

Petrochemical price monitor

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- **Ethylene price at 20-week low.** Ethylene price slid 0.7% WoW to touch a 20-week low in the first week after Chinese New Year as business slowly got back to normal. Derivative product prices were stable, with the slower market bringing fewer transactions. Product spreads improved on lower feedstock costs. Weak economic data in China and lower feedstock costs are likely to hit PE price in coming weeks, as it was in a high range through January. The medium-term outlook for PE remains favorable on a good balance in demand and supply. Note that China's HDPE and LDPE imports grew strongly in 2013, with volumes up 18% and 10% YoY, respectively, according to US-based International Trader Publications.
- **PX price continued to slide despite delays in new plants.** PX price fell 1.5% WoW to US\$1,313/t amidst news that new capacity startups are being put off to 2H14 from 1Q14. PX-naphtha spread fell 2.4% WoW to US\$477/t. Benzene price and spread also fell 0.9% and 0.8% WoW on weaker price for downstream styrene monomer in western markets. This is not good news for aromatics producers, where integrated spread is supported by BZ.
- **Lower feedstock lifted PET/PTA margin.** Integrated PET/PTA spread widened 7.1% WoW to a 15-week high of US\$292/t on lower feedstock prices, both MEG (-1.8% WoW) and PX (-1.5% WoW); PET and PTA prices remained stable.

Investment view: The petrochemical sector (-0.8% WoW) underperformed the SET (-0.2% WoW), on the fall in PTTGC share price (-1.7% WoW) on concerns about 4Q13F earnings and risk from an economic slowdown in China. PTTGC will release earnings early next week and this would be a good entry point for the stock on expectation of strong growth in 2014F. We expect PTTGC's 4Q13F to outperform local peers as HDPE price was favorable and operating rate improved QoQ.

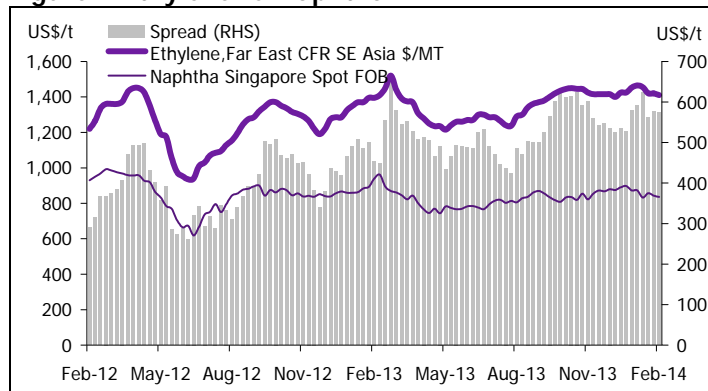
Figure 1: Petrochemical price update

	Current 7-Feb-14	52-week High/Low	-1W	-1M	-3M	-6M	-12M	1Q14 QTD	4Q13	QoQ%	YTD	Chg.	%YoY	2014F projection
Price														
Naphtha Singapore Spot FOB	835	962/744	-1.0%	-4.4%	1.6%	3.7%	-11.2%	853	855	-0.3%	853	-31	-3.5%	822
Ethylene, Far East CFR SE Asia \$/MT	1,410	1,520/1,215	-0.7%	-3.8%	-1.1%	9.3%	1.1%	1,437	1,427	0.7%	1,437	70	5.1%	1,320
Propylene (C), Spot CFR F/E US/MT	1,473	1,503/1,280	-0.3%	-2.0%	-0.5%	3.5%	5.2%	1,488	1,472	1.1%	1,488	153	11.4%	1,370
Polye HDPE Inj, South East Asia US/MT	1,570	1,570/1,425	0.0%	2.3%	2.3%	7.2%	5.0%	1,555	1,530	1.7%	1,555	104	7.2%	1,440
Polye LDPE-Film, Spot S.E Asia US/MT	1,670	1,680/1,420	0.0%	-0.6%	0.0%	7.1%	12.5%	1,673	1,664	0.5%	1,673	252	17.7%	1,490
Polye LLDPE Film, F/E Spot SE Asia \$/MT	1,585	1,585/1,410	0.0%	1.0%	2.1%	6.4%	6.4%	1,578	1,546	2.1%	1,578	119	8.1%	1,480
PP Film, Spot South East Asia US/MT	1,570	1,580/1,440	0.0%	0.6%	2.3%	4.7%	0.6%	1,566	1,539	1.7%	1,566	43	2.8%	1,490
Related stocks														
PTTGC (Neutral) IRPC (+) SCC (+) TPIPL (+)														
Para-Xylene CFR Chin M. Por Spot \$/MT	1,313	1,721/1,313	-1.5%	-4.7%	-8.4%	-12.1%	-23.2%	1,353	1,432	-5.6%	1,353	-338	-20.0%	1,390
Benzene, Far East CFR Spot F/E US/MT	1,340	1,428/1,218	-0.9%	-0.4%	8.1%	7.2%	-7.1%	1,352	1,298	4.1%	1,352	-85	-5.9%	1,220
Related stocks														
PTTGC (-) TOP (-) ESSO (-)														
MEG, Far East Spot CFR F/E US/MT	990	1,189/944	-1.8%	-1.1%	-4.5%	-10.6%	-16.7%	1,006	1,043	-3.5%	1,006	-178	-15.0%	1,040
PTA CFR South East Asia	960	1,200/960	0.0%	-1.5%	-4.0%	-14.7%	-20.0%	971	1,009	-3.8%	971	-218	-18.3%	1,050
PET (Fibre Grade) A/P Spot CFR NEA \$/MT	1,280	1,540/1,280	0.0%	-2.5%	-3.8%	-8.2%	-16.9%	1,292	1,330	-2.9%	1,292	-240	-15.6%	n.a.
Related stocks														
PTTGC (-) IVL (+)														
ABS Asia Pac. India Spot CFR US/MT	1,885	2,060/1,870	0.0%	-0.5%	-1.0%	-3.3%	-7.6%	1,888	1,904	-0.8%	1,888	-148	-7.3%	n.a.
Polystyrene-GP, Spot Hong Kong US/MT	1,805	1,915/1,765	0.0%	-0.6%	1.4%	-5.7%	-5.2%	1,806	1,817	-0.6%	1,806	-72	-3.8%	n.a.
Related stocks														
IRPC (Neutral)														
PVC, Spot South East Asia US/MT	1,035	1,083/950	0.0%	0.0%	5.6%	2.5%	-1.9%	1,031	1,003	2.8%	1,031	-7	-0.6%	1,030
Related stocks														
VNT (+) TPC (-)														
Product spread														
Ethylene - naphtha	575	650/424	-0.3%	-2.9%	-4.6%	18.6%	26.4%	585	572	2.1%	585	100	20.8%	498
Propylene - naphtha	637	665/438	0.5%	1.3%	-3.1%	3.3%	38.6%	635	617	3.0%	635	183	40.6%	548
HDPE - naphtha	735	735/533	1.1%	11.1%	3.1%	11.4%	32.5%	702	675	4.1%	702	135	23.8%	618
LDPE - naphtha	835	851/523	1.0%	3.5%	-1.5%	10.6%	53.3%	821	809	1.4%	821	283	52.5%	668
LDPE - Ethylene	260	323/25	4.0%	20.9%	6.1%	-3.7%	188.9%	236	237	-0.3%	236	182	336.2%	170
LLDPE - naphtha	750	750/528	1.1%	7.6%	2.7%	9.5%	36.4%	725	691	4.9%	725	150	26.0%	658
PP - naphtha	735	738/598	1.1%	7.0%	3.1%	5.8%	18.6%	713	684	4.2%	713	74	11.6%	668
PX - naphtha	477	803/475	-2.4%	-5.3%	-21.8%	-30.6%	-37.9%	500	577	-13.4%	500	-307	-38.1%	568
BZ - naphtha	505	594/396	-0.8%	7.0%	20.8%	13.5%	0.5%	499	443	12.7%	499	-55	-9.8%	398
MEG - Ethylene	116	324/93	-9.2%	24.2%	-24.3%	-62.4%	-64.2%	115	158	-26.9%	115	-221	-65.7%	222
PTA - PX	107	155/62	13.8%	34.2%	55.2%	-31.0%	19.4%	92	78	17.8%	92	2	2.7%	119
PET spread	185	273/128	3.5%	-8.3%	-1.3%	42.2%	-1.8%	183	179	2.3%	183	-8	-4.0%	n.a.
Integrated PET/PTA spread	292	391/211	7.1%	3.7%	13.9%	2.4%	5.1%	274	256	7.0%	274	-5	-1.9%	n.a.
ABS spread	1,070	1,272/1,040	-0.7%	-2.2%	-10.8%	-15.9%	-8.1%	1,086	1,169	-7.1%	1,086	-84	-7.2%	n.a.
PS spread	338	565/303	3.9%	3.0%	-12.8%	-39.0%	-6.5%	321	378	-14.9%	321	-24	-7.0%	n.a.
PVC - ethylene	330	398/258	1.5%	9.1%	23.4%	-9.6%	-7.7%	312	289	8.0%	312	-41	-11.7%	370

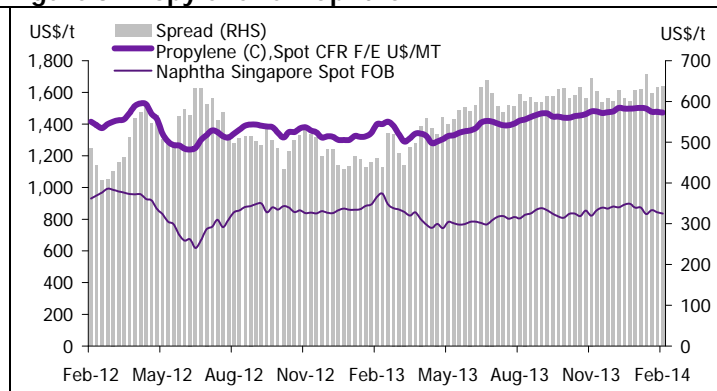
Source: Datastream, SCBS Investment Research

Note: Impact to related stocks is based on WoW performance

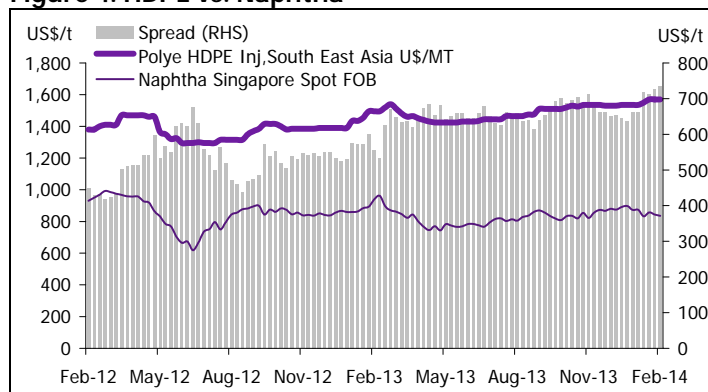
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Figure 2: Ethylene vs. Naphtha

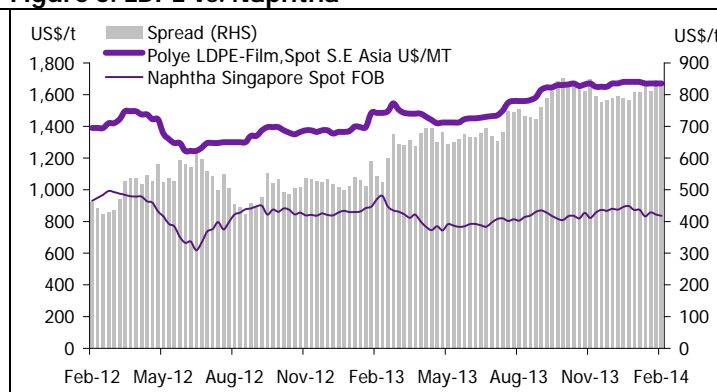
Source: Datastream, SCBS Investment Research

Figure 3: Propylene vs. Naphtha

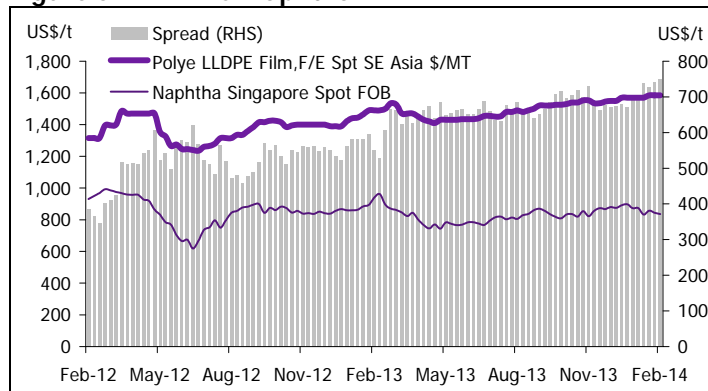
Source: Datastream, SCBS Investment Research

Figure 4: HDPE vs. Naphtha

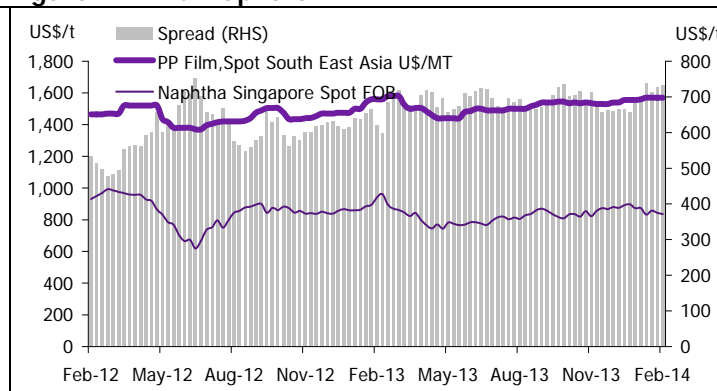
Source: Datastream, SCBS Investment Research

Figure 5: LDPE vs. Naphtha

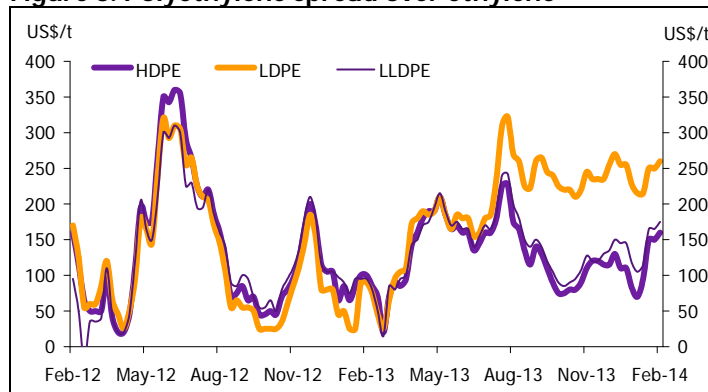
Source: Datastream, SCBS Investment Research

Figure 6: LLDPE vs. Naphtha

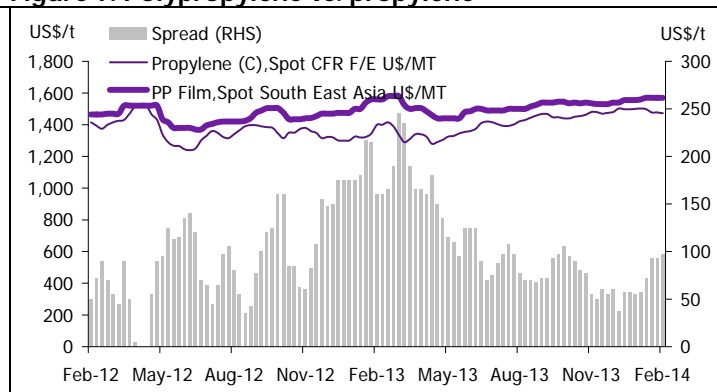
Source: Datastream, SCBS Investment Research

Figure 7: PP vs. Naphtha

Source: Datastream, SCBS Investment Research

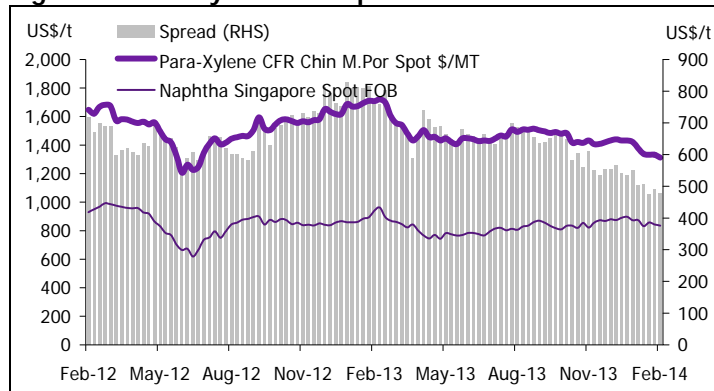
Figure 8: Polyethylene spread over ethylene

Source: Datastream, SCBS Investment Research

Figure 9: Polypropylene vs. propylene

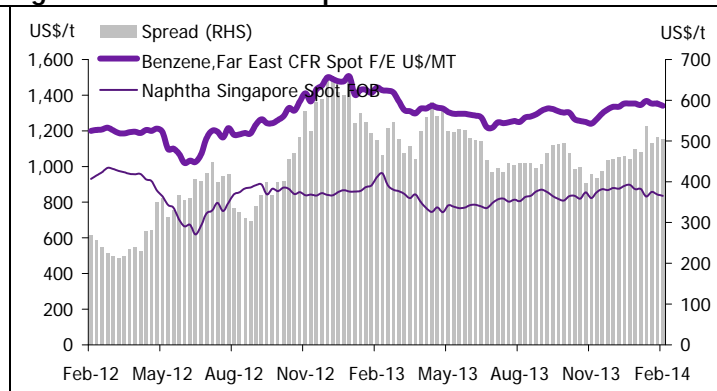
Source: Datastream, SCBS Investment Research

Figure 10: Paraxylene vs. Naphtha



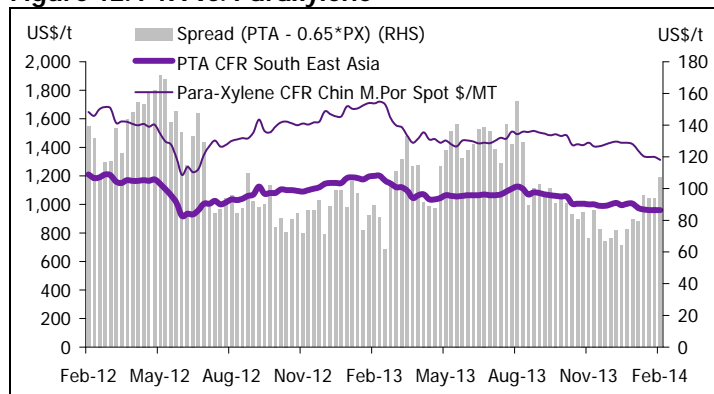
Source: Datastream, SCBS Investment Research

Figure 11: Benzene vs. Naphtha



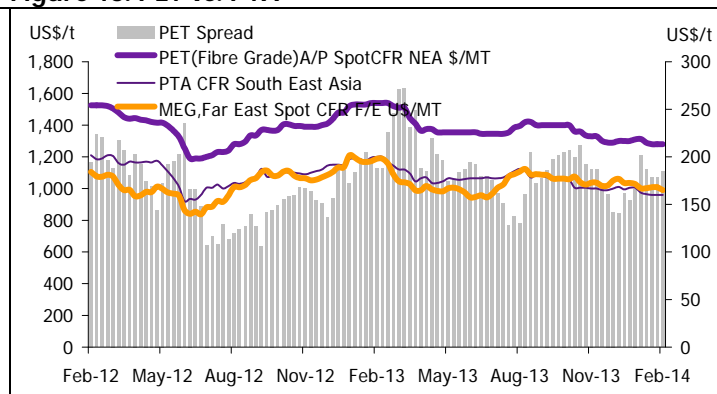
Source: Datastream, SCBS Investment Research

Figure 12: PTA vs. Paraxylene



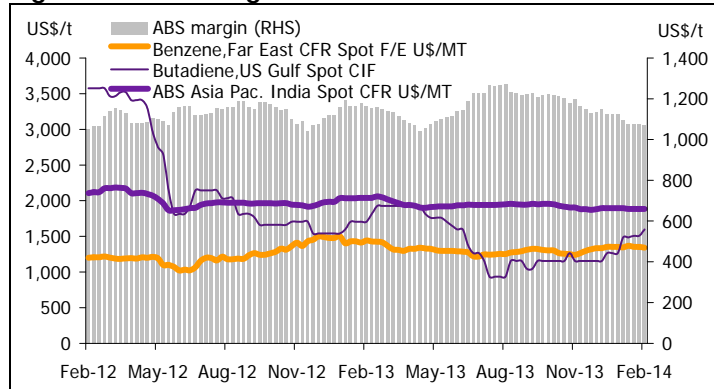
Source: Datastream, SCBS Investment Research

Figure 13: PET vs. PTA



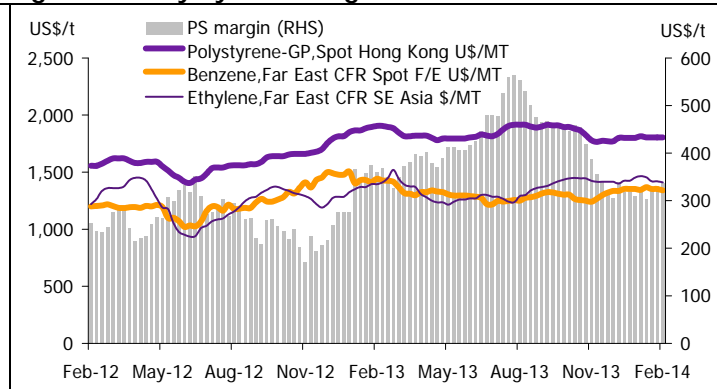
Source: Datastream, SCBS Investment Research

Figure 14: ABS margin



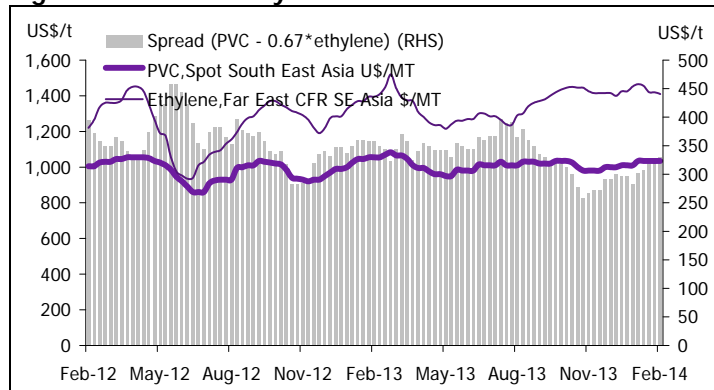
Source: Datastream, SCBS Investment Research

Figure 15: Polystyrene margin



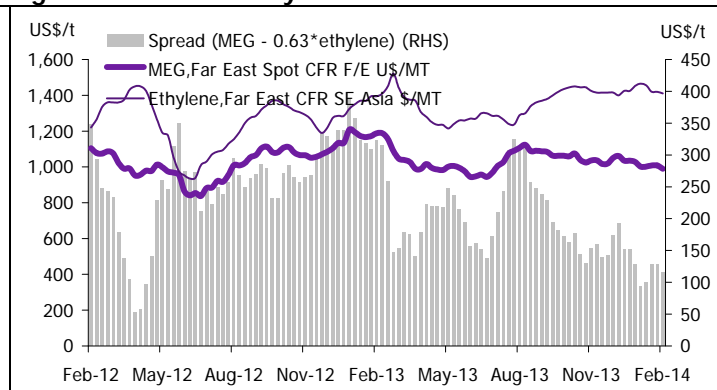
Source: Datastream, SCBS Investment Research

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	1Q14 QTD	4Q13	QoQ%	YTD	12MMA	2014F projection	Momentum
PTTGC	Ethylene/Propylene	21%	Ethylene, Far East CFR SE Asia \$/MT	1,437	1,427	1%	1,437	1,360	1,320	↘
			Propylene (C), Spot CFR F/E US/MT	1,488	1,472	1%	1,488	1,415	1,370	↘
	HDPE	19%	Polye HDPE Inj, South East Asia US/MT	1,555	1,530	2%	1,555	1,490	1,440	↗
	LLDPE	7%	Polye LLDPE Film, F/E Spt SE Asia \$/MT	1,578	1,546	2%	1,578	1,500	1,480	↗
	LDPE	4%	Polye LDPE-Film, Spot S.E Asia US/MT	1,673	1,664	1%	1,673	1,564	1,490	→
	MEG	6%	MEG, Far East Spot CFR F/E US/MT	1,006	1,043	-3%	1,006	1,033	1,040	↘
	PX	28%	PX - naphtha	500	577	-13%	500	630	568	↘
IRPC	BZ	15%	BZ - naphtha	499	443	13%	499	479	398	↗
	Ethylene/Propylene	15%	Ethylene - naphtha	585	572	2%	585	531	498	↘
			Propylene - naphtha	635	617	3%	635	586	548	→
	HDPE	12%	HDPE - naphtha	702	675	4%	702	661	618	↗
	PP	28%	PP - naphtha	713	684	4%	713	690	668	↗
	ABS	7%	ABS spread	1,086	1,169	-7%	1,086	1,157	n.a.	↘
	BTX	23%	BZ - naphtha	499	443	13%	499	479	398	↗
SCC	PS	12%	PS spread	321	378	-15%	321	409	n.a.	→
	HDPE	40%	HDPE - naphtha	702	675	4%	702	661	618	↗
	LDPE	3%	LDPE - naphtha	821	809	1%	821	734	668	↗
	LLDPE	3%	LLDPE - naphtha	725	691	5%	725	671	658	↗
	PP	25%	PP - naphtha	713	684	4%	713	690	668	↗
	PVC	28%	PVC - Ethylene/EDC	462	521	-11%	462	474	n.a.	↘
TPIPL	LDPE	60%	LDPE - Ethylene	236	237	0%	236	203	170	↗
TOP	PX	60%	PX - naphtha	500	577	-13%	500	630	568	↘
	BZ	21%	BZ - naphtha	499	443	13%	499	479	398	↗
IVL	PTA	25%	PTA - PX	92	78	18%	92	103	119	↗
	PET/Polyester	67%	PET spread	183	179	2%	183	187	n.a.	↘
	MEG	8%								
VNT	PVC	63%	PVC - ethylene	312	289	8%	312	332	370	↘
TPC	PVC	100%	PVC - Ethylene/EDC	462	521	-11%	462	474	n.a.	↘

Source: Datastream, SCBS Investment Research

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