

Petrochemical price monitor

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- **Spread still shrinking at non-integrated producers.** Limited regional supply again pushed ethylene price to a record high of US\$1,495/t (+0.3% WoW). Several planned ethylene cracker shutdowns in the region by end-Sep, including Reliance Industries' cracker in Gujarat (800ktpa) and Shell's cracker in Singapore (800ktpa), have led buyers to rebuild stock ahead of the shutdowns. Slow demand for PE cut prices 0.3-1.2% WoW, especially for HDPE. This slashed spread at non-integrated producers by 9-20% WoW, with LDPE-ethylene spread down to a 19-week low of US\$105/t (-8.7% WoW). Naphtha-based producers were lucky: naphtha cost fell more sharply, leading their spread into an increase of 0.6-1.8% WoW.
- **Still no pause in PX price fall.** PX price slid to a 15-week low of US\$1,262/t on excess supply while demand slowed as a result of lower PTA output. With oil prices down, buyers feared inventory losses at quarter's end and refrained from building inventory. The additions to supply in the region expected in 2H14 have already entered the market but ~6.1mtpa more will come in 2015.
- **PET/PTA spread up despite weaker PTA price.** Lower feedstock cost led to a 0.5% WoW improvement in integrated PET/PTA spread to US\$307/t although PTA price weakened 3.6% WoW due to sluggish regional demand. The declining price will lead PTA producers to reduce operating rates further in weeks ahead. At least two plants with combined capacity of 790ktpa in India and Indonesia will go off-stream in Oct-Nov 2014. Note that PTA utilization in key market China fell to only 53% recently from 80% in Jan, according to ICIS. Another industry expert, PCI, expects PTA overcapacity to dominate market dynamics for the next three years.

Investment view: IVL (-2.7% WoW) was the cause behind the fall in the sector's index (-1.9% WoW) and the underperformance to the market (-0.4% WoW). We believe this reflects anxiety about its 3Q14 from a weaker integrated PET/PTA margin (-2.2% QoQ) and inventory losses, as product prices in PET/polyester chain fell 0.2-4.5% from end-June. PTTGC also fell 1.6% WoW on weaker profit in 3Q14 and continuing concerns on LPG feedstock price. At current valuation our top pick for the sector remains PTTGC.

Figure 1: Petrochemical price update

	Current 12-Sep-14	52-week High/Low	-1W	-1M	-3M	-6M	-12M	3Q14 QTD	2Q14	QoQ%	YTD	Chg.	%YoY	2014F projection
Price														
Naphtha Singapore Spot FOB	777	897/777	-3.1%	-2.4%	-12.0%	-7.3%	-9.2%	831	863	-3.7%	847	22	2.6%	842
Ethylene, Far East CFR SE Asia \$/MT	1,495	1,495/1,400	0.3%	1.0%	5.3%	3.1%	8.3%	1,476	1,448	1.9%	1,453	131	9.9%	1,440
Propylene (C), Spot CFR F/E US\$/MT	1,375	1,503/1,373	-0.4%	-1.8%	-3.2%	-3.7%	-6.3%	1,423	1,420	0.2%	1,434	65	4.8%	1,430
Polye HDPE Inj, South East Asia US\$/MT	1,595	1,620/1,510	-1.2%	-1.2%	0.9%	3.6%	5.6%	1,608	1,568	2.6%	1,573	115	7.9%	1,570
Polye LDPE-Film, Spot S.E Asia US\$/MT	1,600	1,680/1,595	-0.3%	-0.6%	0.3%	0.0%	-2.7%	1,605	1,605	0.0%	1,618	135	9.1%	1,640
Polye LLDPE Film, F/E Spot SE Asia \$/MT	1,595	1,615/1,520	-0.6%	-1.2%	0.3%	2.9%	4.9%	1,607	1,577	1.9%	1,581	117	8.0%	1,580
PP Film, Spot South East Asia US\$/MT	1,615	1,625/1,530	0.0%	-0.6%	1.6%	3.5%	4.9%	1,616	1,581	2.2%	1,585	80	5.3%	1,570
Related stocks														
Para-Xylene CFR Chin M. Por Spot \$/MT	1,262	1,491/1,143	-1.9%	-7.9%	-4.5%	10.4%	-15.7%	1,371	1,263	8.6%	1,303	-218	-14.3%	1,190
Benzene, Far East CFR Spot F/E US\$/MT	1,220	1,385/1,220	-2.0%	-8.3%	-7.6%	0.0%	-7.9%	1,312	1,293	1.4%	1,302	-23	-1.7%	1,240
Related stocks														
MEG, Far East Spot CFR F/E US\$/MT	943	1,076/889	-3.1%	-6.3%	-4.0%	2.8%	-13.1%	985	939	4.8%	962	-95	-9.0%	1,110
PTA CFR South East Asia	950	1,065/865	-3.6%	-7.8%	-4.5%	9.8%	-11.2%	1,013	920	10.1%	953	-147	-13.4%	900
PET (Fibre Grade) A/P Spot CFR NEA \$/MT	1,248	1,400/1,185	-1.4%	-2.5%	-0.2%	1.8%	-10.9%	1,277	1,217	4.9%	1,252	-167	-11.8%	n.a.
Related stocks														
ABS Asia Pac. India Spot CFR US\$/MT	1,915	1,955/1,870	-1.0%	-1.8%	0.5%	2.1%	-2.0%	1,927	1,901	1.4%	1,903	-61	-3.1%	n.a.
Polystyrene-GP, Spot Hong Kong US\$/MT	1,665	1,910/1,665	-1.2%	-3.8%	-2.9%	-4.3%	-13.1%	1,724	1,733	-0.5%	1,746	-105	-5.7%	n.a.
Related stocks														
PVC, Spot South East Asia US\$/MT	1,035	1,070/980	0.0%	-2.8%	-1.4%	-1.4%	1.5%	1,055	1,035	1.9%	1,043	28	2.7%	1,070
Related stocks														
Product spread														
Ethylene - naphtha	718	718/525	4.3%	5.0%	33.7%	17.5%	36.9%	645	586	10.1%	607	109	21.9%	598
Propylene - naphtha	598	665/530	3.4%	-1.0%	11.3%	1.6%	-2.3%	592	557	6.3%	587	43	8.0%	588
HDPE - naphtha	818	819/638	0.6%	-0.1%	17.3%	16.6%	25.0%	777	705	10.2%	726	93	14.7%	728
LDPE - naphtha	823	851/709	2.4%	1.1%	15.6%	8.1%	4.2%	774	742	4.3%	771	113	17.2%	798
LDPE - Ethylene	105	270/105	-8.7%	-19.2%	-40.0%	-30.0%	-60.4%	129	156	-17.5%	164	4	2.6%	200
LLDPE - naphtha	818	819/662	1.8%	-0.1%	15.7%	15.0%	23.1%	776	714	8.6%	734	95	14.9%	738
PP - naphtha	838	838/657	3.0%	1.1%	18.5%	16.2%	22.4%	785	718	9.3%	738	59	8.6%	728
PX - naphtha	484	673/304	-0.1%	-15.6%	10.5%	59.5%	-24.4%	540	400	35.2%	456	-240	-34.5%	348
BZ - naphtha	443	535/381	-0.1%	-17.0%	1.3%	16.2%	-5.6%	481	430	11.7%	455	-45	-8.9%	398
MEG - Ethylene	16	195/-20	-68.0%	-82.4%	-84.6%	-10.9%	-93.2%	70	41	69.1%	61	-176	-74.3%	217
PTA - PX	130	184/53	-12.6%	-6.8%	-4.4%	6.3%	33.2%	122	100	22.3%	106	-5	-4.7%	103
PET spread	177	253/121	13.0%	41.9%	35.5%	-23.0%	-5.0%	142	170	-16.6%	172	-19	-10.1%	n.a.
Integrated PET/PTA spread	307	352/190	0.5%	16.2%	15.1%	-12.9%	8.1%	264	269	-2.2%	278	-24	-8.1%	n.a.
ABS spread	1,217	1,222/1,070	1.0%	3.6%	10.0%	10.5%	-0.9%	1,155	1,103	4.8%	1,113	-51	-4.4%	n.a.
PS spread	268	463/214	-0.6%	7.0%	2.8%	-24.8%	-42.8%	260	291	-10.6%	296	-125	-29.7%	n.a.
PVC - ethylene	288	353/258	-0.9%	-11.5%	-15.4%	-11.5%	-12.9%	317	311	1.9%	316	-38	-10.7%	350

Source: Datastream, SCBS Investment Research

Note: Impact to related stocks is based on WoW performance

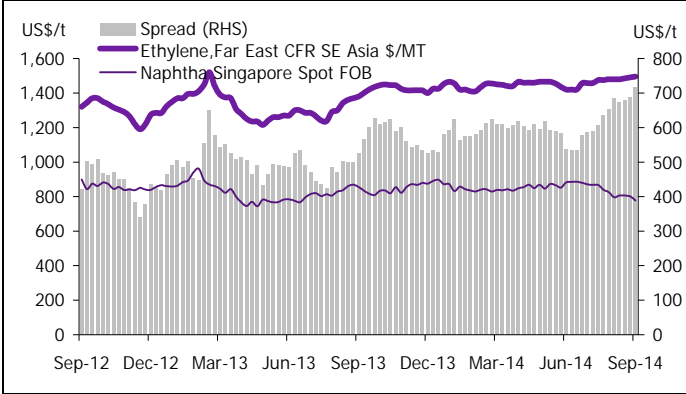
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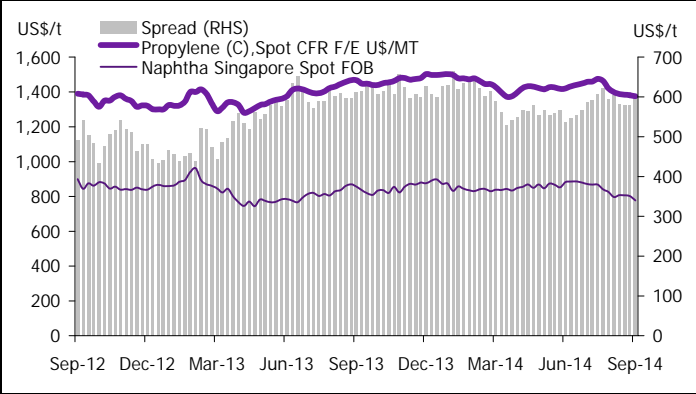
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Figure 2: Ethylene vs. Naphtha



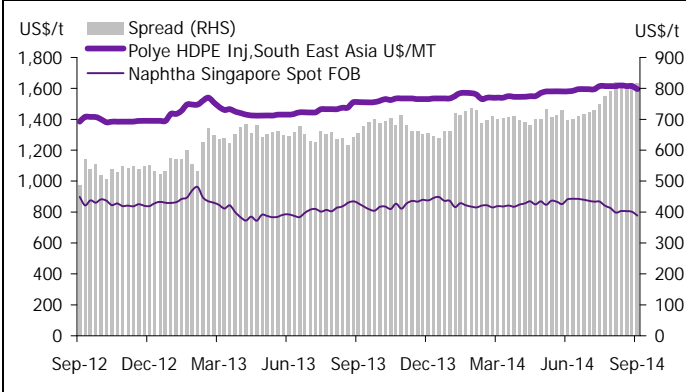
Source: Datastream, SCBS Investment Research

Figure 3: Propylene vs. Naphtha



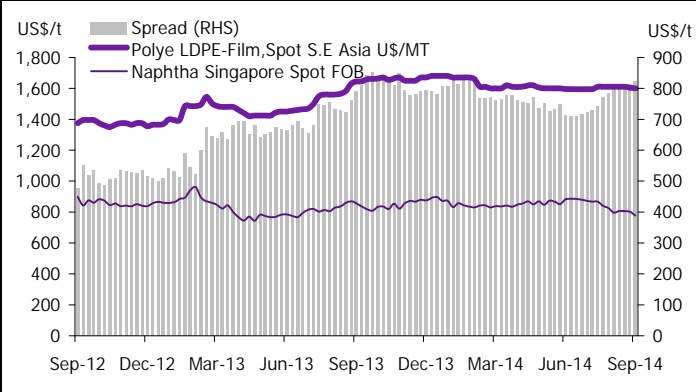
Source: Datastream, SCBS Investment Research

Figure 4: HDPE vs. Naphtha



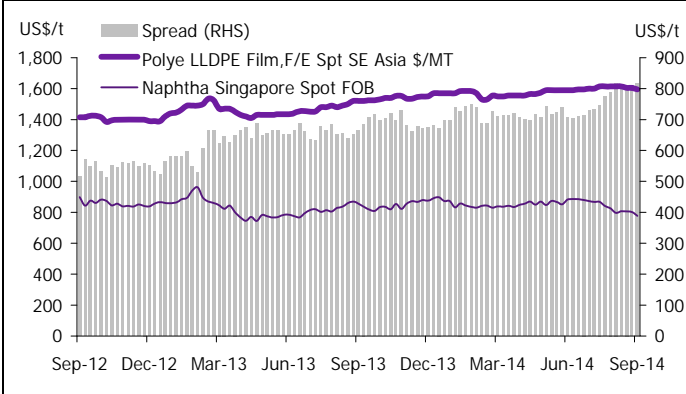
Source: Datastream, SCBS Investment Research

Figure 5: LDPE vs. Naphtha



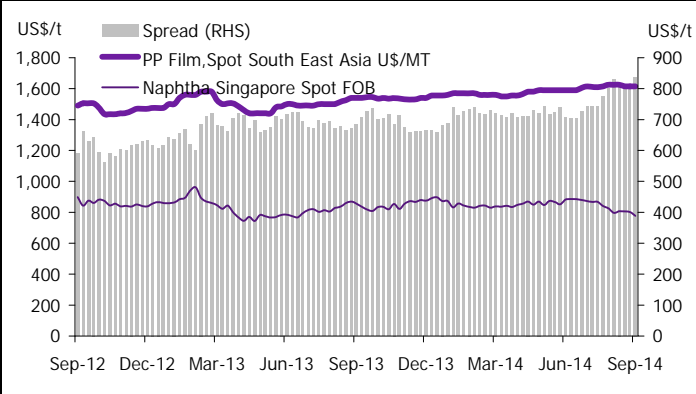
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Figure 6: LLDPE vs. Naphtha



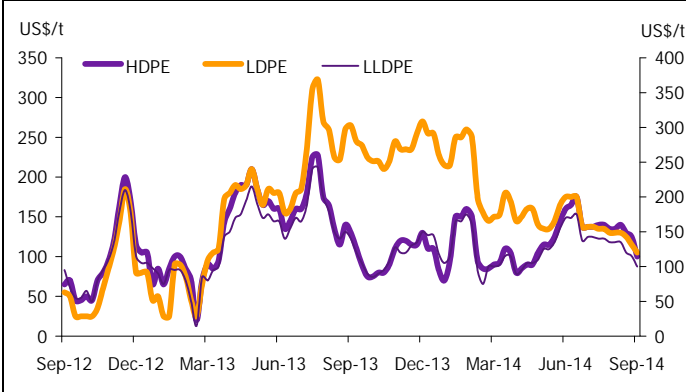
Source: Datastream, SCBS Investment Research

Figure 7: PP vs. Naphtha



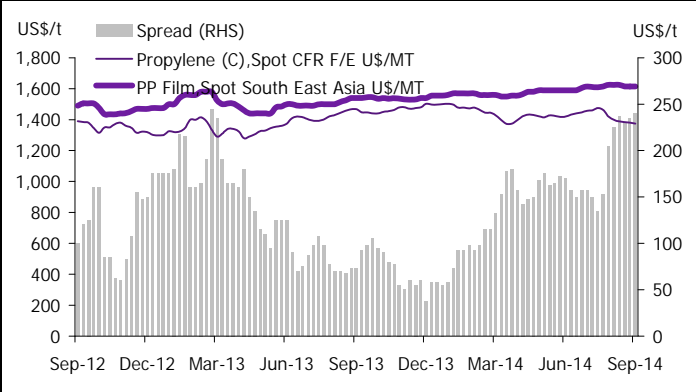
Source: Datastream, SCBS Investment Research

Figure 8: Polyethylene spread over ethylene

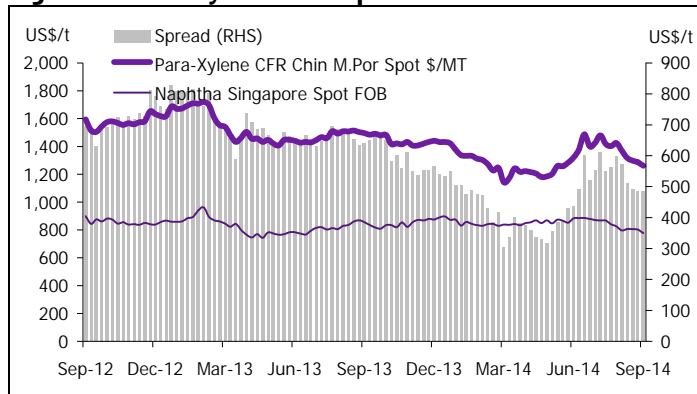


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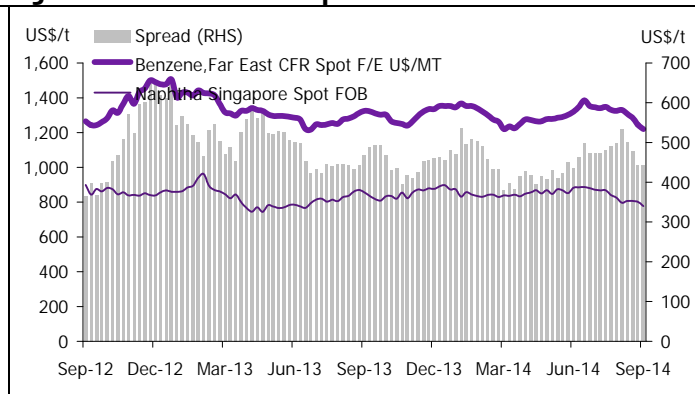
Figure 9: Polypropylene vs. propylene



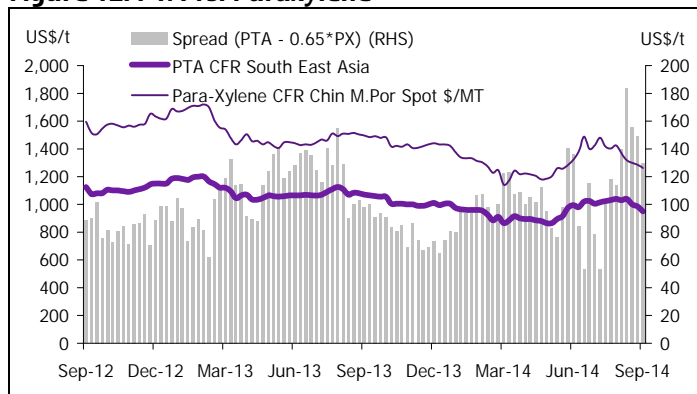
Source: Datastream, SCBS Investment Research

Figure 10: Paraxylene vs. Naphtha

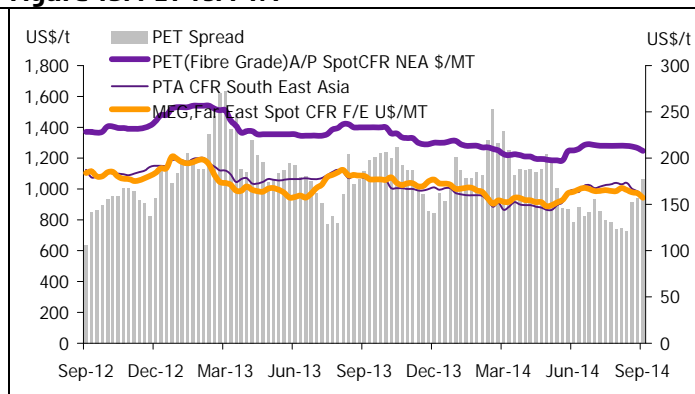
Source: Datastream, SCBS Investment Research

Figure 11: Benzene vs. Naphtha

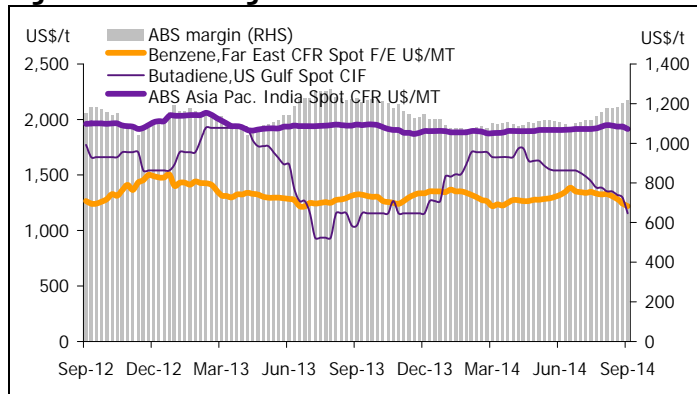
Source: Datastream, SCBS Investment Research

Figure 12: PTA vs. Paraxylene

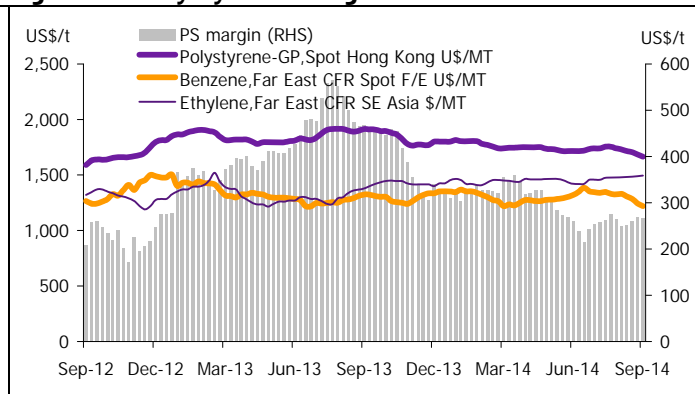
Source: Datastream, SCBS Investment Research

Figure 13: PET vs. PTA

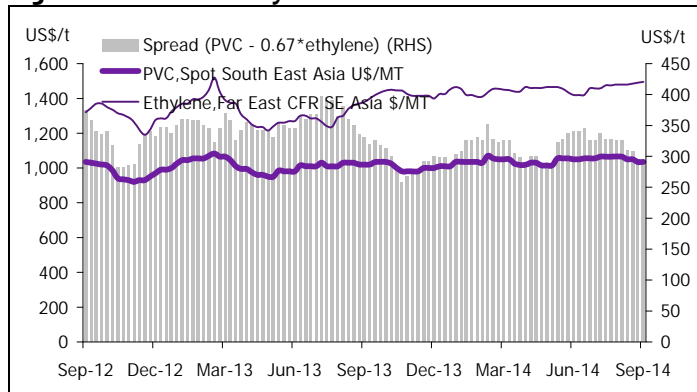
Source: Datastream, SCBS Investment Research

Figure 14: ABS margin

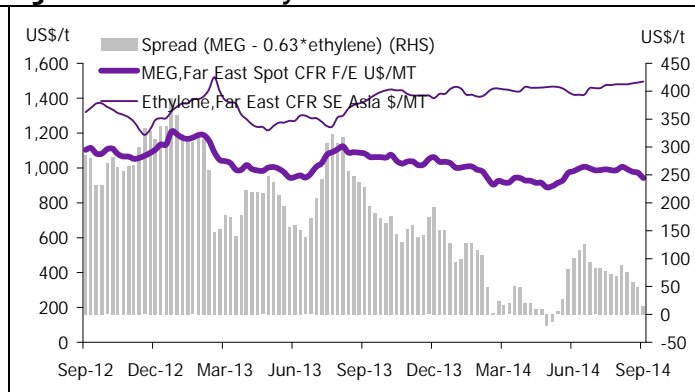
Source: Datastream, SCBS Investment Research

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	1,476	1,448	2%	1,453	1,445	1,440	↗
			Propylene (C), Spot CFR F/E US/MT	1,423	1,420	0%	1,434	1,444	1,430	↘
	HDPE	19%	Polye HDPE Inj, South East Asia US/MT	1,608	1,568	3%	1,573	1,560	1,570	→
	LLDPE	7%	Polye LLDPE Film, F/E Spt SE Asia \$/MT	1,607	1,577	2%	1,581	1,570	1,580	→
	LDPE	4%	Polye LDPE-Film, Spot S.E Asia US/MT	1,605	1,605	0%	1,618	1,631	1,640	→
	MEG	6%	MEG, Far East Spot CFR F/E US/MT	985	939	5%	962	986	1,110	↘
	PX	28%	PX - naphtha	540	400	35%	456	495	348	→
IRPC	BZ	15%	BZ - naphtha	481	430	12%	455	454	398	→
	Ethylene/Propylene	15%	Ethylene - naphtha	645	586	10%	607	597	598	↗
			Propylene - naphtha	592	557	6%	587	596	588	→
	HDPE	12%	HDPE - naphtha	777	705	10%	726	712	728	→
	PP	28%	PP - naphtha	785	718	9%	738	724	728	↗
	ABS	7%	ABS spread	1,155	1,103	5%	1,113	1,131	n.a.	↗
	BTX	23%	BZ - naphtha	481	430	12%	455	454	398	→
SCC	PS	12%	PS spread	260	291	-11%	296	322	n.a.	↗
	HDPE	40%	HDPE - naphtha	777	705	10%	726	712	728	→
	LDPE	3%	LDPE - naphtha	774	742	4%	771	782	798	↗
	LLDPE	3%	LLDPE - naphtha	776	714	9%	734	722	738	→
	PP	25%	PP - naphtha	785	718	9%	738	724	728	↗
	PVC	28%	PVC - Ethylene/EDC	435	405	7%	419	406	n.a.	↘
	TPIPL	60%	LDPE - Ethylene	129	156	-17%	164	185	200	↘
TOP	PX	60%	PX - naphtha	540	400	35%	456	495	348	→
	BZ	21%	BZ - naphtha	481	430	12%	455	454	398	→
IVL	PTA	25%	PTA - PX	122	100	22%	106	99	103	↘
	PET/Polyester	67%	PET spread	142	170	-17%	172	174	n.a.	↗
	MEG	8%								
VNT	PVC	63%	PVC - ethylene	317	311	2%	316	309	350	↘
TPC	PVC	100%	PVC - Ethylene/EDC	435	405	7%	419	406	n.a.	↘

Source: Datastream, SCBS Investment Research

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