

# **1H of FY2018 Earnings Presentation (Overview)**

KURARAY CO., LTD.

# Overview of 1H FY2018 Results

(Billion yen)

	1H FY2018	1H FY2017	Difference
Net Sales	301.4	251.3	50.0(19.9%)
Operating Income	38.2	37.8	0.4(1.1%)
Ordinary Income	36.5	36.5	0(-0.1%)
Net Income*	23.8	24.2	-0.4(-1.6%)

\*Net Income Attributable to Owners of the Parent.

## Reference

JPY/USD	109	112
JPY/EUR	132	122
Domestic naptha (JPY 1,000/kl)	48	40

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the first half of fiscal 2017 have been restated.

\*Calgon Carbon results are included in results from the first quarter of fiscal 2018.

# Outcomes of Main 1H FY2018 Initiatives

## Pursued Competitive Advantages

- ◆ In optical-use poval film, conducted capital investment to meet market needs.
  - Decided to invest in new equipment for the Kurashiki Plant.
    - ⇒ Production of 3.2 million m<sup>2</sup> per year is slated to kick off by the end of 2019.
  - Established a semi-works line.
    - ⇒ Accelerated the development of high performance films.
- ◆ Complete the expansion of production capacity at the PVB film plant in South Korea and the water-soluble PVA film plant in the United States.
- ◆ In the isoprene business, we established a joint venture company in Thailand.
  - ⇒ Working on the final investment decision. Operations at the new plant are slated to begin from 2021 onward.

## Expanded in New Business Fields

- ◆ Completed the acquisition of Calgon Carbon
- ◆ Worked to commercialize the liquid crystal polymer film *Vecstar*
  - ⇒ • Ramped up marketing aimed at ensuring demand.
  - Considered installing new equipment.
- ◆ Expanded business related to *PLANTIC*, a biomass-based barrier material.
  - ⇒ We bolstered marketing efforts through an alliance in North America with Sealed Air Corporation.

## Enhanced the Group's Combined Strengths

- ◆ Integration with Calgon Carbon.
- ◆ Introduced a global SAP system.

# Forecast for FY2018

\* No change since the public announcement on May 15, 2018

(Billion yen)

	<b>FY2018</b>	<b>FY2017</b>	<b>Difference</b>
<b>Net Sales</b>	<b>610.0</b>	<b>518.4</b>	<b>91.6</b>
<b>Operating Income</b>	<b>77.0</b>	<b>76.4</b>	<b>0.6</b>
<b>Ordinary Income</b>	<b>75.0</b>	<b>74.2</b>	<b>0.8</b>
<b>Net Income※</b>	<b>49.0</b>	<b>54.5</b>	<b>(5.5)</b>

Domestic naphtha  
(JPY1,000/kl)

¥49

¥39

USD (average)

¥110

¥112

EUR (average)

¥130

¥127

※Net Income Attributable to Owners of the Parent

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the fiscal 2017 have been restated.

# FY2018 Shareholder Returns

## ■ Returns on Profit during PROUD2020

**Total return ratio: 35% or higher**  
**Dividends per share: ¥40 or higher**

## ■ FY2018 Dividends

**Interim dividend: ¥20/share** (forecast at start of year: ¥20/share)  
\* Full-year dividend forecast: ¥42/share (interim: ¥20; year-end: ¥22)

## ■ Share Buyback

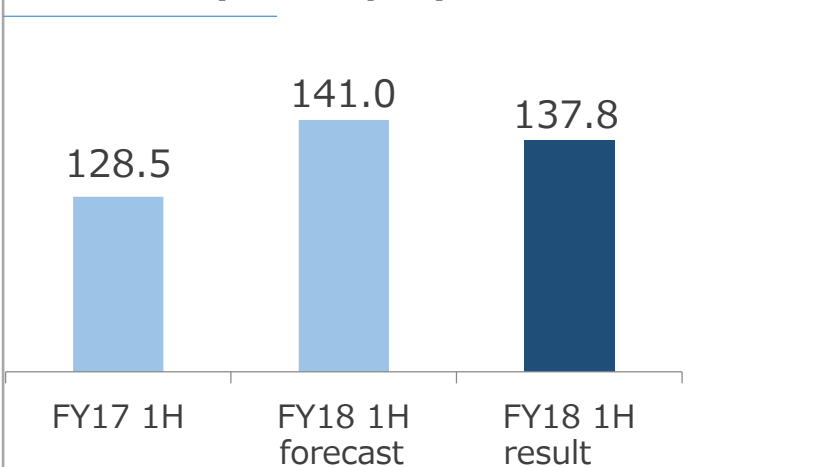
- FY2018 Results (May 16, 2018 to June 4, 2018)
  - Total shares acquired: 2,200,000
  - Total volume of shares acquired: ¥3,728,894,000

# 1H FY2018 Results (Details)

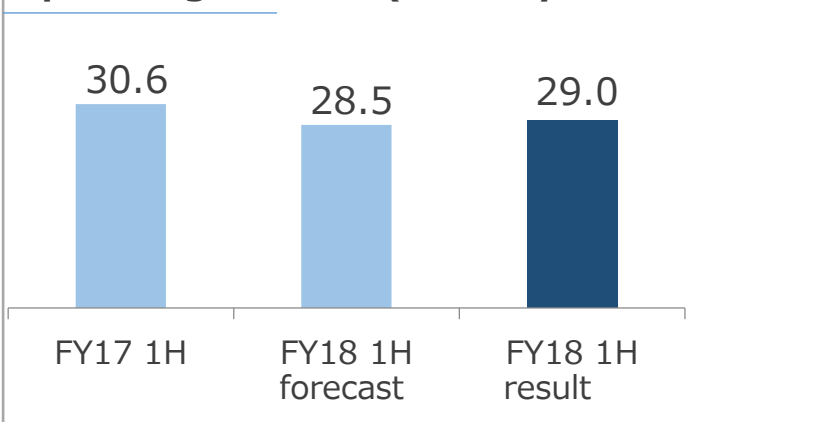
KURARAY CO., LTD.

# Vinyl Acetate

## Net Sales (Billion yen)



## Operating Income (Billion yen)



### ■ PVA resin

PVA resin, the U.S. plant, which began regular operations from last year, contributed to results, and the North American market was favorable.

### ■ Optical-use poval film

Sales of optical-use poval film rose due to a steady expansion in demand. In addition, to respond to the growing display market and needs for larger panels, in the consolidated first quarter we decided to invest in new facility at the Kurashiki Plant with operations expected to begin at the end of 2019.

### ■ Water-soluble PVA film

The sales volume of water-soluble PVA film increased, especially for unit dose detergent applications.

### ■ PVB film

Sales of PVB film expanded but were impacted by the higher raw material and fuel prices.

### ■ EVAL

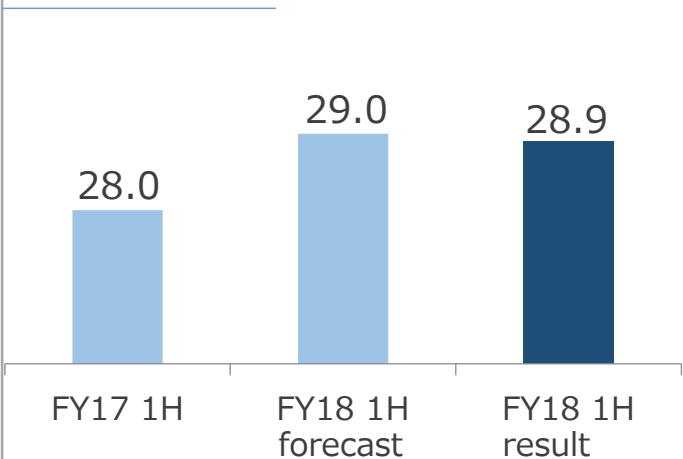
Sales of *EVAL* grew for both automotive gas tank and food packaging applications. In addition, we performed shutdown maintenance and undertook construction to expand capacity at the U.S. plant in the consolidated second quarter.

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the first half of fiscal 2017 have been restated.

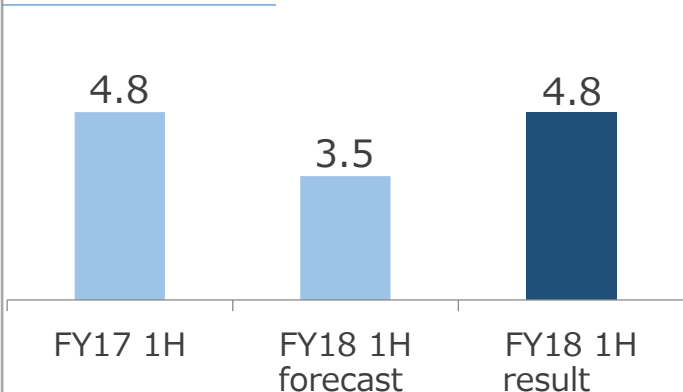
\*Operating income in the first half of fiscal 2018 was negatively affected by the changes in the depreciation method and estimated useful lives used for tangible fixed assets as well as the method of allocating corporate expenses.

# Isoprene

## Net Sales (Billion yen)



## Operating Income (Billion yen)



## ■ Isoprene

In isoprene chemicals, the sales volume of fine chemicals, *SEPTON* thermoplastic elastomer, and liquid rubber expanded and remained favorable.

## ■ GENESTAR

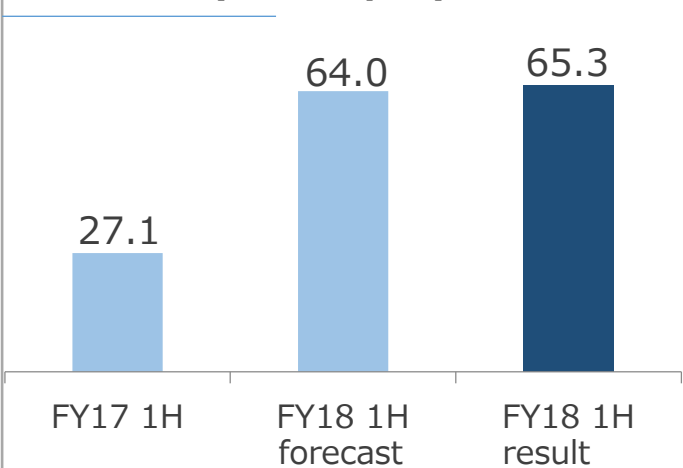
The sales volume of *GENESTAR* heat-resistant polyamide resin expanded, especially for automotive and connector applications, but higher raw material and fuel costs affected results.

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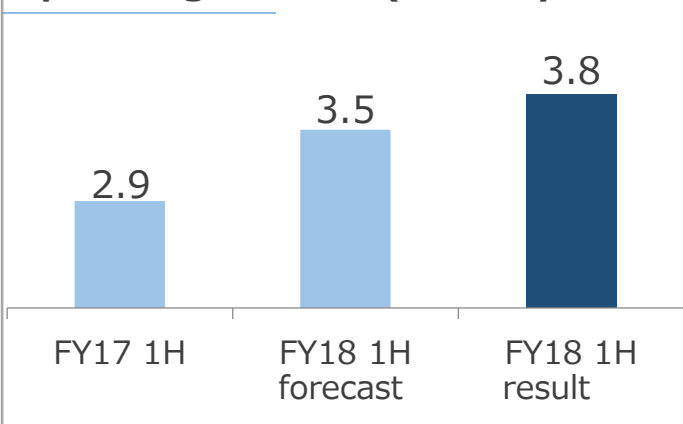


# Functional Materials

## Net Sales (Billion yen)



## Operating Income (Billion yen)



### ■ Methacrylic Resin

In the methacrylic resin business, market conditions remained healthy. In addition, sales of high-value added products expanded.

### ■ Medical

In the medical business, an expansion in sales of zirconia-based dental material products contributed to sales.

### ■ Carbon Materials

Carbon Materials business the sales volume of general purpose applications decreased.

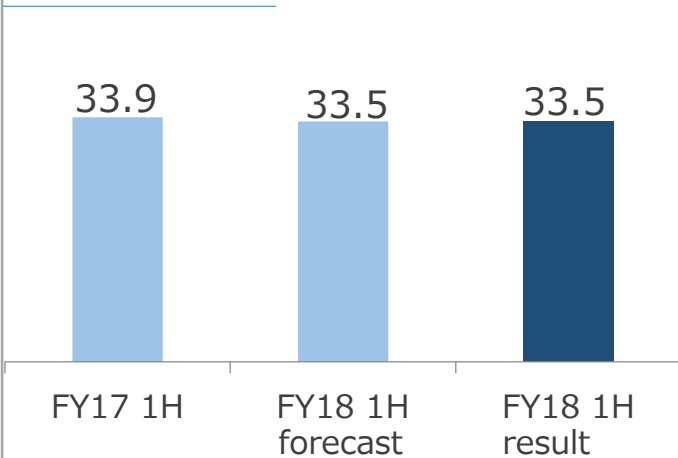
### ■ Calgon Carbon

Calgon Carbon's sales volumes increased, mainly in the United States.

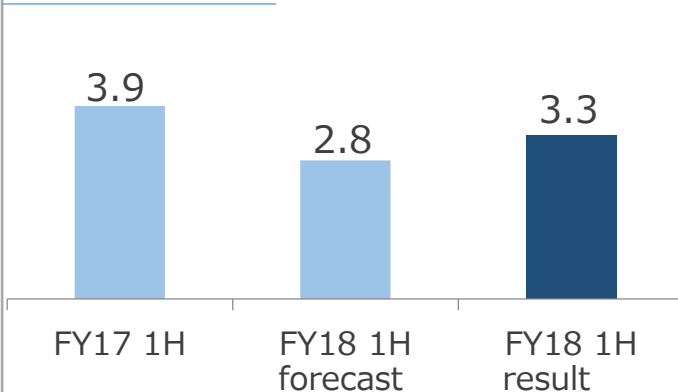
\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the first half of fiscal 2017 have been restated.

\*Calgon Carbon results are included in results from the first quarter of fiscal 2018.

## Net Sales (Billion yen)



## Operating Income (Billion yen)



### ■ **CLARINO**

Sales of *CLARINO* man-made leather continued to expand for luxury item applications.

■ **Fibers and Industrial Materials**  
sales of *KURALON* were negatively affected by higher raw material and fuel costs.

■ **Consumer Goods and Materials**  
In consumer goods and materials, sales of high-value-added *KURAFLEX* products expanded.

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the first half of fiscal 2017 have been restated.

\*With the change in the organizational structure from the first quarter of fiscal 2018, Clarino results have been retroactively included in figures from the first half of fiscal 2017 onward.

# Sales and Operating Income by Segment

(Billion yen)

	1H FY2018		1H FY2017		Difference	
	Net Sales	Operating Income	Net Sales	Operating Income	Net Sales	Operating Income
Vinyl Acetate	137.8	29.0	128.5	30.6	9.3	(1.6)
Isoprene	28.9	4.8	28.0	4.8	0.9	0
Functional Materials	65.3	3.8	27.1	2.9	38.2	0.9
Fibers & Textiles	33.5	3.3	33.9	3.9	(0.4)	(0.6)
Trading	68.4	2.1	64.2	1.9	4.2	0.2
Others	29.2	0.7	22.2	1.2	7.0	(0.5)
Elimination & Corporate	(61.8)	(5.5)	(52.6)	(7.6)	(9.2)	2.1
<b>Total</b>	<b>301.4</b>	<b>38.2</b>	<b>251.3</b>	<b>37.8</b>	<b>50.0</b>	<b>0.4</b>

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the first half of fiscal 2017 have been restated.

# Cash Flow for 1H FY2018

(Billion yen)

	1H FY2018	1H FY2017	Difference
Operating CF	30.8	39.7	(8.9)
Investing CF*	(31.3)	(29.9)	(1.4)
Free CF*	(0.5)	9.8	(10.3)
M&A	(119.8)	0	(119.8)
CAPEX(Acceptance basis)	27.5	25.5	2.0
Depreciation and Amortization(incl.amortization of goodwill)	25.7	20.3	5.4
R&D Expenses	10.3	10.2	0.1

\*Cash flows from investing activities and free cash flow exclude net cash used in fund management and M&A.

## Balance Sheet [1]: Assets

(Billion yen)

	June 30, 2018	Dec. 31, 2017	Difference
<b>Current Assets</b>	<b>390.1</b>	<b>360.5</b>	<b>29.7</b>
<b>Noncurrent Assets</b>	<b>543.1</b>	<b>416.3</b>	<b>126.9</b>
<b>Total Assets</b>	<b>933.3</b>	<b>776.7</b>	<b>156.6</b>

Reference: Exchange rates at end of period

	June 30, 2018	Dec. 31, 2017
<b>JPY/USD</b>	<b>111</b>	<b>113</b>
<b>JPY/EUR</b>	<b>128</b>	<b>135</b>

## Balance Sheet [2]: Liabilities and Net Assets

(Billion yen)

	June 30, 2018	Dec. 31, 2017	Difference
Current Liabilities	147.6	108.1	39.6
Noncurrent Liabilities	219.2	103.2	116.0
Total Liabilities	366.8	211.2	155.6
Net Assets	566.4	565.5	1.0
Total Liabilities and Net Assets	933.3	776.7	156.6

Reference: Exchange rates at end of period

	June 30, 2018	Dec. 31, 2017
JPY/USD	111	113
JPY/EUR	128	135

# Forecast for FY2018

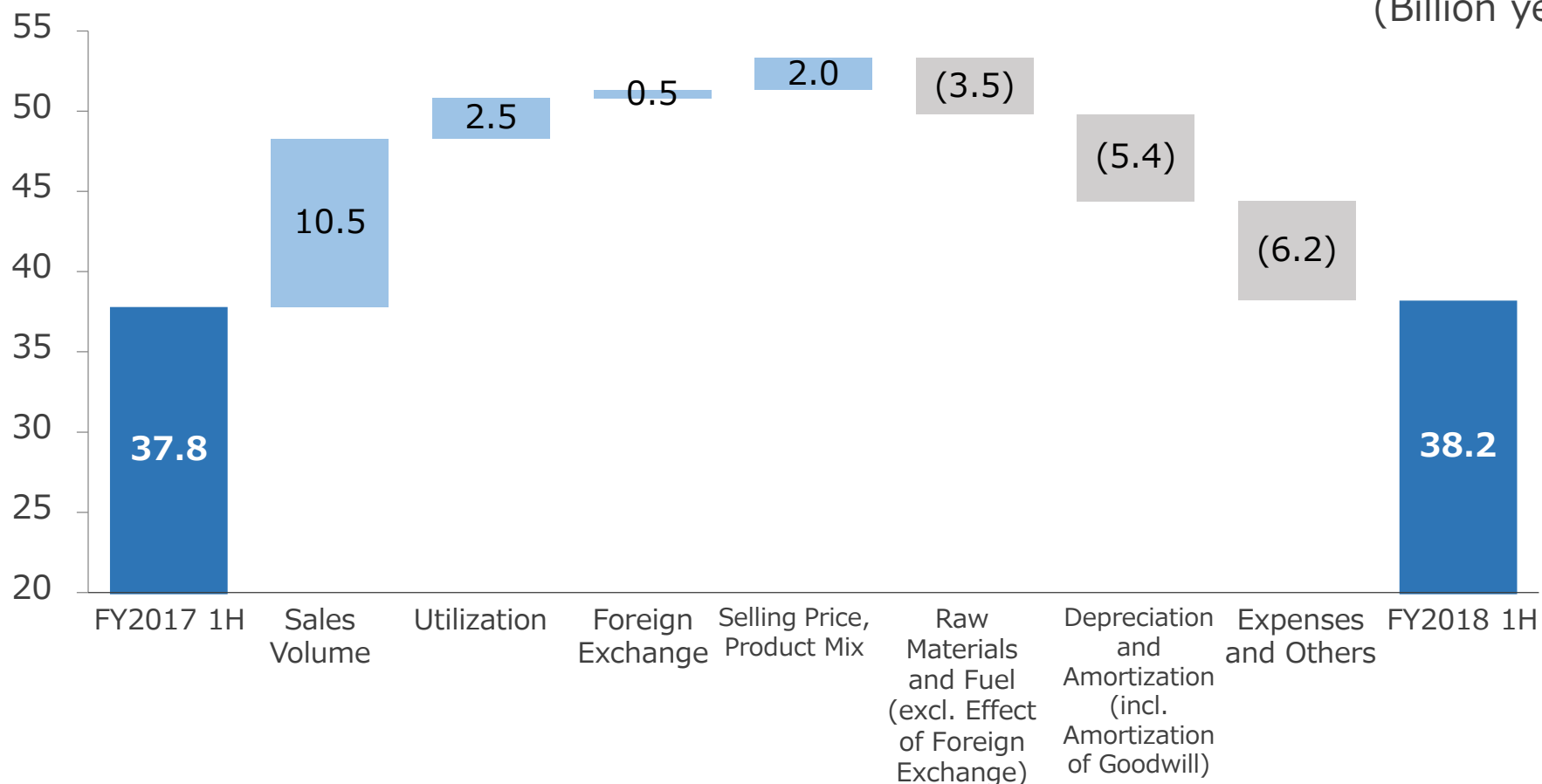
(Billion yen)

	<b>FY2018 Full-Year Forecast</b>	<b>FY2017 Full-Year Results</b>	<b>Difference</b>
<b>Net Sales</b>	<b>610.0</b>	518.4	91.6
<b>Operating Income</b>	<b>77.0</b>	76.4	0.6
<b>Ordinary Income</b>	<b>75.0</b>	74.2	0.8
<b>Net Income</b>	<b>49.0</b>	54.5	(5.5)
<b>EPS</b>	<b>¥139.66</b>	¥154.85	(¥15.19)
<b>Dividends per share</b>	<b>¥42</b>	¥42	¥0
<b>CAPEX(Decision basis)</b>	<b>100.0</b>	54.7	45.3
<b>CAPEX(Acceptance basis)</b>	<b>60.0</b>	54.5	5.5
<b>Depreciation and Amortization (incl. amortization of goodwill)</b>	<b>53.5</b>	43.0	10.5
<b>R&amp;D Expenses</b>	<b>22.5</b>	21.0	1.5

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the fiscal 2017 have been restated.

# Factors Affecting the Change in Operating Income

(Billion yen)



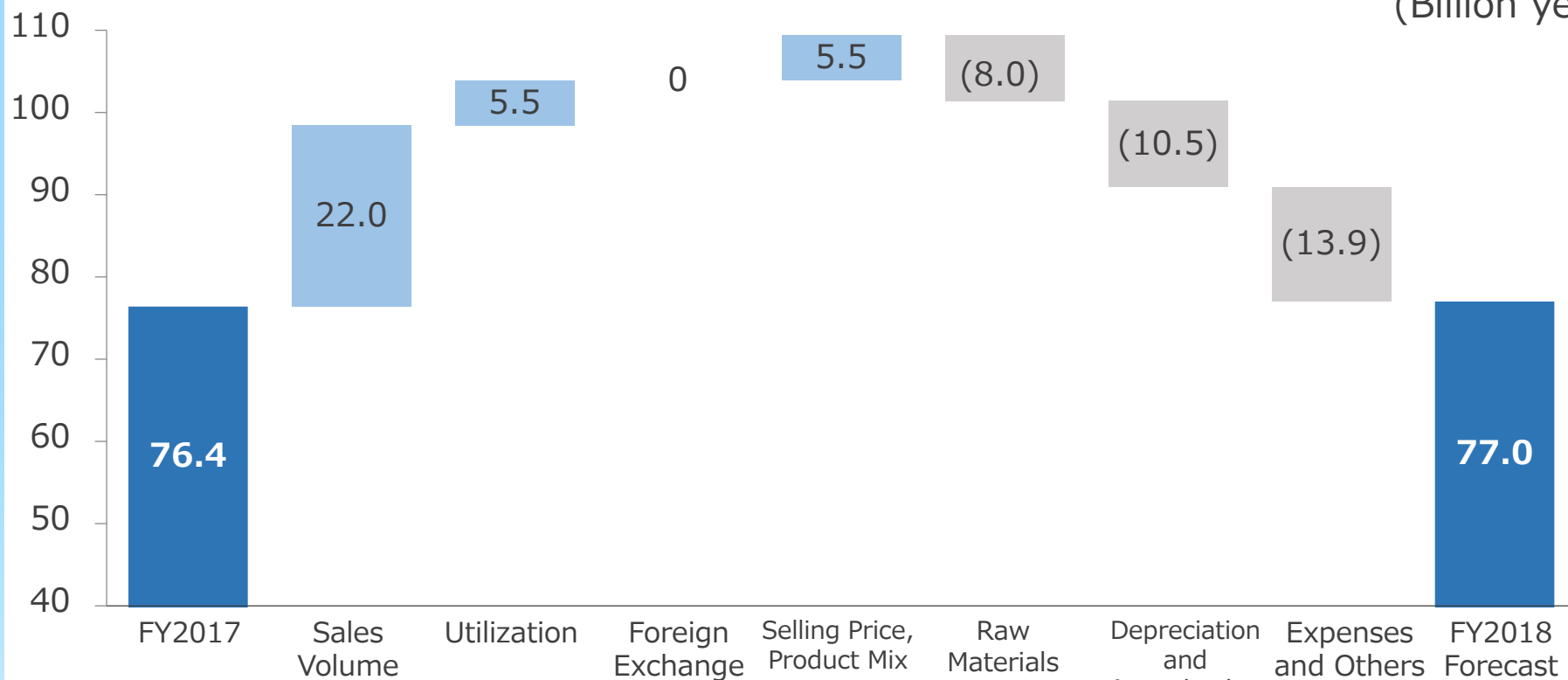
	FY2017 1H	FY2018 1H
Domestic naphtha(JPY1,000/kl)	¥40	¥48
USD (average)	¥112	¥109
EUR (average)	¥122	¥132

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the first half of fiscal 2017 have been restated.



# Factors Affecting the Change in Operating Income

(Billion yen)



	FY2017	FY2018
Domestic naphtha(JPY1,000/kl)	¥39	¥49
USD (average)	¥112	¥110
EUR (average)	¥127	¥130

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the fiscal 2017 have been restated.

# Net Sales and Operating Income by Segment

(Billion yen)

	①FY2018 Forecast		②FY2018 Impact*		③FY2017 Results		Difference (① – ③)	
	Net Sales	Operating Income	Impact Amount	Pre-change Income	Net Sales	Operating Income	Net Sales	Operating Income
Vinyl Acetate	282.0	59.0	(6.5)	65.5	266.9	61.6	15.1	(2.6)
Isoprene	60.0	9.0	—	—	56.4	9.1	3.6	(0.1)
Functional Materials	131.0	6.5	—	—	55.2	6.7	75.8	(0.2)
Fibers & Textiles	68.0	7.0	—	—	66.4	7.5	1.6	(0.5)
Trading	135.0	4.5	—	—	130.3	3.9	4.7	0.6
Other Business	55.0	3.0	—	—	52.7	3.0	2.3	0
Elimination & Corporate	(121.0)	(12.0)	6.5	(18.5)	(109.5)	(15.4)	(11.5)	3.4
<b>Total</b>	<b>610.0</b>	<b>77.0</b>	<b>—</b>	<b>—</b>	<b>518.4</b>	<b>76.4</b>	<b>91.6</b>	<b>0.6</b>

\* In fiscal 2018, the amortization method and inter-segment expense distribution method will change. The impact of this change is as stated above. In addition, this table compares the fiscal 2018 forecast and fiscal 2017 adjusted results after the CLARINO business moved to Fibers & Textiles segment.

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the fiscal 2017 have been restated.

## 【Ref.】 FY2018 Forecast by Segment

(Billion yen)

	FY2018 Net Sales		FY2018 Operating Income		
	1H	Results	Full-Year Forecast	1H Results	Full-Year Forecast
Vinyl Acetate		137.8	282.0	29.0	59.0
Isoprene		28.9	60.0	4.8	9.0
Functional Materials		65.3	131.0	3.8	6.5
Fibers & Textiles		33.5	68.0	3.3	7.0
Trading		68.4	135.0	2.1	4.5
Other Business		29.2	55.0	0.7	3.0
Elimination & Corporate		(61.8)	(121.0)	(5.5)	(12.0)
<b>Total</b>		<b>301.4</b>	<b>610.0</b>	<b>38.2</b>	<b>77.0</b>

## [Ref.] Net Sales by Segment

(Billion yen)

	FY2018		FY2017		Difference	
	1H Results	Full-Year Forecast	1H Results	Full-Year Results	1H	Full
Vinyl Acetate	137.8	282.0	128.5	266.9	9.3	15.1
Isoprene	28.9	60.0	28.0	56.4	0.9	3.6
Functional Materials	65.3	131.0	27.1	55.2	38.2	75.8
Fibers & Textiles	33.5	68.0	33.9	66.4	(0.4)	1.6
Trading	68.4	135.0	64.2	130.3	4.2	4.7
Others	29.2	55.0	22.2	52.7	7.0	2.3
Elimination & Corporate	(61.8)	(121.0)	(52.6)	(109.5)	(9.2)	(11.5)
<b>Total</b>	<b>301.4</b>	<b>610.0</b>	<b>251.3</b>	<b>518.4</b>	<b>50.0</b>	<b>91.6</b>

\*This table compares the restated fiscal 2017 results and the fiscal 2018 results forecasts reflecting the Clarino business's segment change.

## 【Ref.】 Operating Income by Segment

(Billion yen)

	FY2018		FY2017		Difference	
	1H Results	Full-Year Forecast	1H Results	Full-Year Results	1H	Full
Vinyl Acetate	29.0	59.0	30.6	61.6	(1.6)	(2.6)
Isoprene	4.8	9.0	4.8	9.1	0	(0.1)
Functional Materials	3.8	6.5	2.9	6.7	0.9	(0.2)
Fibers & Textiles	3.3	7.0	3.9	7.5	(0.6)	(0.5)
Trading	2.1	4.5	1.9	3.9	0.2	0.6
Others	0.7	3.0	1.2	3.0	(0.5)	0
Elimination & Corporate	(5.5)	(12.0)	(7.6)	(15.4)	2.1	3.4
<b>Total</b>	<b>38.2</b>	<b>77.0</b>	<b>37.8</b>	<b>76.4</b>	<b>0.4</b>	<b>0.6</b>

\*This table compares the restated fiscal 2017 results and the fiscal 2018 results forecasts reflecting the Clarino business's segment change.

\*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the fiscal 2017 have been restated.

# kuraray

All figures are rounded to the nearest hundred million yen.

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