7/4~7/8 Weekly Updates

- 국제유가 하락 하에 제품가격 하락.
  주요 상승제품은 메탄올(+3.2%).
  주요 하락제품은 벤젠(-8.5%), 자일렌(-8.0%), 톨루엔(-7.6%), 가성소다(-7.0%).

- **Feedstock:** 두바이 유가는 하락(-3.6%).
  나프타도 하락(-1.5%).
  싱가폴 정제마진은 하락(-8.7달러).

- **Olefin:** 에틸렌(-2.1%)은 다운스트림 마진 약세로 인한 수요 부진으로 하락.
  PE(-1.9%)도 매크로 불확실성 확대에 따른 구매심리 둔화로 하락.
  MEG(+0.9%)는 중국 업체 가동률 하향 검토에 따른 공급 감소 우려로 상승.
  PVC(-4.8%)는 중국 내수 부진으로 인한 수출 증가 압력 하에 하락.
  프로필렌(-1.6%)도 PP 및 AN 수요 약세로 하락.
  PP(-1.9%)도 경기 침체 우려 및 중국 재봉쇄 조치로 인한 수요 약세로 하락.
  부타디엔(-2.9%)도 SBR, ABS 마진 축소로 인한 수요 감소로 하락.
  SBR(-2.6%)도 경제 침체 우려로 인한 수요 약세로 하락.
  천연고무(-1.8%)도 하락.

- **Aromatic:** 벤젠(-8.5%), 톨루엔(-7.6%), 자일렌(-8.0%)은 유가 및 다운스트림 수요 약세로 하락.
  차익거래/가솔린 블렌딩 수요 감소는 가격 하방 압력으로 작용.
  SM(-3.4%)도 역내 정기보수 설비 재가동으로 하락.
  ABS(-3.0%), PS(-2.1%)도 원재료 하락 및 인플레이션 우려 속 수요 둔화로 하락.
  PX(-2.3) 및 PTA(-1.5%)도 국제유가 약세로 하락.
  PET(-5.7%)도 원재료 약세로 하락.

- **기타:** 가성소다(-7.0%)는 다운스트림 수요 약세로 하락.
  페놀(-5.8%) 및 아세톤(-4.0%)도 경기 둔화 우려 및 중국 리오프닝 지연으로 하락.
  메탄올(+3.2%)은 이란 업체 공급 트러블로 상승.
  AA(-3.3%) 및 VAM(-6.3%)은 중국 내수 부진으로 하락.
  TDI, MDI, PO, ECH는 미고지.

- **재고수준(중국):** PTA(+2%)는 상승인 반면, 자일렌, 폴리에스터는 보합.
  SM(-16%), 톨루엔(-5%), MEG(-1%), 스판덱스(-0.2일)는 하락.

- **가동률(중국):** 폴리에스터(+1.5%p), PTA(+0.3%p)는 상승.
  스판덱스는 보합인 반면, MEG(-0.6%p)는 하락.

Petrochemicals: Weekly prices

2022-07-08		Weekly				Monthly				Quarterly			
(USD/mt)	Contract	7/4~7/8	6/27~7/1	6/20~6/24	6/13~6/17	Jul 2022	Jun 2022	May 2022	Apr 2022	2Q22	1Q22	4Q21	3Q21
Commodity													
Dubai		108.1	112.2	107.1	119.3	110.2	116.3	109.4	103.4	109.2	98.0	77.8	71.4
Naphtha	CFR JPN	819	832	819	840	825	831	907	905	883	884	743	676
Crack refined margin		13.4	22.1	30.2	26.4	17.7	26.0	21.3	18.7	21.8	8.2	6.0	3.8
Olefins													
Ethylene	FOB KOR	930	950	1,000	1,030	940	1,043	1,128	1,286	1,162	1,136	1,063	982
HDPE (Film)	CFR FEA	1,080	1,100	1,090	1,115	1,090	1,109	1,163	1,236	1,174	1,224	1,168	1,072
LDPE	CFR FEA	1,310	1,350	1,360	1,395	1,330	1,390	1,458	1,544	1,470	1,544	1,523	1,343
LLDPE	CFR FEA	1,080	1,090	1,090	1,115	1,085	1,106	1,160	1,236	1,173	1,227	1,186	1,095
EDC	CFR FEA	600	600	600	615	600	611	664	692	658	830	926	726
VCM	CFR FEA	910	910	950	1,000	910	988	1,089	1,251	1,120	1,181	1,322	1,110
PVC	CFR KOR	1,000	1,050	1,120	1,180	1,025	1,173	1,250	1,364	1,270	1,303	1,506	1,304
MEG	CFR CHN	550	545	560	635	548	616	619	650	630	685	710	684
Propylene	FOB KOR	950	965	995	1,025	958	1,020	1,096	1,201	1,113	1,150	1,001	979
PP	CFR FEA	1,030	1,050	1,030	1,070	1,040	1,068	1,146	1,174	1,133	1,160	1,163	1,117
AN	CFR KOR	1,640	1,640	1,685	1,745	1,640	1,763	1,888	1,983	1,886	1,826	2,189	2,156
Acrylic Acid	FOB KOR	1,693	1,693	1,693	1,693	1,693	1,693	1,693	1,575	1,648	1,519	1,497	1,372
Butadiene	FOB KOR	1,360	1,400	1,500	1,560	1,380	1,545	1,435	1,432	1,468	1,084	722	1,380
SBR	CFR FEA	1,875	1,925	1,930	1,910	1,900	1,913	1,870	1,914	1,900	1,820	1,953	1,928
Natural rubber	FOB MYS	1,612	1,641	1,620	1,606	1,626	1,647	1,620	1,703	1,660	1,770	1,733	1,656
Aromatics													
Benzene	FOB KOR	1,126	1,231	1,228	1,300	1,178	1,348	1,235	1,149	1,237	1,081	950	997
SM	FOB KOR	1,291	1,337	1,331	1,428	1,314	1,431	1,363	1,360	1,383	1,263	1,161	1,183
ABS	CFR CHN	1,590	1,640	1,700	1,740	1,615	1,733	1,805	1,897	1,818	1,875	2,123	2,267
GP-PS	CFR CHN	1,390	1,420	1,450	1,480	1,405	1,470	1,455	1,500	1,477	1,442	1,414	1,402
HI-PS	CFR CHN	1,460	1,490	1,520	1,550	1,475	1,540	1,538	1,542	1,540	1,485	1,510	1,555
Toluene	FOB KOR	1,109	1,200	1,200	1,240	1,155	1,221	1,076	1,040	1,107	907	780	760
Mixed Xylene (MX)	FOB KOR	1,113	1,210	1,249	1,231	1,162	1,313	1,204	1,079	1,189	902	697	719
PX	FOB KOR	1,173	1,200	1,230	1,280	1,186	1,309	1,247	1,159	1,232	1,082	876	902
OX	FOB KOR	1,275	1,325	1,380	1,400	1,300	1,385	1,281	1,244	1,299	1,093	884	879
PTA	CFR FEA	926	940	965	995	933	1,008	959	911	955	830	700	707
PET	FOB NEA	1,150	1,220	1,220	1,270	1,185	1,258	1,240	1,208	1,233	1,161	1,090	941
Others													
Methanol	CFR KOR	391	379	390	397	385	404	412	458	427	434	462	391
Acetone	FOB KOR	720	750	783	788	735	779	740	779	767	825	803	763
Phenol	CFR KOR	1,375	1,460	1,480	1,490	1,418	1,461	1,404	1,456	1,441	1,510	1,287	1,297
BPA	CFR KOR	1,850	1,850	1,900	1,940	1,850	1,910	2,078	2,130	2,046	2,295	2,481	3,297
PC	FOB KOR	3,123	3,123	3,123	3,123	3,123	3,123	3,123	3,276	3,182	3,146	3,453	3,573
AA	CFR FEA	590	610	650	650	600	683	673	741	702	717	1,055	900
VAM	CFR FEA	2,250	2,400	2,400	2,400	2,325	2,400	2,388	2,350	2,377	2,107	2,324	1,645
ECH	DEL East China	2,375	2,375	2,625	2,675	2,375	2,731	2,926	2,917	2,863	2,801	2,822	2,338
TDI	CFR CHN	2,620	2,620	2,615	2,575	2,620	2,760	2,993	3,008	2,927	2,554	2,257	2,224
MDI	CFR CHN	3,420	3,420	3,350	3,255	3,420	3,216	3,323	3,525	3,368	3,580	3,440	3,472
PO	CFR CHN	1,450	1,450	1,555	1,590	1,450	1,618	1,704	1,710	1,680	1,724	2,452	2,539
PA	CFR CHN	1,080	1,120	1,170	1,200	1,100	1,165	1,120	1,146	1,144	1,085	938	849
2-EH	CFR CHN	1,220	1,270	1,420	1,550	1,245	1,590	1,733	1,754	1,697	1,728	1,611	2,122
DOP	CFR CHN	1,420	1,480	1,540	1,600	1,450	1,604	1,676	1,711	1,667	1,672	1,651	1,898
Cotton		102.6	103.7	103.8	143.5	103.1	132.6	143.4	140.1	138.8	124.1	111.8	92.6
Chlorine	FOB US	825	825	725	725	825	725	725	625	687	625	586	480
Caustic soda	FOB NEA	600	645	650	675	623	684	713	674	689	602	600	373

Source: Industry data

Petrochemicals: Weekly price changes

2022-07-08		WoW changes			MoM changes			QoQ changes		
(%)	Contract	7/4~7/8	6/27~7/1	6/20~6/24	Jul 2022	Jun 2022	May 2022	2Q22	1Q22	4Q21
Commodity										
Dubai		(3.6)	4.7	(10.2)	(5.3)	6.3	5.7	11.5	25.9	8.9
Naphtha	CFR JPN	(1.5)	1.6	(2.5)	(0.7)	(8.3)	0.2	(0.2)	19.0	10.0
Crack refined margin		(39.6)	(26.9)	14.7	(31.9)	22.4	13.7	166.2	36.2	58.1
Olefins										
Ethylene	FOB KOR	(2.1)	(5.0)	(2.9)	(9.8)	(7.5)	(12.3)	2.3	6.8	8.3
HDPE (Film)	CFR FEA	(1.8)	0.9	(2.2)	(1.7)	(4.6)	(5.9)	(4.0)	4.8	8.9
LDPE	CFR FEA	(3.0)	(0.7)	(2.5)	(4.3)	(4.6)	(5.6)	(4.8)	1.3	13.4
LLDPE	CFR FEA	(0.9)	0.0	(2.2)	(1.9)	(4.6)	(6.1)	(4.4)	3.5	8.3
EDC	CFR FEA	0.0	0.0	(2.4)	(1.8)	(7.9)	(4.1)	(20.7)	(10.4)	27.6
VCM	CFR FEA	0.0	(4.2)	(5.0)	(7.8)	(9.3)	(13.0)	(5.2)	(10.6)	19.1
PVC	CFR KOR	(4.8)	(6.3)	(5.1)	(12.6)	(6.2)	(8.4)	(2.5)	(13.5)	15.5
MEG	CFR CHN	0.9	(2.7)	(11.8)	(11.0)	(0.6)	(4.8)	(8.1)	(3.5)	3.8
Propylene	FOB KOR	(1.6)	(3.0)	(2.9)	(6.1)	(7.0)	(8.7)	(3.2)	14.8	2.2
PP	CFR FEA	(1.9)	1.9	(3.7)	(2.6)	(6.9)	(2.4)	(2.4)	(0.2)	4.2
AN	CFR KOR	0.0	(2.7)	(3.4)	(7.0)	(6.6)	(4.8)	3.3	(16.6)	1.5
Acrylic Acid	FOB KOR	0.0	0.0	0.0	0.0	0.0	7.5	8.5	1.5	9.1
Butadiene	FOB KOR	(2.9)	(6.7)	(3.8)	(10.7)	7.7	0.2	35.4	50.2	(47.7)
SBR	CFR FEA	(2.6)	(0.3)	1.0	(0.7)	2.3	(2.3)	4.4	(6.8)	1.3
Natural rubber	FOB MYS	(1.8)	1.3	0.8	(1.3)	1.7	(4.9)	(6.2)	2.1	4.6
Aromatics										
Benzene	FOB KOR	(8.5)	0.2	(5.5)	(12.6)	9.1	7.5	14.4	13.7	(4.7)
SM	FOB KOR	(3.4)	0.5	(6.8)	(8.2)	5.0	0.2	9.5	8.8	(1.9)
ABS	CFR CHN	(3.0)	(3.5)	(2.3)	(6.8)	(4.0)	(4.8)	(3.0)	(11.7)	(6.4)
GP-PS	CFR CHN	(2.1)	(2.1)	(2.0)	(4.4)	1.0	(3.0)	2.4	2.0	0.9
HI-PS	CFR CHN	(2.0)	(2.0)	(1.9)	(4.2)	0.2	(0.3)	3.7	(1.7)	(2.9)
Toluene	FOB KOR	(7.6)	0.0	(3.2)	(5.5)	13.5	3.5	22.0	16.4	2.6
Mixed Xylene (MX)	FOB KOR	(8.0)	(3.1)	1.5	(11.5)	9.1	11.5	31.9	29.4	(3.2)
PX	FOB KOR	(2.3)	(2.4)	(3.9)	(9.4)	4.9	7.6	13.9	23.5	(2.9)
OX	FOB KOR	(3.8)	(4.0)	(1.4)	(6.1)	8.1	3.0	18.9	23.7	0.5
PTA	CFR FEA	(1.5)	(2.6)	(3.0)	(7.4)	5.1	5.2	15.2	18.6	(1.1)
PET	FOB NEA	(5.7)	0.0	(3.9)	(5.8)	1.4	2.6	6.2	6.5	15.8
Others										
Methanol	CFR KOR	3.2	(2.8)	(1.8)	(4.6)	(2.0)	(10.1)	(1.7)	(6.0)	18.3
Acetone	FOB KOR	(4.0)	(4.2)	(0.6)	(5.6)	5.2	(5.0)	(7.0)	2.7	5.3
Phenol	CFR KOR	(5.8)	(1.4)	(0.7)	(3.0)	4.1	(3.6)	(4.6)	17.3	(0.8)
BPA	CFR KOR	0.0	(2.6)	(2.1)	(3.1)	(8.1)	(2.5)	(10.9)	(7.5)	(24.7)
PC	FOB KOR	0.0	0.0	0.0	0.0	0.0	(4.7)	1.2	(8.9)	(3.4)
AA	CFR FEA	(3.3)	(6.2)	0.0	(12.1)	1.5	(9.2)	(2.1)	(32.0)	17.2
VAM	CFR FEA	(6.3)	0.0	0.0	(3.1)	0.5	1.6	12.8	(9.3)	41.3
ECH	DEL East China	0.0	(9.5)	(1.9)	(13.0)	(6.7)	0.3	2.2	(0.7)	20.7
TDI	CFR CHN	0.0	0.2	1.6	(5.1)	(7.8)	(0.5)	14.6	13.2	1.4
MDI	CFR CHN	0.0	2.1	2.9	6.3	(3.2)	(5.7)	(5.9)	4.1	(0.9)
PO	CFR CHN	0.0	(6.8)	(2.2)	(10.4)	(5.1)	(0.4)	(2.6)	(29.7)	(3.4)
PA	CFR CHN	(3.6)	(4.3)	(2.5)	(5.6)	4.0	(2.3)	5.4	15.7	10.5
2-EH	CFR CHN	(3.9)	(10.6)	(8.4)	(21.7)	(8.2)	(1.2)	(1.8)	7.3	(24.1)
DOP	CFR CHN	(4.1)	(3.9)	(3.8)	(9.6)	(4.3)	(2.0)	(0.3)	1.3	(13.1)
Cotton		(1.0)	(0.1)	(27.7)	(22.2)	(7.5)	2.4	11.9	11.0	20.8
Chlorine	FOB US	0.0	13.8	0.0	13.8	0.0	16.0	9.8	6.6	22.2
Caustic soda	FOB NEA	(7.0)	(0.8)	(3.7)	(9.0)	(4.0)	5.7	14.5	0.2	61.1

Source: Industry data

Petrochemicals: Weekly spreads

2022-07-08	Weekly				Monthly				Quarterly			
(USD/mt)	7/4~7/8	6/27~7/1	6/20~6/24	6/13~6/17	Jul 2022	Jun 2022	May 2022	Apr 2022	2Q22	1Q22	4Q21	3Q21
NCC spread	(3)	9	46	52	3	65	25	86	61	17	47	108
NCC spread (1m)	3	(10)	(5)	2	(3)	5	25	34	22	93	55	119
Olefins												
Ethylene-naphtha (1m)	119	95	119	127	107	136	220	316	231	347	331	320
HDPE-naphtha (1m)	269	245	209	212	257	202	255	266	243	434	436	410
LDPE-naphtha (1m)	499	495	479	492	497	483	550	574	539	754	791	681
LLDPE-naphtha (1m)	269	235	209	212	252	200	253	266	241	438	454	433
PVC-naphtha (1m)	593	621	677	727	607	717	794	877	802	906	1,138	971
MEG-naphtha (1m)	63	32	31	93	48	72	75	68	71	212	270	287
Propylene-naphtha (1m)	139	110	114	122	125	113	189	231	182	360	269	317
PP-naphtha (1m)	219	195	149	167	207	161	239	204	201	371	431	455
BD-naphtha (1m)	549	545	619	657	547	638	528	462	536	294	(11)	718
SBR-BD/SM (1m)	383	457	495	555	420	551	515	612	564	953	1,071	605
Aromatics												
Benzene-naphtha (1m)	315	376	347	397	345	441	328	179	305	292	218	335
SM-naphtha (1m)	480	482	449	525	481	524	456	390	451	473	428	521
ABS-AN/BD/SM (1m)	(20)	79	164	234	29	214	263	388	296	572	729	764
PX-naphtha (1m)	362	345	348	377	353	402	340	189	301	293	144	240
PTA-PX (1m)	(7)	47	119	137	20	172	178	116	152	186	109	108
PET-PTA/MEG (1m)	(23)	150	166	206	63	208	220	193	206	273	233	102
Others												
Phenol/Acetone-BZ/Propylene (1m)	(89)	52	200	243	(18)	199	143	172	172	520	353	316
BPA-phenol/Acetone (1m)	359	379	417	487	369	468	590	552	537	838	1,092	1,984
AA-methanol (1m)	365	381	421	425	373	456	422	485	457	490	799	693
VAM-AA (1m)	1,746	1,874	1,903	1,914	1,810	1,916	1,859	1,844	1,871	1,546	1,553	970
ECH-propylene (1m)	1,551	1,551	1,801	1,815	1,551	1,854	1,975	1,908	1,912	1,967	2,018	1,556
TDI-toluene (1m)	1,821	1,916	1,939	1,911	1,868	2,098	2,351	2,369	2,280	2,072	1,766	1,764
MDI-benzene (1m)	2,386	2,415	2,427	2,373	2,401	2,337	2,501	2,697	2,526	2,864	2,761	2,765
PO-propylene (1m)	575	575	680	676	575	686	693	638	670	838	1,598	1,708
PA-OX (1m)	(189)	(95)	(9)	39	(142)	12	1	20	12	229	141	76
DOP-2EH (1m)	250	310	360	420	280	408	472	459	448	566	419	476

Source: Industry data

Petrochemicals: Weekly spread changes

2022-07-08	WoW changes			MoM changes			QoQ changes		
(%)	7/4~7/8	6/27~7/1	6/20~6/24	Jul 2022	Jun 2022	May 2022	2Q22	1Q22	4Q21
NCC spread	BR	(81.3)	(11.7)	(95.8)	156.1	(70.6)	265.4	(64.3)	(56.8)
NCC spread (1m)	RB	RR	BR	BR	(81.7)	(27.1)	(76.3)	68.3	(53.7)
Olefins									
Ethylene-naphtha (1m)	25.4	(19.8)	(6.9)	(21.2)	(38.2)	(30.3)	(33.4)	4.8	3.5
HDPE-naphtha (1m)	9.8	17.5	(1.8)	27.2	(20.7)	(4.0)	(44.1)	(0.3)	6.2
LDPE-naphtha (1m)	0.8	3.4	(2.8)	2.8	(12.1)	(4.1)	(28.6)	(4.6)	16.1
LLDPE-naphtha (1m)	14.5	12.7	(1.8)	26.2	(20.9)	(5.0)	(44.9)	(3.4)	4.7
PVC-naphtha (1m)	(4.5)	(8.4)	(6.8)	(15.4)	(9.7)	(9.4)	(11.5)	(20.4)	17.2
MEG-naphtha (1m)	98.4	2.9	(66.7)	(33.3)	(4.0)	9.5	(66.4)	(21.7)	(5.6)
Propylene-naphtha (1m)	26.5	(3.1)	(7.2)	9.8	(39.9)	(18.2)	(49.6)	34.2	(15.3)
PP-naphtha (1m)	12.4	31.3	(11.2)	28.7	(32.6)	17.2	(45.8)	(13.8)	(5.3)
BD-naphtha (1m)	0.8	(11.9)	(5.9)	(14.3)	21.0	14.2	82.2	RB	BR
SBR-BD/SM (1m)	(16.2)	(7.6)	(10.9)	(23.8)	7.1	(15.9)	(40.8)	(11.0)	76.9
Aromatics									
Benzene-naphtha (1m)	(16.1)	8.4	(12.7)	(21.7)	34.5	83.5	4.7	33.9	(34.9)
SM-naphtha (1m)	(0.4)	7.3	(14.4)	(8.2)	15.1	16.9	(4.6)	10.5	(17.8)
ABS-AN/BD/SM (1m)	BR	(52.1)	(29.8)	(86.3)	(18.5)	(32.3)	(48.3)	(21.5)	(4.6)
PX-naphtha (1m)	4.7	(0.9)	(7.7)	(12.1)	18.3	79.6	2.8	103.8	(40.1)
PTA-PX (1m)	BR	(60.6)	(12.9)	(88.3)	(3.6)	53.1	(17.9)	70.3	1.4
PET-PTA/MEG (1m)	BR	(9.5)	(19.7)	(69.5)	(5.4)	13.8	(24.6)	17.1	128.6
Others									
Phenol/Acetone-BZ/Propylene (1m)	BR	(73.8)	(17.4)	BR	39.1	(16.8)	(67.0)	47.3	11.8
BPA-phenol/Acetone (1m)	(5.4)	(9.2)	(14.3)	(21.1)	(20.7)	6.9	(35.9)	(23.2)	(45.0)
AA-methanol (1m)	(4.2)	(9.5)	(0.9)	(18.3)	8.1	(13.0)	(6.9)	(38.6)	15.3
VAM-AA (1m)	(6.9)	(1.5)	(0.6)	(5.5)	3.0	0.8	21.0	(0.4)	60.1
ECH-propylene (1m)	0.0	(13.9)	(0.8)	(16.4)	(6.1)	3.5	(2.8)	(2.5)	29.6
TDI-toluene (1m)	(5.0)	(1.2)	1.4	(11.0)	(10.8)	(0.8)	10.0	17.4	0.1
MDI-benzene (1m)	(1.2)	(0.5)	2.3	2.7	(6.6)	(7.3)	(11.8)	3.7	(0.2)
PO-propylene (1m)	0.0	(15.5)	0.5	(16.2)	(1.1)	8.6	(20.0)	(47.6)	(6.5)
PA-OX (1m)	RR	RR	BR	BR	1,800.0	(96.9)	(94.9)	62.1	85.9
DOP-2EH (1m)	(19.3)	(13.8)	(14.3)	(31.3)	(13.5)	2.8	(21.0)	35.3	(12.1)

Source: Industry data

Petrochemicals: Weekly inventories

2022-07-08	Weekly				Monthly				Quarterly			
(Tonnes)	7/4~7/8	6/27~7/1	6/20~6/24	6/13~6/17	Jul 2022	Jun 2022	May 2022	Apr 2022	2Q22	1Q22	4Q21	3Q21
East China												
Toluene	51,000	52,000	61,800	72,800	51,500	71,600	56,925	37,020	53,785	35,975	33,779	54,908
Xylene	68,300	65,600	63,000	79,200	66,950	77,825	81,650	45,180	66,446	29,175	32,929	71,554
SM	37,200	37,800	38,700	51,300	37,500	54,375	73,175	81,200	70,477	90,808	65,586	57,154
South China												
Toluene	8,600	11,000	20,000	20,000	9,800	19,000	20,500	18,600	19,308	9,142	11,114	8,877
Xylene	9,300	12,000	15,000	17,000	10,650	14,000	8,500	5,440	9,015	3,292	6,593	8,762
SM	7,000	14,700	17,500	13,500	10,850	15,450	13,850	21,120	17,138	20,092	12,625	14,915
Qingdao												
Natural rubber	52,100	52,100	52,100	52,100	52,100	52,100	52,100	52,100	52,100	52,100	52,100	52,100
Synthetic rubber	56,300	56,300	56,300	56,300	56,300	56,300	56,300	56,300	56,300	56,300	56,300	56,300
China												
Toluene	59,600	63,000	81,800	92,800	61,300	90,600	77,425	55,620	73,092	45,117	44,893	63,785
Xylene	77,600	77,600	78,000	96,200	77,600	91,825	90,150	50,620	75,462	32,467	39,521	80,315
SM	44,200	52,500	56,200	64,800	48,350	69,825	87,025	102,320	87,615	110,900	78,211	72,069
MEG	1,218,000	1,232,000	1,259,000	1,196,000	1,225,000	1,208,500	1,194,000	1,091,400	1,159,000	831,667	597,643	542,769
PTA	1,825,000	1,788,000	1,745,000	1,730,000	1,806,500	1,756,000	1,868,750	1,831,200	1,819,615	2,193,250	2,219,214	2,224,692
Polyester staple (Days)	7.0	7.0	8.0	8.0	7.0	7.8	7.3	8.4	7.8	3.1	2.9	6.5
Spandex (Days)	47.0	47.2	46.8	46.5	47.1	46.2	43.8	37.0	41.9	32.1	16.4	9.6

Source: Industry data

Petrochemicals: Weekly inventory changes

2022-07-08	WoW changes			MoM changes			QoQ changes		
(%)	7/4~7/8	6/27~7/1	6/20~6/24	Jul 2022	Jun 2022	May 2022	2Q22	1Q22	4Q21
East China									
Toluene	(1.9)	(15.9)	(15.1)	(28.1)	25.8	53.8	49.5	6.5	(38.5)
Xylene	4.1	4.1	(20.5)	(14.0)	(4.7)	80.7	127.8	(11.4)	(54.0)
SM	(1.6)	(2.3)	(24.6)	(31.0)	(25.7)	(9.9)	(22.4)	38.5	14.8
South China									
Toluene	(21.8)	(45.0)	0.0	(48.4)	(7.3)	10.2	111.2	(17.7)	25.2
Xylene	(22.5)	(20.0)	(11.8)	(23.9)	64.7	56.3	173.9	(50.1)	(24.8)
SM	(52.4)	(16.0)	29.6	(29.8)	11.6	(34.4)	(14.7)	59.1	(15.4)
Qingdao									
Natural rubber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Synthetic rubber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
China									
Toluene	(5.4)	(23.0)	(11.9)	(32.3)	17.0	39.2	62.0	0.5	(29.6)
Xylene	0.0	(0.5)	(18.9)	(15.5)	1.9	78.1	132.4	(17.9)	(50.8)
SM	(15.8)	(6.6)	(13.3)	(30.8)	(19.8)	(14.9)	(21.0)	41.8	8.5
MEG	(1.1)	(2.1)	5.3	1.4	1.2	9.4	39.4	39.2	10.1
PTA	2.1	2.5	0.9	2.9	(6.0)	2.1	(17.0)	(1.2)	(0.2)
Polyester staple (Days)	0.0	(1.0)	0.0	(0.8)	0.5	(1.2)	4.8	0.2	(3.6)
Spandex (Days)	(0.2)	0.4	0.3	0.9	2.5	6.8	9.8	15.7	6.8

Source: Industry data

Petrochemicals: Weekly operating rate in China

2022-07-08	Weekly				Monthly				Quarterly			
(%)	7/4~7/8	6/27~7/1	6/20~6/24	6/13~6/17	Jul 2022	Jun 2022	May 2022	Apr 2022	2Q22	1Q22	4Q21	3Q21
MEG	55.0	55.6	57.6	57.8	55.3	58.5	57.9	64.9	60.8	66.0	61.1	64.9
PTA	71.7	71.4	70.2	69.4	71.6	67.4	67.3	66.8	67.1	70.6	69.7	70.6
Polyester staple	73.2	71.7	70.8	71.6	72.5	70.5	64.5	69.6	68.3	79.6	74.4	80.3
Spandex	78.0	78.0	79.0	80.0	78.0	80.3	82.5	84.0	82.4	80.1	85.5	89.8

Source: Industry data

Petrochemicals: Weekly operating rate changes in China

2022-07-08	WoW changes			MoM changes			QoQ changes		
(%pts)	7/4~7/8	6/27~7/1	6/20~6/24	Jul 2022	Jun 2022	May 2022	2Q22	1Q22	4Q21
MEG	(0.6)	(2.0)	(0.2)	(3.2)	0.6	(7.1)	(5.2)	4.8	(3.7)
PTA	0.3	1.2	0.8	4.1	0.2	0.5	(3.5)	0.9	(0.9)
Polyester staple	1.5	0.9	(0.8)	2.0	6.0	(5.0)	(11.3)	5.2	(6.0)
Spandex	0.0	(1.0)	(1.0)	(2.3)	(2.3)	(1.5)	2.3	(5.5)	(4.2)

Source: Industry data

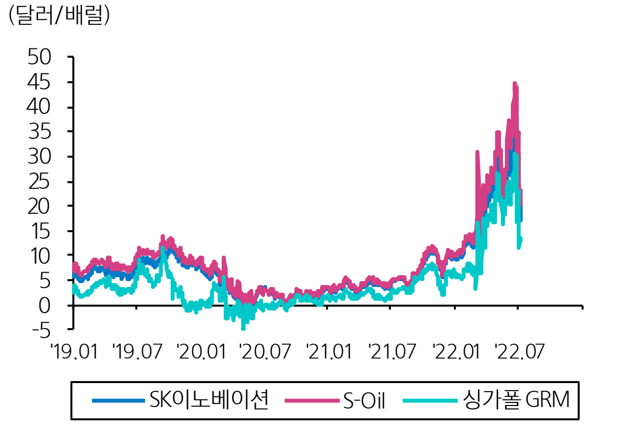
Valuations of oil refiners and chemicals firms

(x)	Local currency	Share Price	Performance (%) 1W	1M	3M	Ytd	Market cap (USDb)	P/E 2021	2022E	2023E	P/B 2021	2022E	2023E	ROE (%) 2021	2022E	2023E
Oil refiners																
SK Innovation	KRW	171,500	(3.4)	(29.7)	(16.9)	(28.1)	12.2	22.4	6.3	8.1	0.9	0.8	0.7	4.4	13.4	9.2
S-Oil	KRW	93,000	(6.9)	(23.1)	(6.1)	8.5	8.1	7.2	3.9	5.8	1.5	1.2	1.0	23.5	32.8	18.8
GS	KRW	39,650	(3.1)	(17.2)	(8.4)	1.4	2.8	2.7	2.0	2.6	0.4	0.3	0.3	14.2	14.2	10.2
Exxon	USD	86.1	0.5	(17.7)	(0.9)	40.7	362.6	16.4	7.8	8.9	2.2	2.0	1.8	13.5	24.6	18.6
Chevron	USD	142.8	(1.4)	(21.2)	(16.0)	21.7	280.5	16.7	8.3	9.2	2.0	1.8	1.7	11.7	20.6	15.7
ConocoPhillips	USD	86.5	(3.7)	(28.5)	(15.4)	21.1	111.8	14.3	5.7	6.6	2.5	2.0	1.7	20.8	36.1	24.2
Valero	USD	107.0	0.7	(25.6)	3.7	42.5	43.7	61.0	5.8	9.1	2.4	2.0	1.8	4.1	34.8	19.6
Royal Dutch Shell	GBp	2,043.5	(3.7)	(16.3)	(5.7)	26.0	180.4	10.4	4.3	4.8	1.1	0.9	0.8	10.9	20.5	16.0
BP	GBp	386.6	0.5	(14.4)	(1.3)	17.0	88.9	7.4	4.1	5.0	1.2	1.2	1.1	16.2	25.4	21.0
Petrochina	HKD	3.6	(4.8)	(18.3)	(13.0)	2.6	135.1	6.0	4.8	5.3	0.4	0.4	0.4	7.3	9.0	7.4
Sinopec	CNY	4.1	0.0	(9.7)	(6.8)	(3.5)	69.5	6.9	6.9	6.8	0.6	0.6	0.6	9.4	9.1	8.6
CNOOC	HKD	9.9	(4.5)	(13.4)	(6.2)	36.2	63.4	5.2	3.2	3.3	0.8	0.7	0.6	15.6	22.6	19.0
Formosa Petrochem	TWD	89.4	(3.9)	(7.8)	(5.3)	(6.8)	28.6	16.5	15.6	18.5	2.4	2.3	2.3	15.3	14.3	11.8
Reliance	INR	2,391.4	(0.7)	(14.6)	(8.6)	1.0	204.1	26.3	19.5	17.4	2.1	1.8	1.7	8.0	9.8	9.8
Thai Oil	THB	51.3	(1.9)	(15.6)	(0.5)	3.5	2.9	9.5	5.9	8.7	0.8	0.8	0.8	8.5	15.6	8.9
Chemicals firms																
LG Chem	KRW	540,000	6.1	(8.3)	2.9	(12.2)	29.4	10.5	15.9	12.7	1.9	1.4	1.3	19.5	11.2	11.5
Lotte Chemical	KRW	180,000	(2.4)	(11.8)	(8.4)	(17.1)	4.8	4.1	10.7	6.9	0.4	0.4	0.4	11.2	4.0	6.2
Hyosung Chem	KRW	176,500	(8.8)	(19.0)	(29.3)	(41.8)	0.4	4.7	7.0	3.0	1.1	1.0	0.7	25.9	14.2	28.4
Hanwha Solutions	KRW	34,600	(9.5)	(14.7)	2.4	(2.5)	5.1	7.5	12.0	7.8	0.9	0.8	0.7	12.6	6.7	9.3
KKPC	KRW	138,000	(1.4)	(14.8)	(9.2)	(16.9)	3.2	2.1	3.7	4.5	0.9	0.7	0.6	49.3	20.0	14.4
Kolon Industries	KRW	51,700	(2.3)	(20.7)	(14.4)	(27.1)	1.1	7.0	6.7	6.4	0.6	0.6	0.5	9.7	8.7	8.4
KPIC	KRW	128,500	2.4	(20.9)	(18.7)	(29.8)	0.6	4.0	11.0	5.5	0.4	0.4	0.4	10.3	5.5	8.4
Lotte Fine Chemical	KRW	68,800	2.2	(17.3)	(19.3)	(8.3)	1.4	3.5	4.9	5.1	0.8	0.7	0.6	27.1	14.3	13.1
SKC	KRW	132,000	1.1	(17.5)	(20.7)	(24.4)	3.9	19.5	20.9	19.4	2.4	2.2	2.0	13.2	11.2	10.9
BASF	EUR	42.7	2.3	(17.0)	(16.7)	(30.9)	39.9	6.4	7.1	7.6	1.1	1.0	0.9	16.0	11.1	11.0
DowDuPont	USD	55.4	(0.3)	(18.0)	(19.5)	(31.4)	28.2	13.2	16.3	13.6	1.1	1.0	1.0	7.0	6.5	7.3
LyondellBasell	USD	87.5	0.0	(20.5)	(9.7)	(0.6)	28.7	4.7	5.3	5.5	2.3	2.1	1.7	59.8	40.4	38.9
Eastman Chemical	USD	90.2	0.5	(17.5)	(16.6)	(25.4)	11.6	10.1	9.2	8.5	2.0	1.7	1.6	16.6	21.5	23.4
Westlake	USD	97.0	(1.0)	(26.5)	(15.6)	(0.1)	12.5	6.4	4.5	5.9	1.6	1.2	1.0	27.5	28.4	17.5
Shin-Etsu	JPY	15,980.0	3.7	(12.8)	(9.6)	(19.8)	48.9	13.2	11.1	11.0	2.1	1.8	1.6	16.9	17.1	15.6
Asahi Kasei	JPY	1,055.5	2.1	(2.7)	(0.8)	(2.4)	10.8	7.9	9.2	8.9	0.9	0.8	0.8	11.6	9.4	9.2
Nitto Denko	JPY	8,550.0	(0.5)	(12.9)	0.0	(3.8)	9.4	13.5	12.0	11.6	1.6	1.4	1.3	13.0	12.4	11.5
Sumitomo Chem	JPY	525.0	(0.4)	(7.6)	(1.5)	(3.1)	6.4	5.8	6.5	6.9	0.8	0.7	0.6	14.1	10.7	9.6
Mitsui Chemicals	JPY	2,835.0	(1.3)	(12.9)	(3.3)	(8.1)	4.3	5.2	6.1	5.6	0.8	0.7	0.6	16.4	12.4	12.1
Petronas Chem	MYR	8.5	(6.7)	(12.1)	(17.8)	(5.0)	15.3	10.4	9.2	10.3	2.0	1.8	1.7	20.5	19.9	16.3
Lotte Chemical Titan	MYR	1.9	0.0	(8.5)	(15.0)	(19.6)	1.0	4.1	16.5	14.5	0.3	0.4	0.3	9.4	2.0	2.2
Formosa Plastics	TWD	85.0	(21.3)	(21.3)	(20.2)	(18.3)	18.2	7.7	8.7	9.3	1.4	1.3	1.3	19.7	15.8	13.8
Formosal C&F	TWD	70.1	(4.9)	(14.9)	(11.6)	(13.2)	13.8	10.1	13.6	14.8	1.1	1.0	1.0	10.8	7.5	6.5
PTTGC	THB	45.5	0.0	(6.7)	(9.5)	(22.6)	5.7	5.5	8.5	7.7	0.7	0.6	0.6	14.2	7.5	7.9
Sinopec	CNY	4.1	0.0	(9.7)	(6.8)	(3.5)	69.5	6.9	6.9	6.8	0.6	0.6	0.6	9.4	9.1	8.6
Shenhua Energy	HKD	22.3	(0.9)	(18.9)	(13.2)	22.0	92.0	6.9	5.7	6.3	1.0	1.0	0.9	14.3	16.2	14.8
SABIC	SAR	97.6	(7.2)	(13.6)	(27.4)	(15.9)	78.0	12.5	13.1	14.0	1.6	1.5	1.5	13.4	12.3	11.3
Reliance	INR	2,391	(0.7)	(14.6)	(8.6)	1.0	204.1	26.3	19.5	17.4	2.1	1.8	1.7	8.0	9.8	9.8
Battery makers																
LG Energy Solution	KRW	388,000	8.8	(8.2)	(11.7)	n/a	70.1	118.1	104.6	62.6	9.6	4.7	4.5	10.5	6.5	7.6
Samsung SDI	KRW	537,000	4.9	(3.4)	(10.6)	(18.0)	28.5	31.2	23.1	19.0	2.6	2.2	2.0	8.6	10.2	11.7
Panasonic	JPY	1,125	4.2	(3.7)	(0.4)	(11.1)	20.3	10.8	10.8	9.4	0.9	0.8	0.8	9.0	7.8	8.7
BYD	HKD	321	2.2	6.9	34.6	20.3	136.4	176.8	102.4	67.6	9.8	7.8	6.7	5.8	8.0	11.0
CATL	CNY	541	3.5	25.4	9.3	(8.0)	197.2	93.6	56.8	37.5	16.3	11.7	9.0	18.9	19.9	24.8

Note: As of July 8 close; based on Bloomberg consensus / Source: Bloomberg, Samsung Securities

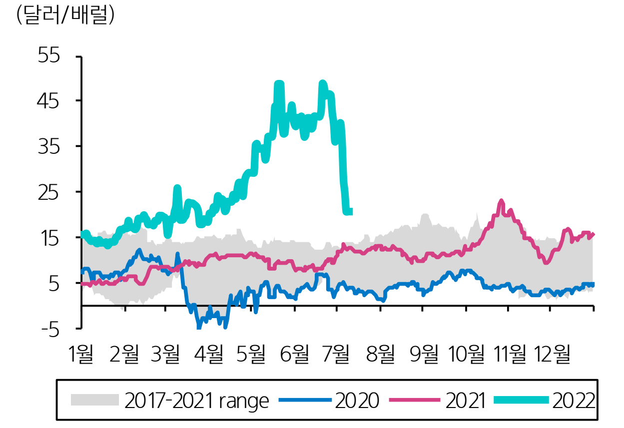
국내 정유사 종합마진 및 제품별 마진 차트

국내 정유 2사: 종합 마진 추이



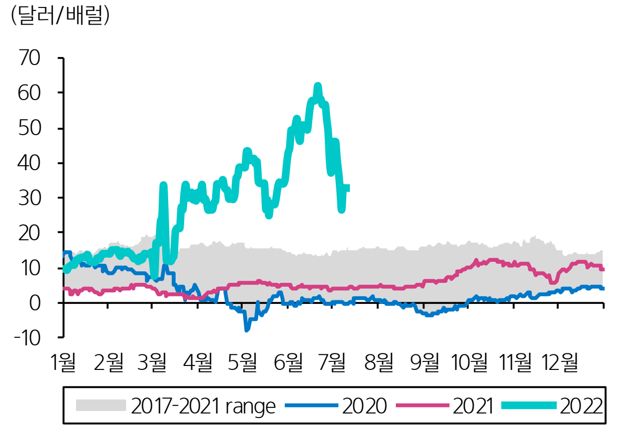
자료: 각 사, Datastream, 삼성증권

가솔린-두바이 원유 스프레드 (spot)



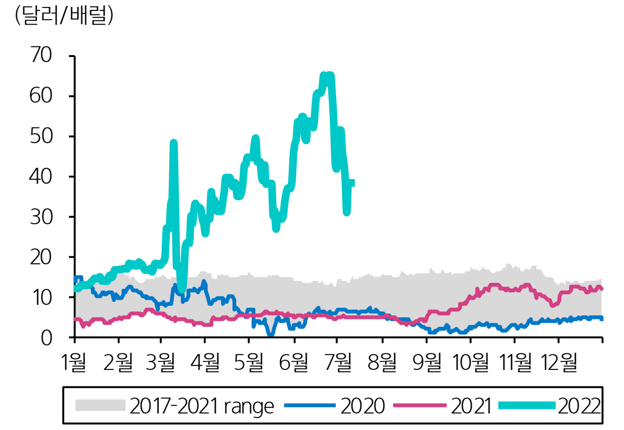
자료: Petronet, 삼성증권

등유-두바이 원유 스프레드 (spot)



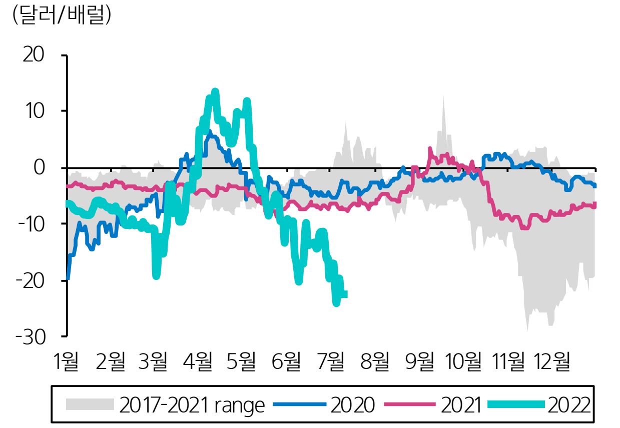
자료: Petronet, 삼성증권

디젤-두바이 원유 스프레드 (spot)



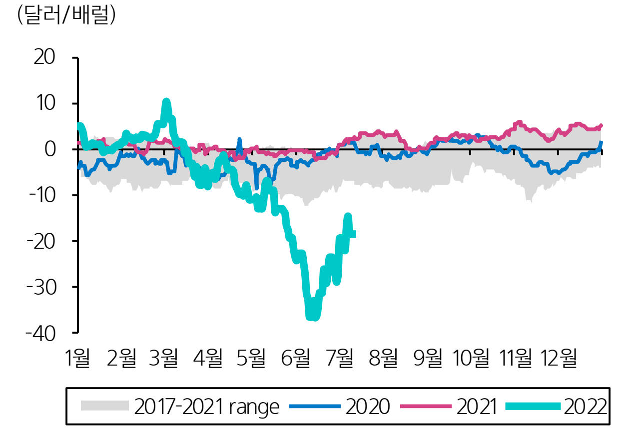
자료: Petronet, 삼성증권

HSFO-두바이 원유 스프레드 (spot)



자료: Petronet, 삼성증권

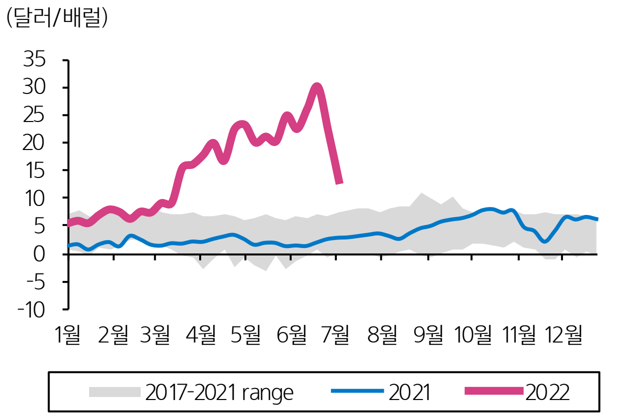
나프타-두바이 원유 스프레드 (spot)



자료: Petronet, 삼성증권

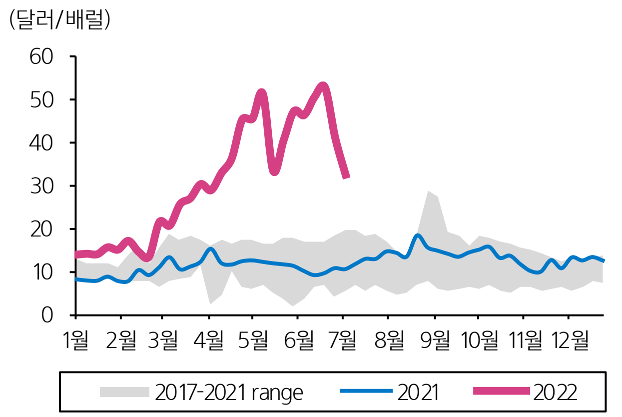
지역별 정제마진 차트

싱가포르 정제마진 (두바이 원유 투입기준)



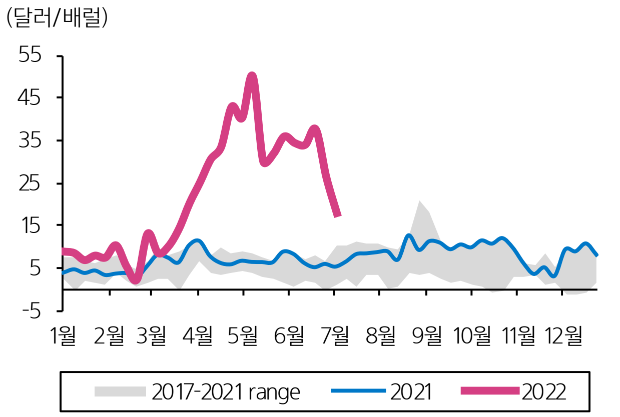
자료: Datastream, 삼성증권

미국 Gulf 정제마진 (WTI 원유 투입기준)



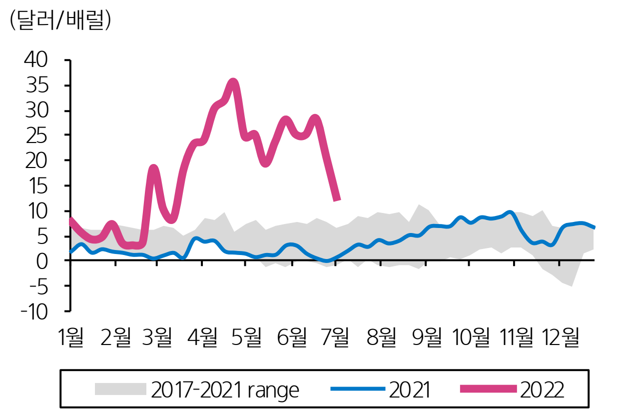
자료: Datastream, 삼성증권

미국 Gulf 정제마진 (브랜트 원유 투입기준)



자료: Datastream, 삼성증권

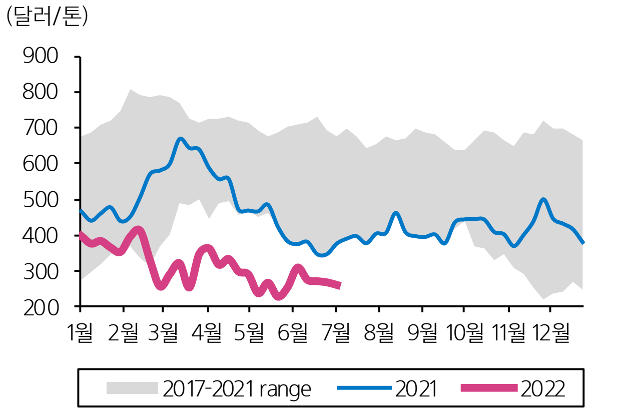
유럽 로테르담 정제마진 (브렌트 원유 투입기준)



자료: Datastream, 삼성증권

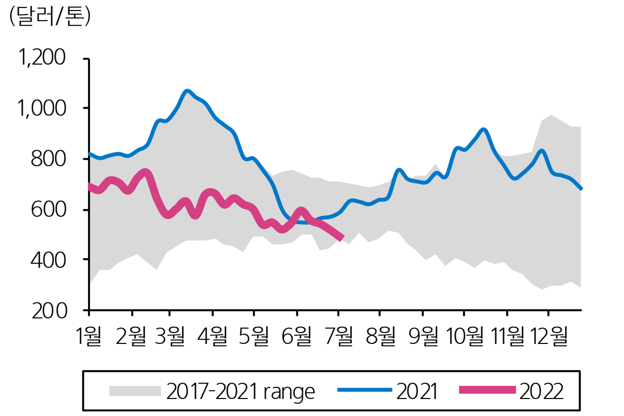
화학제품 스프레드 차트 (원재료 스팟 기준)

HDPE-나프타 스프레드 추이 (롯데케미칼/대한유화)



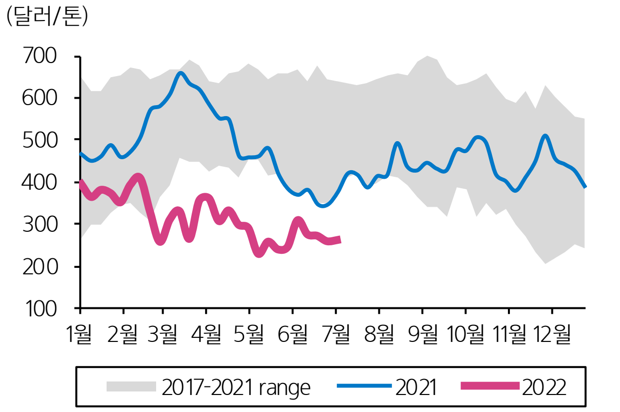
자료: 산업자료, 삼성증권

LDPE-나프타 스프레드 추이 (롯데케미칼/대한유화/한화솔루션)



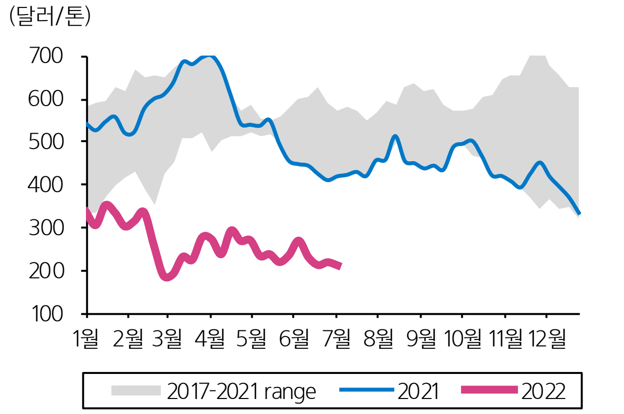
자료: 산업자료, 삼성증권

LLDPE-나프타 스프레드 추이 (롯데케미칼/대한유화/한화솔루션)



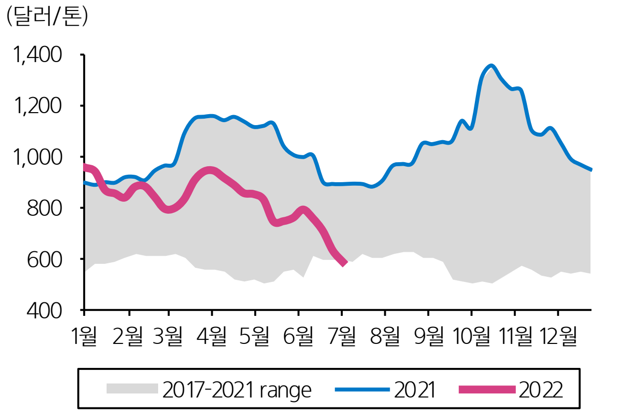
자료: 산업자료, 삼성증권

PP-나프타 스프레드 추이 (롯데케미칼/대한유화/효성화학)



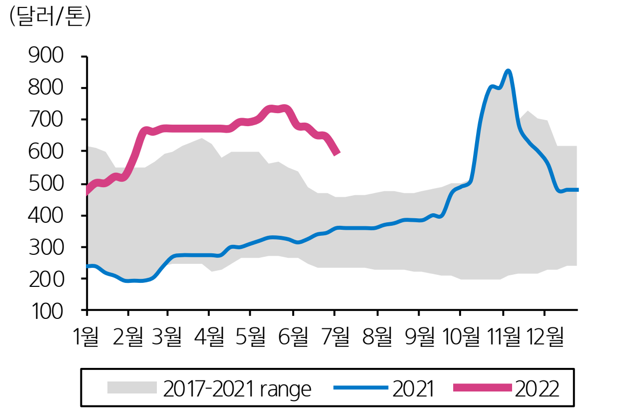
자료: 산업자료, 삼성증권

PVC-나프타 스프레드 추이 (LG화학/한화솔루션)



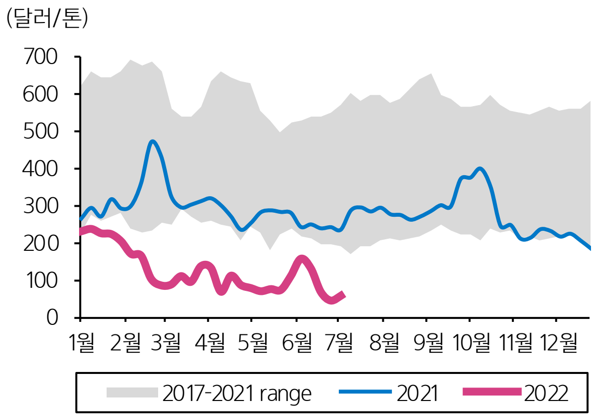
자료: 산업자료, 삼성증권

가성소다 가격 추이 (LG화학/한화솔루션/롯데정밀화학)



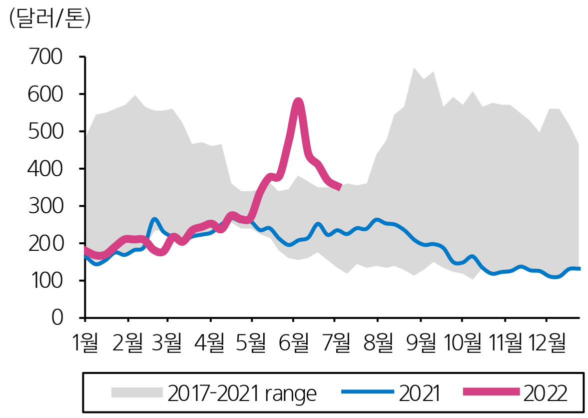
자료: 산업자료, 삼성증권

MEG-나프타 스프레드 추이 (롯데케미칼/대한유화)



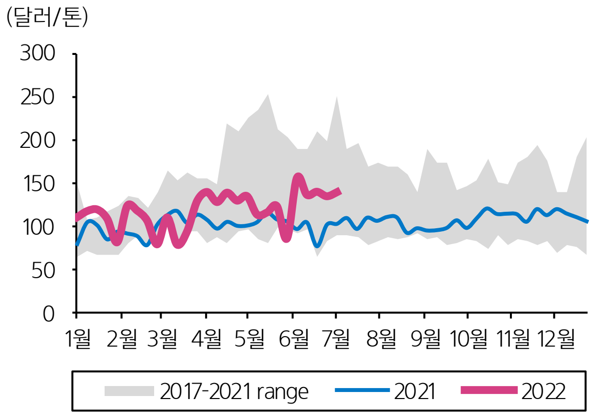
자료: 산업자료, 삼성증권

PX-나프타 스프레드 추이 (SK이노베이션/S-Oil)



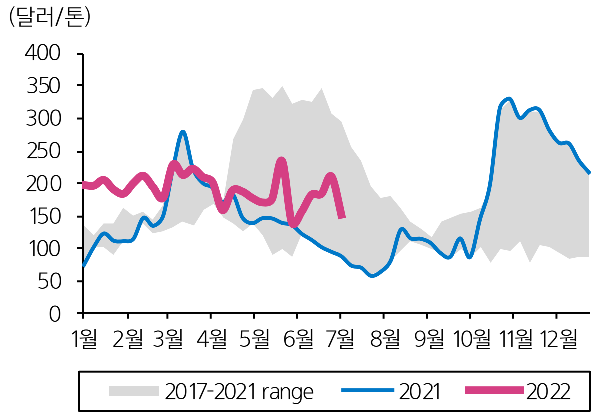
자료: 산업자료, 삼성증권

PTA-PX 스프레드 추이 (한화토탈/태광산업)



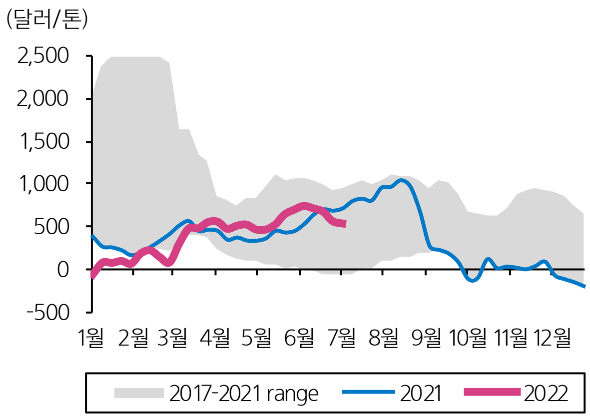
자료: 산업자료, 삼성증권

PET-MEG/PTA 스프레드 추이 (롯데케미칼/티케이케미칼)



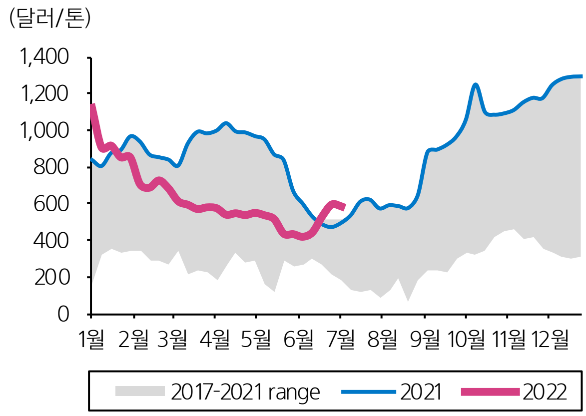
자료: 산업자료, 삼성증권

부타디엔-나프타 스프레드 추이 (롯데케미칼/대한유화)



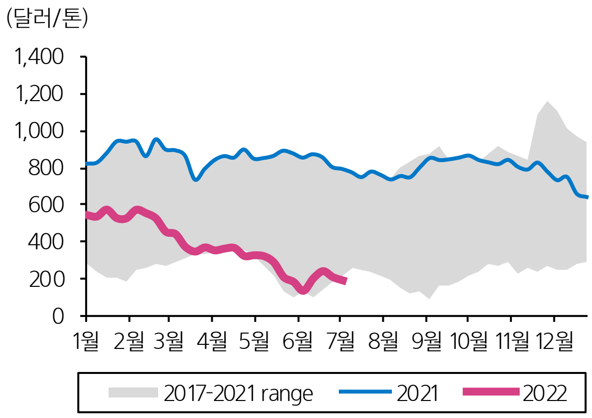
자료: 산업자료, 삼성증권

SBR-SM/BD 스프레드 추이 (LG화학/금호석유)



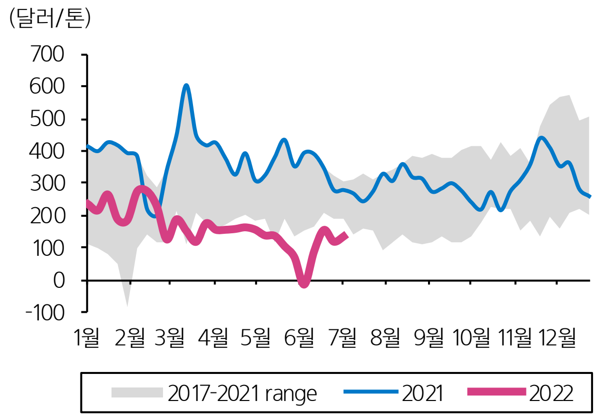
자료: 산업자료, 삼성증권

ABS-AN/BD/SM 스프레드 추이 (LG화학/금호석유)



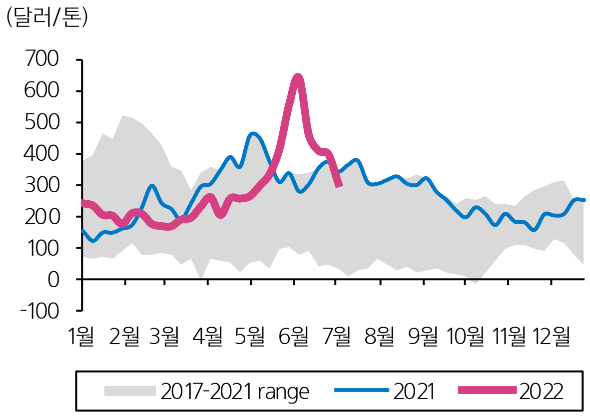
자료: 산업자료, 삼성증권

PS-SM 스프레드 추이 (LG화학/금호석유)



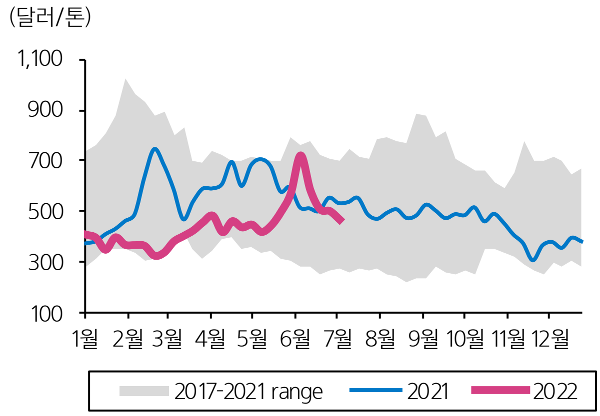
자료: 산업자료, 삼성증권

벤젠-나프타 스프레드 추이 (SK이노베이션/S-Oil)



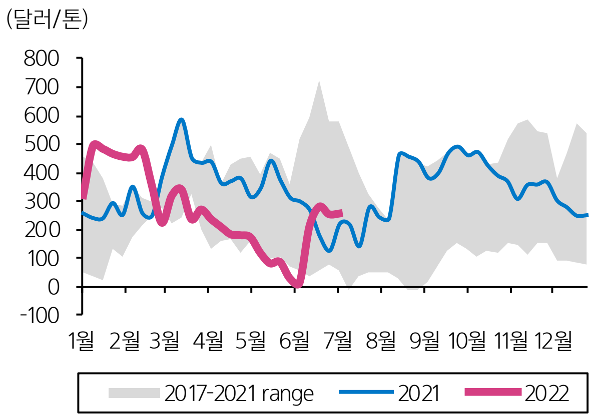
자료: 산업자료, 삼성증권

SM-나프타 스프레드 추이 (한화토탈)



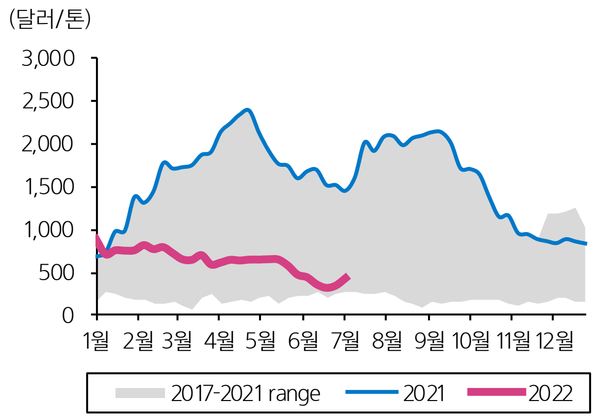
자료: 산업자료, 삼성증권

페놀/아세톤-프로필렌/벤젠 스프레드 추이 (LG화학/금호석유)



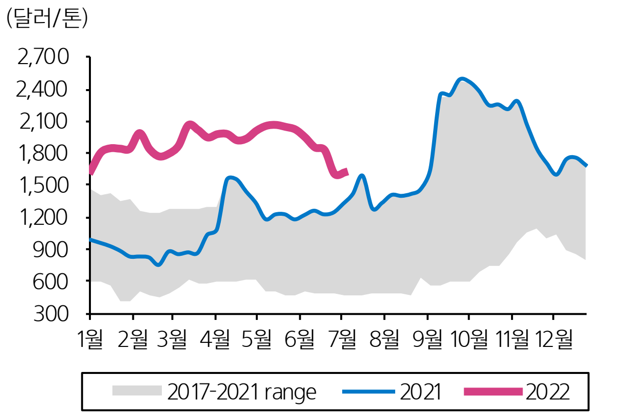
자료: 산업자료, 삼성증권

BPA-페놀/아세톤 스프레드 추이 (LG화학/금호석유)



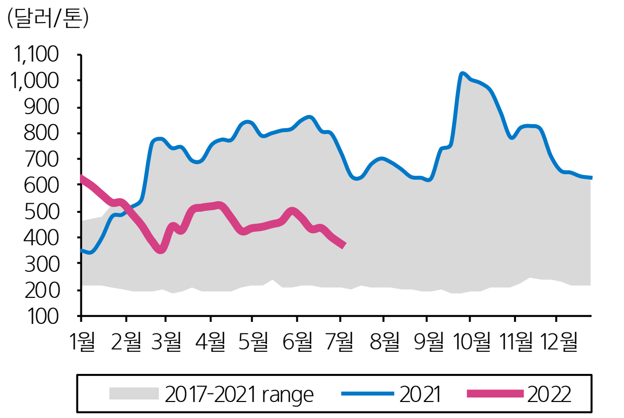
자료: 산업자료, 삼성증권

ECH-프로필렌 스프레드 추이 (롯데정밀화학)



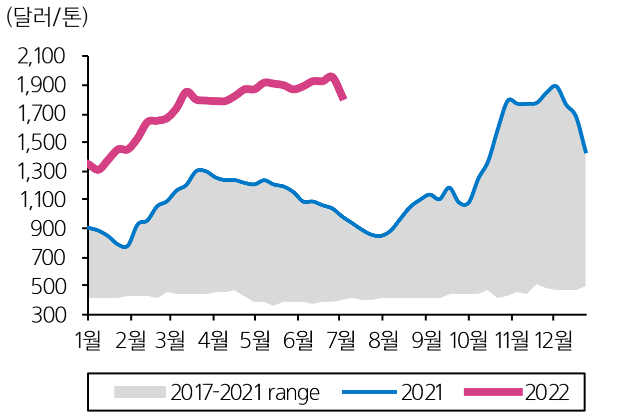
자료: Cischem, 산업자료, 삼성증권

AA-메탄올 스프레드 추이 (롯데정밀화학)



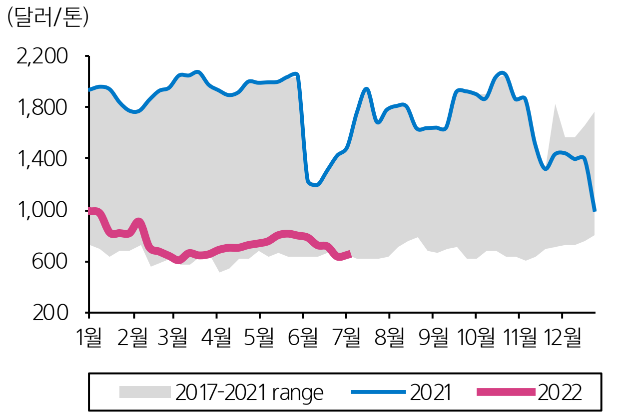
자료: 산업자료, 삼성증권

VAM-AA 스프레드 추이 (롯데정밀화학)



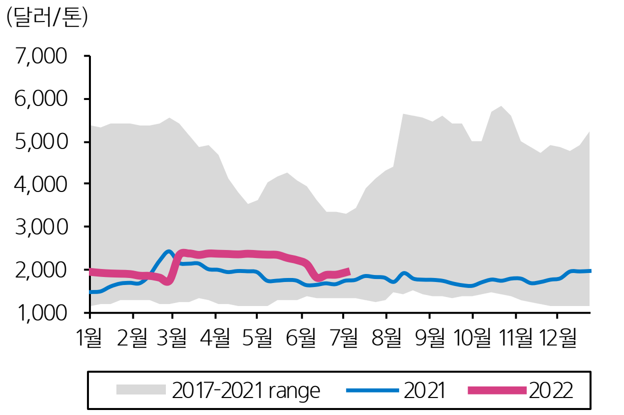
자료: 산업자료, 삼성증권

PO-프로필렌 스프레드 추이 (SKC/S-Oil)



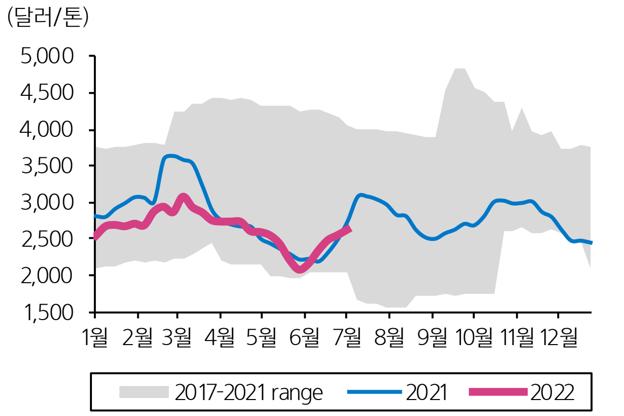
자료: Cischem, 산업자료, 삼성증권

TDI-톨루엔 스프레드 추이 (한화솔루션/OCI)



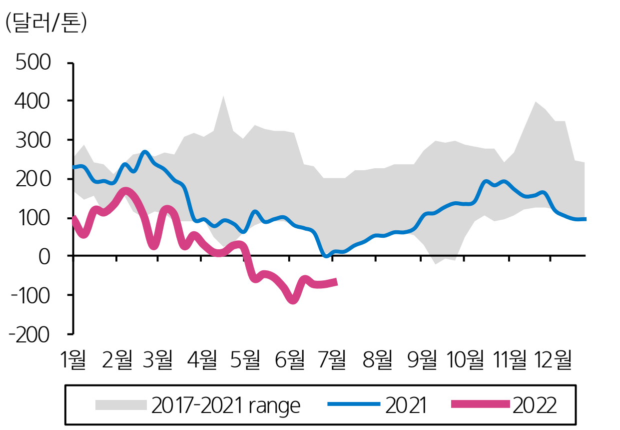
자료: Cischem, 산업자료, 삼성증권

MDI-벤젠 스프레드 추이 (금호석유)



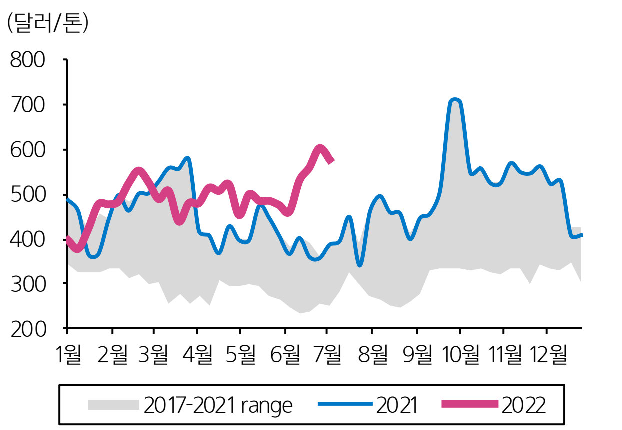
자료: Cischem, 산업자료, 삼성증권

PA-OX 스프레드 추이 (애경유화)



자료: 산업자료, 삼성증권

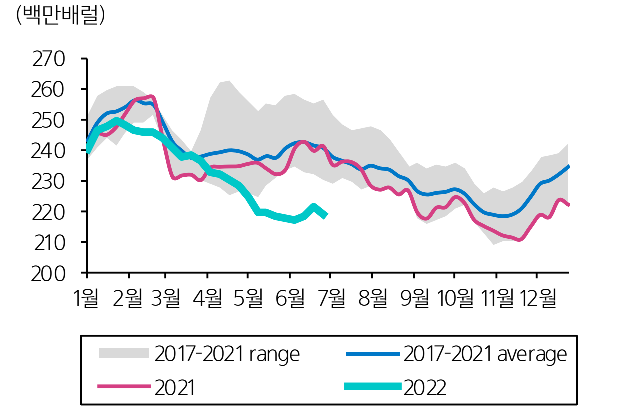
DOP-2EH 스프레드 추이 (애경유화)



자료: 산업자료, 삼성증권

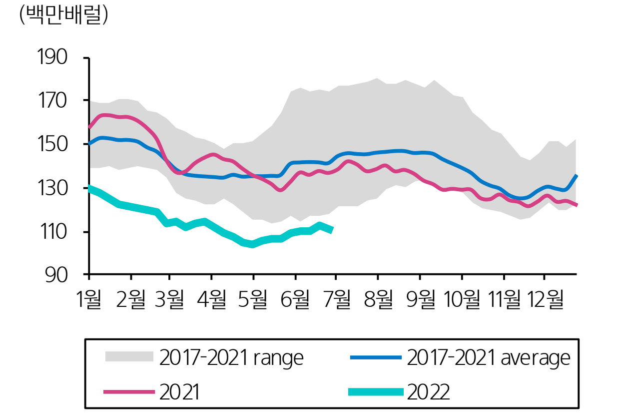
정유제품 재고 차트

미국 가솔린 재고추이



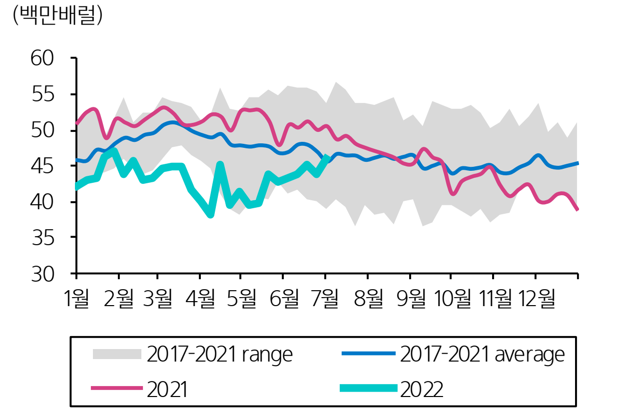
자료: EIA, 삼성증권

미국 디젤/등유 재고추이



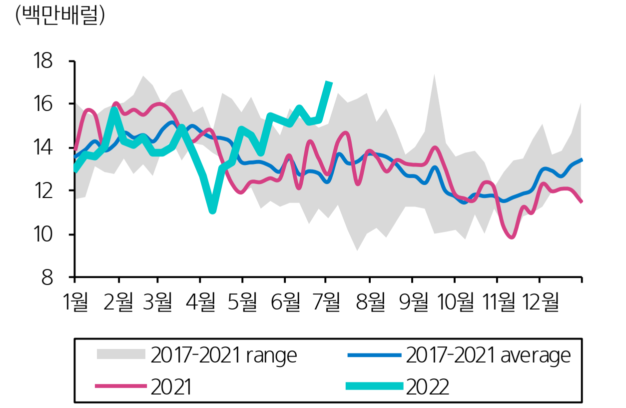
자료: EIA, 삼성증권

싱가폴 정유제품(가솔린/디젤/등유/중유) 재고추이



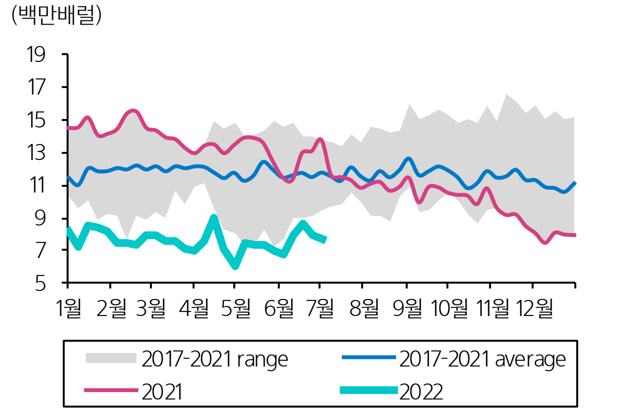
자료: Enterprise Singapore, 삼성증권

싱가폴 가솔린 재고추이



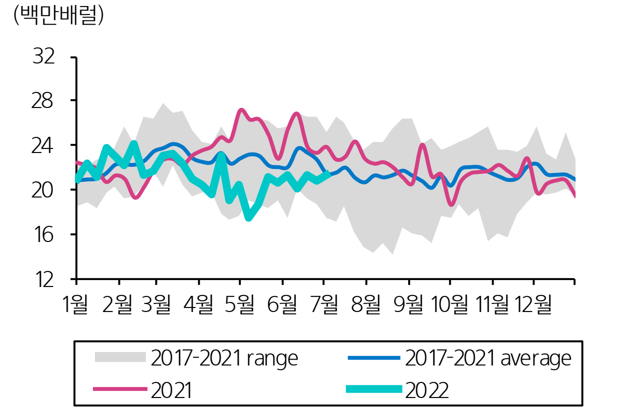
자료: Enterprise Singapore, 삼성증권

싱가폴 디젤/등유 재고추이



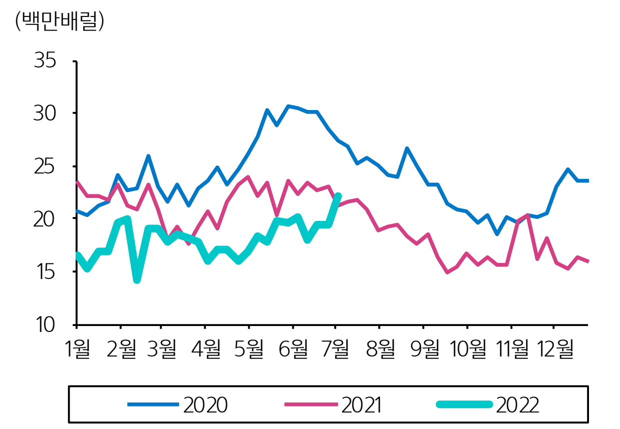
자료: Enterprise Singapore, 삼성증권

싱가폴 중유(Fuel Oil) 재고추이



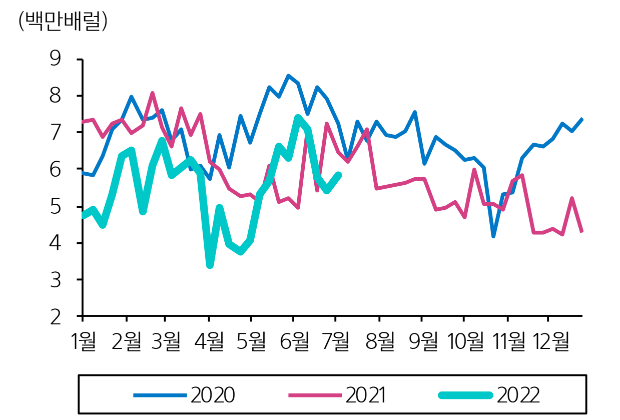
자료: Enterprise Singapore, 삼성증권

Fujairah(UAE) 정유제품(가솔린/디젤/등유/중유) 재고추이



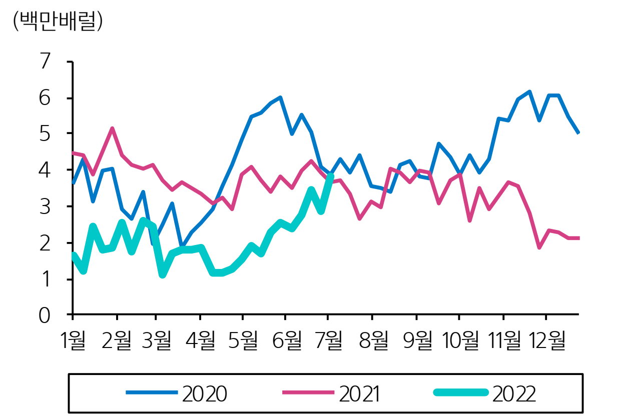
자료: 산업자료, 삼성증권

Fujairah(UAE) 가솔린 재고추이



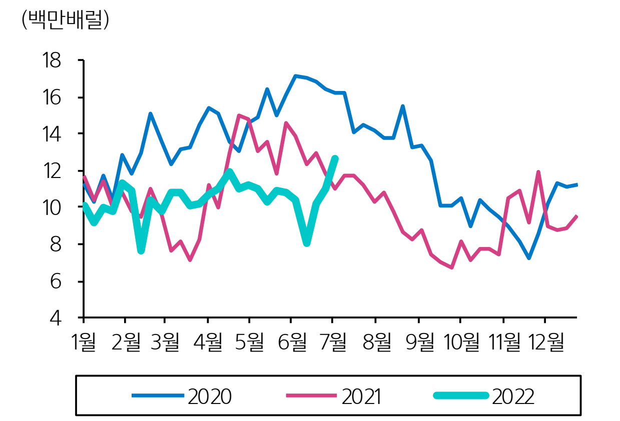
자료: 산업자료, 삼성증권

Fujairah(UAE) 디젤/등유 재고추이



자료: 산업자료, 삼성증권

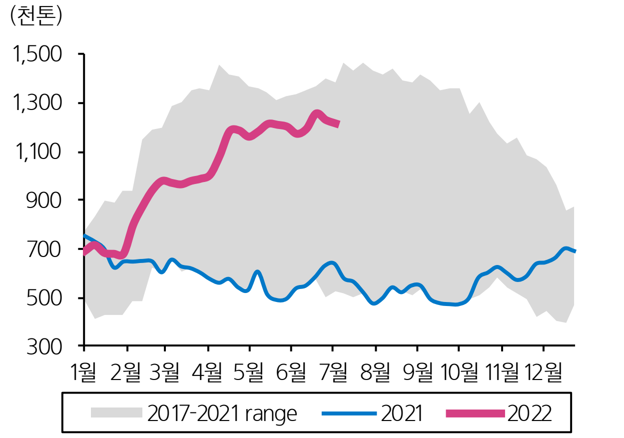
Fujairah(UAE) 중유(Fuel Oil) 재고추이



자료: 산업자료, 삼성증권

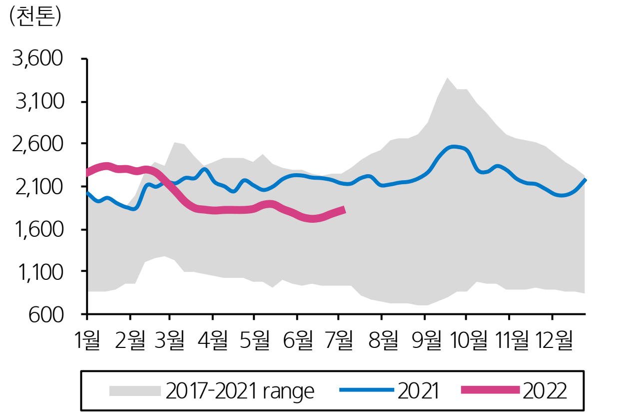
화학제품 재고 차트

MEG: 중국 재고 추이



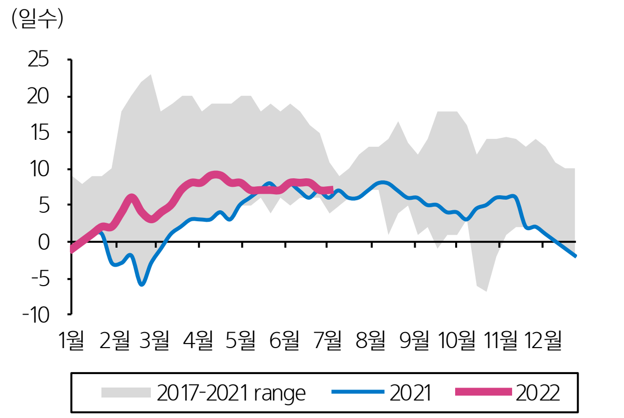
자료: CCFEI, 삼성증권

PTA: 중국 재고 추이



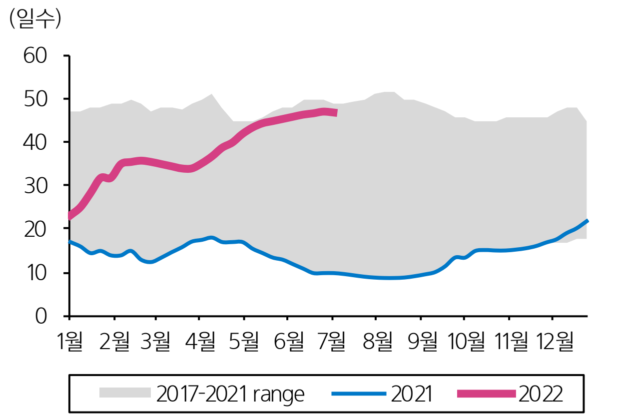
자료: CCFEI, 삼성증권

Polyester staple: 중국 재고 추이



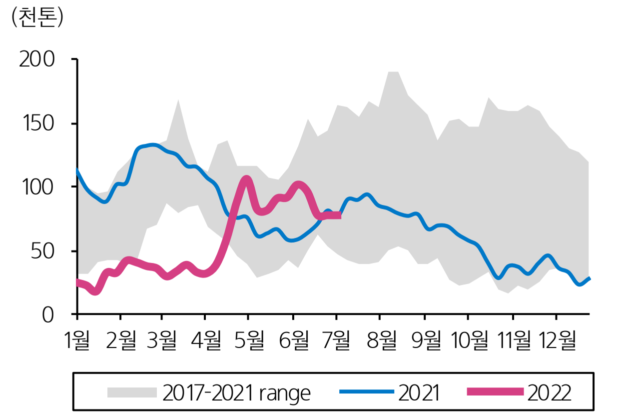
자료: CCFEI, 삼성증권

Spandex: 중국 재고 추이



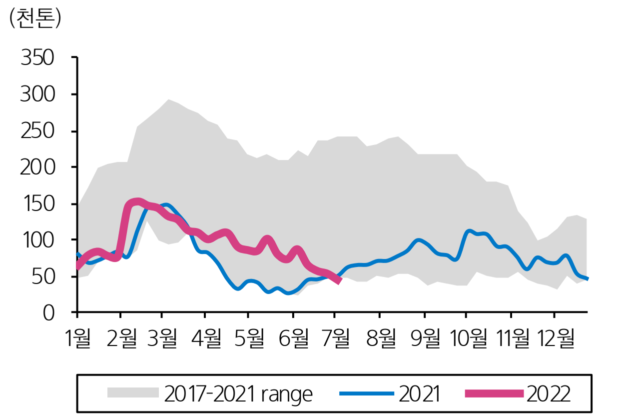
자료: CCFEI, 삼성증권

Xylene: 중국 재고 추이



자료: 산업자료, 삼성증권

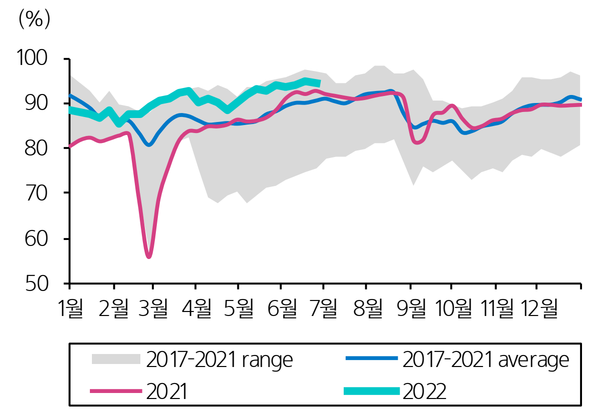
SM: 중국 재고 추이



자료: 산업자료, 삼성증권

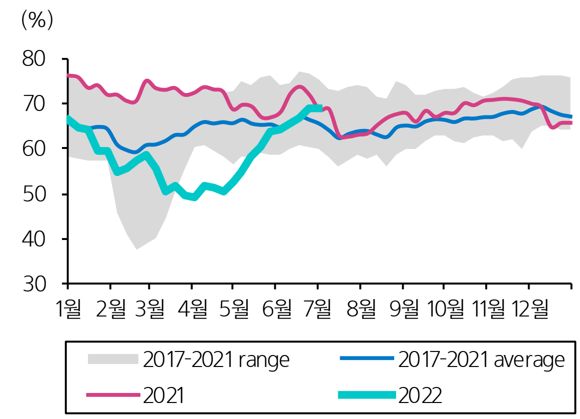
정유/화학제품 가동률 차트

미국 정제시설 가동률



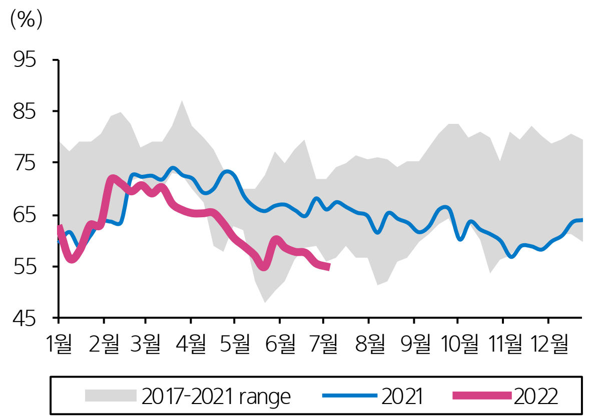
자료: EIA, 삼성증권

중국 산동지역 독립정유사 가동률



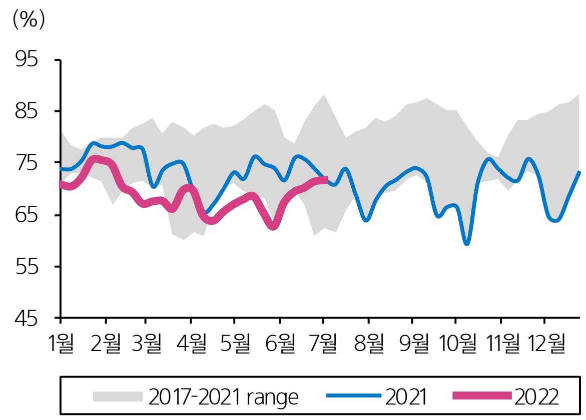
자료: Bloomberg, 삼성증권

MEG: 중국 가동률 추이



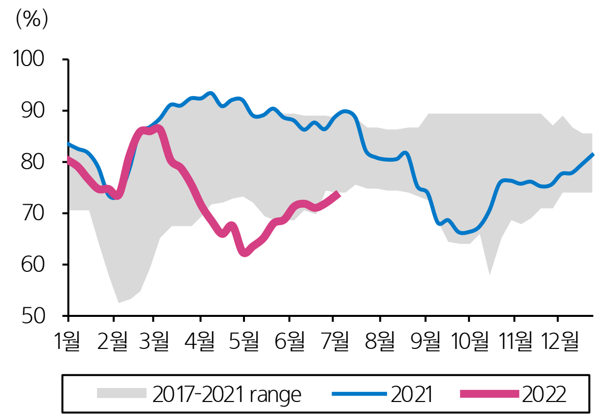
자료: CCFEI, 삼성증권

PTA: 중국 가동률 추이



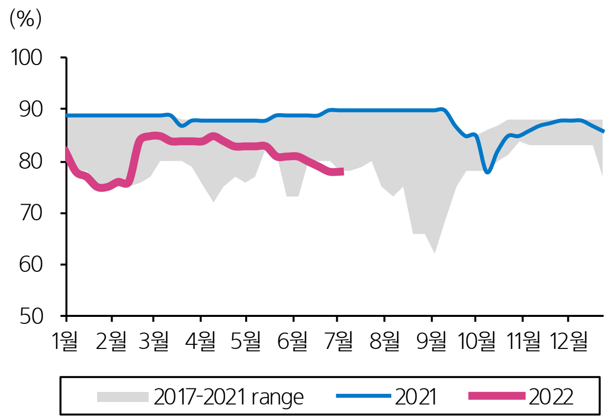
자료: CCFEI, 삼성증권

Polyester staple: 중국 가동률 추이



자료: CCFEI, 삼성증권

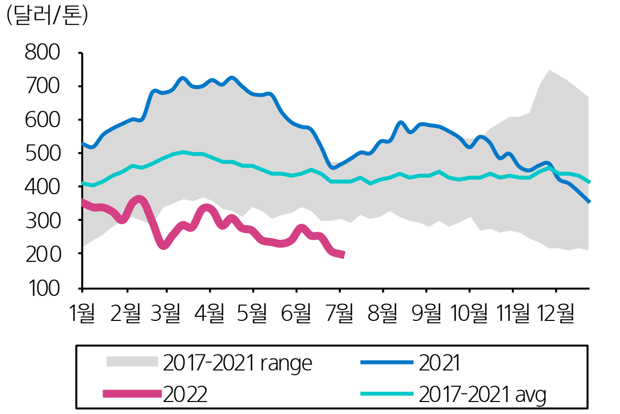
Spandex: 중국 가동률 추이



자료: CCFEI, 삼성증권

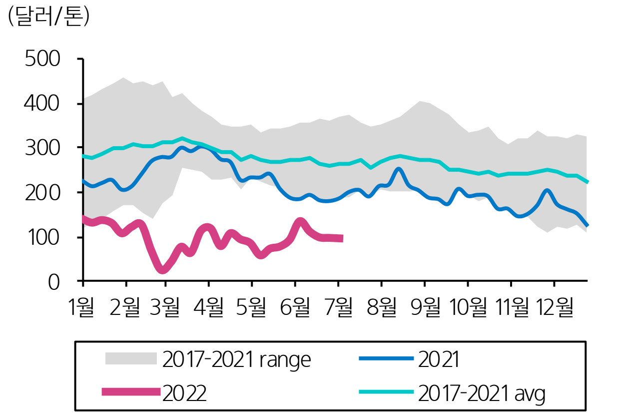
화학업체 종합 스프레드 (Spot 기준)

LG화학: 종합 스프레드



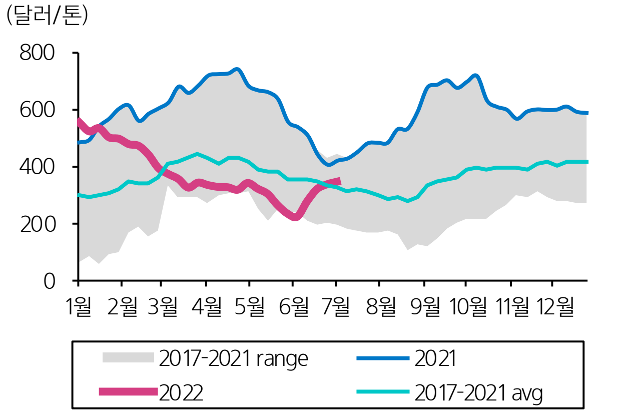
자료: 삼성증권

롯데케미칼: 종합 스프레드



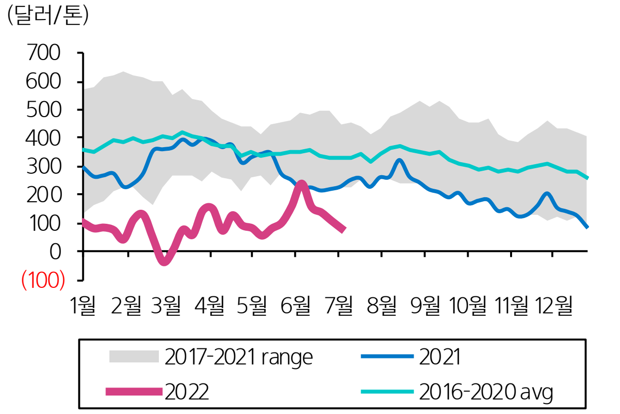
자료: 삼성증권

금호석유: 종합 스프레드



자료: 삼성증권

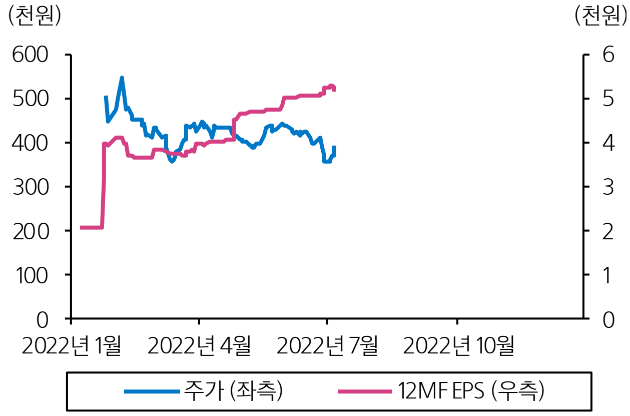
대한유화: 종합 스프레드



자료: 삼성증권

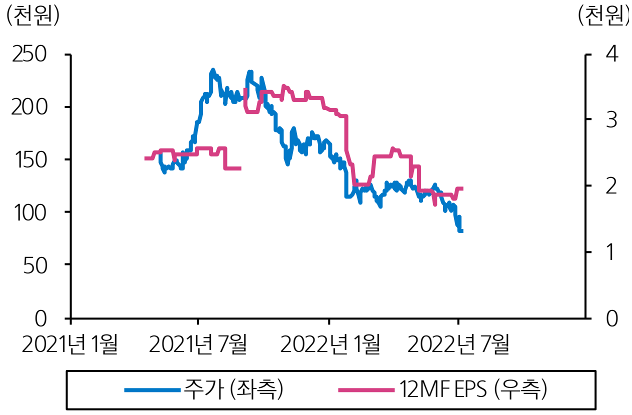
주요 커버리지 기업 12MF EPS vs 주가 추이

LG에너지솔루션: 12MF EPS vs 주가 추이



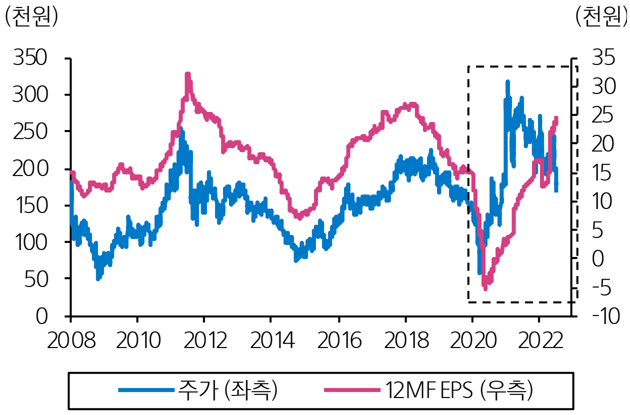
자료: Quantiwise, 삼성증권

SK IET: 12MF EPS vs 주가 추이



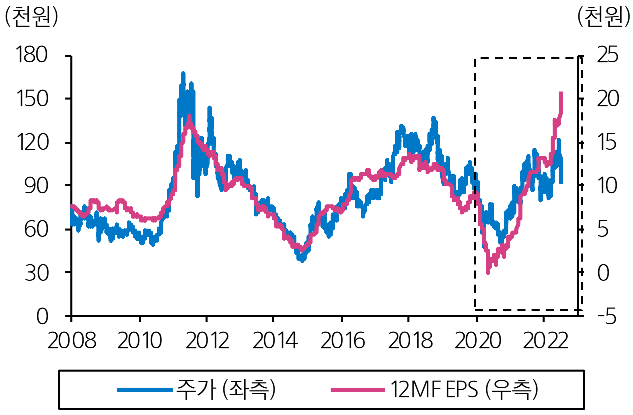
자료: Quantiwise, 삼성증권

SK이노베이션: 12MF EPS vs 주가 추이



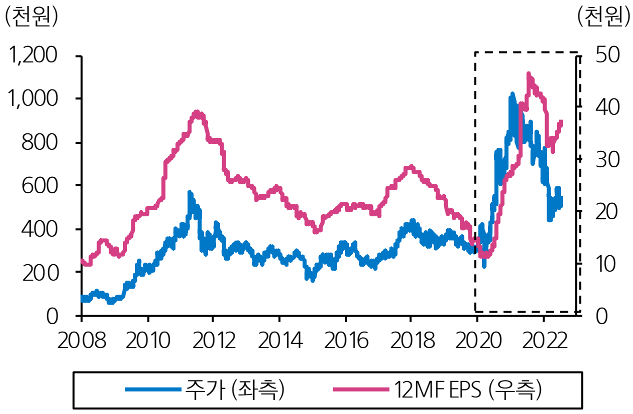
자료: Quantiwise, 삼성증권

S-Oil: 12MF EPS vs 주가 추이



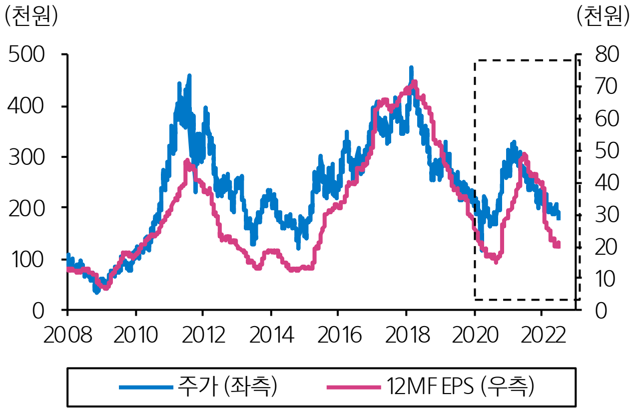
자료: Quantiwise, 삼성증권

LG화학: 12MF EPS vs 주가 추이



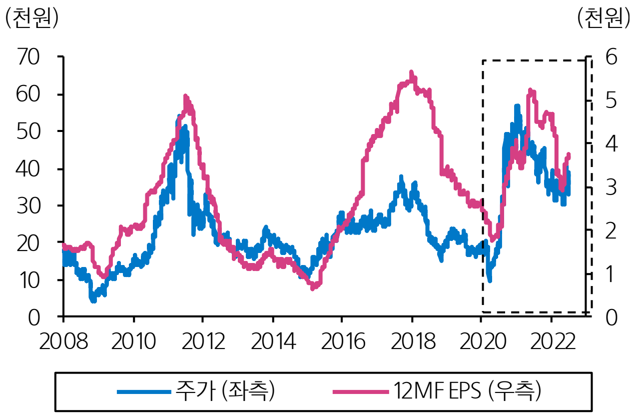
자료: Quantiwise, 삼성증권

롯데케미칼: 12MF EPS vs 주가 추이



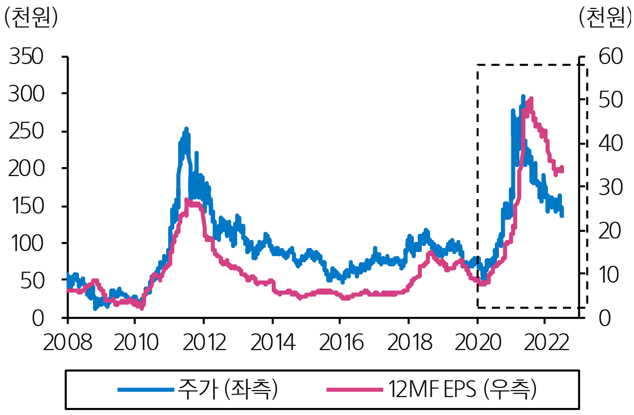
자료: Quantiwise, 삼성증권

한화솔루션: 12MF EPS vs 주가 추이



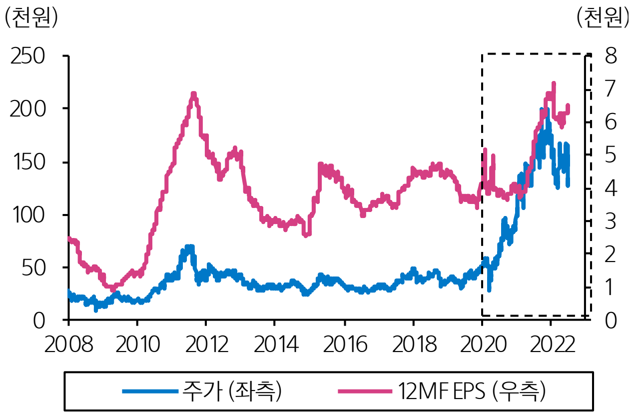
자료: Quantiwise, 삼성증권

금호석유: 12MF EPS vs 주가 추이



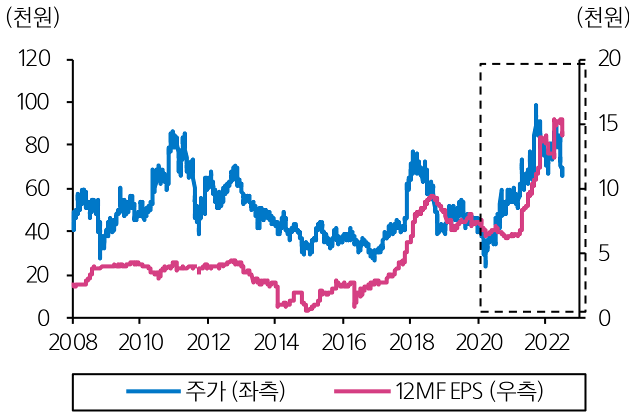
자료: Quantiwise, 삼성증권

SKC: 12MF EPS vs 주가 추이



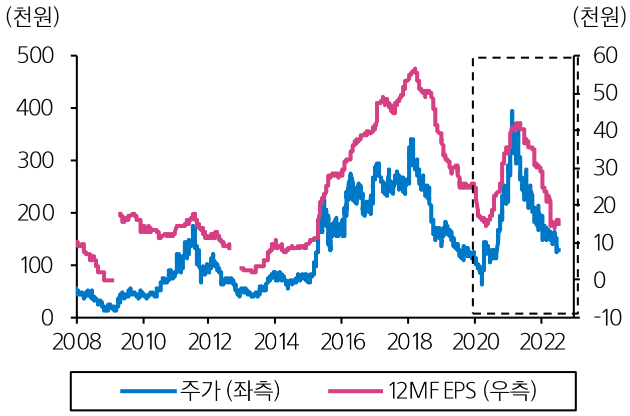
자료: Quantiwise, 삼성증권

롯데정밀화학: 12MF EPS vs 주가 추이



자료: Quantiwise, 삼성증권

대한유화: 12MF EPS vs 주가 추이



자료: Quantiwise, 삼성증권