

3Q 2017 Business Results & Outlook

December, 2017



Disclaimer

The business results for the third quarter of 2017 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, and they may differ from the actual results upon changes and unaccounted variables.

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(Unit: KRW bn)

Classification	3Q '16	2Q '17	3Q '17	YoY	QoQ
Sales	5,054	6,382	6,397	26.6%	0.2%
Operating Profit	460	727	790	71.7%	8.6%
(%)	(9.1)	(11.4)	(12.3)		
EBITDA	797	1,074	1,137	42.7%	5.8%
(%)	(15.8)	(16.8)	(17.8)		
Pre-tax Income	379	730	703	85.6%	-3.7%
(%)	(7.5)	(11.4)	(11.0)		
Net Income	298	590	546	83.4%	-7.6%
(%)	(5.9)	(9.2)	(8.5)		

* Business performances of Farm Hannong and Life Sciences have been included since '16.2Q and '17.1Q, respectively.

Financial Position

(Unit: KRW bn)

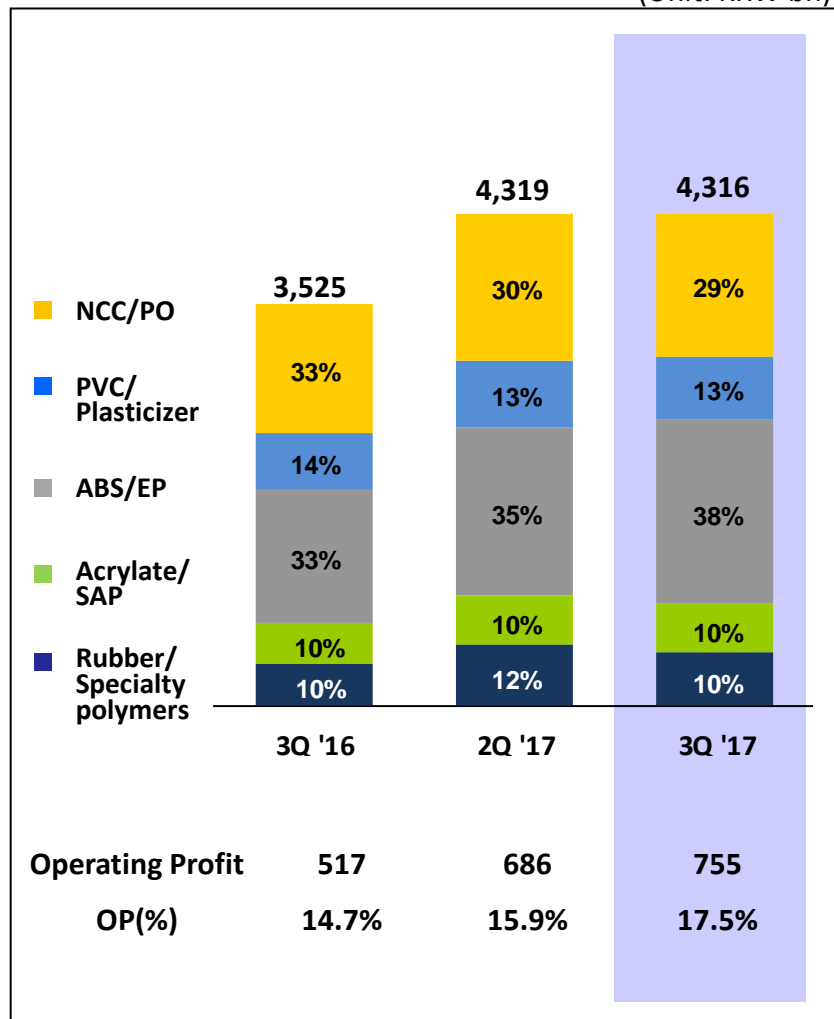
Classification	'16 (End)	3Q '17 (End)	Change
Asset	20,487	23,708	15.7%
Cash and equivalents	2,207	2,400	8.7%
Liabilities	6,436	7,586	17.9%
Borrowings	2,891	3,276	13.3%
Shareholder's Equity	14,051	16,122	14.7%
Liabilities/Equity	45.8	47.1	1.3%p

Financial Ratios

Classification	'16 (End)	3Q '17 (End)	Change
Borrowings / Equity (%)	20.6	20.3	-0.3%p
Net borrowings/ Equity (%)	4.9	5.4	0.5%p
Interest Coverage Ratio (x)	25.9	29.8	3.9
ROE (%)	9.4	14.9	5.5%p
ROA (%)	6.6	10.2	3.6%p

Divisional Results

(Unit: KRW bn)



Analysis & Outlook

Analysis

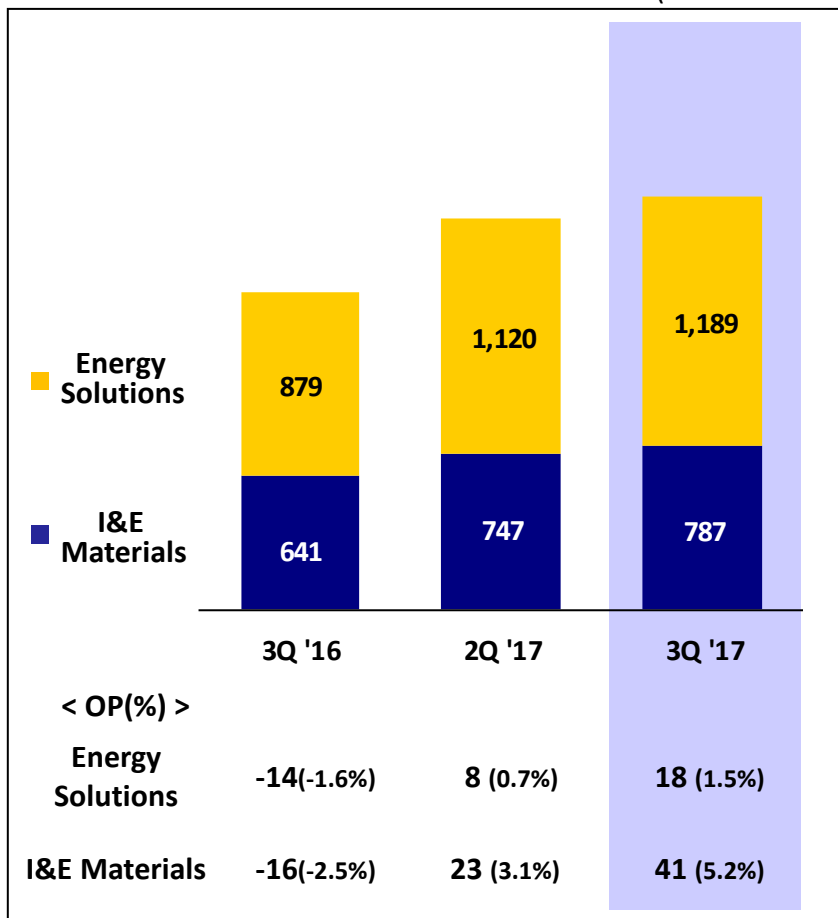
- **High performance was achieved on the back of the widening spread of upstream and improvement in PVC/ABS**
 - NCC/PO : Strong margin continued on the back of competitors' shutdown and impact of hurricane in the US
 - PVC/Plasticizer : Profitability was improved due to strong coal prices in China and tight supply and demand of caustic soda
 - ABS/EP : High performance was achieved by increased sales of premium products and strong demand of seasonal home appliances in China
 - Acrylate/SAP : Earnings were maintained at previous quarter's level through profitability centric operations
 - Rubber/Specialty Polymers : Solid earnings continued thanks to brisk sales of Specialty polymers despite raw material price increase of Synthetic rubber

Outlook

- **Although declined profitability is expected due to weak seasonality of 4Q, strong spread of upstream will bring in higher earnings than previous years**
- **Despite the possibility of weaker upstream spread in 2018 driven by start of new supply from ECC in the US, solid earnings will continue by increasing profitability of premium downstream products**

Divisional Results

(Unit: KRW bn)



Analysis & Outlook

Analysis

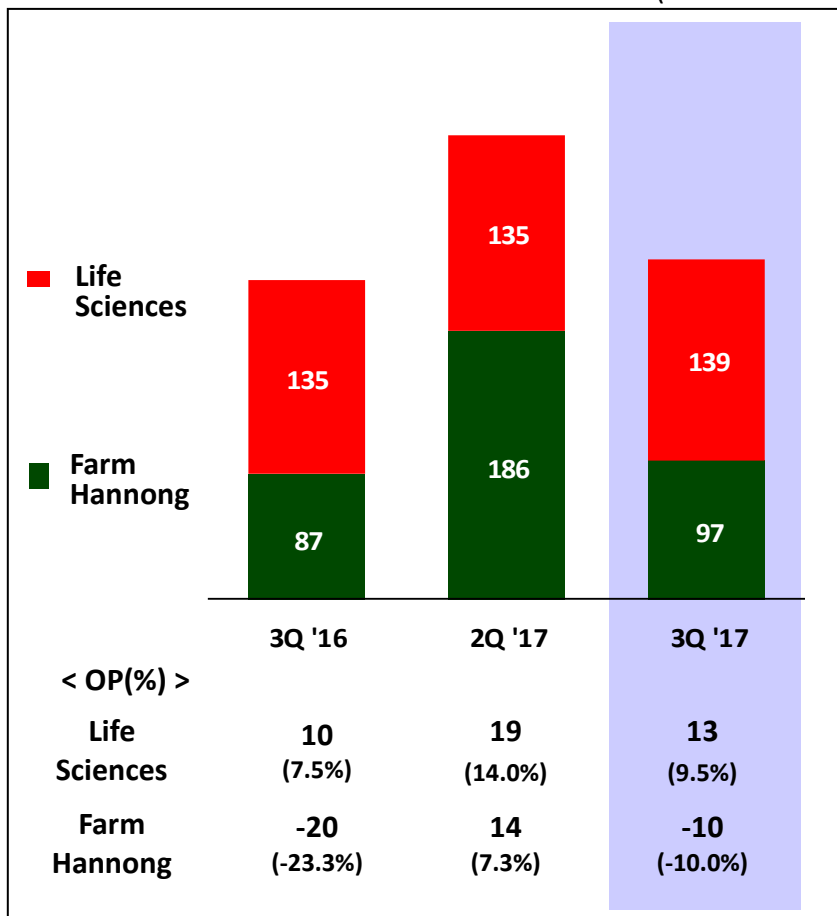
- Energy Solutions** : Quarterly sales recorded historical high and profit increased on the back of the improvement of business structure and sales growth of premium product for big customers in Small-size battery as well as continuing sales growth of EV battery
- I&E Materials** : Despite the impact of ASP cut led by slowdown in the front industry including LCD panel, earnings were improved thanks to increased volume, better productivity, sales growth in OLED materials as well as volume growth in Cathode materials for EV battery

Outlook

- Energy Solutions** : - Stable profit generation in Small-size battery and solid growth of EV/ESS battery will continue
 - EV battery will focus on mega scale EV projects of global OEMs and ESS will actively respond to power grid/residential market in developed countries
- I&E Materials** : Despite increase in sales based on volume growth, profitability will likely stay flat QoQ due to the ASP cut

Divisional Results

(Unit: KRW bn)



Analysis & Outlook

Analysis

- **Life Sciences** : Despite a slight decline in the profitability due to increase in R&D expenses, sales growth of major products including 'YVOIRE', 'Zemiglo' resulted in solid earnings
- **Farm Hannong** : Although earnings decreased QoQ due to weak seasonality of agrochemical business, profitability improved YoY thanks to overseas sales growth and cost reduction

Outlook

- **Life Sciences** : Stable profit led by growth of major products is expected despite increase in R&D expenses and one-off marketing expenses for launch of new products.
- **Farm Hannong** : Although declined profitability is expected in line with weak seasonality of 2H, improvement in profit structure is expected for the longer term by increasing sales in overseas market, elevated productivity and cost reduction, etc.

(Unit: KRW bn)

Classification	2016					2017				
	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total
Sales	4,874	5,219	5,054	5,512	20,659	6,487	6,382	6,397		19,266
Operating Profit	458	612	460	462	1,992	797	727	790		2,313
(%)	9.4%	11.7%	9.1%	8.4%	9.6%	12.3%	11.4%	12.3%		12.0%
EBITDA	780	946	796	805	3,327	1,151	1,074	1,137		3,362
(%)	16.0%	18.1%	15.8%	14.6%	16.0%	17.8%	16.8%	17.8%		17.5%
Basic Materials & Chemicals	3,512	3,653	3,525	3,758	14,447	4,495	4,319	4,316		13,130
NCC / PO	1,156	1,221	1,131	1,161	4,669	1,362	1,291	1,246		3,899
PVC / Plasticizer	489	508	496	542	2,035	588	572	560		1,720
ABS	877	920	866	948	3,611	1,216	1,185	1,261		3,662
EP	298	299	304	308	1,210	332	307	357		996
Acrylate / SAP	345	331	357	391	1,424	435	427	425		1,286
Rubber / Specialty Polymer	347	374	370	408	1,499	563	537	467		1,567
Operating Profit	466	649	517	506	2,139	734	686	755		2,175
(%)	13.3%	17.8%	14.7%	13.5%	14.8%	16.3%	15.9%	17.5%		16.6%
Energy Solutions	814	809	879	1,059	3,562	999	1,120	1,189		3,308
Operating Profit	0	-31	-14	-4	-49	-10	8	18		15
(%)	0.0%	-3.9%	-1.6%	-0.3%	-1.4%	-1.0%	0.7%	1.5%		0.5%
I&E Materials	627	650	641	739	2,656	726	747	787		2,261
Operating Profit	-8	-15	-16	-16	-55	29	23	41		94
(%)	-1.3%	-2.2%	-2.5%	-2.2%	-2.1%	4.0%	3.1%	5.2%		4.1%
Life Sciences	120	131	135	147	532	129	135	139		404
Operating Profit	17	11	10	9	47	21	19	13		53
(%)	14.3%	8.1%	7.5%	6.4%	8.9%	15.9%	14.0%	9.5%		13.0%
Farm Hannong	242	189	87	50	568	254	186	97		536
Operating Profit	39	-2	-20	-31	-15	50	14	-10		54
(%)	15.9%	-1.2%	-23.3%	-61.1%	-2.6%	19.8%	7.3%	-10.1%		10.1%
(Excluding One-off expenses)	49	20	-14	-25	29	50	14	-10		54

* Business performances of Farm Hannong and Life Sciences have been included since 2Q16 and 1Q17, respectively.

Borrowings

(Unit : KRW bn)

Classification	'16 (End)	3Q '17 (End)
Total (Overseas Subsidiaries)	2,891 (1,892) 100%	3,276 (1,861) 100%
KRW Currency	521 18%	1,359 41%
C P	270	1,247
Others	252	112
Foreign Currency	2,369 82%	1,918 59%
Loan	1,921	1,909
Negotiation borrowings	449	9
Short-term (Overseas Subsidiaries)	2,213 (1,284) 77%	1,361 (1,123) 42%
Long-term (Overseas Subsidiaries)	678 (607) 23%	1,915 (738) 58%
Cash	2,207	2,400
Net borrowings	683	876

* The % is calculated to total borrowings.

Cash Flow

(Unit: KRW bn)

Classification	'16 (Acc.)	3Q '17 (Acc.)
Beginning Cash	2,694	2,207
Operating/Investing	524	792
Operating profit	1,992	2,314
Depreciation	1,335	1,049
Working Capital	-52	-1,013
Investing Activities	-1,993	-1,308
Others	-758	-250
Financing	-1,007	-604
Borrowings (Financed & reimbursed)	-661	-218
Dividends paid	-347	-386
Ending Cash	2,207	2,400

CAPEX

(Unit: KRW bn)

Classification		'15 (Acc.)	'16 (Acc.)	3Q '17 (Acc.)
Basic Materials & Chemicals	New / Expansion	328	103	133
	Maintenance	385	289	201
	Total	713	392	334
Energy Solutions	New / Expansion	265	365	391
	Maintenance	189	197	150
	Total	454	563	541
I & E Materials	New / Expansion	219	291	77
	Maintenance	141	95	64
	Total	360	386	140
Life Sciences	New / Expansion	60	124	47
	Maintenance	19	38	16
	Total	79	162	63
Common (including Farm Hannong)	New / Expansion	133	555	200
	Maintenance	63	82	81
	Total	196	637	281
Total	New / Expansion	945	1,314	847
	Maintenance	778	663	513
	Total	1,723	1,977	1,360

R&D expenses

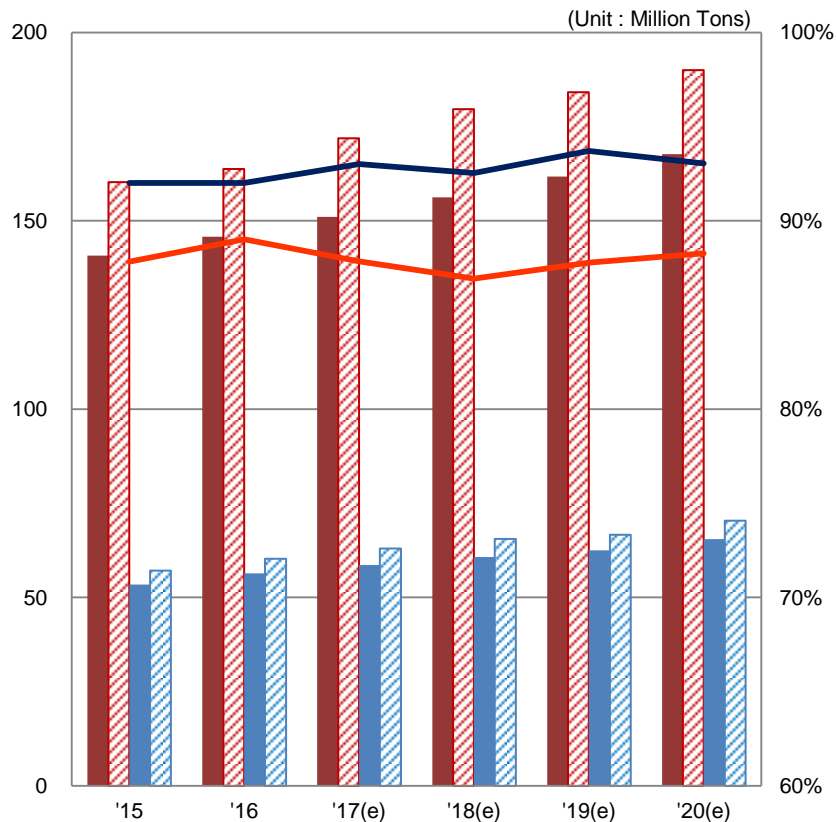
(Unit: KRW bn)

Classification	'15 (Acc.)	'16 (Acc.)	3Q '17 (Acc.)
Basic Materials & Chemicals (% of sales)	132 (0.9%)	150 (1.0%)	123 (0.9%)
Energy Solutions (% of sales)	229 (7.3%)	276 (7.7%)	224* (6.8%)
I & E Materials (% of sales)	146 (5.3%)	161 (6.1%)	133 (5.9%)
Life Sciences (% of sales)	79 (17.5%)	91 (17.1%)	68 (16.9%)
Common (including Farm Hannong)	49	91	109
Total (% of sales)	557 (2.8%)	678 (3.3%)	658 (3.4%)

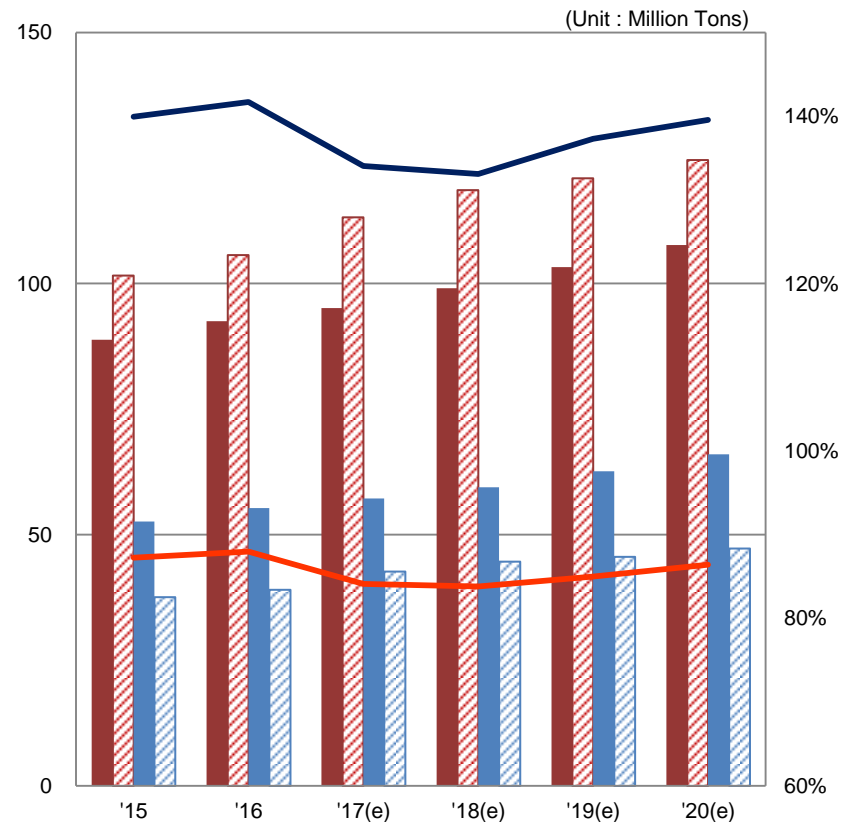
* As of 3Q 2017, more than 50% of Energy solutions R&D expenses were used for EV battery accumulatively

* Business performances of Farm Hannong and Life Sciences have been included since 2Q16 and 1Q17, respectively.

Ethylene



Polyethylene

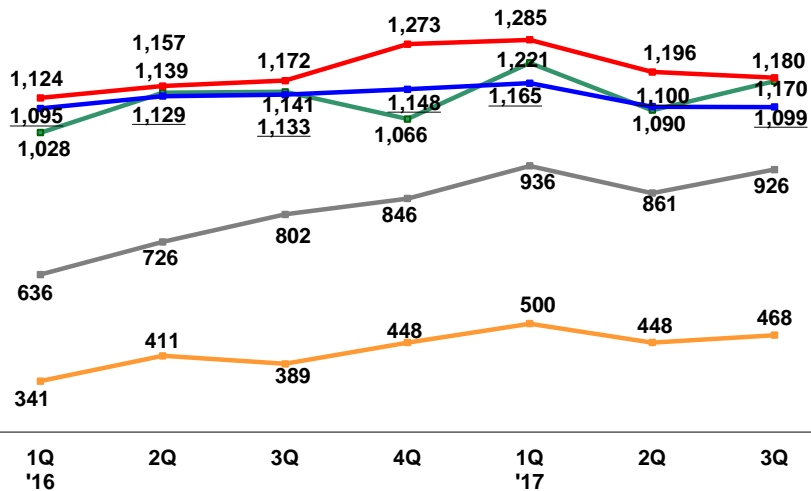


Demand (Global)
 Supply (Global)
 Demand/Supply (Global, %)

Demand (Asia)
 Supply (Asia)
 Demand/Supply (Asia, %)

(Source : IHS)

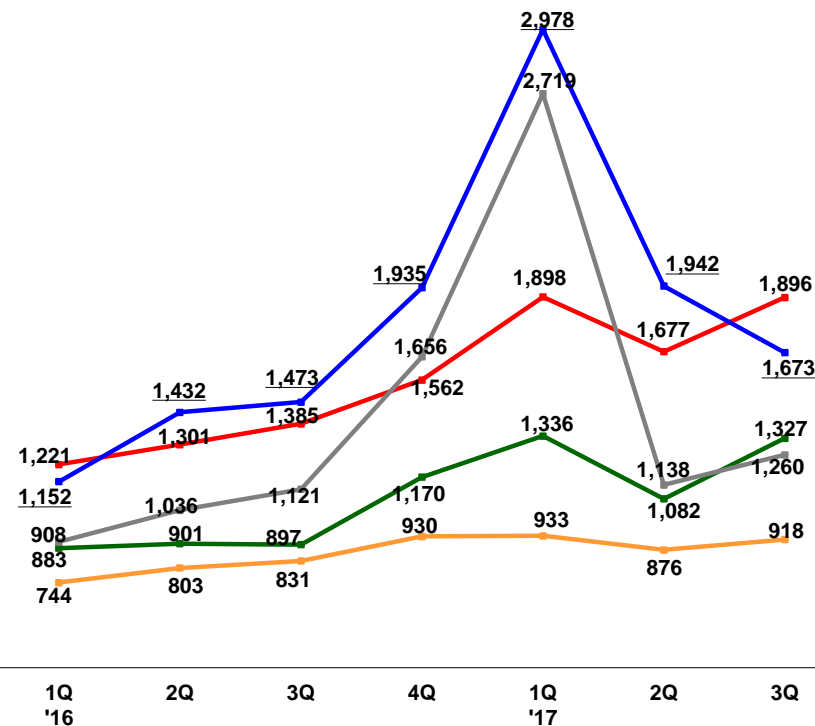
(Unit : USD/MT)



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

NCC/PO

(Unit : USD/MT)



— ABS — PVC — B.Acrylate — BD — BR

ABS/EP

**PVC/
Plasticizer**

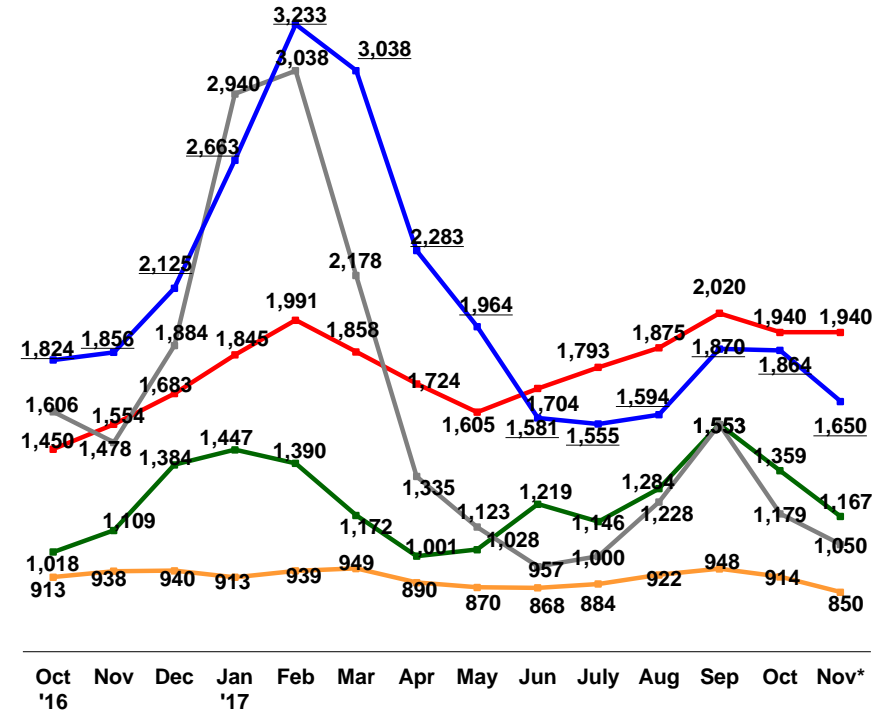
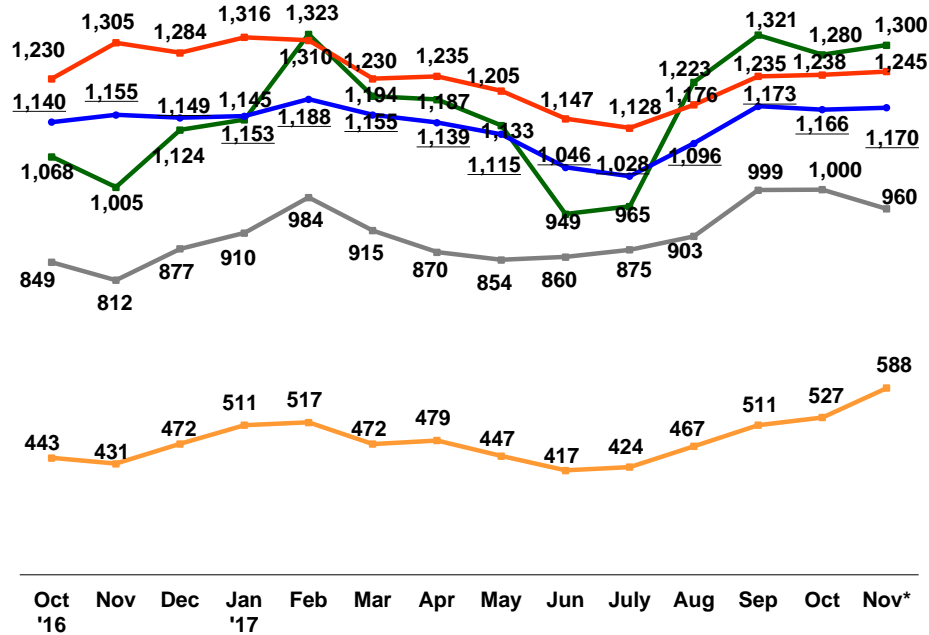
**Acrylate/
SAP**

**Rubber/
Specialty Polymers**

• The prices are average price 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

• The prices are average price of CFR FE Asia for general grade in each product group.

* shows the average prices on 4th week of Nov, 2017