

2Q 2018 Business Results & Outlook

September, 2018



Disclaimer

The business results currently under audit review are presented here for investors' convenience. Hence, please be advised that some of their contents may be altered in the course of audit.

The business results are subject to the K-IFRS(Korea International Financial Reporting Standards).

Forecasts and projections contained in this material are based on current business environments and management's strategies. Please note it may differ from actual results, due to uncertainties including changes in the future business environment and recalibration of strategy.

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(Unit: KRW bn)

Classification	2Q '17	1Q '18	2Q '18	YoY	QoQ
Sales	6,382	6,554	7,052	10.5%	7.6%
Operating Profit	727	651	703	-3.2%	8.1%
(%)	(11.4)	(9.9)	(10.0)		
EBITDA	1,074	1,006	1,065	-0.8%	5.9%
(%)	(16.8)	(15.3)	(15.1)		
Pre-tax Income	730	653	644	-11.7%	-1.4%
(%)	(11.4)	(10.0)	(9.1)		
Net Income	590	553	493	-16.4%	-10.7%
(%)	(9.2)	(8.4)	(7.0)		

Balance Sheet

(Unit: KRW bn)

	'17 (End)	1Q'18 (End)	2Q'18 (End)	Change
Asset	25,041	26,416	27,399	3.7%
Cash and equivalents	2,779	3,132	2,830	-9.6%
Liabilities	8,703	9,905	10,391	4.9%
Debt	3,045	4,236	5,114	20.7%
Shareholder's Equity	16,339	16,510	17,009	3.0%
Liabilities/Equity	53.3	60.0	61.1	1.1%p

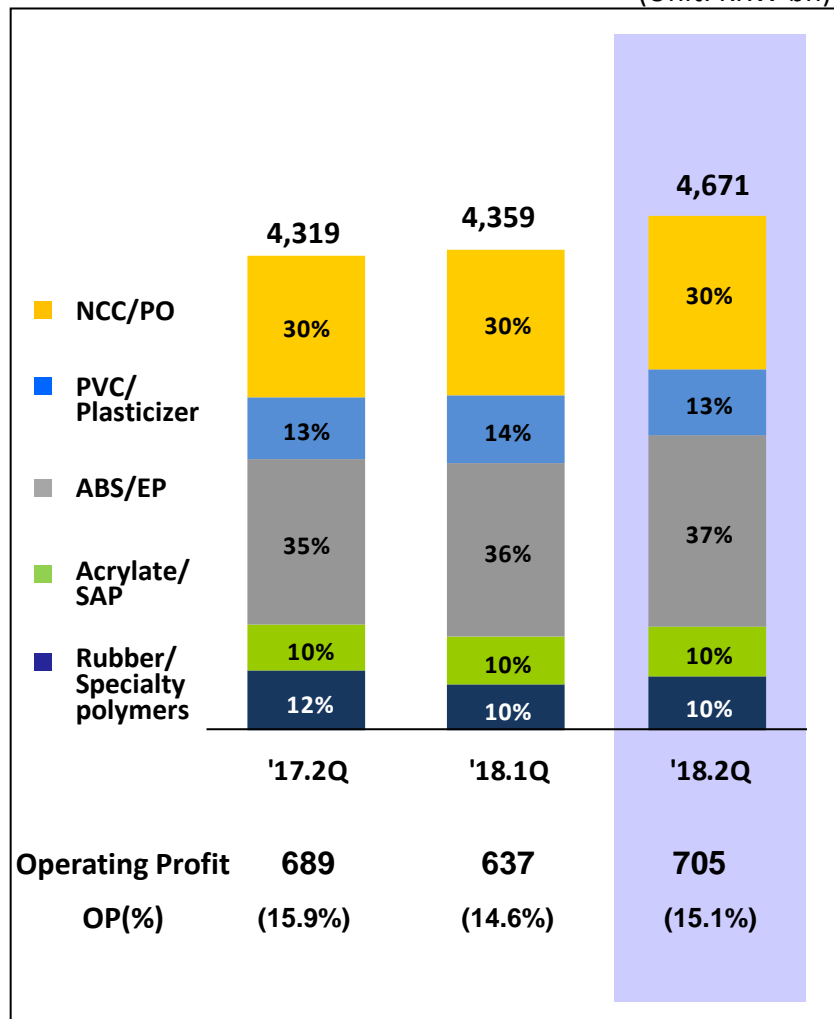
Financial Ratios

	'17 (End)	1Q'18 (End)	2Q'18 (End)	Change
Debt / Equity	18.6	25.7	30.1	4.4%p
Net Debt/Equity	1.6	6.7	13.4	6.7%p
Interest Coverage Ratio (x)	29.3	25.4	24.5	-0.9
ROE	13.3	13.5	12.5	-1.0%p
ROA	8.9	8.6	8.0	-0.6%p

※ ROE: Annualized net profit / Avg of beginning & ending shareholders' equity
 ROA: Annualized net profit / Avg of beginning & ending assets

Performance Breakdown

(Unit: KRW bn)



Analysis & Outlook

Analysis

- Despite the rise in feedstock prices, sales was posted historical high and profits was improved due to increased premium downstream business and seasonality

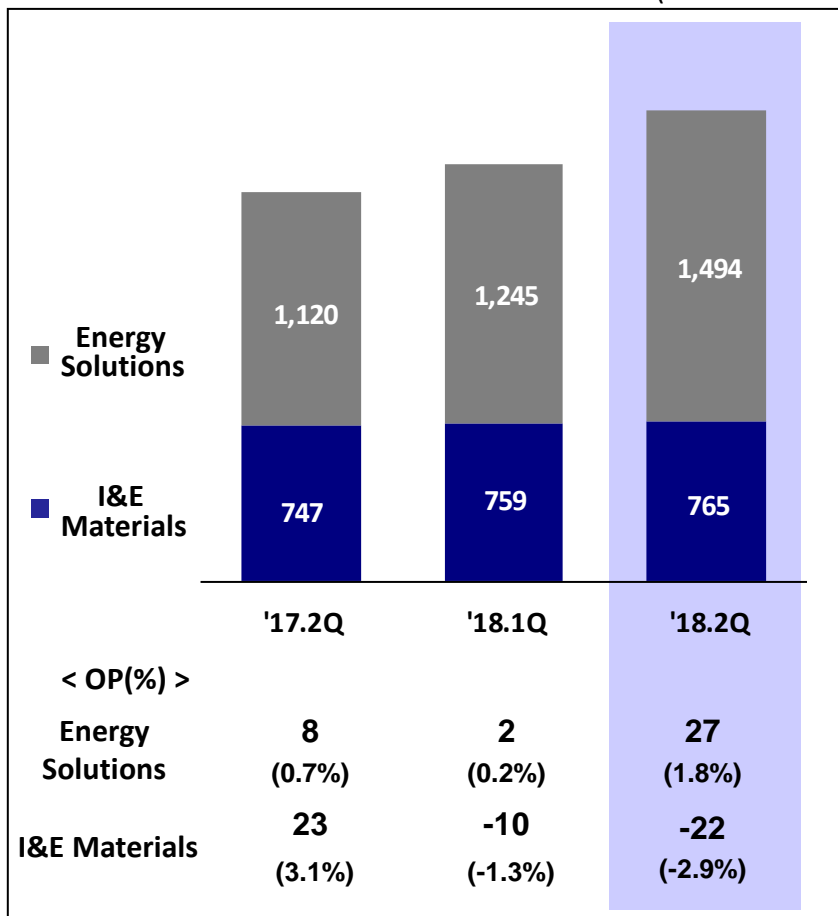
- NCC/PO : Improved spreads led by tight supply/demand
- PVC/Plasticizer : Maintained stable profitability due to robust demand from PVC/Caustic soda
- ABS/EP : Decreased profits due to weaker demand stemming from trade friction
- Acrylate/SAP : Increased profits from improved client portfolio
- Rubber/Specialty Polymers : Improved profits due to increase in sales of specialty polymer

Outlook

- Although solid performance in both PVC and SAP is expected, the spread could be narrowed on NCC/PO and ABS caused by the fluctuation of the feedstock prices

Performance Breakdown

(Unit: KRW bn)



Analysis & Outlook

Analysis

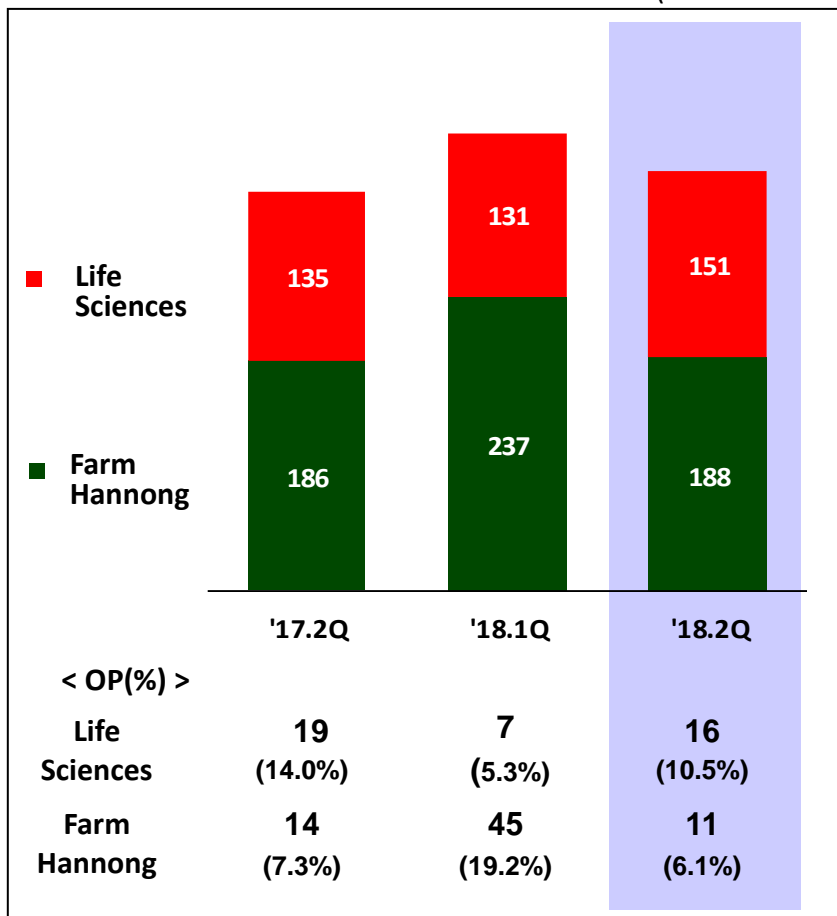
- Energy Solutions** : Sales was posted historic-high and profitability was improved from an increase in EV sales, growth of ESS market in Korea, and an expansion of new application in small batteries
- I&E Materials** : Continued losses is due to ASP cut caused by lackluster performance in the front industry

Outlook

- Energy Solutions** : Revenue growth and profitability improvement are expected due to full-fledged sales of Gen2 EVs and launching of new small battery products
- I&E Materials** : Although Panel industry is still in risk, profitability is expected to improve due to increase in volume resulting from seasonality and enhanced productivity

Performance Breakdown

(Unit: KRW bn)



Analysis & Outlook

Analysis

- **Life Sciences** : Performance was improved due to increase in sales of key products and newly launched product (Eucept: biosimilar of Enbrel)
- **Farm Hannong** : Although sales and profitability declined in Fertilizers, new crop protection product (Terrad'or) was launched along with increase in exports

Outlook

- **Life Sciences** : Sales growth of key products, such as Zemiglo and YVOIRE, are expected while R&D investment to develop new drugs and marketing expenses are expected to increase
- **Farm Hannong** : Increase of exports in crop protection products and new product sales (Terrad'or) are expected

(Unit: KRW bn)

Classification	2016					2017					2018	
	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q
Sales	4,874	5,219	5,054	5,512	20,659	6,487	6,382	6,397	6,432	25,698	6,554	7,052
Operating Profit	458	612	460	462	1,992	797	727	790	615	2,929	651	703
(%)	9.4%	11.7%	9.1%	8.4%	9.6%	12.3%	11.4%	12.3%	9.6%	11.4%	9.9%	10.0%
EBITDA	780	946	796	805	3,327	1,151	1,074	1,137	972	4,335	1,006	1,065
(%)	16.0%	18.1%	15.8%	14.6%	16.0%	17.8%	16.8%	17.8%	15.1%	16.9%	15.3%	15.1%
Basic Materials & Chemicals	3,512	3,653	3,525	3,758	14,447	4,495	4,319	4,316	4,297	17,427	4,359	4,671
NCC / PO	1,156	1,221	1,131	1,161	4,669	1,362	1,291	1,246	1,323	5,222	1,326	1,401
PVC / Plasticizer	489	508	496	542	2,035	588	572	560	568	2,288	605	596
ABS	877	920	866	948	3,611	1,216	1,185	1,261	1,214	4,876	1,233	1,356
EP	298	299	304	308	1,210	332	307	357	347	1,343	347	372
Acrylate / SAP	345	331	357	391	1,424	435	427	425	420	1,706	427	468
Rubber / Specialty Polymer	347	374	370	408	1,499	563	537	467	424	1,991	420	478
Operating Profit	466	649	517	506	2,139	734	686	755	634	2,808	637	704
(%)	13.3%	17.8%	14.7%	13.5%	14.8%	16.3%	15.9%	17.5%	14.7%	16.1%	14.6%	15.1%
Energy Solutions	814	809	879	1,059	3,562	999	1,120	1,189	1,253	4,561	1,245	1,494
Operating Profit	0	-31	-14	-4	-49	-10	8	18	14	29	2	27
(%)	0.0%	-3.9%	-1.6%	-0.3%	-1.4%	-1.0%	0.7%	1.5%	1.1%	0.6%	0.2%	1.8%
I&E Materials	627	650	641	739	2,656	726	747	787	801	3,062	759	765
Operating Profit	-8	-15	-16	-16	-55	29	23	41	18	112	-10	-22
(%)	-1.3%	-2.2%	-2.5%	-2.2%	-2.1%	4.0%	3.1%	5.2%	2.2%	3.6%	-1.3%	-2.9%
Life Sciences	120	131	135	147	532	129	135	139	148	552	131	151
Operating Profit	17	11	10	9	47	21	19	13	1	54	7	16
(%)	14.3%	8.1%	7.5%	6.4%	8.9%	15.9%	14.0%	9.5%	0.6%	9.7%	5.3%	10.5%
Farm Hannong	242	189	87	50	568	254	186	97	68	604	237	188
Operating Profit	39	-2	-20	-31	-15	50	14	-10	-19	36	45	11
(%)	15.9%	-1.2%	-23.3%	-61.1%	-2.6%	19.8%	7.3%	-10.1%	-27.9%	5.9%	19.2%	6.1%

Debt

(Unit : KRW bn)

Classification	'17 (End)	1Q'18 (End)	2Q'18 (End)
Total (Overseas Subsidiaries)	3,045 (1,686)	4,236 (1,854)	5,114 (2,116)
KRW denominated	1,327 44%	2,375 56%	2,340 46%
C P	1,217	2,264	2,235
Others	110	111	105
Other currency denominated	1,718 56%	1,861 44%	2,774 54%
Short-term (Overseas Subsidiaries)	1,451 (1,167) 48%	1,593 (1,323) 38%	1,903 (1,661) 37%
Long-term (Overseas Subsidiaries)	1,594 (519) 52%	2,643 (531) 62%	3,211 (455) 63%
Cash	2,779	3,132	2,830
Net Debt	266	1,105	2,284

※ Numbers in parenthesis are amounts for overseas subsidiaries and the % is calculated to total borrowings.

Cashflow

(Unit: KRW bn)

Classification	2017	1Q'18 (End)	2Q'18 (End)
Beginning Cash	2,207	2,779	3,132
Operations/Investment Activities	1,337	-831	-662
Operating profit	2,929	651	703
Depreciation	1,406	355	362
Working Capital	-845	-707	-446
Investing Activities	-1,844	-867	-744
Others	-309	-262	-537
Financial Activities	-737	1,170	369
Debt (Financed & reimbursed)	-351	1,170	829
Dividends paid	-386	-	-460
Ending Cash	2,779	3,132	2,830

CAPEX

(Unit: KRW bn)

		2016	2017	1Q '18	2Q '18
Basic Materials & Chemicals	New / Expansion	103	324	116	229
	Maintenance	289	345	49	104
	Total	392	669	164	333
Energy Solutions	New / Expansion	365	691	150	275
	Maintenance	197	259	30	72
	Total	563	950	180	347
I & E Materials	New / Expansion	291	120	46	30
	Maintenance	95	101	28	37
	Total	386	221	75	66
Life Sciences	New / Expansion	124	81	24	18
	Maintenance	38	25	2	6
	Total	162	106	26	24
Common (including Farm Hannong)	New / Expansion	555	395	23	43
	Maintenance	82	200	32	45
	Total	637	595	55	88
Total	New / Expansion	1,314	1,612	359	595
	Maintenance	663	928	141	263
	Total	1,977	2,540	500	858

R&D expenses

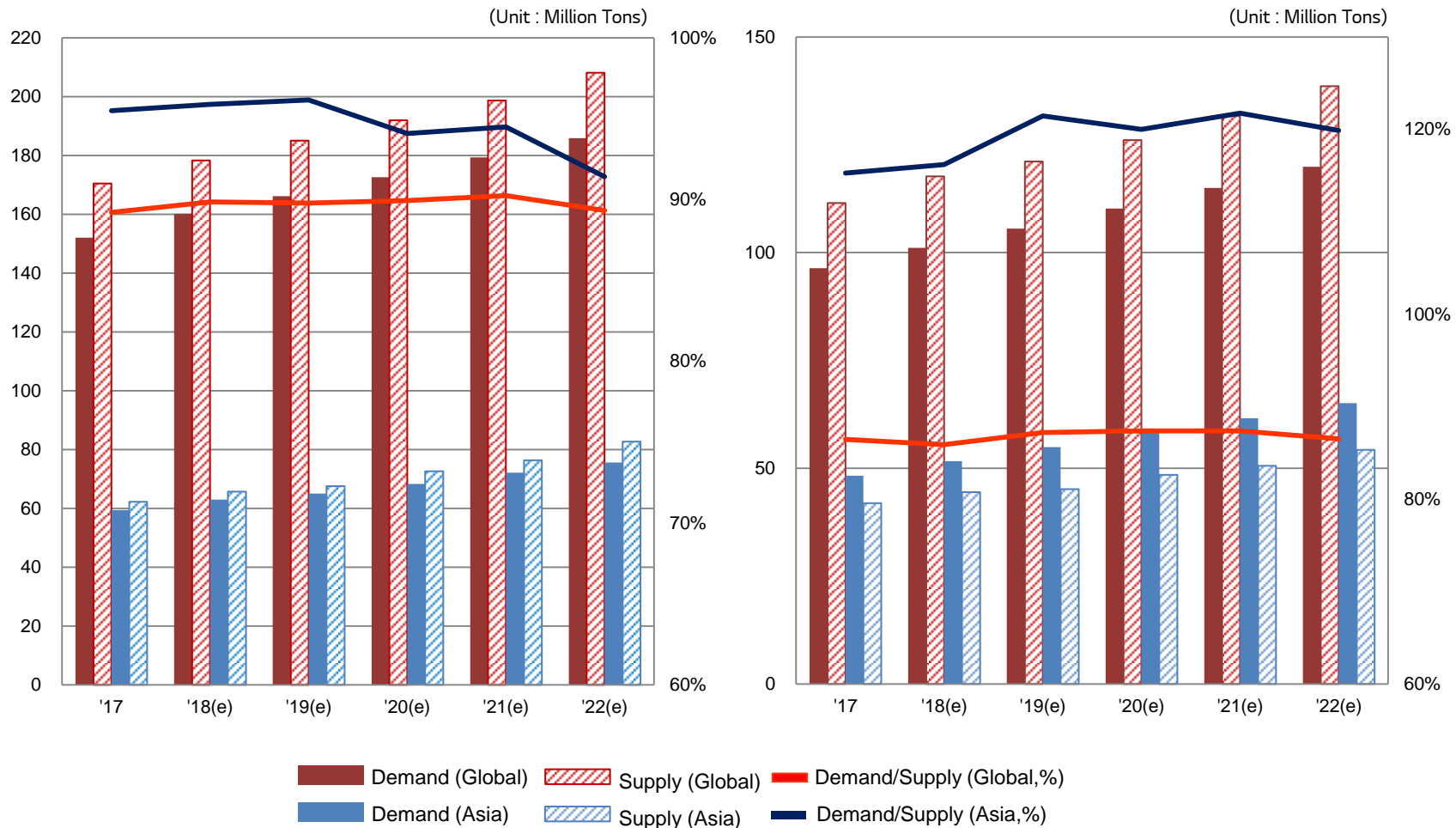
(Unit: KRW bn)

Cn	2016	2017	1Q '18	2Q '18
Basic Materials & Chemicals (% of sales)	150 (1.0%)	164 (0.9%)	40 (0.9%)	43 (0.9%)
Energy Solutions (% of sales)	276 (7.7%)	299 (6.6%)	70 (5.6%)	78 (5.2%)
I & E Materials (% of sales)	161 (6.1%)	181 (5.9%)	48 (6.3%)	52 (6.7%)
Life Sciences (% of sales)	91 (17.6%)	96 (17.5%)	28 (21.4%)	32 (21.1%)
Common (including Farm Hannong)	104	152	45	59
Total (% of sales)	686 (3.3%)	893 (3.5%)	231 (3.5%)	264 (3.7%)

* As of 2Q'18 YTD, 50% or more of Energy Solutions' R&D was used for EV batteries

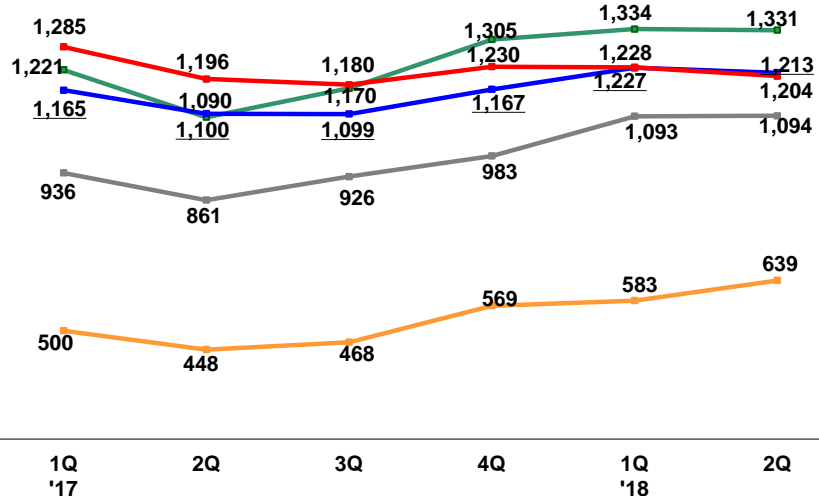
Ethylene

Polyethylene



(Source : IHS)

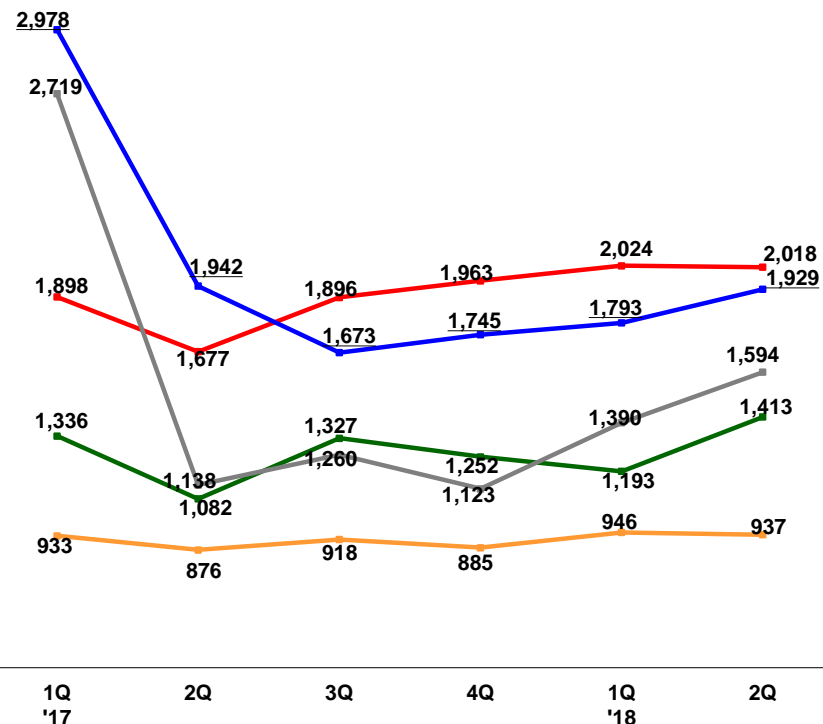
(Unit : USD/MT)



— Naphtha — Ethylene — Propylene — HDPE(Film) — LDPE

NCC/PO

(Unit : USD/MT)



— ABS — PVC — B.Acrylate — BD — BR

ABS/EP

PVC/
Plasticizer

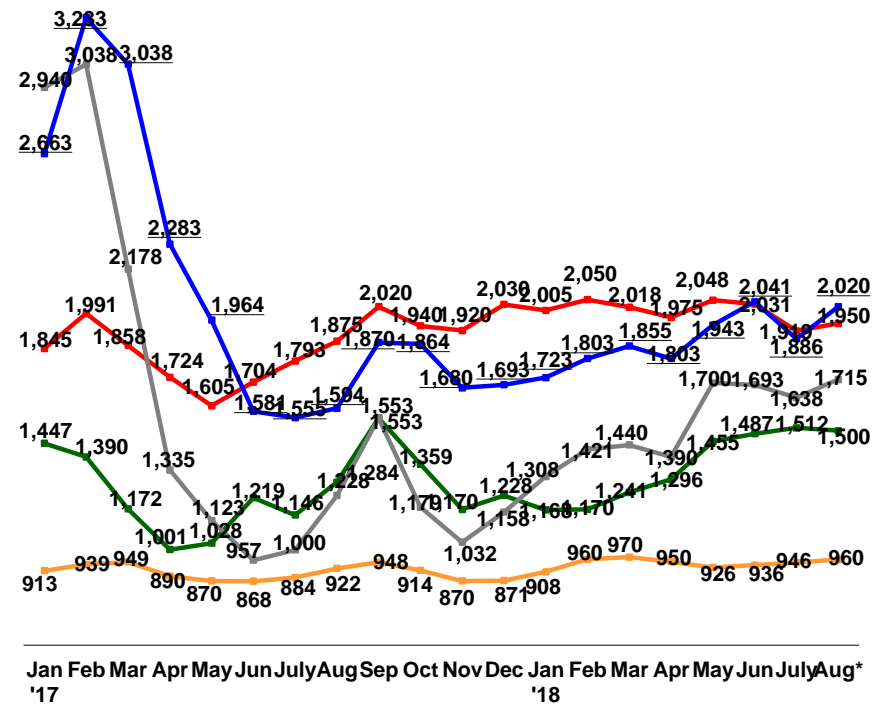
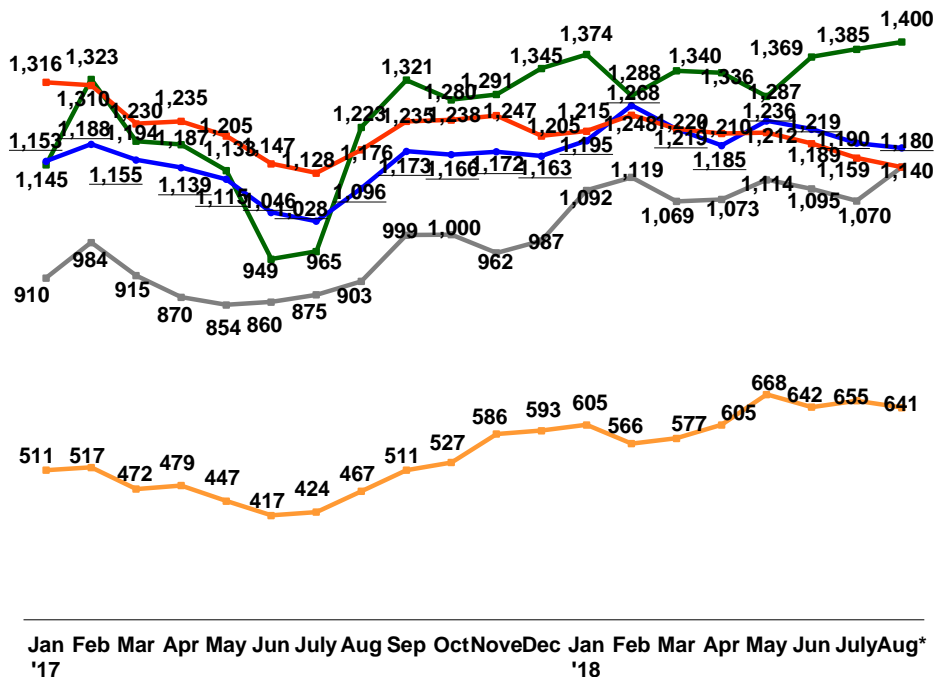
Acrylate/
SAP

Rubber/
Specialty Polymers

• Prices are the average of CFR FE Asia for general grade in each product group

(Unit : USD/MT)

(Unit : USD/MT)



— Naphtha — Ethylene — Propylene — HDPE(Film) — LDPE

— ABS — PVC — B.Acrylate — BD — BR

NCC/PO

ABS/EP

PVC/
Plasticizer

Acrylate/
SAP

Rubber/
Specialty Polymers

• Prices are the average of CFR FE Asia for general grade in each product group

* shows the average prices on 3rd week of August, 2018