

3Q 2016 Business Results & Outlook

Nov 9, 2016



Disclaimer

The business results for the Third quarter of 2016 currently under audit review are presented here for investors' convenience. Hence, please be advised that some of the contents may be altered in the course of audit.

The business results are subject to the K-IFRS(Korea International Financial Reporting Standards) and reported on a consolidated basis.

The forecasts contained herein are based on the Company's current business environment and strategy; and the actual results may differ from those in the forecasts as a result of certain uncertainties, such as changes in the Company's business environment and strategy in the future.

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(Unit: KRW bn)

Classification	'15.3Q	'16.2Q	'16.3Q	YoY	QoQ
Sales	5,178	5,219	5,054	-2.4%	-3.2%
Operating Profit	546	613	461	-15.6%	-24.7%
(%)	(10.6)	(11.7)	(9.1)		
EBITDA	861	949	797	-7.4%	-16.0%
(%)	(16.6)	(18.2)	(15.8)		
Pre-tax Income	440	500	380	-13.5%	-24.0%
(%)	(8.5)	(9.6)	(7.5)		
Net Income	342	376	299	-12.7%	-20.4%
(%)	(6.6)	(7.2)	(5.9)		

* Farm Hannong's earnings are included only in the Total company's performances in 2Q and 3Q, 2016

Farm Hannong's 3Q sales is KRW87bn , OP -19bn (OP excluding one-off expenses is -14bn)

As of 3Q 2016, accumulated sales of Farm Hannong is KRW 518bn and operating profit is KRW 17bn (OP excluding one-off expense is KRW55bn)

Financial Position

(Unit: KRW bn)

Classification	'15 (End)	'16.3Q (End)	Change
Asset	18,579	20,039	7.9%
Cash and equivalents	2,694	2,876	6.8%
Liabilities	5,475	6,366	16.3%
Borrowings	2,659	3,287	23.6%
Shareholder's Equity	13,104	13,674	4.4%
Debt ratio	41.8	46.6	*4.8%p

* Debt ratio excluding Farm Hannong is 42.1%
4.5%p of incremental debt ratio is the impact from Farm Hannong acquisition

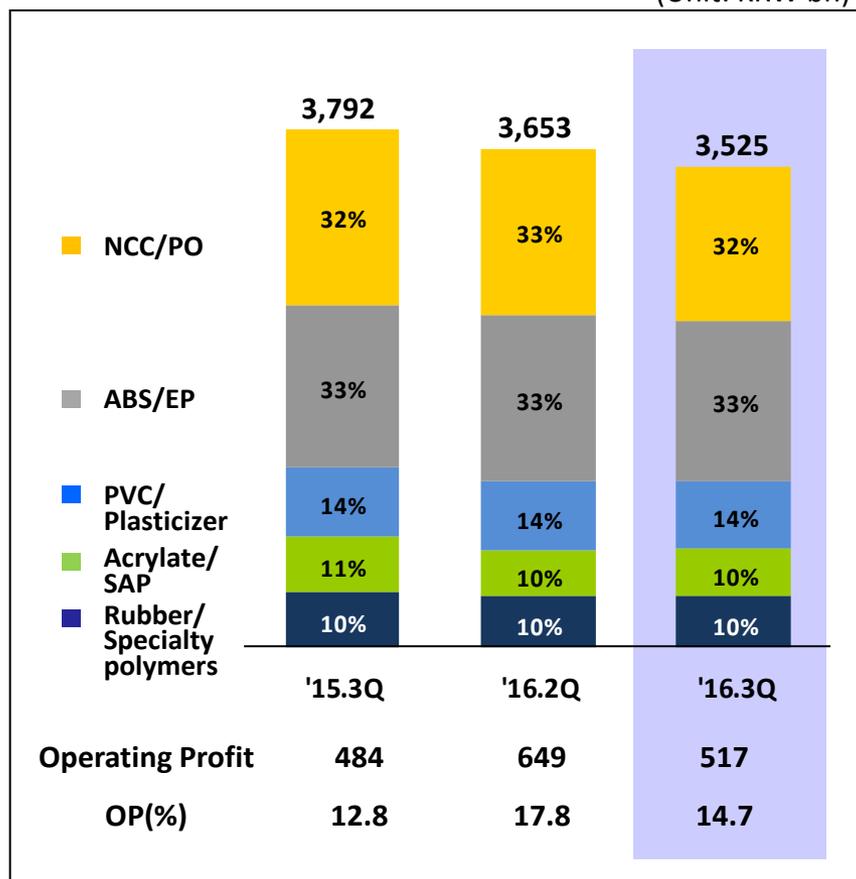
Financial Ratios

Classification	'15 (End)	'16.3Q (End)	Change
Borrowings / Equity (%)	20.3	24.0	3.7%p
Net debt/ Equity (%)	-0.3	3.0	3.3%p
Interest Coverage Ratio (x)	31.4	27.2	-4.2
ROE (%)	9.1	10.1	1.0%p
ROA (%)	6.3	7.0	0.7%p

Business results

Analysis

(Unit: KRW bn)



Analysis

- **Spreads maintained by intensive T/A in Asia, however, overall profitability slightly declined due to customers' fewer working days in vacation season and stronger KRW in 3Q**
 - NCC/PO : Profitability declined by lagging effect of increased raw material costs while robust spreads continued due to concentration of maintenance shutdowns in Asia
 - ABS/EP : Despite sharp increase in feedstock costs (AN and etc.), solid profitability maintained as demand from automotive industry continued to rise
 - PVC/Plasticizer : Recorded stable results based on strong demand in India and increased PVC price driven by coal industry restructuring in China
 - Acrylate/SAP : Weak profitability continued by oversupply and strong feedstock costs (C3)
 - Rubber/Specialty Polymers : Specialty polymers recorded stable profits based on solid demand of SBS while synthetic rubber earnings slowed down due to rise in feedstock price (BD)

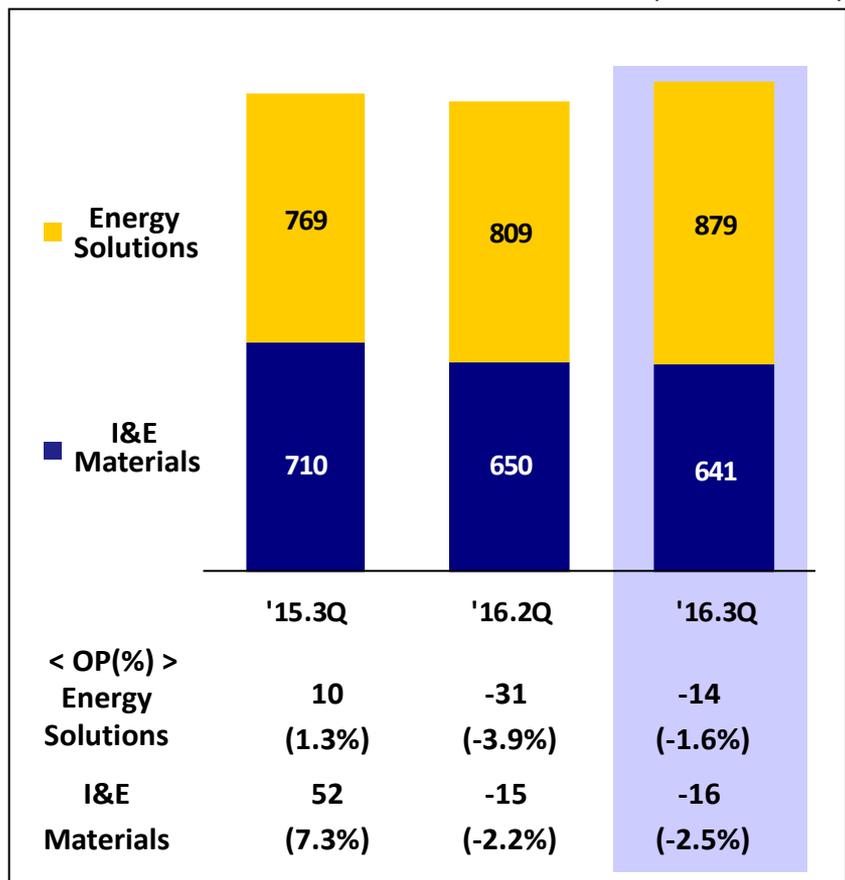
Outlook

- **Despite weak seasonal demand due to customers' inventory adjustment by year-end, healthy profitability will continue based on naphtha price stabilization and solid demand in ABS/EP and PVC**

Business results

Analysis

(Unit: KRW bn)



Analysis

- **Energy Solutions** : Profitability improved thanks to sales increase in small size battery for smartphone and new application of cylindrical type, large size battery for new 2nd generation EV models and ESS battery
- **I&E Materials** : Effect of internal cost-cut activities was cancelled out due to increased raw material costs led by strong JPY and additional ASP cut

Outlook

- **Energy Solutions** : Change in business structure of small size battery focusing on new application will be accelerated; earnings will improve based on significant sales growth of ESS battery and volume growth of automotive battery driven by launch of new 2nd generation EV models
- **I&E Materials** : Profitability improvement of existing business and fast development of RO filter/ new functional film businesses

CFO Highlight

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(Unit: KRW bn)

Classification	2015					2016				
	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total
Sales	4,915	5,073	5,178	5,041	20,207	4,874	5,219	5,054		15,147
Operating Profit	362	563	546	352	1,824	458	612	461		1,531
(%)	7.4%	11.1%	10.6%	7.0%	9.0%	9.4%	11.7%	9.1%		10.1%
EBITDA	669	871	862	678	3,080	778	949	797		2,524
(%)	13.6%	17.2%	16.7%	13.4%	15.2%	16.0%	18.2%	15.8%		16.6%
Basic Materials & Chemicals	3,608	3,801	3,792	3,432	14,633	3,512	3,653	3,525		10,689
NCC/PO	1,134	1,219	1,278	1,167	4,799	1,156	1,221	1,131		3,508
ABS	920	976	896	817	3,610	877	920	866		2,664
EP	289	290	305	275	1,159	298	299	304		902
PVC/Plasticizer	514	536	499	482	2,032	489	508	495		1,492
Acrylate / SAP	400	404	406	344	1,553	345	331	357		1,033
Rubber/Specialty Polymer	350	376	407	347	1,480	347	374	370		1,091
Operating Profit	321	589	484	282	1,677	466	649	517		1,633
(%)	8.9%	15.5%	12.8%	8.2%	11.5%	13.3%	17.8%	14.7%		15.3%
Energy Solutions	707	690	769	985	3,150	814	809	879		2,502
Operating Profit	4	-42	10	29	1	0	-31	-14		-46
(%)	0.6%	-6.1%	1.3%	2.9%	0.0%	0.0%	-3.9%	-1.6%		-1.8%
I&E Materials	676	668	710	711	2,764	627	650	641		1,917
Operating Profit	37	17	52	41	146	-8	-15	-16		-39
(%)	5.4%	2.5%	7.3%	5.8%	5.3%	-1.3%	-2.2%	-2.5%		-2.0%
Farm Hannong	250	218	93	67	628	242	189	87		518
Operating Profit	47	25	-10	-40	22	39	-2	-19		17
(%)	18.7%	11.6%	-11.0%	-59.4%	3.5%	15.9%	-1.2%	-22.4%		3.3%
(Excluding One-off expenses)	47	25	-10	-40	22	49	20	-14		55

※ Business performances of Farm Hannong are included in the Total company's performances from 2Q, 2016

Borrowings

(Unit : KRW bn)

Classification	'15 (End)	'16.3Q (End)
Total (Overseas Subsidiaries)	2,659 (1,292) 100%	3,287 (1,601) 100%
KRW Currency	339 13%	663 20%
Corporate Bond	300	410
Others	39	254
Foreign Currency	2,320 87%	2,624 80%
Loan	1,287	1,606
Negotiation Borrowings	1,033	1,018
Short-term (Overseas Subsidiaries)	2,151 (1,018) 81%	2,889 (1,306) 88%
Long-term (Overseas Subsidiaries)	508 (274) 19%	397 (295) 12%

☞ The % is calculated to total borrowings.

Cash Flow

(Unit: KRW bn)

Classification	'15 (Acc.)	'16.3Q (Acc.)
Beginning Cash	1,769	2,694
Operating/Investing	1,683	439
Net Income	1,149	1,013
Depreciation	1,256	993
Working Capital	210	260
Investing Activities	-1,490	-1,471
Others	558	-356
Financing	-758	-225
Borrowings (Financed & reimbursed)	-452	10
Dividends paid	-309	-347
Ending Cash	2,694	2,876

CAPEX

(Unit: KRW bn)

Classification		'14 (Acc.)	'15 (Acc.)	'16.3Q (Acc.)
Basic Materials & Chemicals	New / Expansion	395	328	69
	Maintenance	351	385	188
	Total	746	713	257
Energy Solutions	New / Expansion	152	265	232
	Maintenance	138	189	138
	Total	290	454	370
I & E Materials	New / Expansion	285	219	204
	Maintenance	122	141	74
	Total	407	360	278
Common Expenses	New / Expansion	88	133	586
	Maintenance	51	63	48
	Total	139	196	634
Total	New / Expansion	920	945	1,091
	Maintenance	661	778	448
	Total	1,582	1,723	1,539

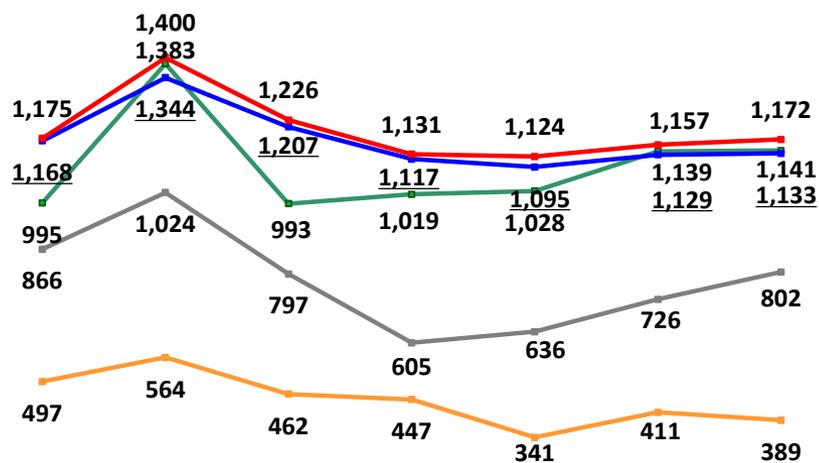
R&D expenses

(Unit: KRW bn)

Classification	'14 (Acc.)	'15 (Acc.)	'16.3Q (Acc.)
Basic Materials & Chemicals (% of sales)	111 (0.6%)	132 (0.9%)	108 (1.0%)
Energy Solutions (% of sales)	210 (7.4%)	244 (7.7%)	198 (7.9%)
I & E Materials (% of sales)	130 (4.6%)	147 (5.3%)	117 (6.1%)
Common Expenses	62	72	58
Total (% of sales)	513 (2.3%)	594 (2.9%)	480 (3.2%)

- * 1) All R&D costs are expensed in the respective period
 2) As of 3Q 2016, more than 50% of Energy solution R&D expense was used for EV battery accumulatively

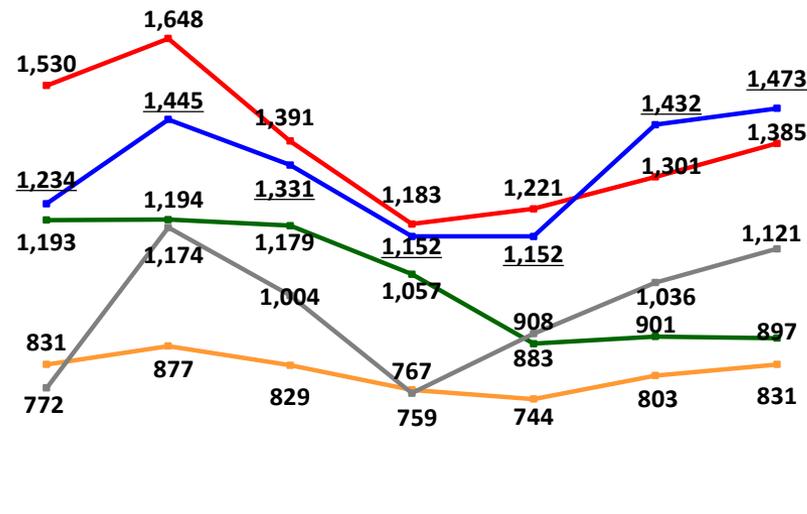
(Unit:USD/MT)



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

NCC/PO

(Unit:USD/MT)



— ABS — PVC — B.Acrylate — BD — BR

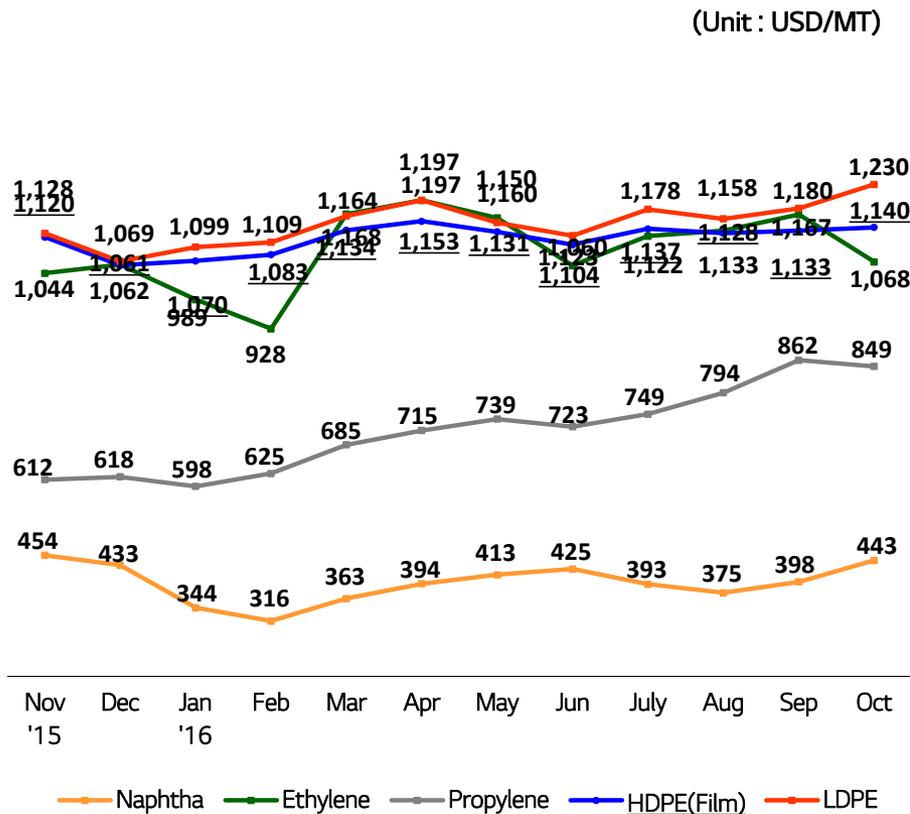
ABS/EP

**PVC/
Plasticizer**

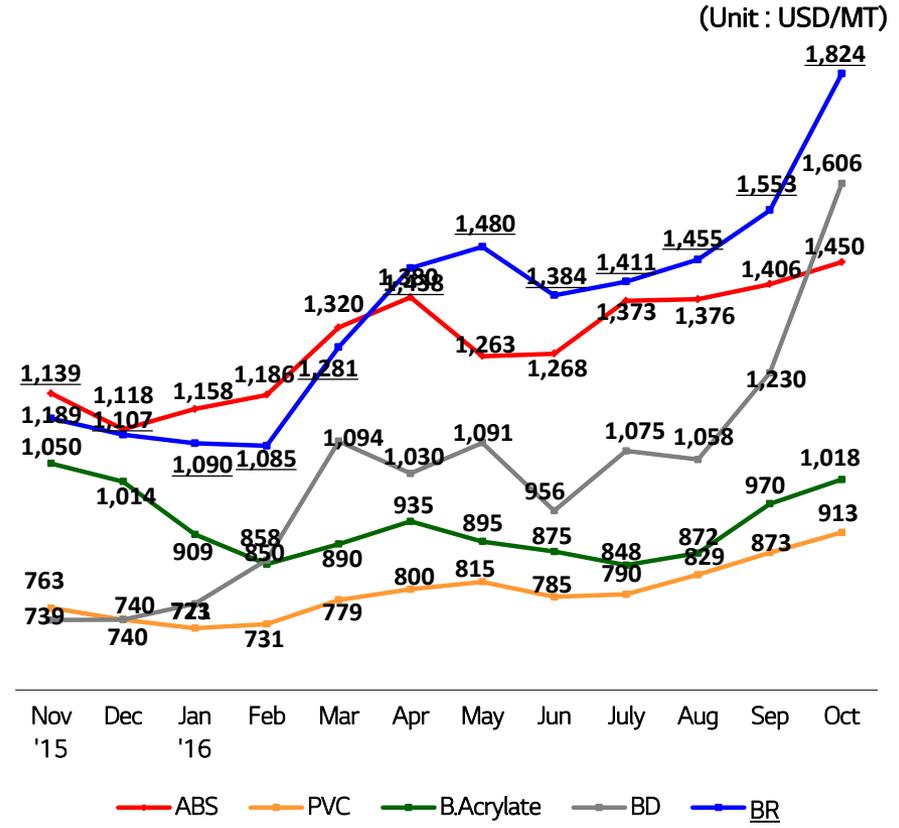
**Acrylate/
SAP**

**Rubber/
Specialty Polymers**

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



NCC/PO



ABS/EP

**PVC/
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