

Petrochemical price monitor

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- **Dull demand weakens olefins prices.** Prices for most olefins products slid 0.2-0.6% WoW; ethylene was the exception, rising 0.3% WoW to a 19-month high of US\$1,485/t due to tight regional supply, which is expected to continue in the near term as Reliance plans to shut its 800ktpa cracker in late Sep 2014 for one month. This could pressure non-integrated producers, which already saw margins fall by 0.8-24% WoW, including TPIPL's LDPE-ethylene (-3.8% WoW). MEG was affected most, with margin down 24% WoW, hit by weak demand for polyester.
- **PX price still sinking.** PX price continued to fall (-1.4% WoW) to a 3-month low of US\$1,299/t and spread over naphtha fell 3.5% WoW to US\$493/t. Behind this was abundant supply while PTA operators continued to cut operating rates and thus demand for PX. For integrated refiners, the current PX-ULG95 spread is still sufficiently good to maintain current operating rates in this weak refined oil market, especially for gasoline, which can be upgraded further to aromatics.
- **Integrated PET/PTA up WoW despite fall in PTA price.** Lower feedstock cost (PX and MEG) led integrated PET/PTA spread up by 1.1% WoW to US\$308/t despite the 3.8% WoW fall in PTA price to a 10-week low of US\$1,000/t on lower demand for polyester after cotton price fell 24% QoQ in 3Q14 to average US\$67.5/lb. This put more pressure on average spread QTD, which fell 6.2% QTD to US\$253/t.

Investment view: The petrochemical sector index (-3.5% WoW) underperformed the market (+0.1% WoW) on a 6.7% WoW fall in PTTGC on concerns over higher feedstock cost, especially LPG. We believe the market is too pessimistic about the impact of the energy price reform on PTTGC's profitability. Although we believe the damage done by a higher LPG price to PTTGC's earnings is largely priced in, given the uncertainty about the government's LPG price policy we recommend investors adopt a wait and see strategy before rebuilding position in the stock.

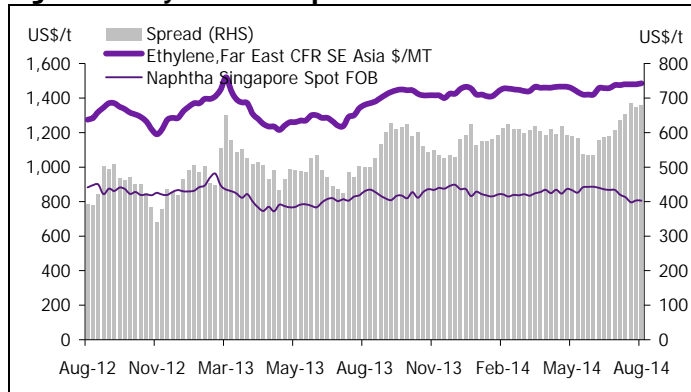
Figure 1: Petrochemical price update

	Current 29-Aug-14	52-week High/Low	-1W	-1M	-3M	-6M	-12M	3Q14 QTD	2Q14	QoQ%	YTD	Chg.	% YoY	2014F projection
Price														
Naphtha Singapore Spot FOB	806	897/796	-0.1%	-4.0%	-7.0%	-4.4%	-6.3%	840	863	-2.6%	850	27	3.3%	842
Ethylene, Far East CFR SE Asia \$/MT	1,485	1,485/1,370	0.3%	0.7%	2.1%	2.1%	9.2%	1,472	1,448	1.6%	1,451	132	10.0%	1,440
Propylene (C), Spot CFR F/E US/MT	1,385	1,503/1,373	-0.2%	-5.3%	-2.8%	-4.2%	-5.0%	1,433	1,420	0.9%	1,437	74	5.4%	1,430
Polye HDPE Inj, South East Asia US/MT	1,615	1,620/1,510	-0.3%	0.0%	2.2%	4.9%	9.5%	1,609	1,568	2.6%	1,571	116	8.0%	1,570
Polye LDPE-Film, Spot S.E Asia US/MT	1,610	1,680/1,595	0.0%	0.0%	0.6%	0.0%	1.7%	1,605	1,605	0.0%	1,618	145	9.8%	1,640
Polye LLDPE Film, F/E Spot SE Asia \$/MT	1,605	1,615/1,520	-0.6%	-0.6%	0.9%	4.9%	7.0%	1,608	1,577	2.0%	1,580	119	8.1%	1,580
PP Film, Spot South East Asia US/MT	1,615	1,625/1,530	-0.6%	0.0%	1.6%	3.5%	5.9%	1,616	1,581	2.2%	1,583	81	5.4%	1,570
Related stocks														
			PTTGC (-) IRPC (-) SCC (-) TPIPL (-)											
Para-Xylene CFR Chin M. Por Spot \$/MT	1,299	1,504/1,143	-1.4%	-7.4%	3.3%	5.8%	-14.3%	1,393	1,263	10.3%	1,305	-218	-14.3%	1,190
Benzene, Far East CFR Spot F/E US/MT	1,285	1,385/1,220	-1.7%	-3.4%	-0.4%	0.8%	-0.6%	1,329	1,293	2.8%	1,306	-19	-1.4%	1,240
Related stocks														
			PTTGC (-) TOP (-) ESSO (-)											
MEG, Far East Spot CFR F/E US/MT	978	1,088/889	-1.5%	-0.9%	5.2%	8.1%	-10.4%	991	939	5.5%	963	-93	-8.8%	1,110
PTA CFR South East Asia	1,000	1,080/865	-3.8%	-2.9%	9.3%	13.0%	-7.8%	1,023	920	11.2%	953	-149	-13.5%	900
PET(Fibre Grade)A/P Spot CFR NEA \$/MT	1,275	1,400/1,185	-0.4%	-0.4%	7.6%	1.2%	-8.9%	1,281	1,217	5.3%	1,252	-169	-11.9%	n.a.
Related stocks														
			PTTGC (-) IVL (+)											
ABS Asia Pac. India Spot CFR US/MT	1,935	1,955/1,870	-0.5%	0.8%	1.6%	2.4%	-0.5%	1,927	1,901	1.4%	1,902	-63	-3.2%	n.a.
Polystyrene-GP, Spot Hong Kong US/MT	1,705	1,915/1,705	-0.6%	-2.8%	-0.6%	-2.8%	-9.8%	1,735	1,733	0.1%	1,750	-98	-5.3%	n.a.
Related stocks														
			IRPC (-)											
PVC, Spot South East Asia US/MT	1,050	1,070/980	0.0%	-1.4%	-0.5%	-0.5%	1.9%	1,059	1,035	2.3%	1,043	28	2.8%	1,070
Related stocks														
			VNT (-) TPC (Neutral)											
Product spread														
Ethylene - naphtha	679	684/500	0.8%	6.9%	15.3%	10.9%	35.8%	632	586	7.9%	601	104	21.0%	598
Propylene - naphtha	579	665/530	-0.3%	-7.0%	3.6%	-3.8%	-3.1%	593	557	6.4%	587	47	8.7%	588
HDPE - naphtha	809	819/638	-0.5%	4.4%	13.3%	16.1%	31.5%	769	705	9.0%	721	89	14.0%	728
LDPE - naphtha	804	851/709	0.1%	4.4%	9.6%	4.8%	11.3%	765	742	3.1%	768	118	18.1%	798
LDPE - Ethylene	125	270/125	-3.8%	-7.4%	-13.8%	-19.4%	-43.8%	133	156	-14.8%	167	13	8.5%	200
LLDPE - naphtha	799	819/650	-1.2%	3.1%	10.4%	16.3%	24.8%	768	714	7.5%	729	92	14.4%	738
PP - naphtha	809	829/657	-1.1%	4.4%	11.8%	12.8%	21.6%	776	718	8.0%	733	54	7.9%	728
PX - naphtha	493	673/304	-3.5%	-12.4%	26.2%	28.2%	-24.8%	553	400	38.3%	455	-245	-35.0%	348
BZ - naphtha	479	535/381	-4.4%	-2.3%	13.0%	10.9%	10.7%	489	430	13.6%	456	-46	-9.2%	398
MEG - Ethylene	57	238/-20	-24.0%	-21.0%	109.1%	2287.5%	-76.9%	78	41	89.3%	63	-175	-73.6%	217
PTA - PX	156	184/53	-15.2%	31.5%	58.9%	78.7%	55.3%	118	100	18.4%	104	-8	-6.9%	103
PET spread	153	253/121	25.9%	16.4%	4.6%	-39.7%	-11.1%	136	170	-19.8%	172	-20	-10.2%	n.a.
Integrated PET/PTA spread	308	352/190	1.1%	23.6%	26.4%	-9.4%	13.3%	254	269	-5.7%	276	-27	-9.0%	n.a.
ABS spread	1,184	1,229/1,070	0.4%	3.9%	6.0%	9.1%	-2.6%	1,143	1,103	3.6%	1,107	-53	-4.5%	n.a.
PS spread	259	468/214	2.5%	-6.3%	-5.4%	-20.4%	-45.4%	258	291	-11.3%	297	-121	-28.9%	n.a.
PVC - ethylene	308	353/258	-0.8%	-6.1%	-6.1%	-6.1%	-12.1%	323	311	4.0%	318	-38	-10.6%	350

Source: Datastream, SCBS Investment Research

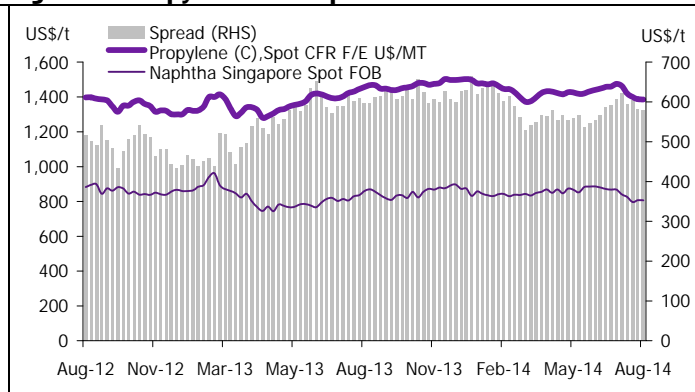
Note: Impact to related stocks is based on WoW performance

Figure 2: Ethylene vs. Naphtha



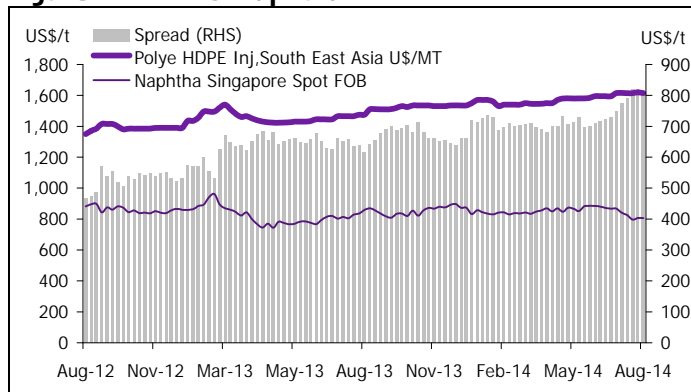
Source: Datastream, SCBS Investment Research

Figure 3: Propylene vs. Naphtha



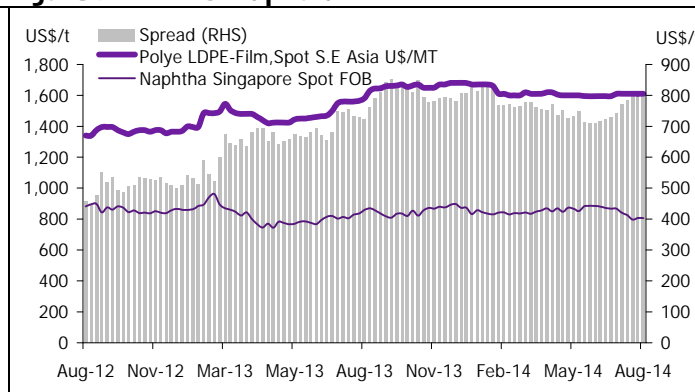
Source: Datastream, SCBS Investment Research

Figure 4: HDPE vs. Naphtha



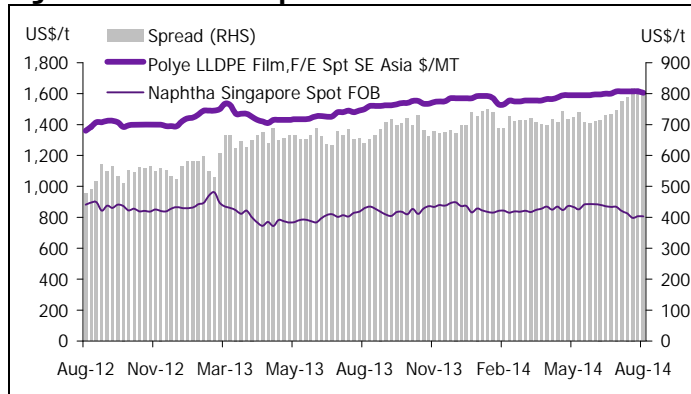
Source: Datastream, SCBS Investment Research

Figure 5: LDPE vs. Naphtha



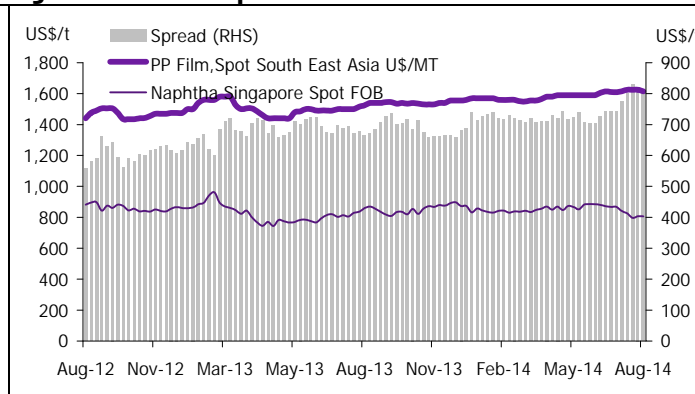
Source: Datastream, SCBS Investment Research

Figure 6: LLDPE vs. Naphtha



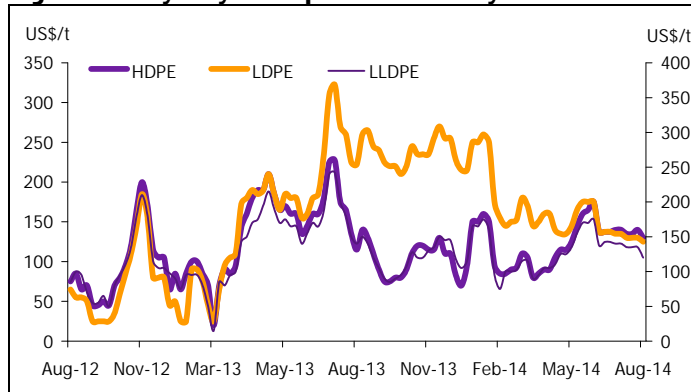
Source: Datastream, SCBS Investment Research

Figure 7: PP vs. Naphtha



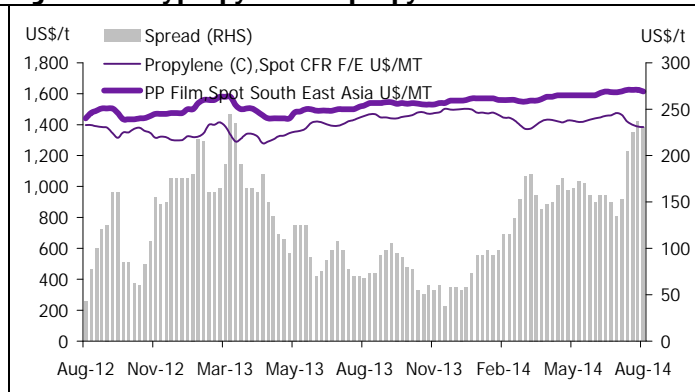
Source: Datastream, SCBS Investment Research

Figure 8: Polyethylene spread over ethylene

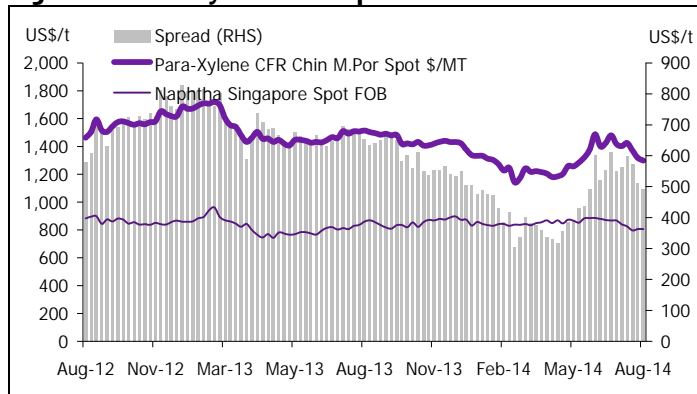


Source: Datastream, SCBS Investment Research

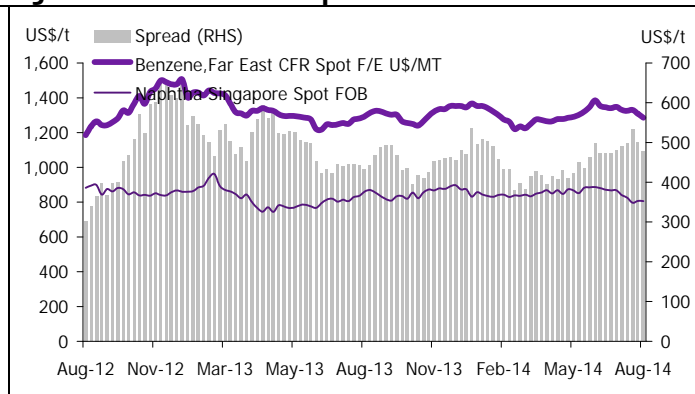
Figure 9: Polypropylene vs. propylene



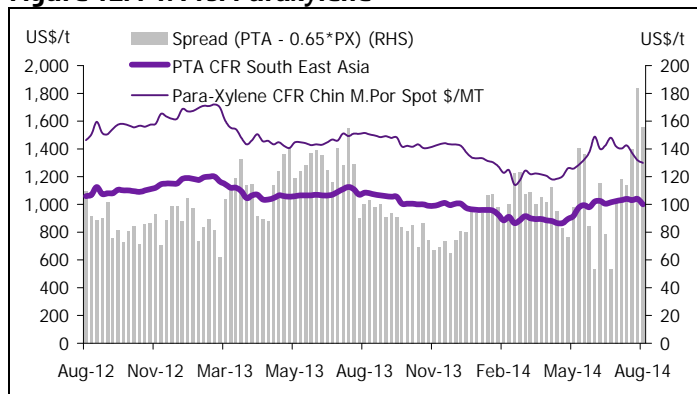
Source: Datastream, SCBS Investment Research

Figure 10: Paraxylene vs. Naphtha

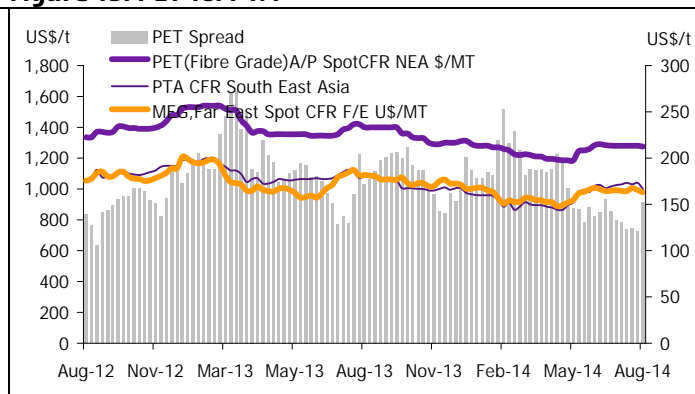
Source: Datastream, SCBS Investment Research

Figure 11: Benzene vs. Naphtha

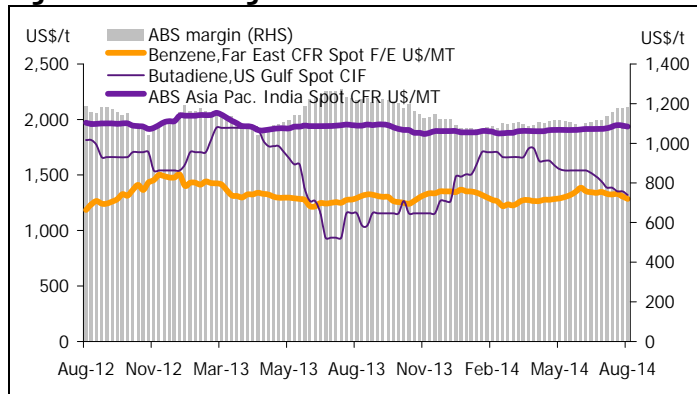
Source: Datastream, SCBS Investment Research

Figure 12: PTA vs. Paraxylene

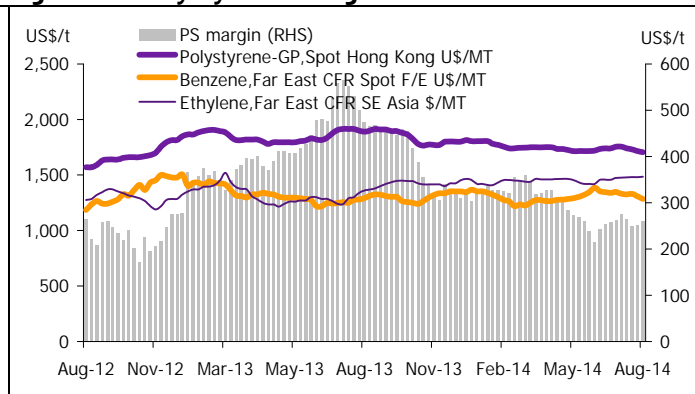
Source: Datastream, SCBS Investment Research

Figure 13: PET vs. PTA

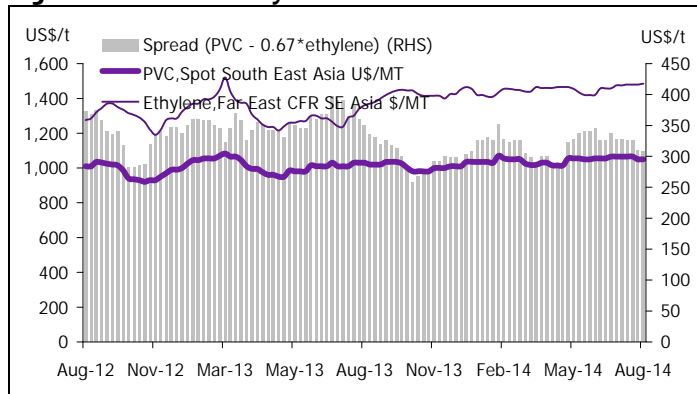
Source: Datastream, SCBS Investment Research

Figure 14: ABS margin

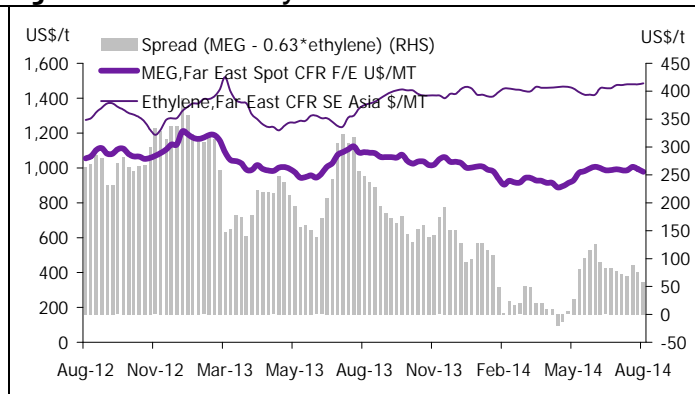
Source: Datastream, SCBS Investment Research

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	3Q14 QTD	2Q14	QoQ%	YTD	12MMA	2014F projection	Momentum
PTTGC	Ethylene/Propylene	21%	Ethylene, Far East CFR SE Asia \$/MT	1,472	1,448	2%	1,451	1,441	1,440	↗
			Propylene (C), Spot CFR F/E US/MT	1,433	1,420	1%	1,437	1,447	1,430	↘
	HDPE	19%	Polye HDPE Inj, South East Asia US/MT	1,609	1,568	3%	1,571	1,556	1,570	→
	LLDPE	7%	Polye LLDPE Film, F/E Spt SE Asia \$/MT	1,608	1,577	2%	1,580	1,567	1,580	→
	LDPE	4%	Polye LDPE-Film, Spot S.E Asia US/MT	1,605	1,605	0%	1,618	1,632	1,640	→
	MEG	6%	MEG, Far East Spot CFR F/E US/MT	991	939	5%	963	991	1,110	→
	PX	28%	PX - naphtha	553	400	38%	455	500	348	→
IRPC	BZ	15%	BZ - naphtha	489	430	14%	456	454	398	→
	Ethylene/Propylene	15%	Ethylene - naphtha	632	586	8%	601	590	598	↗
			Propylene - naphtha	593	557	6%	587	597	588	→
	HDPE	12%	HDPE - naphtha	769	705	9%	721	705	728	↗
	PP	28%	PP - naphtha	776	718	8%	733	718	728	↗
	ABS	7%	ABS spread	1,143	1,103	4%	1,107	1,131	n.a.	↗
	BTX	23%	BZ - naphtha	489	430	14%	456	454	398	→
SCC	PS	12%	PS spread	258	291	-11%	297	330	n.a.	↘
	HDPE	40%	HDPE - naphtha	769	705	9%	721	705	728	↗
	LDPE	3%	LDPE - naphtha	765	742	3%	768	781	798	↗
	LLDPE	3%	LLDPE - naphtha	768	714	8%	729	716	738	↗
	PP	25%	PP - naphtha	776	718	8%	733	718	728	↗
	PVC	28%	PVC - Ethylene/EDC	438	405	8%	419	410	n.a.	↘
	TPIPL	60%	LDPE - Ethylene	133	156	-15%	167	191	200	↘
TOP	PX	60%	PX - naphtha	553	400	38%	455	500	348	→
	BZ	21%	BZ - naphtha	489	430	14%	456	454	398	→
IVL	PTA	25%	PTA - PX	118	100	18%	104	97	103	↗
	PET/Polyester	67%	PET spread	136	170	-20%	172	175	n.a.	↗
	MEG	8%								
VNT	PVC	63%	PVC - ethylene	323	311	4%	318	311	350	↘
TPC	PVC	100%	PVC - Ethylene/EDC	438	405	8%	419	410	n.a.	↘

Source: Datastream, SCBS Investment Research

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