

## Petrochemical price monitor

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- **PE price steady WoW but still high.** Ethylene price fell 0.3% WoW to US\$1,460/t; PE prices were stable but remained high. We expect more plant turnarounds to drive PE prices in coming weeks: PTTGC plans to shut its 300ktpa-LDPE plant in late April for one month and Qatar-based Qatofin plans to shut its 450ktpa-LLDPE plant in mid-April for maintenance. These are in addition to the planned shutdowns of Sinopec plants in China with combined HDPE capacity of ~500ktpa. The lower ethylene price is good for non-integrated producers in the near term.
- **PX price still in a low range.** PX price has wavered in a low range for the last 12 months, falling 0.6% WoW to US\$1,216/t. PX-naphtha spread also slid 3.9% WoW to only US\$360/t, almost half the level a year ago. Average price QTD is down 5.3% QoQ, suggesting higher demand for PX after return to operations by regional PTA plants after maintenance shutdowns was inadequate to take the higher supply.
- **PET/PTA producers like the lower feedstock cost.** As PX and MEG prices continue to trend down, integrated PET/PTA spread rose 1.8% WoW to US\$293/t, but average spread QTD slipped 2.1% QoQ as PET and PTA prices fell 4.2% QoQ due to weak regional buying sentiment and poor polyester demand trend plus more PTA supply after ending maintenance shutdowns in late March. Price of PET bottle grade resin prices edged down 0.4% WoW in Asia, following weaker PTA cost.

**Investment view:** The Petrochemical sector index rose 1.4% WoW, led by IVL (Neutral, TP: Bt24) but underperforming the SET (+1.7% WoW). We expect the latest numbers for product price and spread to support IVL in the near term, coupled with more news on new acquisitions. ST outlook for olefins chain could also benefit PTTGC (BUY, TP: Bt92) given the higher prices for PE products amidst more plant turnarounds in Asia. The MT view for olefins is intact given the industry's upcycle. We believe the expected weak 1Q14 earnings is largely priced in.

Figure 1: Petrochemical price update

	Current 18-Apr-14	52-week High/Low	-1W	-1M	-3M	-6M	-12M	2Q14 QTD	1Q14	QoQ%	YTD	Chg.	% YoY	2014F projection
Price														
Naphtha Singapore Spot FOB	856	897/744	0.9%	2.3%	2.8%	2.4%	14.7%	846	844	0.2%	845	-12	-1.4%	822
Ethylene, Far East CFR SE Asia \$/MT	1,460	1,465/1,215	-0.3%	0.9%	0.3%	0.7%	16.8%	1,455	1,440	1.1%	1,443	68	4.9%	1,320
Propylene (C), Spot CFR F/E US/MT	1,423	1,503/1,290	1.8%	1.8%	-5.0%	-1.9%	11.1%	1,398	1,458	-4.1%	1,447	107	8.0%	1,370
Polye HDPE Inj, South East Asia US/MT	1,545	1,570/1,425	0.0%	0.3%	-0.3%	1.0%	8.0%	1,545	1,548	-0.2%	1,548	79	5.4%	1,440
Polye LDPE-Film, Spot S.E Asia US/MT	1,610	1,680/1,420	0.0%	0.6%	-3.6%	-3.6%	11.8%	1,610	1,642	-1.9%	1,636	174	11.9%	1,490
Polye LLDPE Film, F/E Spot SE Asia \$/MT	1,555	1,585/1,410	0.0%	0.3%	-1.0%	1.0%	9.5%	1,555	1,562	-0.4%	1,561	91	6.2%	1,480
PP Film, Spot South East Asia US/MT	1,565	1,570/1,440	0.6%	1.0%	-0.3%	1.6%	7.2%	1,558	1,562	-0.2%	1,561	35	2.3%	1,490
Related stocks														
			PTTGC (Neutral)   IRPC (-)   SCC (-)   TPIPL (+)											
Para-Xylene CFR Chin M. Por Spot \$/MT	1,216	1,515/1,143	-0.6%	3.7%	-9.1%	-14.3%	-16.5%	1,219	1,286	-5.3%	1,274	-326	-20.4%	1,390
Benzene, Far East CFR Spot F/E US/MT	1,273	1,368/1,218	-0.2%	3.0%	-6.9%	0.6%	-5.0%	1,266	1,304	-2.9%	1,297	-89	-6.4%	1,220
Related stocks														
			PTTGC (-)   TOP (-)   ESSO (-)											
MEG, Far East Spot CFR F/E US/MT	927	1,124/905	-0.2%	1.0%	-7.5%	-13.9%	-6.8%	932	967	-3.6%	960	-143	-12.9%	1,040
PTA CFR South East Asia	895	1,125/865	0.0%	1.1%	-7.3%	-10.9%	-13.5%	897	936	-4.2%	928	-208	-18.3%	1,050
PET (Fibre Grade)A/P Spot CFR NEA \$/MT	1,210	1,420/1,210	0.0%	-0.8%	-6.2%	-11.0%	-12.0%	1,213	1,267	-4.2%	1,257	-229	-15.4%	n.a.
Related stocks														
			PTTGC (-)   IVL (+)											
ABS Asia Pac. India Spot CFR US/MT	1,895	1,955/1,870	0.0%	0.8%	0.5%	-1.8%	-0.5%	1,895	1,886	0.5%	1,888	-115	-5.8%	n.a.
Polystyrene-GP, Spot Hong Kong US/MT	1,750	1,915/1,740	0.0%	0.3%	-3.0%	-6.9%	-2.8%	1,750	1,778	-1.6%	1,773	-83	-4.5%	n.a.
Related stocks														
			IRPC (Neutral)											
PVC, Spot South East Asia US/MT	1,030	1,070/950	1.2%	-1.9%	-0.5%	0.5%	5.6%	1,022	1,040	-1.7%	1,036	0	0.0%	1,030
Related stocks														
			VNT (+)   TPC (+)											
Product spread														
Ethylene - naphtha	604	626/424	-2.0%	-1.0%	-3.0%	-1.7%	19.9%	609	595	2.3%	598	80	15.4%	498
Propylene - naphtha	567	665/520	3.2%	1.1%	-14.8%	-7.8%	6.1%	552	614	-10.0%	602	119	24.7%	548
HDPE - naphtha	689	735/615	-1.1%	-2.0%	-4.0%	-0.8%	0.8%	699	704	-0.7%	703	92	15.0%	618
LDPE - naphtha	754	851/643	-1.0%	-1.2%	-10.0%	-9.6%	8.7%	764	797	-4.1%	791	186	30.8%	668
LDPE - Ethylene	150	323/145	3.4%	-1.6%	-30.2%	-31.8%	-21.1%	155	202	-23.2%	193	106	122.7%	170
LLDPE - naphtha	699	750/633	-1.1%	-1.9%	-5.2%	-0.8%	3.7%	709	717	-1.2%	716	103	16.9%	658
PP - naphtha	709	740/657	0.4%	-0.5%	-3.9%	0.7%	-0.7%	712	717	-0.7%	717	48	7.1%	668
PX - naphtha	360	697/304	-3.9%	7.2%	-28.8%	-38.2%	-49.3%	373	442	-15.7%	429	-314	-42.3%	568
BZ - naphtha	417	581/381	-2.3%	4.7%	-22.1%	-3.0%	-29.8%	420	459	-8.5%	452	-77	-14.5%	398
MEG - Ethylene	21	324/2	8.1%	9.0%	-78.7%	-87.9%	-90.3%	30	74	-59.4%	66	-184	-73.7%	222
PTA - PX	105	155/65	4.5%	-14.6%	9.7%	25.5%	18.0%	105	100	5.0%	101	4	3.6%	119
PET spread	188	253/128	0.3%	-10.1%	0.5%	-6.0%	-14.6%	188	199	-5.6%	197	-17	-7.8%	n.a.
Integrated PET/PTA spread	293	352/211	1.8%	-11.8%	3.7%	3.3%	-5.2%	292	299	-2.1%	297	-13	-4.3%	n.a.
ABS spread	1,087	1,272/1,056	-1.0%	-1.2%	1.2%	-10.4%	4.5%	1,098	1,087	1.0%	1,089	-45	-4.0%	n.a.
PS spread	321	565/303	1.1%	-8.1%	6.1%	-30.2%	-15.2%	328	330	-0.7%	330	-32	-8.9%	n.a.
PVC - ethylene	300	398/258	5.3%	-8.0%	-2.4%	0.0%	-14.3%	294	320	-8.0%	315	-34	-9.7%	370

Source: Datastream, SCBS Investment Research

Note: Impact to related stocks is based on WoW performance

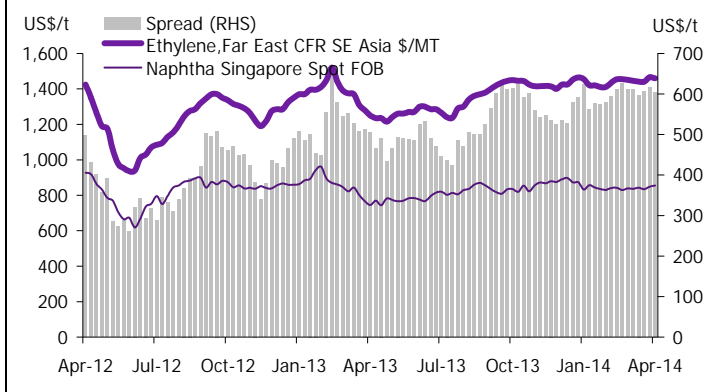
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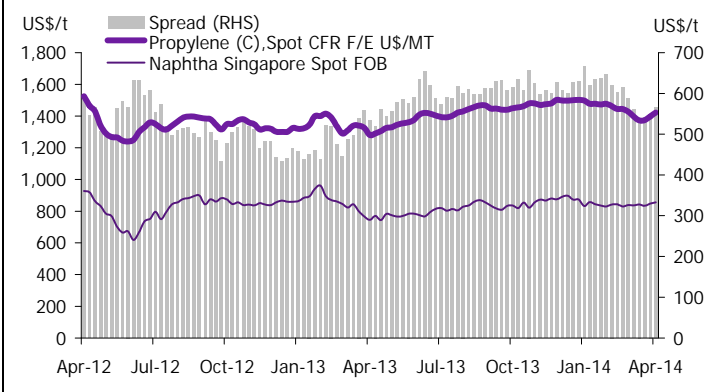
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Figure 2: Ethylene vs. Naphtha



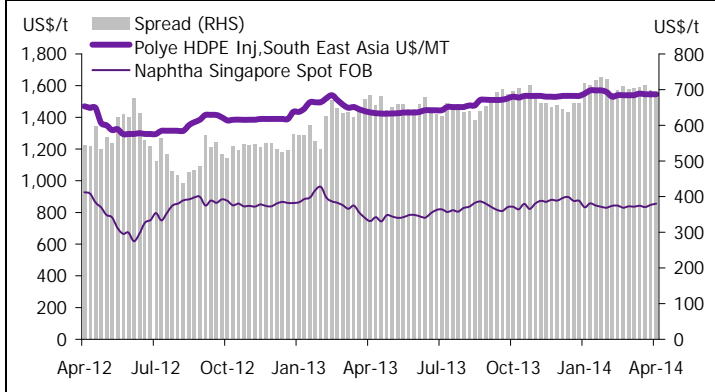
Source: Datastream, SCBS Investment Research

Figure 3: Propylene vs. Naphtha



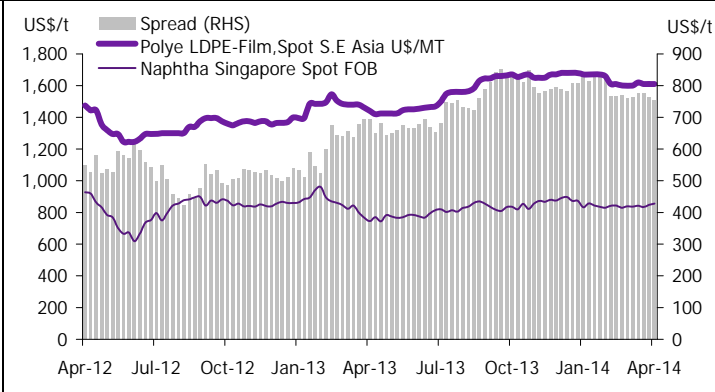
Source: Datastream, SCBS Investment Research

Figure 4: HDPE vs. Naphtha



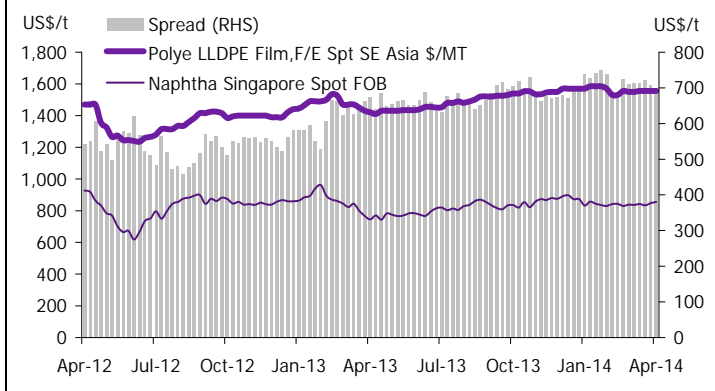
Source: Datastream, SCBS Investment Research

Figure 5: LDPE vs. Naphtha



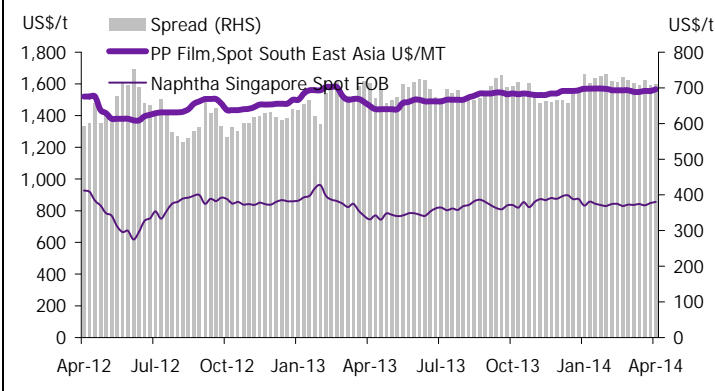
Source: Datastream, SCBS Investment Research

Figure 6: LLDPE vs. Naphtha



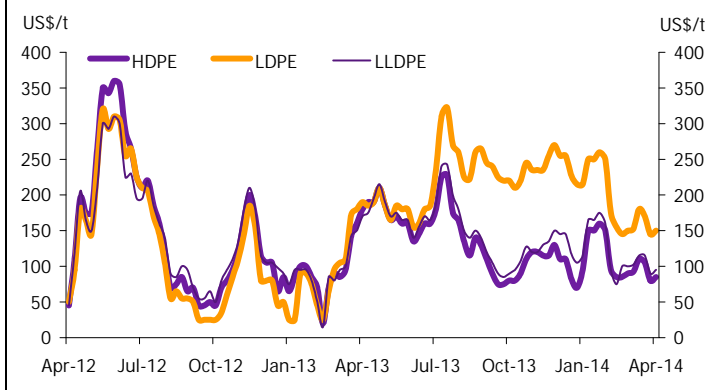
Source: Datastream, SCBS Investment Research

Figure 7: PP vs. Naphtha



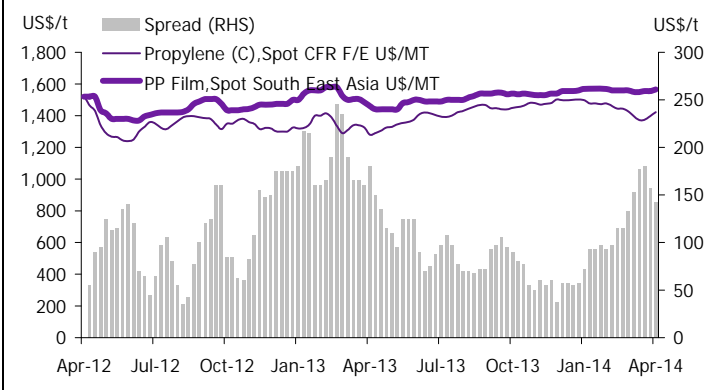
Source: Datastream, SCBS Investment Research

Figure 8: Polyethylene spread over ethylene

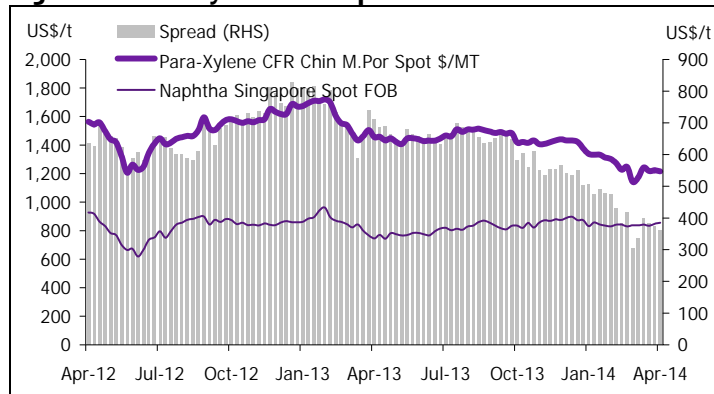


Source: Datastream, SCBS Investment Research

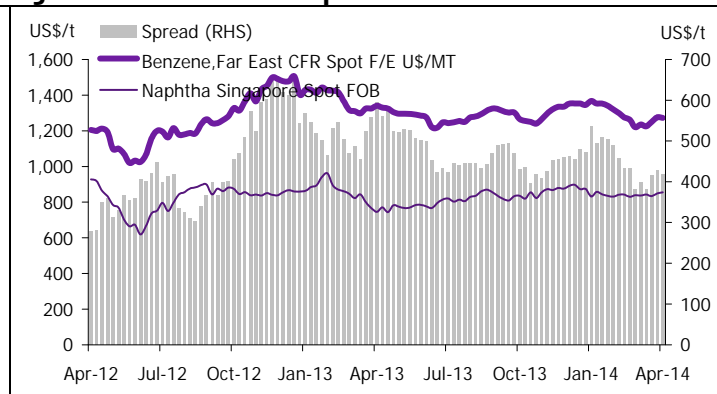
Figure 9: Polypropylene vs. propylene



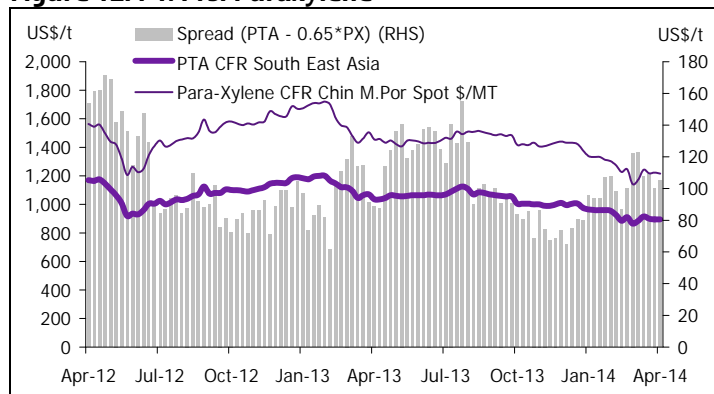
Source: Datastream, SCBS Investment Research

**Figure 10: Paraxylene vs. Naphtha**

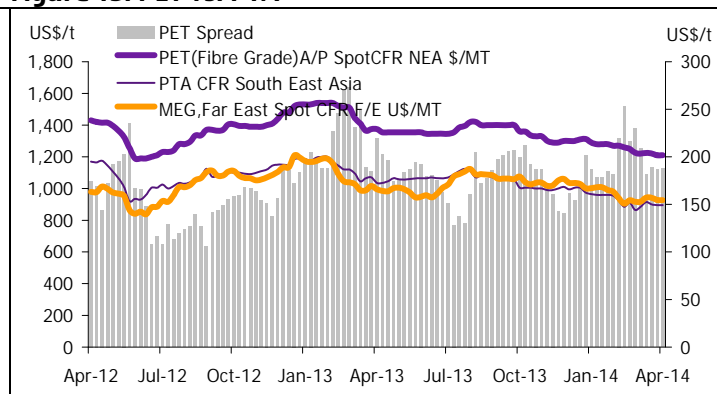
Source: Datastream, SCBS Investment Research

**Figure 11: Benzene vs. Naphtha**

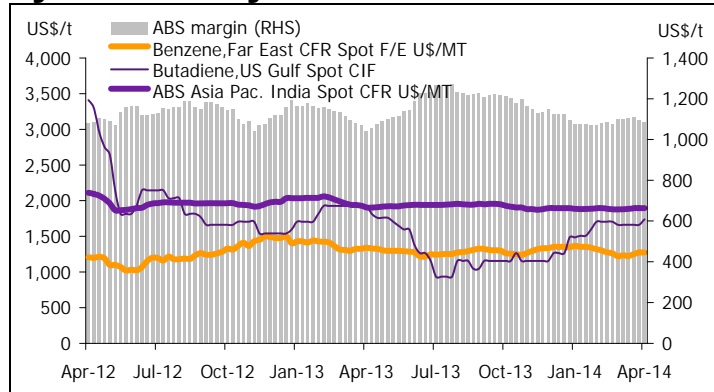
Source: Datastream, SCBS Investment Research

**Figure 12: PTA vs. Paraxylene**

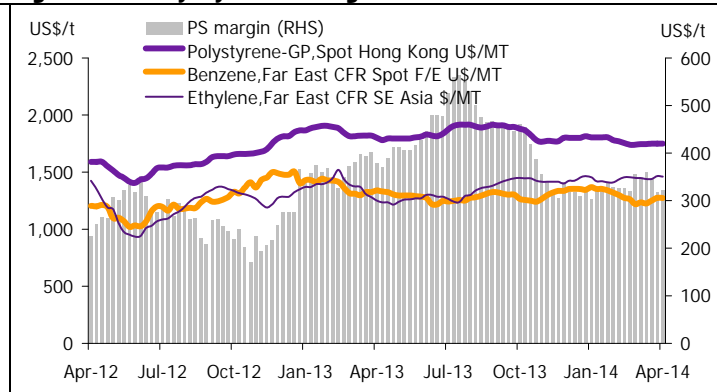
Source: Datastream, SCBS Investment Research

**Figure 13: PET vs. PTA**

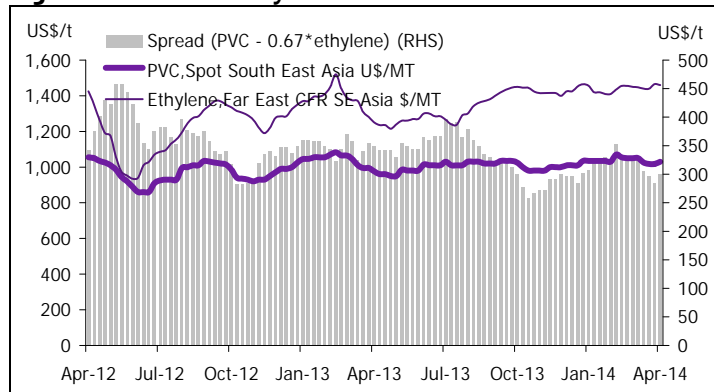
Source: Datastream, SCBS Investment Research

**Figure 14: ABS margin**

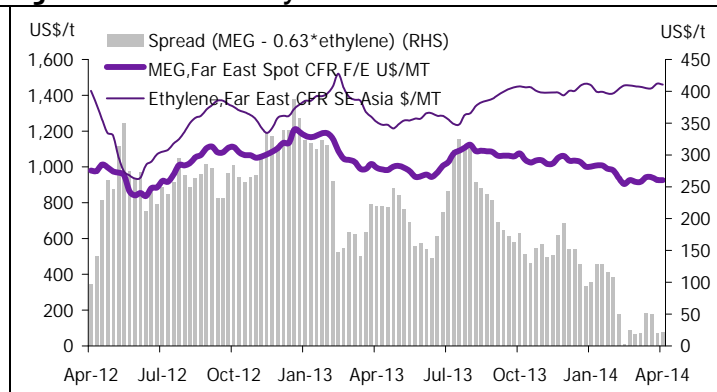
Source: Datastream, SCBS Investment Research

**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	2Q14 QTD	1Q14	QoQ%	YTD	12MMA	2014F projection	Momentum
PTTGC	Ethylene/Propylene	21%	Ethylene, Far East CFR SE Asia \$/MT	1,455	1,440	1%	1,443	1,373	1,320	↗
			Propylene (C), Spot CFR F/E US/MT	1,398	1,458	-4%	1,447	1,430	1,370	→
	HDPE	19%	Polye HDPE Inj, South East Asia US/MT	1,545	1,548	0%	1,548	1,503	1,440	→
	LLDPE	7%	Polye LLDPE Film, F/E Spt SE Asia \$/MT	1,555	1,562	0%	1,561	1,515	1,480	→
	LDPE	4%	Polye LDPE-Film, Spot S.E Asia US/MT	1,610	1,642	-2%	1,636	1,588	1,490	→
	MEG	6%	MEG, Far East Spot CFR F/E US/MT	932	967	-4%	960	1,010	1,040	→
	PX	28%	PX - naphtha	373	442	-16%	429	569	568	→
IRPC	BZ	15%	BZ - naphtha	420	459	-9%	452	462	398	→
	Ethylene/Propylene	15%	Ethylene - naphtha	609	595	2%	598	544	498	↘
			Propylene - naphtha	552	614	-10%	602	602	548	↘
	HDPE	12%	HDPE - naphtha	699	704	-1%	703	674	618	↘
	PP	28%	PP - naphtha	712	717	-1%	717	697	668	↘
	ABS	7%	ABS spread	1,098	1,087	1%	1,089	1,153	n.a.	→
	BTX	23%	BZ - naphtha	420	459	-9%	452	462	398	→
SCC	PS	12%	PS spread	328	330	-1%	330	402	n.a.	→
	HDPE	40%	HDPE - naphtha	699	704	-1%	703	674	618	↘
	LDPE	3%	LDPE - naphtha	764	797	-4%	791	759	668	↘
	LLDPE	3%	LLDPE - naphtha	709	717	-1%	716	686	658	↘
	PP	25%	PP - naphtha	712	717	-1%	717	697	668	↘
	PVC	28%	PVC - Ethylene/EDC	382	420	-9%	413	447	n.a.	↘
TPIPL	LDPE	60%	LDPE - Ethylene	155	202	-23%	193	215	170	↘
TOP	PX	60%	PX - naphtha	373	442	-16%	429	569	568	→
	BZ	21%	BZ - naphtha	420	459	-9%	452	462	398	→
IVL	PTA	25%	PTA - PX	105	100	5%	101	103	119	→
	PET/Polyester	67%	PET spread	188	199	-6%	197	183	n.a.	→
	MEG	8%								
VNT	PVC	63%	PVC - ethylene	294	320	-8%	315	326	370	↘
TPC	PVC	100%	PVC - Ethylene/EDC	382	420	-9%	413	447	n.a.	↘

Source: Datastream, SCBS Investment Research

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