## Solution Partner

# 4Q 2018 Business Results & Outlook

G Chem

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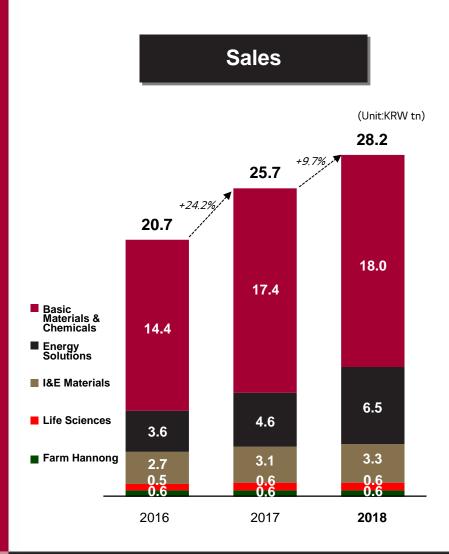
- Sales & Operating Profit by Business
- CAPEX / R&D Expenses
- Income Statements / Financial Position / Cash Flows
- Dividend Summary
- Ethylene / PE Demand & Supply
- Quarterly / Monthly Price Trends

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.

## **2018 Business Results**



### **Operating Profit(%)**

				· · · · ·
	2016	2017	2018	ΥοΥ
LG Chem	1,992 (9.6%)	2,929 (11.4%)	2,246 (8.0%)	-23.3%
Basic Materials & Chemicals	2,139 (14.8%)	2,808 (16.1%)	2,131 (11.8%)	-24.1%
Energy	-49	29	209	+623.9%
Solutions	(-1.4%)	(0.6%)	(3.2%)	
I&E	-55	112	-28	Turn a
Materials	(-2.1%)	(3.6%)	(-0.9%)	loss
Life	47	54	50	-7.5%
Sciences	(8.9%)	(9.7%)	(8.6%)	
Farm	-15	36	15	-56.6%
Hannong	(-2.6%)	(5.9%)	(2.6%)	

(Unit:KRW bn)

(Unit:KRW bn)

	2017		20	18		VeV	0-0
	4Q	1Q	2Q	3Q	4Q	ΥοΥ	QoQ
Sales	6,432	6,554	7,052	7,235	7,343	+14.2%	+1.5%
OP (%)	615 9.6%	651 9.9%	703 10.0%	602 8.3%	290 3.9%	-52.9%	-51.9%
EBITDA (%)	972 15.1%	1,006 15.3%	1,065 15.1%	975 13.5%	684 9.3%	-29.6%	-29.9%
Pre-tax Income	434	653	644	485	158	-63.7%	-67.5%
(%)	6.7%	10.0%	9.1%	6.7%	2.1%	00.17	01.070
Net Income	338	553	493	347	127	-62.6%	-63.5%
(%)	5.3%	8.4%	7.0%	4.8%	1.7%	02.070	00.070

### **Balance Sheet**

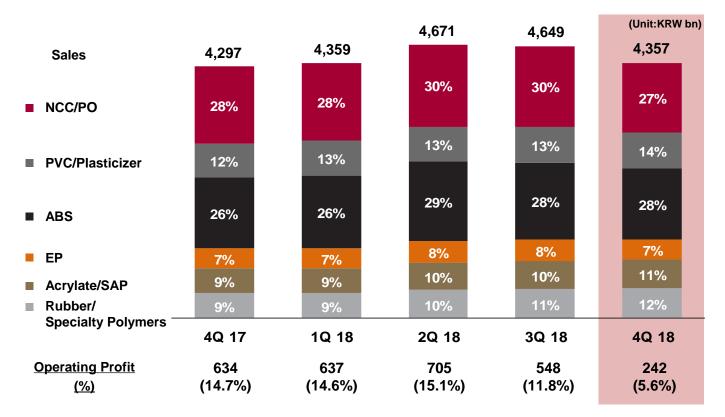
				(Unit:KRW tn)
	2016	2017	2018	ΥοΥ
Asset	20.49	25.04	28.94	+15.6%
Cash and Equivalents	2.21	2.78	2.56	-8.0%
Liabilities	6.44	8.70	11.62	+33.5%
Debt	2.89	3.04	5.32	+74.8%
Shareholder's Equity	14.05	16.34	17.32	+6.0%
Liabilities / Equity	45.8%	53.3%	67.1%	+13.8%p

## **Financial Ratios**

	2016	2016 2017 2		ΥοΥ
Debt / Equity	20.6%	18.6%	30.7%	+12.1%p
Net Debt / Equity	4.9%	1.6%	16.0%	+14.4%p
Interest Coverage Ratio (x)	25.9	29.3	16.6	-12.7
ROE	9.4%	13.3%	9.0%	-4.3%p
ROA	6.6%	8.9%	5.6%	-3.3%p

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

## **Results & Outlook by Business**



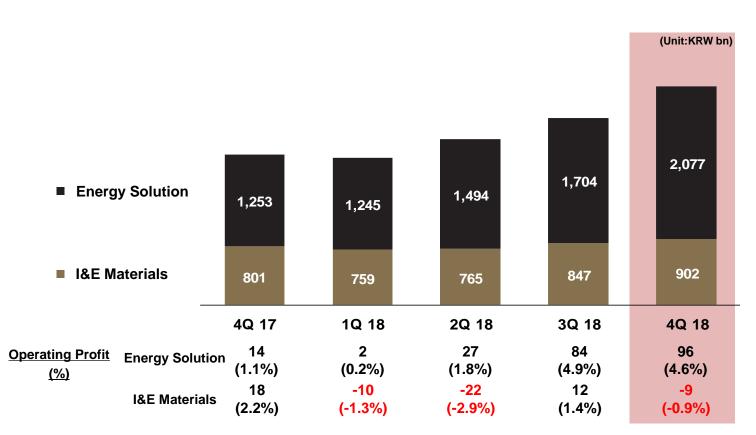
#### [Analysis]

- Decreased profitability due to decline in demand and lagging impact of feedstock
- Relatively solid profitability in PVC and Acrylate/SAP

#### [Outlook]

 Despite uncertainties of demand, the profitability is expected to gradually improve because of the stabilization in feedstock price

# Results & Outlook by Business Energy Solutions / I&E Materials



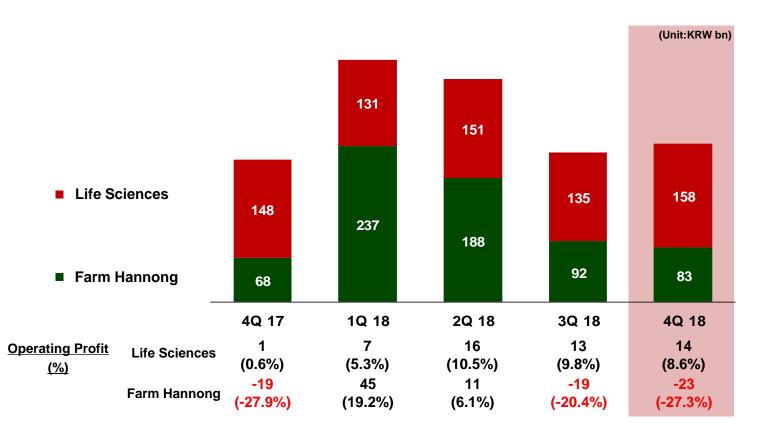
#### [Analysis]

- Energy Solution: Posted the highest quarterly sales with increased sales in EV battery
- I&E Materials: Increased revenue due to seasonality despite decreased profitability caused by decline in price

#### [Outlook]

- Energy Solution: Sales and profitability are expected to grow in 2019 while 1<sup>st</sup> half would be slowed down
- I&E Materials: Profitability is expected to improve due to converting to premium products

## Results & Outlook by Business Life Sciences / Farm Hannong



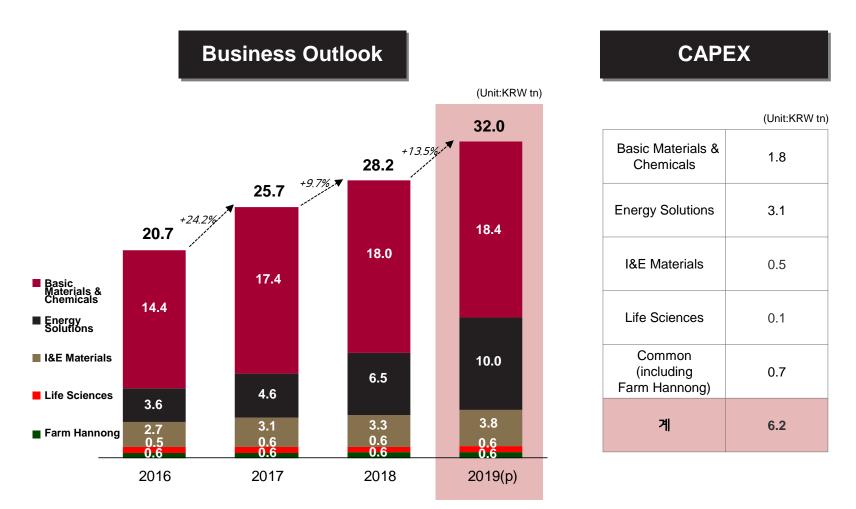
#### [Analysis]

- Life Sciences: Increased sales due to expansion of sales in YVOIRE and Eupenta
- Farm Hannong: Increased YoY sales due to expansion of exports

#### [Outlook]

- Life Sciences: Increases sales of major products and strengthens R&D of new drug development
- Farm Hannong: Profitability is expected to improve due to converting to premium products

## **2019 Business Outlook**



\* Business outlook and CAPEX are based on our business plan, and may differ from actual results, due to changes in business environment and strategies. The difference between total sales and total sales by business is intra-company transactions, sales in common business, etc.



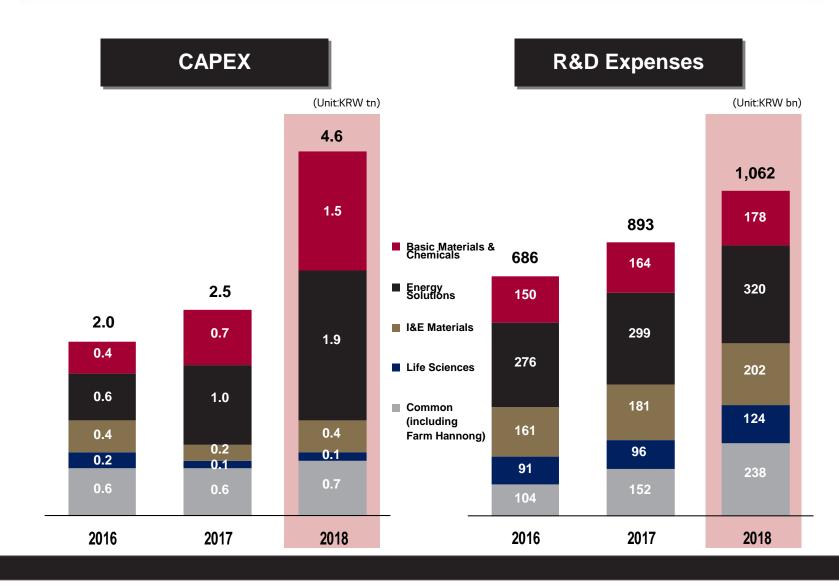
## Sales & Operating Profits by Business

			2016					2017					2018		
LG CHEM	1Q	2Q	3Q	4Q		1Q	2Q	3Q	4Q		1Q	2Q	3Q	4Q	
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	7,235	7,343	28,183
Operating Profits	458	613	460	462	1,992	797	727	790	615	2,929	651	703	602	290	2,246
(%)	9.4%	11.7%	9.1%	8.4%	9.6%	12.3%	11.4%	12.3%	9.6%	11.4%	9.9%	10.0%	8.3%	3.9%	8.0%
EBITDA	780	946	797	805	3,327	1,151	1,074	1,137	972	4,335	1,006	1,065	975	684	3,730
(%)	16.0%	18.1%	15.8%	14.6%	16.0%	17.8%	16.8%	17.8%	15.1%	16.9%	15.3%	15.1%	13.5%	9.3%	13.2%
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	4,649	4,357	18,036
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	1,386	1,183	5,296
PVC/Plasticizer	489	508	496	542	2,035	588	572	560	568	2,288	605	596	611	622	2,434
ABS	877	920	867	948	3,611	1,216	1,185	1,261	1,214	4,876	1,233	1,357	1,304	1,209	5,102
EP	298	299	304	308	1,210	332	307	357	347	1,343	347	372	374	341	1,434
Acrylate/SAP	345	331	357	391	1,424	435	427	425	420	1,706	427	468	477	495	1,868
Rubber/ Specialty Polymer	347	374	370	408	1,499	563	537	467	424	1,991	420	478	497	508	1,903
Operating Profits	466	649	517	506	2,139	734	686	755	634	2,808	637	705	548	242	2,131
(%)	13.3%	17.8%	14.7%	13.5%	14.8%	16.3%	15.9%	17.5%	14.7%	16.1%	14.6%	15.1%	11.8%	5.6%	11.8%
Energy Solutions	814	809	879	1,059	3,562	999	1,120	1,189	1,253	4,561	1,245	1,494	1,704	2,077	6,520
Operating Profits	-0	-31	-14	-4	-49	-10	8	18	14	29	2	27	84	96	209
(%)	-0.0%	-3.9%	-1.6%	-0.3%	-1.4%	-1.0%	0.7%	1.5%	1.1%	0.6%	0.2%	1.8%	4.9%	4.6%	3.2%
I&E Materials	627	650	641	739	2,656	725	747	787	801	3,061	759	765	847	902	3,273
Operating Profits	-8	-15	-16	-16	-55	29	23	41	18	112	-10	-22	12	-9	-28
(%)	-1.3%	-2.2%	-2.5%	-2.2%	-2.1%	4.0%	3.1%	5.2%	2.2%	3.6%	-1.3%	-2.9%	1.4%	-0.9%	-0.9%
Life Sciences	120	131	135	147	532	129	135	139	148	552	131	151	135	158	575
Operating Profits	17	11	10	9	47	21	19	13	1	54	7	16	13	14	50
(%)	14.3%	8.1%	7.5%	6.4%	8.9%	15.9%	14.0%	9.5%	0.6%	9.7%	5.3%	10.5%	9.8%	8.6%	8.6%
Farm Hannong	242	189	87	50	568	254	186	97	68	604	237	188	92	83	600
Operating Profits	39	-2	-20	-31	-15	50	14	-10	-19	36	45	11	-19	-23	15
(%)	15.9%	-1.2%	-23.3%	-61.1%	-2.6%	19.8%	7.3%	-10.0%	-27.9%	5.9%	19.2%	6.1%	-20.4%	-27.3%	2.6%

(Unit:KRW bn)



### **CAPEX / R&D Expenses**



			2016			2017				2018					
	1Q	2Q	3Q	4Q		1Q	2Q	3Q	4Q		1Q	2Q	3Q	4Q	
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	7,235	7,343	28,183
Cost of Sales	3,940	4,074	4,091	4,490	16,595	5,073	5,011	4,940	5,110	20,135	5,212	5,580	5,868	6,177	22,837
Gross Profit(%)	934	1,145	. 963	1,022	4,064	1,414	1,371	1,457	1,322	5,564	1,342	1,472	1,367	1,166	5,346
	19.2%	21.9%	19.0%	18.5%	19.7%	21.8%	21.5%	22.8%	20,6%	21.6%	20.5%	20.9%	18.9%	15.9%	19.0%
SG&A Expenses	477	532	503	561	2,072	617	644	667	707	2,635	691	768	765	876	3,100
Operating Profit	458	613	460	462	1,992	797	727	790	615	2,929	651	703	602	290	2,246
(%)	9.4%	11.7%	9.1%	8.4%	9.6%	12.3%	11.4%	12.3%	9.6%	11.4%	9.9%	10.0%	8.3%	3.9%	8.0%
Other non-operating income(expenses)	(35)	(112)	• (81)	(104)	(332)	(99)	3	(87)	(181)	(365)	2	(59)	(117)	(132)	(306)
Income before tax	423	500	379	358	1,660	698	730	702	434	2,564	653	644	485	158	1,940
Net Income	338	376	297	270	1,281	548	590	546	338	2,022	553	493	347	127	1,519
EPS(Unit:KRW)	4,619	5,124	4,019	3,655	17,417	6,936	7,531	6,799	4,101	25,367	6,934	6,234	4,481	1,568	19,217

Appendix

(Unit:KRW bn)

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		20	16			20 <sup>-</sup>	17		2018				
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
Assets	18,860	19,826	20,040	20,487	22,171	22,671	23,708	25,041	26,416	27,399	28,419	28,944	
Cash and Equivalents	3,164	2,649	2,878	2,207	1,909	2,107	2,400	2,779	3,132	2,830	3,333	2,557	
A/R	3,077	3,199	3,178	3,534	3,961	4,184	4,523	4,449	4,709	5,146	4,949	4,381	
Inventory	2,285	2,657	2,717	2,965	3,250	3,086	3,187	3,353	3,784	3,950	4,404	4,290	
Tangible / Intangible Assets	9,327	10,133	10,042	10,512	11,773	11,954	12,130	13,035	13,366	13,936	14,074	15,845	
Liabilities	5,754	6,362	6,367	6,436	7,265	7,137	7,586	8,703	9,905	10,391	11,162	11,622	
A/P	1,163	1,328	1,407	1,723	1,808	1,609	1,756	2,015	1,999	2,156	2,541	2,166	
Short-term debts	2,350	2,953	2,890	2,213	2,175	1,454	1,361	1,451	1,593	1,903	2,037	1,613	
Long-term debts	313	336	397	678	972	1,869	1,915	1,594	2,643	3,211	3,262	3,708	
Shareholders' Equity	13,106	13,464	13,672	14,051	14,906	15,535	16,122	16,339	16,510	17,009	17,257	17,322	
Liabilities/Equity (%)	43.9%	47.3%	46.6%	45.8%	48.7%	45.9%	47.1%	53.3%	60.0%	61.1%	64.7%	67.1%	
Net debt to equity ratio(%)	-3.8%	4.8%	3.0%	4.9%	8.3%	7.8%	5.4%	1.6%	6.7%	13.4%	11.4%	16.0%	
BPS (Unit:KRW)	175,790	181,095	183,868	188,597	188,859	196,894	203,952	206,544	208,363	214,535	217,500	218,227	

(Unit:KRW bn)

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4Q

2018

3Q

Cash at Beginning of Period	2,694	3,164	2,649	2,878	2,694	2,207	1,909	2,107	2,400	2,207	2,779	3,132	2,830	3,333	2,779
Operating / Investing Activities	434	-94	89	95	524	0	442	350	546	1,337	-831	-662	289	-798	-2,001
Operating Profits	458	613	• 460	462	1,992	797	727	790	615	2,929	651	703	602	290	2,246
Depreciation	322	333	337	343	1,335	355	347	347	357	1,406	355	362	373	394	1,484
Working Capital	205	17	54	-328	-52	-462	-258	-294	168	-845	-707	-446	128	326	-699
Investing Activities	-326	-750	-416	-500	-1,993	-223	-514	-571	-315	-1,623	-867	-744	-905	-1,610	-4,126
Income taxes paid etc.	-224	-306	• -345	117	-758	-466	139	77	-279	-529	-262	-537	91	-198	-907
Financing Activities	40	-417	153	-784	-1,007	-271	-262	-72	-132	-737	1,170	369	238	17	1,794
Debts	4	-52	-2	-556	-606	-474	177	-47	-232	-575	1,191	878	186	-3	2,252
Dividends	-	-347	-	-	-347	-	-386	-	-	-386	-	-460	-32	-2	-494
Cash at End of Period	3,164	2,649	2,878	2,207	2,207	1,909	2,107	2,400	2,779	2,779	3,132	2,830	3,333	2,557	2,557

\* The business results currently under audit review are presented here for investors' convenience. Hence, please be advised that some of their

1Q

2Q

2017

3Q

4Q

1Q

2Q

(Unit:KRW bn)

Appendix

2016

3Q

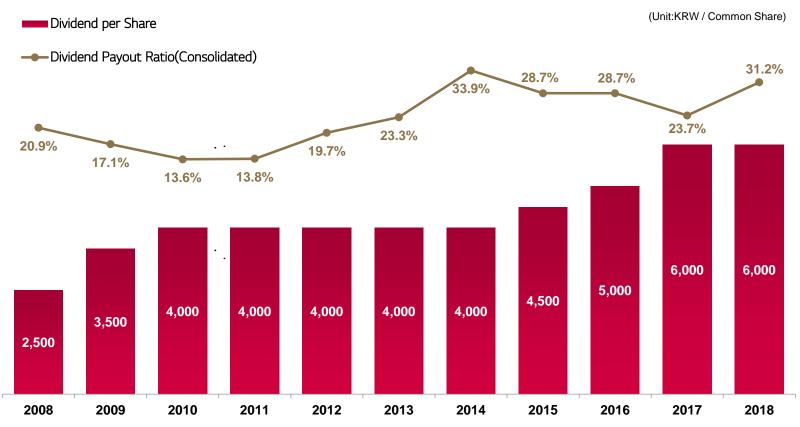
4Q

1Q

contents may be altered in the course of audit.

2Q





#### ※ Dividend of 2018 is approved by the board of directors and will be finalized after approval of the 18th Annual General Meeting.

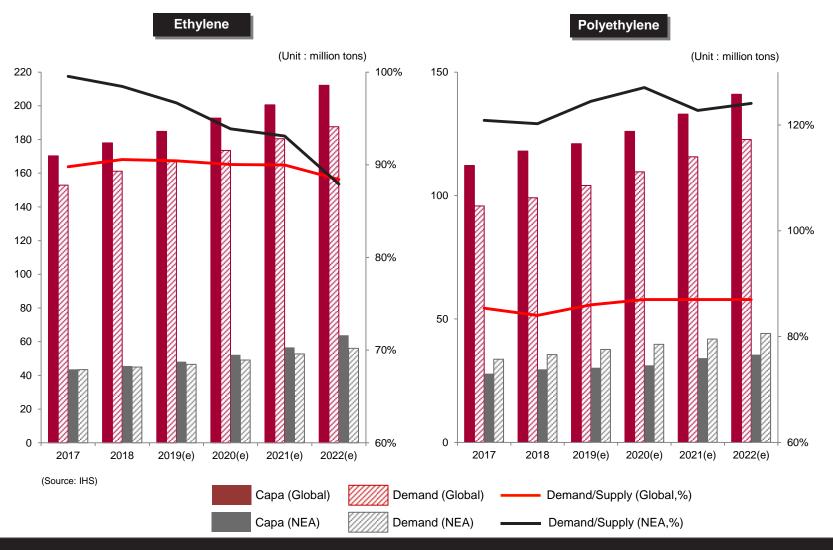
※ Dividend Policy

LG Chem considers all factors such as, investment amounts, cash flow, financial structure and dividend stability, etc., when the company determines dividend payout amounts for enhancing shareholders' value and expanding return of profits to its shareholders.

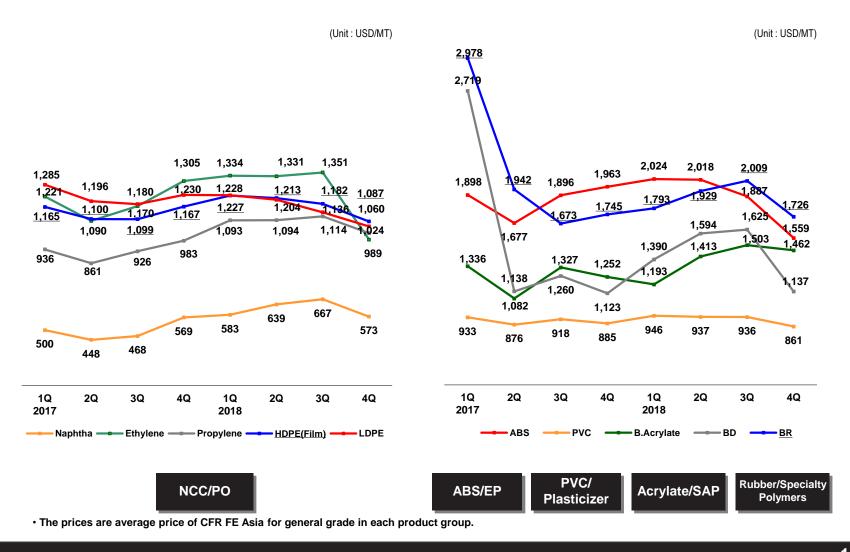
The dividend stability means the company tries to avoid reducing dividend per share, however, it can be flexibly applied to the direction of the company's long-term growth and continuing enhancement of shareholders' value after analyzing changes in economic condition and business strategy including CAPEX.

The company will communicate to investors about expected next year's dividend information in the conference call at least once a year.



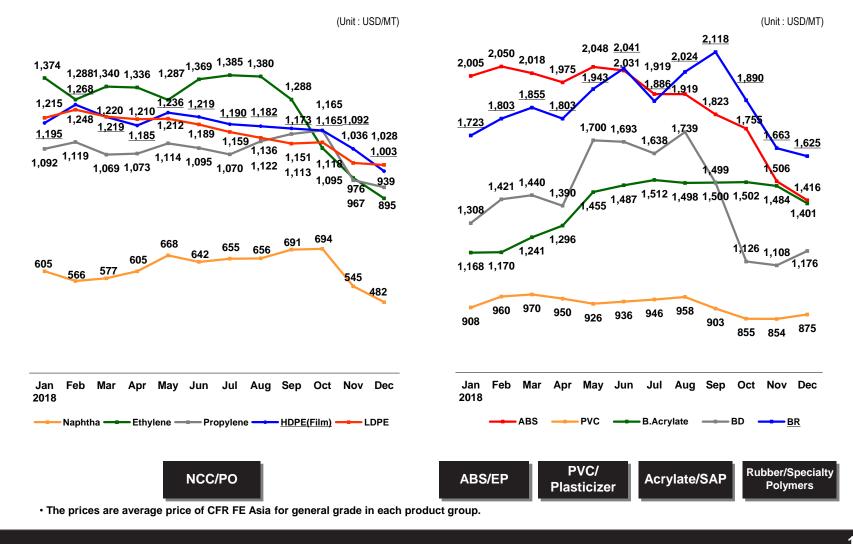


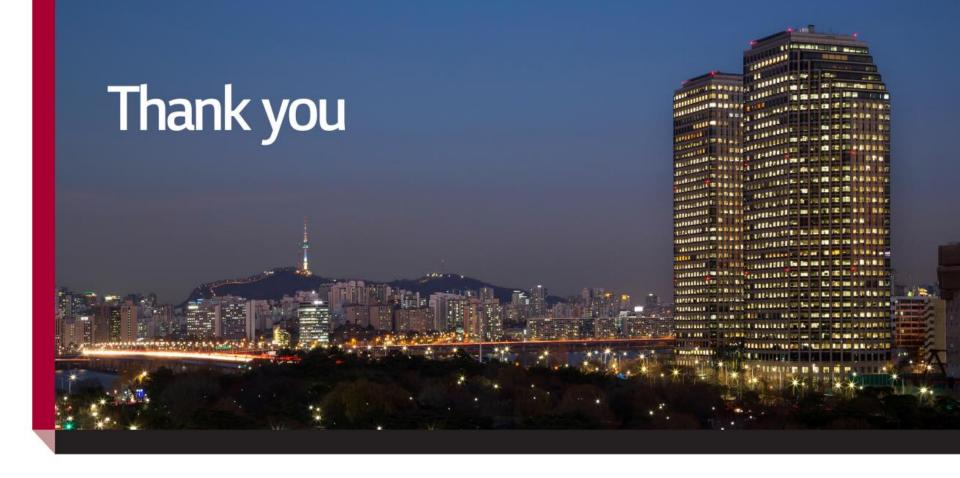






### **Monthly Price Trends**







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