422	17.8	16.0	1.6	1.5	9.2	8.7
Formosa Plastics	TWD	78.5	(0.4)	(0.8)	0.9	(1.9)	4.9	8.1	1.9	15,488	16.0	14.9	1.6	1.6	23.7	21.5
Formosa Fiber	TWD	82.1	0.1	0.6	2.1	6.5	16.6	13.6	10.9	14,914	16.4	15.9	1.6	1.6	13.6	12.8
Nan Ya Plastics	TWD	61.7	(1.3)	(0.3)	2.5	(6.5)	3.2	(13.8)	1.1	15,166	14.2	14.4	1.4	1.4	13.8	13.3
Sinopec Shanghai	CNY	6.19	(0.5)	3.3	(4.9)	(2.5)	(5.4)	(35.1)	(4.5)	8,620	17.1	17.7	2.9	2.6	8.5	8.8
Sinopec Yizheng(Fibe	CNY	4.00	(0.2)	3.4	(10.1)	(29.3)	(54.2)	(61.4)	(51.0)	7,735	#N/A N/A	400.0	2.3	2.3	15.8	13.3
Reliance	INR	955	(0.5)	(1.4)	(1.5)	(5.1)	(1.1)	5.2	(6.0)	46,305	10.9	9.3	1.1	1.0	8.8	7.2
Industries Qatar	QAR	96.7	1.4	(0.3)	(3.2)	(10.1)	(11.9)	(30.7)	(13.0)	16,072	14.4	13.2	1.8	1.7	53.7	52.7
PTT Chemical	THB	62.5	0.8	2.9	4.6	12.1	22.5	(7.1)	25.0	7,903	11.1	10.2	1.1	1.1	5.3	5.0
Petronas	MYR	6.6	0.8	(0.9)	2.2	(6.2)	(3.0)	5.0	(9.9)	12,891	19.2	17.3	2.0	1.9	9.3	8.5
LG화학	KRW	262,500	0.0	(3.8)	(9.0)	(11.9)	(15.0)	1.0	(20.1)	14,908	0.0	12.9	0.0	1.4	0.0	5.1
롯데케미칼	KRW	270,000	0.0	(4.6)	(7.4)	(13.9)	11.8	6.1	10.9	7,931	0.0	6.7	0.0	1.1	0.0	3.8
한화케미칼	KRW	23,200	0.0	(2.3)	(3.9)	(4.9)	(11.5)	22.1	(14.7)	3,277	0.0	8.7	0.0	0.8	0.0	8.2
금호석유	KRW	62,300	0.0	(1.1)	(5.7)	4.9	7.4	(19.5)	19.6	1,627	0.0	14.2	0.0	1.2	0.0	10.3
SKC	KRW	27,800	0.0	0.5	(1.1)	(11.3)	(19.7)	(27.5)	(17.8)	881	0.0	8.3	0.0	0.7	0.0	7.5
국도화학	KRW	61,700	0.0	6.4	(2.8)	(0.5)	4.9	3.7	4.0	307	0.0	7.1	0.0	0.8	0.0	3.8
효성	KRW	3,980	0.0	(0.9)	(2.7)	35.4	43.7	25.4	52.5	3,551	0.0	7.3	0.0	1.1	0.0	6.9
Average			**0.2**	**(0.2)**	**(0.4)**	**0.3**	**(4.7)**	**(11.1)**	**(2.2)**							
Refinery																
Valero	USD	54.9	(0.4)	0.6	(0.8)	(14.0)	(23.1)	(4.9)	(22.3)	25,802	9.4	8.0	1.2	1.1	4.9	4.5
Conoco Phillips	USD	45.5	3.0	2.7	6.5	10.7	(11.1)	(27.8)	(2.5)	56,371	#N/A N/A	172.4	1.5	1.5	15.0	8.1
Formosa Petrochemi	TWD	89.2	0.5	(1.0)	(0.9)	1.8	18.1	20.2	13.2	26,336	18.3	18.9	3.1	3.0	11.8	11.8
Tesoro	USD	80.1	0.1	2.1	2.8	(5.5)	(28.7)	(4.8)	(23.9)	9,615	10.9	10.7	1.7	1.6	6.1	5.8
Marathon Petroleum	USD	35.3	(0.5)	0.5	(1.6)	(4.8)	(36.6)	(30.1)	(31.9)	18,698	9.9	8.4	1.4	1.2	6.8	6.2
Devon Energy	USD	37.6	4.6	4.6	19.6	61.1	(7.3)	(41.1)	17.4	19,681	#N/A N/A	45.3	3.2	3.1	17.3	10.2
Hollyfrontier	USD	27.1	(0.0)	0.6	(9.3)	(22.3)	(43.4)	(34.3)	(32.0)	4,785	11.9	8.1	0.9	0.9	6.1	4.9
Phillips 66	USD	80.8	0.8	0.2	2.9	(5.9)	(10.5)	3.5	(1.3)	42,446	14.9	11.7	1.8	1.7	8.5	7.1
Murphy Oil	USD	31.4	3.4	2.4	3.6	32.6	23.4	(25.7)	40.0	5,412	#N/A N/A	#N/A N/A	1.1	1.1	9.7	6.9
JX Holdings	JPY	426.5	0.4	(1.8)	(5.8)	(11.0)	(17.3)	(22.5)	(16.1)	9,953	7.6	7.3	0.6	0.6	8.3	8.4
Cosmo Oil	JPY	164.0	0.0	0.0	0.0	0.0	0.0	(23.4)	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	2,246.0	0.8	(0.4)	(2.1)	18.9	7.1	(10.5)	15.9	3,360	6.4	6.1	0.6	0.6	6.8	6.5
Tonengeneral	JPY	1,029.0	(0.1)	(1.9)	2.2	10.3	(14.4)	(15.0)	0.7	3,522	9.7	9.2	1.4	1.3	6.5	6.6
Nesteoil	EUR	30.8	0.7	2.4	8.8	6.8	17.5	31.7	11.5	0	11.9	12.7	2.2	2.0	7.3	7.8
Ashland	USD	115.1	0.7	0.8	3.3	14.3	1.8	(8.8)	12.1	7,143	16.1	14.9	2.6	2.6	9.1	8.8
Fuchs Petrolub	EUR	36.3	(0.0)	(3.1)	(0.9)	(5.2)	(16.4)	(7.8)	(16.4)	5,466	20.3	19.4	4.2	3.7	11.8	11.3
SK이노베이션	KRW	156,000	0.0	(5.2)	2.3	4.3	20.5	37.4	20.0	12,362	0.0	8.0	0.0	0.8	0.0	4.6
S-Oil	KRW	82,300	0.0	(5.8)	(3.2)	(2.3)	10.6	31.9	3.7	7,941	0.0	7.6	0.0	1.5	0.0	5.2
GS	KRW	51,000	0.0	(3.2)	(3.4)	(5.9)	2.5	9.6	0.6	4,061	0.0	7.1	0.0	0.7	0.0	8.4
Average			**0.7**	**(0.3)**	**1.3**	**4.4**	**(5.6)**	**(6.4)**	**(0.6)**							

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

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Global peers

	Currency	06/03	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	89	1.1	(0.7)	0.9	8.6	13.3	6.0	14.6	370,458	33.7	21.1	2.2	2.1	11.5	8.7
BP	GBP	368	2.7	1.8	2.1	0.1	2.4	(16.9)	4.1	99,366	29.4	14.0	1.1	1.1	6.2	4.9
Shell	EUR	1,701	1.5	1.6	(2.4)	1.4	7.3	(10.6)	11.5	197,894	22.0	12.9	0.9	0.9	7.0	5.1
Chevron	USD	101	0.5	(0.8)	(0.7)	15.1	12.8	(0.4)	12.5	190,675	75.7	21.7	1.3	1.3	9.2	6.5
Total	EUR	42	0.4	(3.0)	(1.1)	(0.5)	(2.3)	(6.8)	2.9	119,768	16.1	11.6	1.2	1.2	7.5	5.8
Sinopec	CNY	5	(0.2)	1.1	1.7	2.3	(4.6)	(38.2)	(3.2)	87,736	18.5	13.0	0.8	0.8	5.7	5.0
Petrochina	CNY	7	(0.3)	1.5	0.0	(6.1)	(14.5)	(42.7)	(12.1)	195,841	88.4	23.5	1.1	1.1	8.1	6.6
CNOOC	CNY	12	(0.8)	2.1	(1.5)	(6.5)	(22.8)	(57.7)	(19.7)	7,053	90.9	41.8	1.3	1.3	14.1	11.6
Gazprom	RUB	146	2.1	(2.1)	(8.1)	0.2	6.3	2.8	7.6	52,886	4.0	3.8	0.3	0.3	3.7	3.4
Rosneft	RUB	324	2.9	0.6	(1.6)	7.1	28.8	36.8	27.9	52,373	10.0	7.2	1.1	1.0	4.8	4.0
Anadarko	USD	53	3.6	3.4	14.4	17.7	(6.2)	(36.9)	9.7	27,196	#N/A N/A	#N/A N/A	2.0	2.1	14.0	9.1
Petrobras	BRL	8	(1.3)	1.0	(16.1)	17.2	12.5	(32.6)	26.3	36,489	28.2	5.8	0.5	0.4	5.7	4.8
Lukoil	USD	2,613	1.0	(3.1)	(0.6)	(5.8)	4.9	1.7	11.4	34,210	5.8	5.0	0.5	0.5	N/A	N/A
Kinder	USD	19	3.2	4.0	10.2	0.3	10.4	(54.0)	24.5	47,497	27.9	23.8	1.2	1.1	11.7	11.0
Statoil	NOK	135	2.8	(0.3)	(1.2)	1.2	6.5	(6.9)	9.5	52,786	35.9	15.5	1.3	1.2	4.2	3.0
BHP	AUD	19	3.7	(0.1)	4.1	8.8	7.2	(31.1)	7.6	72,553	35.7	21.4	1.3	1.3	8.2	6.8
PTT E&P	THB	82	0.9	1.6	15.2	12.4	32.0	(23.8)	42.4	9,173	28.6	16.7	0.8	0.8	3.2	2.8
Petronas gas	MYR	21	(0.2)	(0.8)	(0.6)	(3.9)	(7.9)	(2.1)	(5.5)	10,447	23.4	23.0	3.5	3.4	13.6	13.2
Chesapeake	USD	5	11.7	9.9	(0.4)	(10.0)	0.4	(65.2)	1.6	3,129	#N/A N/A	10.0	5.4	3.2	14.7	9.6
Noble Energy	USD	36	3.8	0.2	1.3	10.9	6.1	(19.4)	9.2	15,444	#N/A N/A	#N/A N/A	1.6	1.7	10.9	9.1
Average		**0**	**2.0**	**0.9**	**0.8**	**3.5**	**4.6**	**(19.9)**	**9.1**							
PV																
WACKER	EUR	84.3	0.6	0.3	0.4	7.2	7.6	(16.1)	8.8	5,003	31.2	18.2	1.6	1.5	5.6	5.0
GCL-Poly	HKD	1.1	(1.8)	(1.8)	(4.4)	(10.7)	(24.7)	(45.0)	(6.0)	2,608	6.9	6.3	0.8	0.7	6.6	5.7
REC	NOK	107.5	0.0	0.0	0.0	0.0	0.0	1.9	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
SunPower	USD	17.4	6.0	1.0	0.3	(29.4)	(34.6)	(44.4)	(41.9)	2,408	13.1	10.8	1.5	1.5	8.0	6.5
Canadian Solar	USD	18.2	4.1	(2.6)	14.7	(19.1)	(25.9)	(45.0)	(37.1)	1,047	8.5	7.2	1.0	0.8	8.4	7.0
JA Solar	USD	7.3	0.3	(6.8)	(11.5)	(20.2)	(19.4)	(19.3)	(24.5)	348	5.2	5.3	0.3	0.3	3.2	3.0
Trina Solar	USD	7.5	(0.7)	(8.4)	(15.1)	(28.6)	(26.8)	(41.2)	(32.0)	693	6.0	6.4	0.5	0.5	6.1	5.7
Solar City	USD	24.0	10.8	7.7	9.8	7.1	(33.4)	(58.8)	(53.0)	2,357	#N/A N/A	#N/A N/A	6.5	#N/A N/A	#N/A N/A	#N/A N/A
Yingli	USD	4.6	25.0	24.0	47.4	1.1	(30.3)	(64.9)	1.5	84	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A	6.9	13.1
First Solar	USD	50.2	1.8	0.5	(3.2)	(27.9)	(16.2)	(2.2)	(24.0)	5,128	11.6	15.8	0.8	0.8	5.9	6.5
한화솔라원	USD	12.4	2.3	0.4	9.6	(29.1)	(36.8)	(31.0)	(43.7)	1,038	7.4	7.2	#N/A N/A	#N/A N/A	5.3	5.2
OCI	KRW	94,300	0.0	(4.3)	(13.5)	(1.8)	15.8	4.1	25.7	1,927	0.0	7.1	0.0	0.7	0.0	8.3
웅진에너지	KRW	1,250	0.0	6.8	6.8	(25.1)	(32.4)	(6.7)	(27.7)	116	N/A	0.0	0.7	0.0	8.3	0.0
신성솔라에너지	KRW	1,670	0.0	3.4	1.8	(3.9)	(7.7)	43.1	(10.0)	144	N/A	0.7	0.0	8.3	0.0	7.3
Average			**3.5**	**1.5**	**3.1**	**(12.9)**	**(18.9)**	**(23.3)**	**(18.9)**							
Gas Company																
Towngas China	HKD	4.5	0.0	5.5	9.1	0.7	(6.1)	(42.7)	(1.1)	1,527	9.3	8.9	0.9	0.8	11.1	10.4
Kulun	HKD	6.5	0.3	2.2	3.7	4.7	(6.5)	(22.7)	(6.5)	6,703	13.3	10.4	1.0	0.9	5.4	4.9
Beijing Enterprise	HKD	42.0	1.2	4.9	9.1	7.1	(10.6)	(36.0)	(10.5)	6,868	8.5	8.0	0.9	0.8	13.9	12.6
ENN Energy	HKD	37.7	0.3	(3.2)	(1.8)	(6.1)	(4.2)	(27.0)	(8.9)	5,246	11.8	10.6	2.1	1.9	7.6	6.9
China Resources Gas	HKD	22.3	0.2	2.3	4.0	(0.7)	3.0	(6.1)	(3.7)	6,385	14.5	13.0	2.5	2.2	9.1	8.2
China Gas Holdings	HKD	11.3	2.0	2.9	5.0	0.5	7.0	(13.5)	0.7	7,118	12.9	11.4	2.3	2.0	10.4	9.3
Shenzen Gas	HKD	12.0	2.2	2.9	(4.3)	(2.6)	(9.4)	(10.3)	(16.3)	2,934	11.3	10.4	1.1	1.0	7.6	7.0
Shann Xi	CNY	10.4	(0.8)	5.3	5.2	19.5	(16.6)	(46.1)	(17.7)	1,757	16.5	14.0	#N/A N/A	#N/A N/A	#N/A N/A	#N/A N/A
Suntien	HKD	0.8	(1.2)	0.0	(8.0)	(20.6)	(36.2)	(56.9)	(34.7)	387	8.6	6.7	0.3	0.3	9.1	7.5
China Oil & Gas	HKD	0.6	0.0	5.5	7.4	27.5	0.0	(31.8)	9.4	435	10.7	9.4	1.1	1.0	6.0	5.4
Average			**0.4**	**2.8**	**2.9**	**3.0**	**(8.0)**	**(29.3)**	**(8.9)**							
EV																
LG화학	KRW	262,500	0.0	(3.8)	(9.0)	(11.9)	(15.0)	1.0	(20.1)	14,908	12.2	10.9	1.3	1.2	5.3	4.9
삼성SDI	KRW	111,500	0.0	4.2	(3.5)	14.5	(5.5)	(3.9)	(2.2)	6,571	19.3	25.1	0.7	0.7	#N/A N/A	7.9
Panasonic	JPY	945.0	(2.0)	(5.1)	2.5	(6.9)	(30.6)	(46.2)	(23.8)	21,677	12.3	10.3	1.1	1.0	3.3	3.1
GS Yuasa	JPY	453.0	0.0	(1.7)	2.7	(8.5)	(2.8)	(14.2)	0.2	1,752	12.7	11.0	1.1	1.0	6.1	5.7
NEC	JPY	250.0	(0.4)	(2.3)	(2.3)	(6.7)	(38.4)	(38.4)	(35.1)	6,089	10.2	9.1	0.8	0.7	5.6	5.4
BYD Auto	CNY	60.2	0.2	3.9	(1.7)	12.0	(2.7)	(24.3)	(6.6)	19,798	35.2	28.8	4.0	3.5	15.6	13.6
Tesla Motors	USD	220.7	0.8	(1.1)	2.7	9.8	(4.2)	(11.4)	(8.1)	32,501	330.9	80.2	16.8	13.9	42.9	23.8
Kandi Technologies	USD	6.9	0.7	0.3	(1.0)	(3.2)	(30.2)	(25.5)	(36.6)	330	#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			**(0.1)**	**(0.7)**	**(1.2)**	**(0.1)**	**(16.2)**	**(20.4)**	**(16.5)**							

* Bloomberg 기준 / valuation multiple 또한 Bloomberg consensus 기준임