

First Half Results Presentation Fiscal Year 2016

(April 1 - September 30, 2016)

(Disclaimer)

Forecasts contained in this material are based on information available at the time of presentation, and no commitment or guarantee is given that business policies will be implemented or target figures achieved.



H1 2016 Business Overview and Key Topics

Business overview

- For Group operating income was higher than the prior-year figure. The negative impact of the stronger yen was more than offset by the improved profitability primarily of engineering plastics, which was due to lower prices of fuels and raw materials among other reasons.
- ➤ Group ordinary income posted year-on-year growth. Despite lower equity in earnings of overseas methanol producing affiliates, there were positive factors including not only the increase in operating income, but also higher equity in earnings of affiliates recognized by engineering plastics affiliates.

Key topics

- ✓ Decision on increasing production capacity for glycidyl methacrylate (GMA), which is used as a raw material for automobile top coating and other products.
- ✓ Establishment of Joint Venture Company for MAB production with Nippon Kayaku Co., Ltd.
- ✓ Strengthening of Production Capacity for Specialty Polycarbonate Resins (strong demand for products used in camera lenses in mobile devices)
- ✓ Repurchase of Own Shares (May 2016, 10 million shares, 2% of the total number of issued shares)
- ✓ Change of the number of shares in a unit of shares(Changed from 1,000 shares to 100 shares), Consolidation of shares(every two shares are consolidated into one share). Effective date is Oct 1,2016.

H1 FY2016 Consolidated Results

(Billion Yen)

	H1 FY2015	H1 FY2016	Changes	Changes (%)
Net sales	300.2	267.9	(32.3)	(10.8)
Operating income	15.3	19.2	3.9	25.7
Equity in earnings of affiliates	8.1	7.5	(0.5)	-
Ordinary income	21.1	24.6	3.4	16.5
Net income	18.5	18.5	(0.0)	(0.0)

(=::::::::,
H1 FY2016
(Previous forecasts)
260.0
12.0
5.3
15.0
9.0

Net income per share (¥)	83.10	85.34	※ 1
Interim dividend (¥)	8.0	8.0	※ 2
Exchange rate (¥/\$)	122	105	

*1 The Company conducted a consolidation of shares at a ratio of one share for every two shares effective October 1, 2016. In Accordance with it, Net income per share are calculated based on the assumption that the share consolidation had been carried out at the beginning of the previous fiscal year.

*2 The interim dividend will be paid based on the number of shares before the consolidation of shares.

Compared with the prior-year period:

Operating income and Ordinary income increased. The negative impact of the stronger yen was more than offset by the improved profitability primarily of engineering plastics, which was due to lower prices of fuels and raw materials among other reasons.

Compared with previous forecasts:

Consolidated results were better than the previous forecasts. Reasons included increases in the operating income of specialty and aromatic chemicals as well as increases in earnings of affiliates reported by affiliates producing methanol and engineering plastics.

H1 FY2016 Non-operating & Extraordinary Items

(JPY in billions)

		H1 FY2015	H1 FY2016	Change
No	n-operating items	5.7	5.3	(0.4)
	Equity in earnings of affiliates	8.1	7.5	(0.5)
	Financial income or loss	0.6	0.6	0.0
	Foreign exchange gains or losses	(2.4)	(1.8)	0.6
	Others	(0.4)	(1.0)	(0.5)
Ex	traordinary income	3.8	0.2	(3.6)
	Compensation received	-	0.2	0.2
	Gain on sales of investment securities	3.4	-	(3.4)
	Subsidy income	0.3	-	(0.3)
	Others	0.1	-	(0.1)
Ex	traordinary losses	(1.5)	(0.2)	1.3
	Loss on liquidation of subsidiaries and affiliates	(1.0)	(0.1)	0.8
	Loss on sales of investment securities	-	(0.1)	(0.1)
	Business structure improvement expenses	(0.3)	-	0.3
	Loss on cancel of lease contracts	(0.1)	-	0.1
	Others	-	-	-

> Equity in earnings of affiliates

Natural gas chemicals: -1.9 (primarily due to lower market prices of methanol)

Specialty chemicals: +0.6 (improved profitability resulting from reductions in fuel and raw material prices)

Information and Advanced Materials:+0.6 (Two additional companies are designated as equity method affiliates starting in FY2016.)

H1 FY2016 Consolidated Balance Sheets

(JPY in billions)

	Mar. 31, 2016	Sep. 30, 2016	Change		Mar. 31, 2016	Sep. 30, 2016	Change
Current assets	341.2	304.0	(37.1)	Liabilities	316.4	257.4	(59.0)
Cash and deposits	84.0	71.5	(12.5)	Trade note and accounts payable	60.8	58.3	(2.4)
Trade notes and accounts receivable	136.4	127.6	(8.8)	Interest-bearing debt	181.4	132.9	(48.4)
Inventories	100.1	90.2	(9.9)	Others	74.2	66.0	(8.1)
Others	20.6	14.6	(5.9)				
Non-current assets	398.3	377.6	(20.7)	Net assets	423.1	424.2	1.1
Tangible assets	230.5	207.3	(23.2)	Shareholders' equity	373.2	390.5	17.2
Intangible assets	8.7	8.1	(0.5)	Accumulated other comprehensive income	3.6	(9.9)	(13.6)
Investments and others assets	159.0	162.0	3.0	Non controlling interest	46.1	43.6	(2.5)
Total assets	739.5	681.6	(57.9)	Total liabilities and net assets	739.5	681.6	(57.9)
				Equity ratio	51.0%	55.8%	

H1 FY2016 Consolidated Cash Flows

(JPY in billions)

	H1 FY2015	H1 FY2016	Change
Operating activity cash flow	28.5	46.2	17.6
Income before income taxes,etc.	23.4	24.5	1.1
Depriciation and amortization	13.1	12.2	(0.8)
Equity in earnings of affiliates	(8.1)	(7.5)	0.5
Dividends received from equity method affiliates	1.1	7.3	6.1
Working capital etc.	(5.1)	11.2	16.3
Income taxes paid	4.0	(1.7)	(5.7)
Investing activity cash flows	(15.7)	(15.5)	0.2
Capital expenditure	(13.6)	(14.0)	(0.4)
Investment and financing, etc.	(2.1)	(1.4)	0.6
Free cash flows	12.7	30.6	17.9
Financing activity cash flows	(24.0)	(38.0)	(13.9)
Change in borrowings and bonds	(13.5)	(28.2)	(14.7)
Purchase of treasury stock	(7.4)	(6.2)	1.1
Dividends paid	(3.1)	(3.5)	(0.3)
Effect of exchange rate change on cash and cash equivalents	0.6	(5.2)	(5.8)
Net increase (decrease) in cash and cash equivalents	(10.6)	(12.6)	(1.9)
Cash and cash equivalents at end of period	62.0	63.2	1.1

FY2016 Consolidated Business Forecasts

(JPY in billions)

	FY2016 Forecasts Previous time	FY2016 Forecasts	Change	Change (%)
Net sales	520.0	510.0	(10.0)	-1.9%
Operating income	25.0	30.0	5.0	20.0%
(Equity in earnings of afilliates)	11.0	11.0	0.0	-
Ordinary income	32.0	37.0	5.0	15.6%
Net income before income taxes, etc.	31.0	36.0	5.0	16.1%
Net income attributable to owners of the parent	21.0	26.0	5.0	23.8%

FY2015 Results				
593.5				
34.0				
16.6				
45.4				
45.8				
34.1				

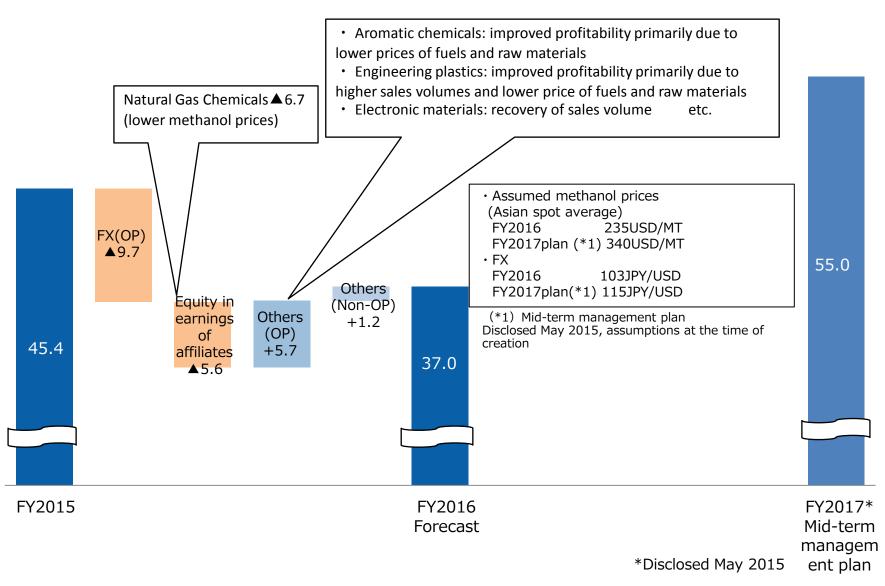
EPS (JPY)	97.02	120.12	% 1
ROE (%)	5.3	6.8	
Dividend (¥)	32.0	34.0	% 2
FX (JPY/USD)	106	103	

Forecasts of full-year consolidated performance will likely surpass the previous forecasts. This is because the better-than-forecast figures posted for the first six months will more than offset the negative impact of results for the second half. The latter figures are expected to fall short of the previous forecasts because of a decline in overall profitability due to the strong yen and other reasons as well as lower equity in earnings of methanol producing affiliates.

X1 Concerning net income per share of the Consolidated Business Forecasts (Full year) for FY 2016, the effects of the consolidation of shares are taken into account.

^{×2} Dividend is shown based on the number of shares after consolidation of shares.

Increase and Decrease Factors of Ordinary Income



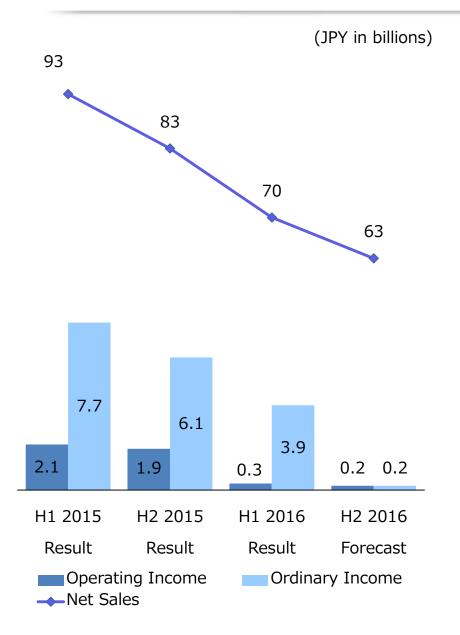
Reference info. Foreign exchange sensitivity (rough estimates): with an appreciation (depreciation) of 1 yen against the U.S. dollar, annual operating income falls (increases) by 0.5 billion yen, while annual ordinary income falls (increases) by 0.6 billion yen.

Consolidated Results & Forecasts by Segment

(JPY in billions)

FY2015 (Result)		(Previ	FY2016 ious fored	asts) (FY2016 (forecasts)		*FY2017			
		1H	2H	FY	1H	2H	FY	1H	2H	FY	Plan
Ne	et sales	300.2	293.2	593.5	260.0	260.0	520.0	267.9	242.0	510.0	700.0
	Natural Gas	92.8	82.8	175.6	68.0	68.9	136.9	70.1	62.6	132.7	210.0
	Aromatic	105.0	100.8	205.8	95.1	96.7	191.8	95.5	89.8	185.3	240.0
	Specialty	82.7	87.5	170.2	78.0	75.5	153.5	83.5	71.4	155.0	200.0
	Information & Advanced	26.4	28.8	55.2	24.5	24.6	49.1	24.8	23.5	48.4	70.0
	Corporate / Adjustment	(6.8)	(6.7)	(13.5)	(5.8)	(5.7)	(11.5)	(6.1)	(5.4)	(11.5)	(20.0)
Op	perating income	15.3	18.6	34.0	12.0	13.0	25.0	19.2	10.7	30.0	40.0
	Natural Gas	2.1	1.9	4.1	(0.4)	1.2	0.8	0.3	0.2	0.6	6.0
	Aromatic	7.7	7.4	15.2	7.1	7.2	14.3	9.0	5.7	14.8	16.0
	Specialty	5.6	7.4	13.0	5.4	4.1	9.5	9.6	4.4	14.1	12.0
	Information & Advanced	1.1	2.9	4.0	1.7	2.1	3.8	2.0	1.8	3.9	6.0
	Corporate / Adjustment	(1.4)	(1.0)	(2.4)	(1.9)	(1.6)	(3.5)	(1.9)	(1.6)	(3.5)	0.0
Or	dinary income	21.1	24.3	45.4	15.0	17.0	32.0	24.6	12.3	37.0	55.0
	Natural Gas	7.7	6.1	13.9	1.6	4.0	5.6	3.9	0.2	4.1	21.0
	Aromatic	7.1	6.5	13.7	6.4	6.5	12.9	8.5	5.0	13.5	15.0
	Specialty	5.8	9.7	15.5	6.5	5.2	11.7	11.4	6.0	17.5	13.0
	Information & Advanced	0.8	2.9	3.8	2.2	2.3	4.5	2.7	2.0	4.7	6.0
	Corporate / Adjustment	(0.4)	(1.2)	(1.6)	(1.8)	(1.0)	(2.8)	(1.9)	(0.9)	(2.9)	0.0

Natural Gas Chemicals



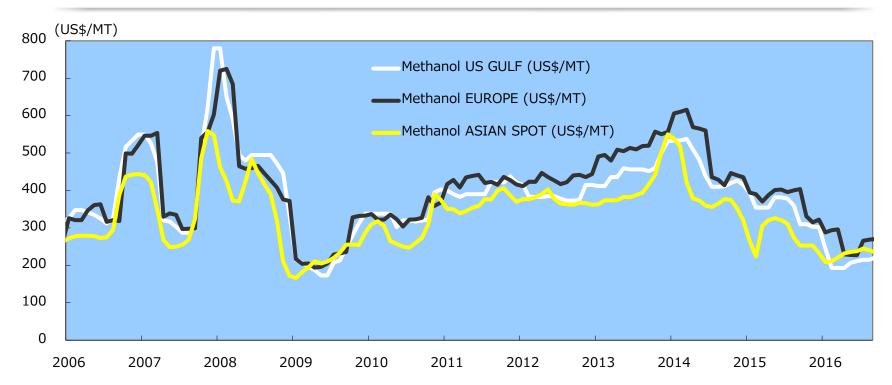
FY2016 H1 (results, year-on-year difference)

- ➤ Net sales fell primarily due to lower methanol market prices.
- ➤ Operating income posted a decline primarily due to lower market prices of products and stronger yen.
- ➤ Ordinary income declined as equity in earnings of affiliates dropped, primarily due to the impact of falling market prices on the performance of overseas methanol producing companies

FY2016 H2 (forecasts, difference from H1)

➤ Ordinary income is expected to be lower than in H1. Market prices of methanol will likely remain low. The suspension of production in Brunei due to equipment failure and other negative factors will lead to lower equity in earnings.

Natural Gas Chemicals: Trend in Methanol Prices



FY2016 H1 results

Despite recovery from the levels at the beginning of the fiscal year, H1 methanol prices (Asian average spot price) still remained low at 230 \$/MT.

Demand: Methanol for existing chemical applications suffered from low demand, while products for Chinese MTO (Methanol To Olefin) grew steadily.

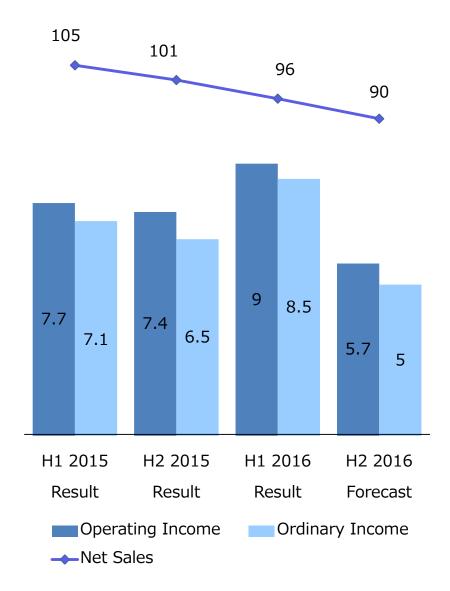
Supply: The new plants completed in North America in FY2015 operated successfully, while methanol production in China grew steadily due to the availability of low-cost coal.

FY2016 H2 (forecasts)

With an improvement in supply-demand balance anticipated, H2 methanol prices will likely rise slightly to 240 \$/MT. Demand: New MTO plants in China are expected to start operation, allowing for growth in overall demand for methanol. Supply: No construction of new large plants is planned during H2 of FY2016.

Aromatic Chemicals

(JPY in billions) FY2016 H1 (results, year-on-year difference)

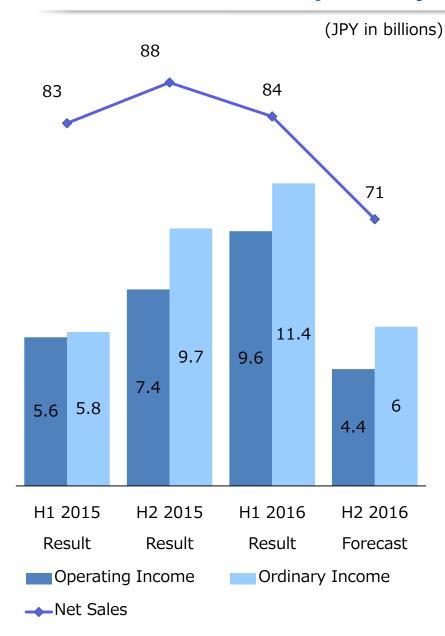


- Aromatic chemical products suffered a decline in revenue with the discontinued sale of purified terephthalic acid. Further negative factors included lower product market prices and the stronger yen.
- ➤ Operating Income grew, due to the improvement in profitability made possible by lower prices of fuels and raw materials. Foamed plastics achieved an increase. Positive reasons included lower prices of raw materials and the successful sales of high-value products.

FY2016 H2 (forecasts, difference from H1)

- ➤ Non-consolidated earnings are expected to be lower due to the turnaround of the Mizushima Plant and continued appreciation of the yen.
- ➤ Primarily due to the stronger yen, JSP will post lower earnings compared with H1.

Specialty Chemicals



FY2016 H1 (results, year-on-year difference)

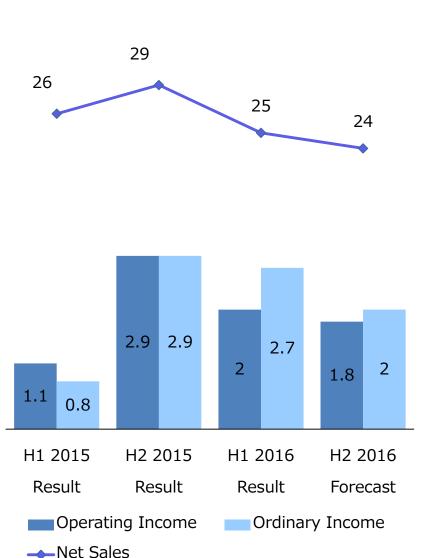
- ➤ Inorganic chemicals suffered reductions in both revenue and earnings. In addition to the stronger yen, a lower sales volume of chemical solutions for semiconductors and LCD applications explains these results.
- ➤ The engineering plastics business posted higher earnings. In addition to the improved profitability resulting from reductions in fuel and raw material prices, the sales volume was increased.

FY2016 H2 (forecasts, difference from H1)

- ➤ Inorganic chemicals will suffer lower earnings due to continued fierce competition in the Electronics Chemicals business, a lower sales volume of chemical solutions for LCD applications, and the stronger yen.
- ➤ PC-BPA spreads are expected to drop compared with H1. PC sheets and films will continue to face a difficult business environment.

Information & Advanced Materials

(JPY in billions) FY2016 H1 (results, year-on-year difference)



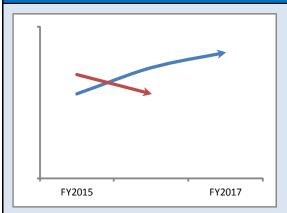
- > Electronic materials achieved increases in earnings, due to growth in the sales volume of BT materials for semiconductor packaging, which represent this segment's core product category.
- > Oxygen absorbers posted slightly lower earnings levels compared with the same period of the previous year. The appreciation of the yen more than canceled the positive impact of prior-year level developments in the sale of products for domestic food applications.
- > The segment had a lower consolidated net sales due to the dissolution of Japan Circuit Industrial Co., Ltd.
- > Two additional companies are designated as equity method affiliates starting in FY2016.

FY2016 H2 (forecasts, difference from H1)

- > Sales volumes for BT materials are generally expected to achieve H1 levels.
- As usual, oxygen absorbers expect to increase sales volumes due to an increase in demand toward the year end. 14

The progress of Mid-term Plan IMGC Advance2017

The progress of Mid-term Plan (Ordinary income) *1



· Specialty Chemicals and Aromatic Chemicals have been outperforming the Mid-term Plan. However, due to lower methanol market prices and stronger yen, incomes in FY2016 are on a downward trend.

<Mid-term Plan Assumed Conditions (FY2017)%2>

FX: 115JPY/US\$、Methanol: 340US\$/MT

※2 Disclosed May 2015, assumptions at the time of creation

Aromatic Chemicals

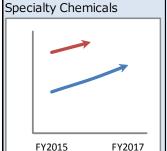
Natural Gas Chemicals FY2017 FY2015

The segment faces a more difficult business environment than it faced when it worked out the Medium-term Plan. Market prices of methanol have been substantially lower than the initial assumptions, causing a reduction in the equity in earnings of overseas methanol producing affiliates. The stronger yen is another major negative impact.



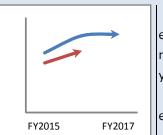
 Progress in business structure reforms has helped stabilize revenue and earnings.

· Despite the negative impact of the stronger yen, specialty chemicals such as MXDA and Nylon MXD6, foamed plastics (from JSP), and other products have been growing steadily.



This segment has been outperforming the plan. Despite negative impacts of the stronger yen and severer competition in the Electronics Chemicals business, there are positive contributions such as the improved profitability of engineering plastics.





- Despite the adverse impact of the stronger yen, electronic materials perform better in both revenue and earnings compared with the initial vear of the Plan.
- · Two additional companies are designated as equity method affiliates starting in FY2016.

*1 The above graphs show progress toward achieving the target ordinary income figures set for the final year (FY2017) of the Mid-term Management Plan for FY2017 (announced in May 2015).

: Mid-tem Management plan

: Result and Forecast

15

Mid-Term Management Plan **IMGC** Advance2017**I Developments in core businesses (1)**

	Business strategies in the Mid-term Plan	Developments in core businesses	Developments in core	e businesses profits(*)	
Natural Gas Chemicals	Develop underlying business infrastructure and	Market prices of methanol have been			
	prepare for 2021 Aspirations	substantially lower than the initial			
Methanol	• Promotion ininidad and Tobago projects	assumptions. (Assumption in FY2017 Mid-term Plan: 340 US\$/MT, forecast for FY2016: 235			
	Reinforcement of business infrastructure of	US\$/MT)			
	existing joint ventures	Declines in crude oil price lead to lower			
Natural resources	Promotion Canada LNG project	revenue and earnings of the resources and	15年度 17年度	15年度 17年度	
and energy	Promotion geothermal power business	energy sources operations.	Methanol	Natural resources and energy	
Aromatic Chemicals	Complete structural reform and enhance	MXDA/MX Nylon: Develop almost as planned	1		
	profitability of core and semi-core businesses. J	due to steady sales despite the impact of the			
MXDA/MX Nylon	Expand marketing toward paint and food	stronger yen. • Foamed plastics: Develop almost as planned.			
	packaging materials/Set up structure for global		1		
	sales, technical services and product development.				
Foam (JSP)	Sell high value added products made using JSP's		FY2015 FY2017	15年度 17年度	
	unique technologies/Expansion of sites in overseas and strengthening the foundation.		MXDA/MX Nylon	Foam(JSP)	

^{*} The above graphs show progress toward achieving the target ordinary income figures set for the final year (FY2017) of the Mid-term Management Plan for FY2017 (announced in May 2015).



: Mid-tem Management plan : Result and Forecast

Mid-Term Management Plan **MGC** Advance2017 Developments in core businesses (2)

	Business strategies in the Mid-term Plan	Developments in core businesses	Developments in core	businesses profits(*)
EL chemicals PC/sheet film	EL chemicals: Focus mainly on semiconductor market, especially overseas. Increase shares in existing customers and acquire new clients. PC/sheet film: Shift from general-purpose	 EL chemicals: expected to post a year-on-year drop in earnings in FY2016 due not only to severer competition mainly in the USA and Taiwan, but also to the stronger yen. PC: surpasses the plan. While PC sheets and films face difficulty, PCs have improved in profitability due to declines in fuel and raw 	FY2015 FY2017	FY2015 FY2017
	products to high valueadded ones. Improve income from overseas subsidiaries.	material prices.	EL chemicals	PC/sheet film
B T materials	market for mobile systems. Respond to diverse needs in the general-purpose semiconductor area in order to expand sales. • Accelerate development of overseas markets. Increase market development of medical / industrial	 BT materials: achieved recovery in FY2016 after being affected by inventory adjustments by customers in FY2015. Tai Hong Circuit Industrial designated as an equity method affiliate starting in FY2016. • Ageless®: Develops almost as planned despite the impact of the stronger yen. 	FY2015 FY2017	FY2015 FY2017
	areas in addition to food		BT materials	AGELESS

^{*} The above graphs show progress toward achieving the target ordinary income figures set for the final year (FY2017) of the Mid-term Management Plan for FY2017 (announced in May 2015).





Appendix: Key Indicators (1)

1. Key indicators(consolidated)

JPY in billions

FY	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016(F)
Capital expenditure (Of which, H1)	39.4 (16.0)	35.1 (19.3)	27.6 (14.1)	35.4 (14.6)	42.4 (22.4)	30.9 (17.7)	25.4 (13.8)	22.2 (10.3)	30.5 (14.9)	35.0 (13.7)
Depreciation & amortization (Of which, H1)	24.5 (11.0)	28.9 (13.5)	29.5 (13.7)	29.0 (13.8)	27.7 (13.4)	23.0 (10.7)	23.5 (11.4)	23.7 (11.5)	26.7 (13.1)	26.0 (12.2)
R&D expenditure (Of which, H1)	13.6 (6.6)	14.7 (6.7)	16.2 (7.4)	16.4 (7.4)	17.4 (8.8)	15.3 (7.2)	16.1 (8.0)	16.8 (8.0)	18.9 (9.2)	20.0 (9.6)
Employees (as of March 31)	4,686	4,902	4,920	4,979	5,216	5,323	5,445	8,254	8,176	7,985
Earnings per share (Yen)	87	15	13	42	27	(17)	33	96	77	120*
ROA (Return on assets)	10.2	1.2	1.4	6.5	4.5	4.6	4.8	5.8	5.9	5.2
ROE (Return on equity)	13.7	2.5	2.2	6.9	4.4	(2.8)	5.0	12.6	9.0	6.8
Dividend (yen) (Of which, interim dividend)	16.0 (8.0)	16.0 (8.0)	8.0 (4.0)	8.0 (4.0)	12.0 (6.0)	12.0 (6.0)	12.0 (6.0)	14.0 (7.0)	16.0 (8.0)	-* (8.0)

^{*}Concerning net income per share of the Consolidated Business Forecasts (Full year) for FY 2016, the effects of the consolidation of shares are taken into account. Net income per share of the Consolidated Business Forecasts (Full year) for FY 2016 without taking into account the consolidation of shares is 60yen.

Appendix: Key Indicators (2)

2. Capex, depreciation and amortization by segment (consolidated)

JPY in billions

FY		2007	2008	2009	2010	2011	2012	2013	2014	2015
Capex	Natural Gas Chemicals	5.6	10.7	7.1	14.0	13.9	6.3	4.5	5.7	5.3
	Aromatic Chemicals	17.2	10.6	7.7	4.5	4.7	5.7	2.3	4.0	10.6
	Specialty Chemicals	7.4	9.1	8.1	14.8	21.6	15.0	11.2	7.6	9.9
	Information &Advanced Materials	9.2	4.7	4.5	1.8	1.8	3.3	6.6	4.3	3.8
	Other	0.0	0.0	0.1	0.3	0.1	0.3	0.5	0.3	0.7
Depreciation	Natural Gas Chemicals	5.4	6.4	7.5	8.6	7.7	6.2	6.3	6.9	6.1
	Aromatic Chemicals	5.2	7.7	7.9	7.8	7.7	5.8	4.1	3.9	8.2
	Specialty Chemicals	9.6	9.7	8.6	8.0	8.4	7.7	9.5	9.2	8.8
	Information &Advanced Materials	4.2	5.1	5.1	4.2	3.5	2.7	3.1	3.3	3.0
	Other	0.0	0.0	0.4	0.4	0.3	0.3	0.3	0.3	0.3

Appendix: Key Indicators (3)

3. Performance assumptions

	FY2008		FY2009		FY2010		FY2011		FY2012	
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
Methanol (US\$/MT)	424	336	195	246	283	307	349	385	385	364
Mixed Xylene (US\$/MT)	1,200	600	770	870	830	1,050	1,260	1,280	1,190	1,320
Bisphenol A (US\$/MT)	1,800 ~2,000	800 ~1,500	1,000 ~1,300	1,200 ~1,700	1,800 ~2,100	2,100 ~2,500	2,000 ~2,500	1,400 ~1,800	1,500~ 1,800	1,600~ 2,000
Polycarbonate (US\$/MT)	2,450 ~2,850	1,900 ~2,450	1,900 ~2,400	2,400 ~2,900	2,450 ~2,950	2,400 ~2,900	2,800 ~3,000	2,600 ~2,900	2,500~ 2,800	2,500~ 2,800
Exchange rate (JPY/US\$)	106	95	96	90	89	82	80	78	79	87
	FY2013		FY2014		FY2015		FY2016		Remarks	
	H1	H2	H1	H2	H1	H2	H1(R)	H2(F)	Kemarks	
Methanol (US\$/MT)	375	449	432	358	301	230	230	240	Asian spot average price	
Mixed Xylene (US\$/MT)	1,230	1,160	1,100	730	740	630	660	630	Spot price (FOB-Korea)	
Bisphenol A (US\$/MT)	1,550 ~1,800	1,550 ~1,700	1,600 ~2,000	1,200 ~1,900	950 ~1,500	850 ~1,100	1,000 ~1,200	1,100 ~1,400	Average CIF price	
Polycarbonate (US\$/MT)	2,400 ~2,600	2,400 ~2,600	2,500 ~2,700	2,300 ~2,700	2,100 ~2,650	2,000 ~2,400	2,200 ~2,500	1,950 ~2,450		
Exchange rate (JPY/US\$)	99	102	103	117	122	118	105	100		