

Petrochemical price monitor

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- **Product prices for olefins chain still slipping WoW.** PE/PP product spreads over naphtha were hit by lower product prices (-2.4% to -12.2% WoW), especially HDPE. Still, average HDPE price remained the best performer in 4Q14, falling 7.8% QoQ vs. >8% of other products. Product spreads declined 8.8% WoW on average as naphtha price eased by 6% WoW to a 5-year low of only US\$421/t. Among non-integrated producers, LDPE did best, with spread expanding 6.8% WoW while others displayed a sharp decline WoW.
- **Buying interest on BZ is getting worse.** Aromatics product prices continued to tumble 4.3-10.8% WoW, especially BZ, which sank to a 5-year low of only US\$640/t on poor buying sentiment globally. BZ-naphtha spread narrowed 18.7% WoW to a 5-year low of US\$219/t, less than half the 3Q14 average. Near-term outlook remains bearish with weakening feedstock price and high inventory of downstream polystyrene (PS) regionally. Demand for PX was also weak in its low season, pulling price and spread down 4.3% and 2.5% WoW.
- **PET/PTA spread continued to sour on sluggish demand.** Integrated PET/PTA spread fell 9.3% WoW to US\$306/t as PTA spread declined a sharp 16.6% WoW from bearish demand despite a 4.3-5% WoW fall in feedstock cost. The sluggish demand for downstream products PET and polyester may hang around awhile as buyers remain reluctant to rebuild inventory before the end of the year. Polyester price is also being pressured by the decline in cotton price of 7.1% QoQ in 4Q14.

Investment view: The petrochemical sector index rose 8.5% WoW after a sharp fall last week, also outperforming the market (+3.9% WoW). Key driver on the upside was IVL (+15.8% WoW) despite the weakening outlook for the PET/polyester chain in 4Q14 and 2015 due to a regional supply glut for PET and PTA. PTTGC share price also rose 7.8% WoW reflecting improving market sentiment on the sector and market optimism on prospective earnings from its olefins chain.

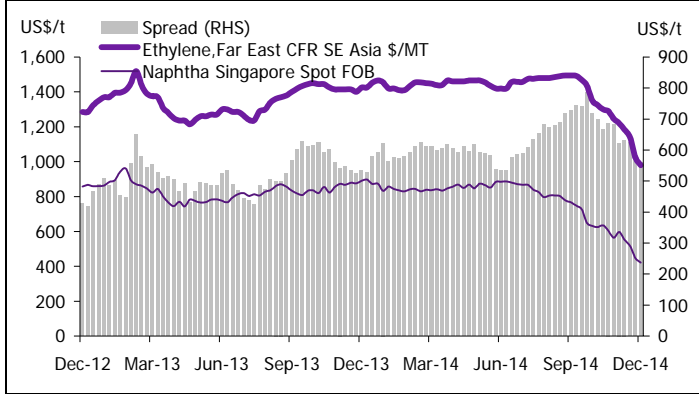
Figure 1: Petrochemical price update

	Current 19-Dec-14	52-week High/Low	-1W	-1M	-3M	-6M	-12M	4Q14 QTD	3Q14	QoQ%	YTD	Chg.	%YoY	2014F projection
Price														
Naphtha Singapore Spot FOB	421	897/421	-6.0%	-29.6%	-45.1%	-52.5%	-52.8%	581	820	-29.1%	781	-51	-6.1%	842
Ethylene, Far East CFR SE Asia \$/MT	980	1,495/980	-4.4%	-19.7%	-34.4%	-31.0%	-31.2%	1,247	1,478	-15.6%	1,406	56	4.1%	1,440
Propylene (C), Spot CFR F/E US\$/MT	615	1,503/615	-18.5%	-45.6%	-54.8%	-57.1%	-58.9%	1,110	1,412	-21.4%	1,355	-41	-2.9%	1,430
Polye HDPE Inj, South East Asia US\$/MT	1,185	1,620/1,185	-12.2%	-20.5%	-25.2%	-25.2%	-22.8%	1,479	1,605	-7.8%	1,551	74	5.0%	1,570
Polye LDPE-Film, Spot S.E Asia US\$/MT	1,215	1,680/1,215	-2.4%	-17.9%	-23.6%	-23.8%	-27.7%	1,470	1,602	-8.3%	1,582	50	3.3%	1,640
Polye LLDPE Film, F/E Spot SE Asia \$/MT	1,160	1,615/1,160	-10.4%	-21.4%	-26.3%	-27.0%	-26.1%	1,465	1,602	-8.6%	1,553	68	4.6%	1,580
PP Film, Spot South East Asia US\$/MT	1,240	1,625/1,240	-6.4%	-15.9%	-22.7%	-22.0%	-20.3%	1,488	1,613	-7.8%	1,562	49	3.2%	1,570
Related stocks														
			PTTGC (-) IRPC (-) SCC (-) TPIPL (+)											
Para-Xylene CFR Chin M. Por Spot \$/MT	833	1,488/833	-4.3%	-20.4%	-32.8%	-39.6%	-41.8%	1,011	1,353	-25.2%	1,233	-267	-17.8%	1,190
Benzene, Far East CFR Spot F/E US\$/MT	640	1,385/640	-10.8%	-35.8%	-47.5%	-52.5%	-52.7%	985	1,296	-24.0%	1,224	-93	-7.1%	1,240
Related stocks														
			PTTGC (-) TOP (-) ESSO (-)											
MEG, Far East Spot CFR F/E US\$/MT	758	1,035/758	-5.0%	-13.3%	-18.6%	-24.0%	-26.8%	832	973	-14.5%	930	-125	-11.8%	1,110
PTA CFR South East Asia	645	1,040/645	-6.5%	-19.9%	-30.3%	-34.2%	-35.2%	781	999	-21.8%	912	-166	-15.4%	900
PET(Fibre Grade)A/P Spot CFR NEA \$/MT	970	1,313/970	-5.8%	-10.2%	-20.8%	-23.0%	-25.4%	1,090	1,268	-14.1%	1,213	-186	-13.3%	n.a.
Related stocks														
			PTTGC (-) IVL (-)											
ABS Asia Pac. India Spot CFR US\$/MT	1,590	1,950/1,590	0.0%	-9.4%	-17.0%	-16.5%	-16.1%	1,782	1,925	-7.4%	1,875	-75	-3.8%	n.a.
Polystyrene-GP, Spot Hong Kong US\$/MT	1,220	1,815/1,220	-2.8%	-15.9%	-26.1%	-28.9%	-32.2%	1,476	1,713	-13.8%	1,679	-167	-9.0%	n.a.
Related stocks														
			IRPC (+)											
PVC, Spot South East Asia US\$/MT	790	1,070/790	-12.2%	-13.7%	-22.2%	-24.8%	-21.8%	940	1,047	-10.2%	1,017	4	0.4%	1,070
Related stocks														
			VNT (-) TPC (-)											
Product spread														
Ethylene - naphtha	559	786/528	-3.1%	-10.2%	-23.2%	4.6%	4.6%	666	659	1.1%	626	106	20.5%	598
Propylene - naphtha	194	686/194	-36.8%	-63.5%	-67.2%	-64.5%	-68.0%	530	593	-10.6%	574	10	1.7%	588
HDPE - naphtha	764	956/638	-15.3%	-14.4%	-6.6%	9.2%	18.6%	898	785	14.4%	771	125	19.4%	728
LDPE - naphtha	794	956/709	-0.4%	-10.0%	-3.5%	11.9%	0.6%	889	782	13.6%	801	100	14.4%	798
LDPE - Ethylene	235	275/93	6.8%	-9.6%	147.4%	34.3%	-7.8%	223	123	80.2%	175	-6	-3.2%	200
LLDPE - naphtha	739	946/673	-12.8%	-15.8%	-8.5%	4.9%	8.8%	884	782	13.0%	772	119	18.2%	738
PP - naphtha	819	956/658	-6.6%	-6.6%	-2.2%	16.2%	23.3%	907	793	14.3%	781	99	14.5%	728
PX - naphtha	412	612/304	-2.5%	-8.1%	-12.6%	-16.4%	-23.9%	431	533	-19.2%	452	-216	-32.3%	348
BZ - naphtha	219	535/219	-18.7%	-45.2%	-51.6%	-52.6%	-52.5%	404	477	-15.2%	443	-43	-8.8%	398
MEG - Ethylene	150	162/-58	-7.5%	28.0%	n.m.	29.1%	-1.1%	59	57	4.0%	58	-159	-73.4%	217
PTA - PX	104	184/53	-16.6%	-17.2%	-13.7%	22.7%	61.0%	124	120	3.4%	110	7	7.3%	103
PET spread	202	253/121	-5.1%	37.8%	13.6%	37.4%	24.8%	189	148	27.8%	176	-13	-6.7%	n.a.
Integrated PET/PTA spread	306	359/190	-9.3%	12.5%	2.6%	32.1%	35.1%	313	268	16.9%	287	-5	-1.8%	n.a.
ABS spread	1,181	1,251/1,070	2.8%	0.2%	-3.0%	7.9%	5.1%	1,212	1,165	4.0%	1,141	-27	-2.3%	n.a.
PS spread	430	430/214	10.0%	39.6%	70.3%	80.2%	35.2%	336	260	29.5%	304	-109	-26.5%	n.a.
PVC - ethylene	300	388/249	-22.6%	-1.6%	12.1%	-11.8%	0.8%	316	308	2.7%	314	-23	-6.9%	350

Source: Datastream, SCBS Investment Research

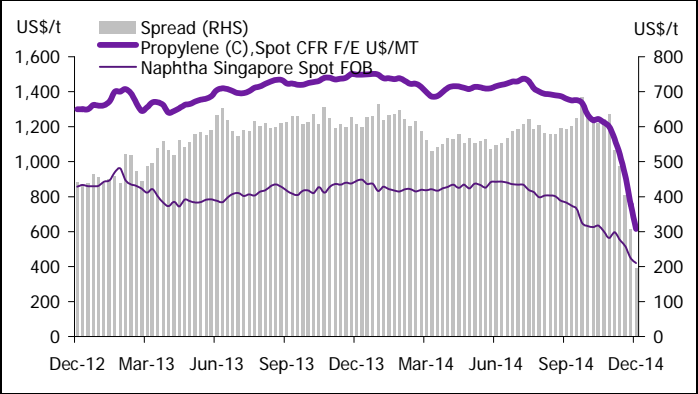
Note: Impact to related stocks is based on WoW performance

Figure 2: Ethylene vs. Naphtha



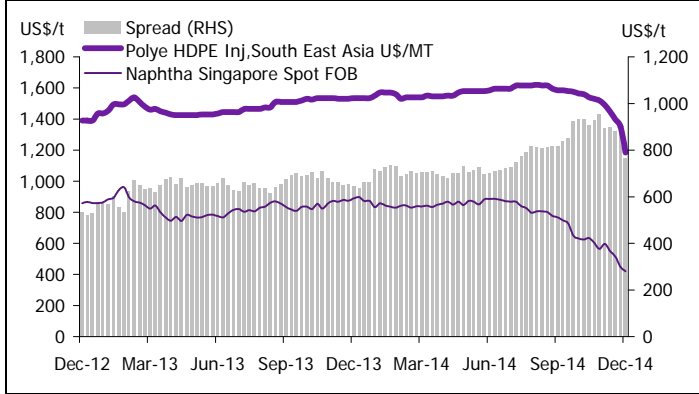
Source: Datastream, SCBS Investment Research

Figure 3: Propylene vs. Naphtha



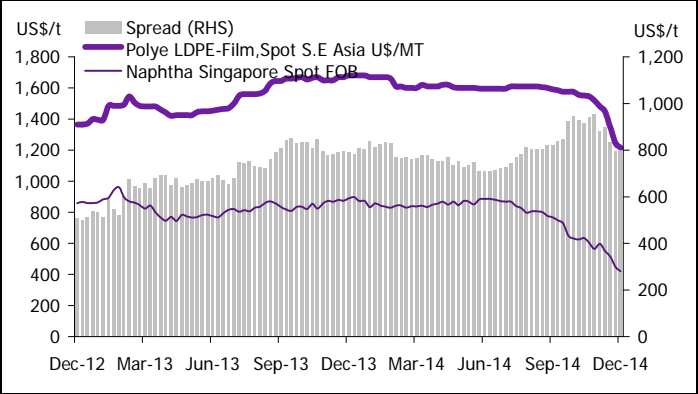
Source: Datastream, SCBS Investment Research

Figure 4: HDPE vs. Naphtha



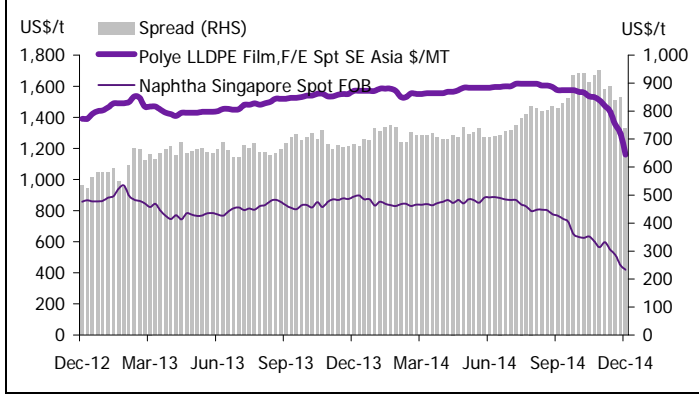
Source: Datastream, SCBS Investment Research

Figure 5: LDPE vs. Naphtha



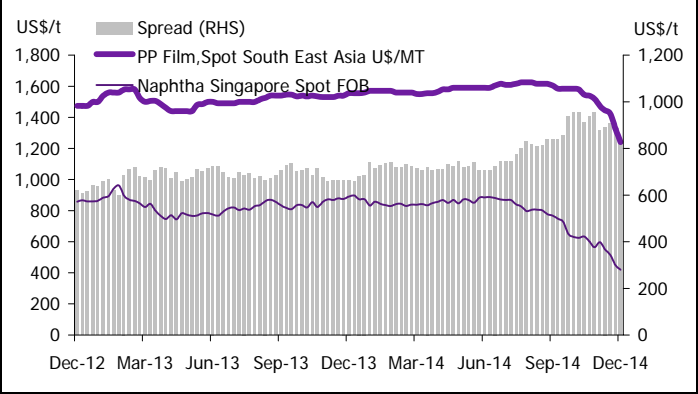
Source: Datastream, SCBS Investment Research

Figure 6: LLDPE vs. Naphtha



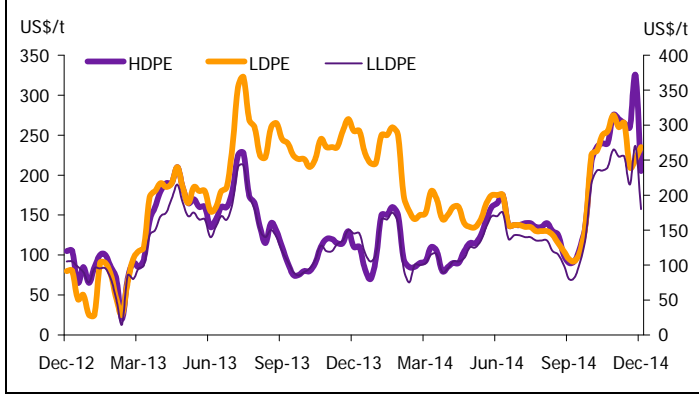
Source: Datastream, SCBS Investment Research

Figure 7: PP vs. Naphtha



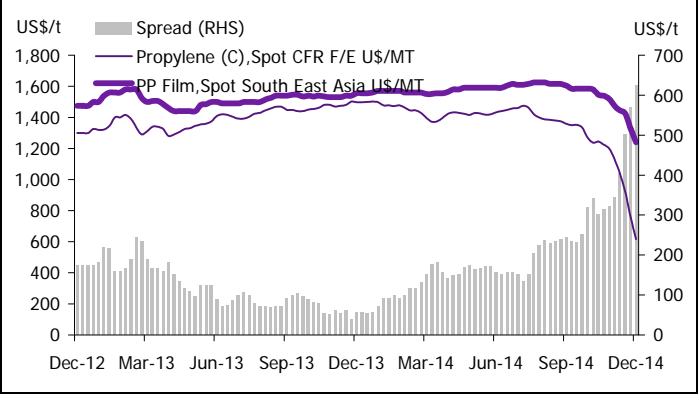
Source: Datastream, SCBS Investment Research

Figure 8: Polyethylene spread over ethylene



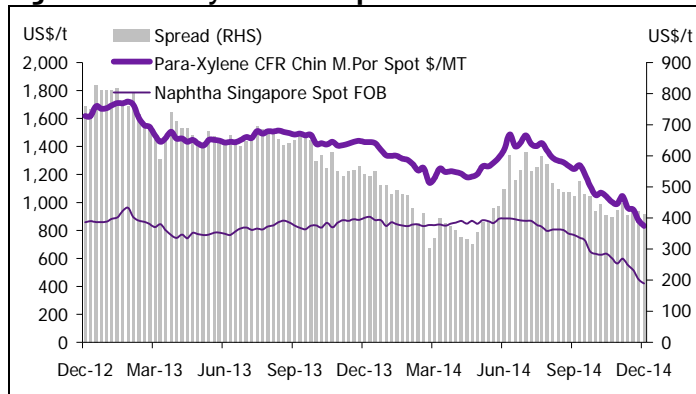
Source: Datastream, SCBS Investment Research

Figure 9: Polypropylene vs. propylene



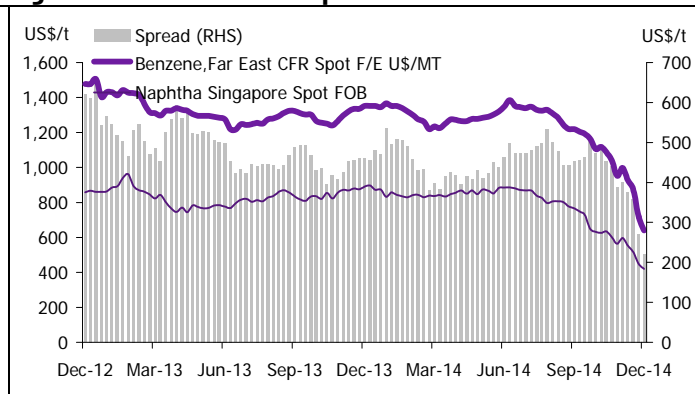
Source: Datastream, SCBS Investment Research

Figure 10: Paraxylene vs. Naphtha



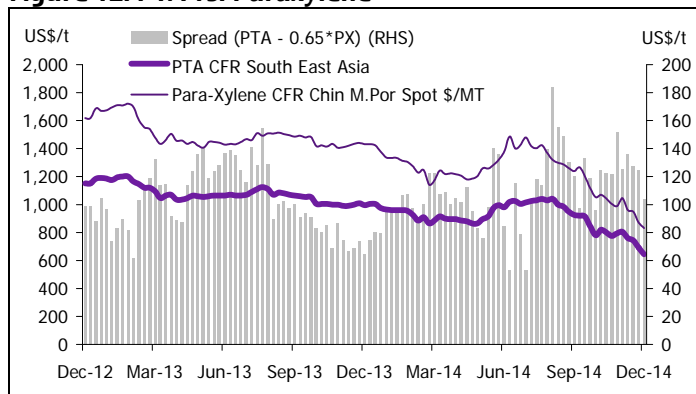
Source: Datastream, SCBS Investment Research

Figure 11: Benzene vs. Naphtha



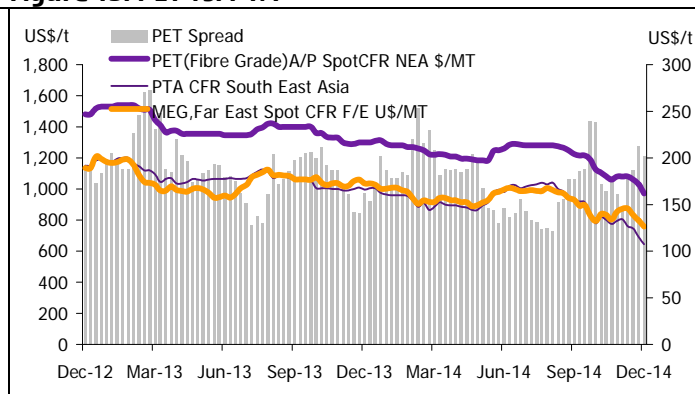
Source: Datastream, SCBS Investment Research

Figure 12: PTA vs. Paraxylene



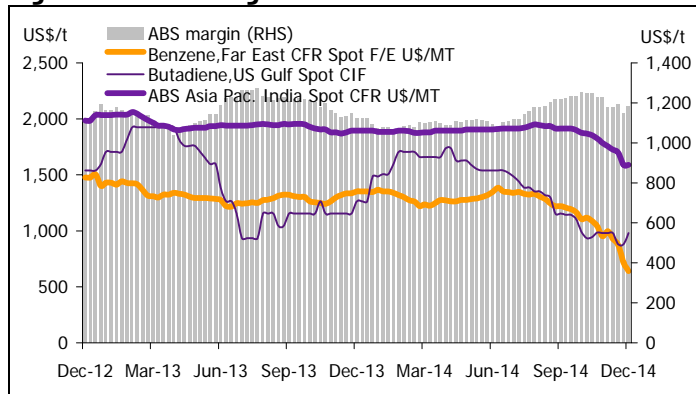
Source: Datastream, SCBS Investment Research

Figure 13: PET vs. PTA



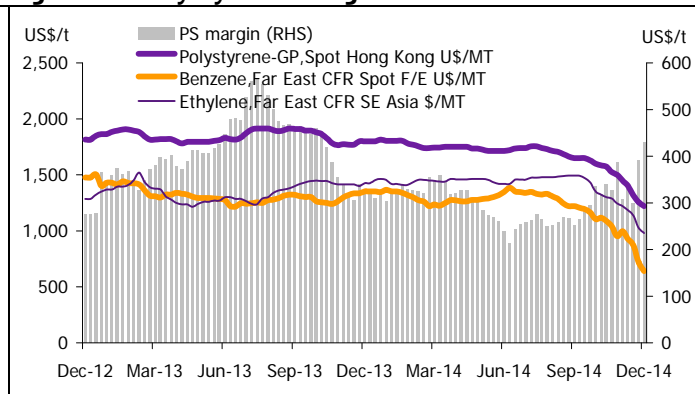
Source: Datastream, SCBS Investment Research

Figure 14: ABS margin



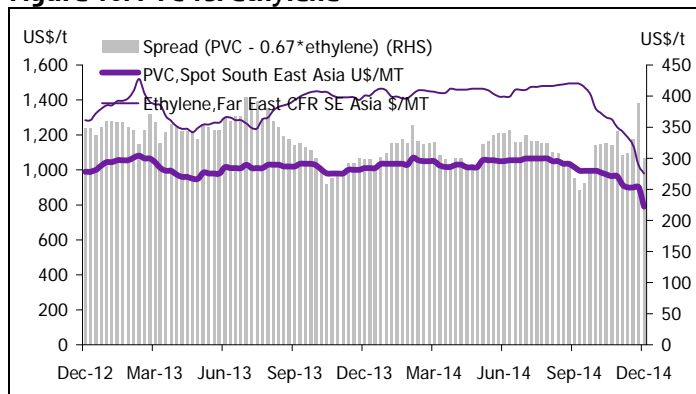
Source: Datastream, SCBS Investment Research

Figure 15: Polystyrene margin



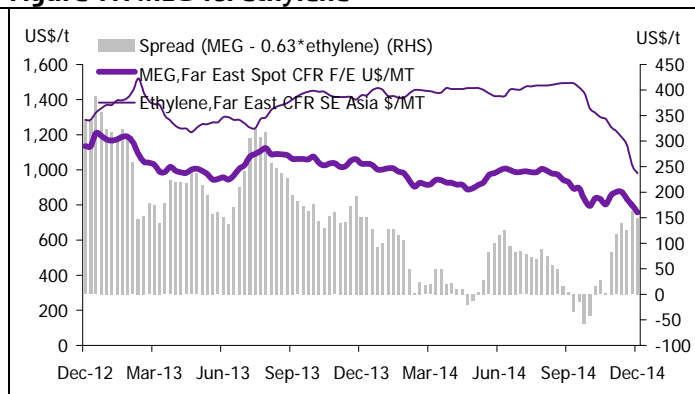
Source: Datastream, SCBS Investment Research

Figure 16: PVC vs. ethylene



Source: Datastream, SCBS Investment Research

Figure 17: MEG vs. ethylene



Source: Datastream, SCBS Investment Research

Figure 18: Selected product price/spread of listed companies

Company	Key products	% of total	Product price/spread	4Q14 QTD	3Q14	QoQ%	YTD	12MMA	2014F projection	Momentum
PTTGC	Ethylene/Propylene	21%	Ethylene, Far East CFR SE Asia \$/MT	1,247	1,478	-16%	1,406	1,407	1,440	↘
			Propylene (C), Spot CFR F/E US/MT	1,110	1,412	-21%	1,355	1,358	1,430	↘
	HDPE	19%	Polye HDPE Inj, South East Asia US/MT	1,479	1,605	-8%	1,551	1,551	1,570	↘
	LLDPE	7%	Polye LLDPE Film, F/E Spt SE Asia \$/MT	1,465	1,602	-9%	1,553	1,553	1,580	↘
	LDPE	4%	Polye LDPE-Film, Spot S.E Asia US/MT	1,470	1,602	-8%	1,582	1,583	1,640	↘
	MEG	6%	MEG, Far East Spot CFR F/E US/MT	832	973	-15%	930	932	1,110	↘
	PX	28%	PX - naphtha	431	533	-19%	452	453	348	↘
IRPC	BZ	15%	BZ - naphtha	404	477	-15%	443	444	398	↘
	Ethylene/Propylene	15%	Ethylene - naphtha	666	659	1%	626	624	598	↘
			Propylene - naphtha	530	593	-11%	574	575	588	↘
	HDPE	12%	HDPE - naphtha	898	785	14%	771	768	728	↘
	PP	28%	PP - naphtha	907	793	14%	781	779	728	↘
	ABS	7%	ABS spread	1,212	1,165	4%	1,141	1,140	n.a.	↗
	BTX	23%	BZ - naphtha	404	477	-15%	443	444	398	↘
SCC	PS	12%	PS spread	336	260	29%	304	304	n.a.	↗
	HDPE	40%	HDPE - naphtha	898	785	14%	771	768	728	↘
	LDPE	3%	LDPE - naphtha	889	782	14%	801	800	798	↘
	LLDPE	3%	LLDPE - naphtha	884	782	13%	772	770	738	↘
	PP	25%	PP - naphtha	907	793	14%	781	779	728	↘
	PVC	28%	PVC - Ethylene/EDC	402	428	-6%	414	389	n.a.	↘
	TPIPL	60%	LDPE - Ethylene	223	123	80%	175	177	200	↗
TOP	PX	60%	PX - naphtha	431	533	-19%	452	453	348	↘
	BZ	21%	BZ - naphtha	404	477	-15%	443	444	398	↘
IVL	PTA	25%	PTA - PX	124	120	3%	110	110	103	↘
	PET/Polyester	67%	PET spread	189	148	28%	176	176	n.a.	↗
	MEG	8%								
VNT	PVC	63%	PVC - ethylene	316	308	3%	314	314	350	↘
TPC	PVC	100%	PVC - Ethylene/EDC	402	428	-6%	414	389	n.a.	↘

Source: Datastream, SCBS Investment Research

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