

# 1H of FY2019 Earnings Presentation (Overview)

KURARAY CO., LTD.

# Overview of 1H FY2019 Results

(Billion yen)

	1H FY2019	1H FY2018	Difference
<b>Net Sales</b>	<b>287.4</b>	<b>301.4</b>	<b>-14.0(-4.6%)</b>
<b>Operating Income</b>	<b>27.9</b>	<b>36.3</b>	<b>-8.3(-23.0%)</b>
<b>Ordinary Income</b>	<b>24.7</b>	<b>34.6</b>	<b>-9.9(-28.6%)</b>
<b>Net Income*</b>	<b>13.3</b>	<b>22.6</b>	<b>-9.3(-41.3%)</b>

\*Net Income Attributable to Owners of the Parent.

## Reference

<b>JPY/USD</b>	<b>110</b>	<b>109</b>
<b>JPY/EUR</b>	<b>124</b>	<b>132</b>
<b>Domestic naptha (JPY 1,000/kl)</b>	<b>45</b>	<b>48</b>

Note: Because the temporary accounting treatment for the business combination with Calgon Carbon Corporation was determined at the end of fiscal 2018, the effect of said determination has been applied to the figures for the corresponding period of the previous fiscal year.

# Outcomes of Main 1H FY2019 Initiatives

## Pursue competitive superiority

- ◆ Completed expansion of production line at the water-soluble PVA film plant in U.S.
  - New U.S. plant scheduled to start operation in the first half of 2020
  - Considering new production sites in locations outside the U.S.
- ◆ Ionomer interlayer for glass lamination "SentryGlas™" production started in Czech plant in July
- ◆ Decided to increase production capacity in Kuraray Kuraflex Okayama Plant for melt-blown nonwoven fabric
  - Operation start planned for the second half of 2020
- ◆ Strengthened quality improvement and production efficiency using IoT

## Expand new business fields

- ◆ Install production equipment for Flexible Copper Clad Laminates "VECSTAR™ FCCL" in Kashima Plant
  - Continue considering capacity increase to meet further increased demand of high-frequency printed circuit board materials for 5G technology, etc.
- ◆ Business expansion of PLANTIC™ biomass-based gas barrier material
  - Participated in the "G20 Innovation Exhibition" hosted by the Ministry of Economy, Trade and Industry and the Ministry of the Environment

## Enhance comprehensive strengths of the Kuraray Group

- ◆ Advance the synergy of integrating Calgon Carbon business
- ◆ Promote work-style reform
  - Increased operational efficiency
  - Implement the No-Overtime Week system full scale

# Forecast for FY2019

\* Revised from the public announcement on May 15, 2019

	FY2019 Forecast	FY2018 Actual	Difference	<Reference> FY2019 Forecast (Announced May 15, 2019)
Net Sales	600.0	603.0	(3.0)	608.0
Operating Income	67.0	65.8	1.2	69.5
Ordinary Income	62.5	61.2	1.3	65.0
Net Income※	38.0	33.6	4.4	40.0

\*Net Income Attributable to Owners of the Parent.

Domestic naphtha (JPY1,000/kl)	¥45	¥51	¥44
USD (average)	¥110	¥110	¥110
EUR (average)	¥125	¥130	¥128

# FY2019 Shareholder Returns

## ■ Returns on Profit during PROUD2020

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

## ■ FY2019 Interim dividends

**Interim dividend: ¥20/share** (forecast at start of year: ¥20/share)

## ■ FY2019 Year end dividends (forecast)

**Year end : ¥22/share** (forecast at start of year: ¥22/share)

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

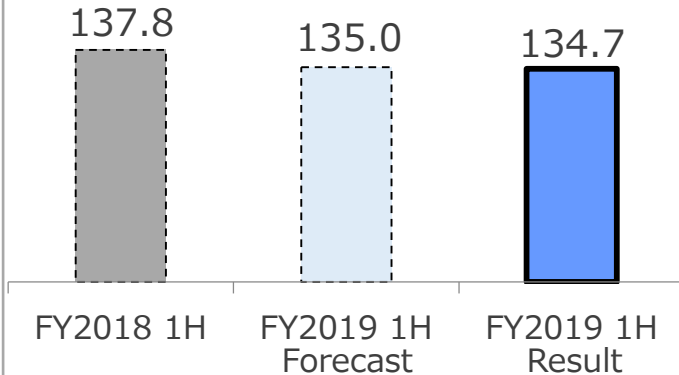
## ■ Share Buyback

- Buyback period: February 14, 2019 to December 26, 2019
- Maximum number of shares: Up to **5.0 million** shares or up to ¥10.0 billion as maximum value.

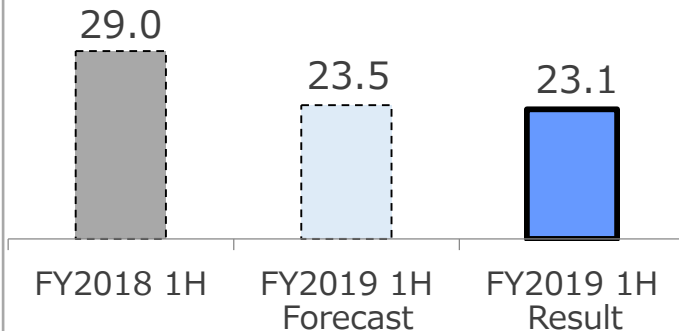
# 1H FY2019 Earnings Results (Details)

KURARAY CO., LTD.

## Net Sales (Billion yen)



## Operating Income (Billion yen)



### ■ PVA resin

Sales volume decreased due to economic slow down.

### ■ Optical-use poval film

Although demand for large screen displays remained firm, the shipments were affected by the decline in operation on one of the production lines in the 1st quarter and inventory adjustment of polarizer film.

### ■ Water-soluble PVA film

Demand for unit-dose detergent packet grew and strong sales continued.

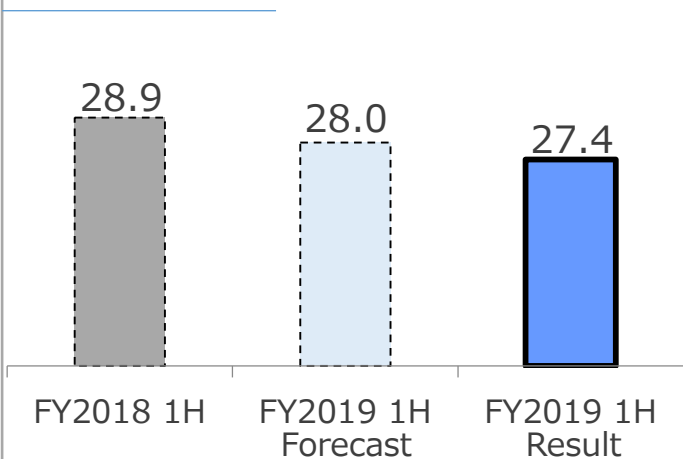
### ■ PVB film

Although demand for SentryGlas™ expanded, PVB film declined for commodity use due to economic slow down.

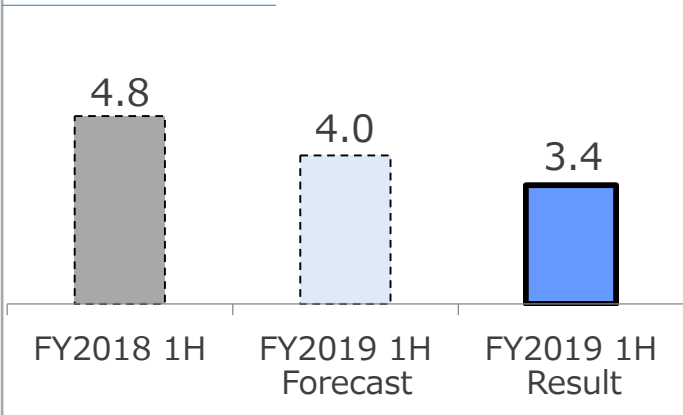
### ■ EVAL™

Sales decreased for automotive gas tank application due to a decline in vehicle production numbers. The sales volume for food packaging applications fell due to delays in the recovery of sales.

## Net Sales (Billion yen)



## Operating Income (Billion yen)



### ■ Isoprene

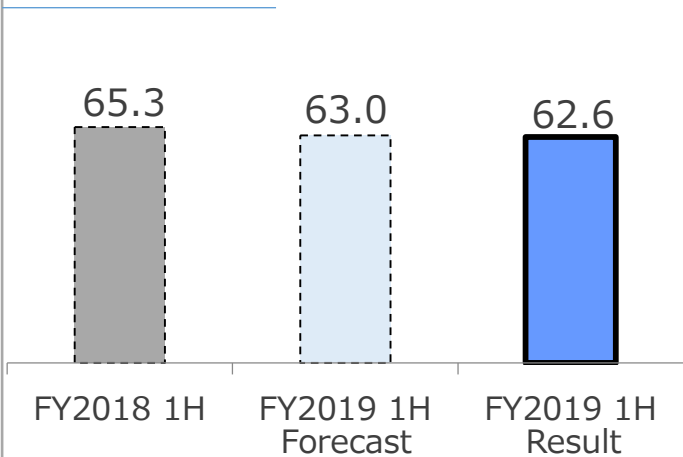
Although demand for SEPTON™ decreased mainly in China, isoprene chemicals remained firm.

### ■ GENESTAR™

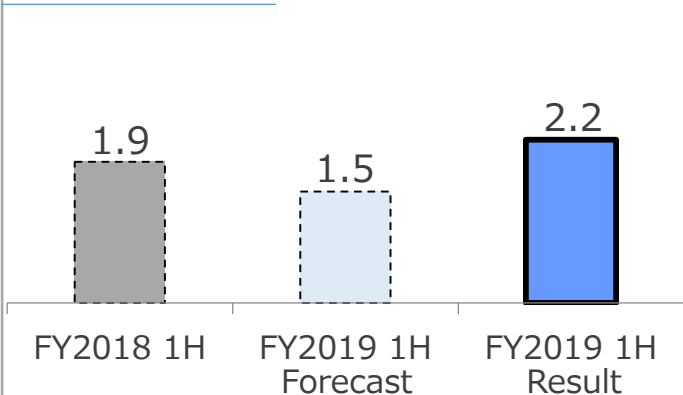
Although new adoption of connectors increased for automotive components, sales decreased for electric/electronic devices due to sluggish demand.



## Net Sales (Billion yen)



## Operating Income (Billion yen)



### ■ Methacrylic Resin

Market conditions of MMA worsened and sales of PMMA resins stagnated.

### ■ Medical

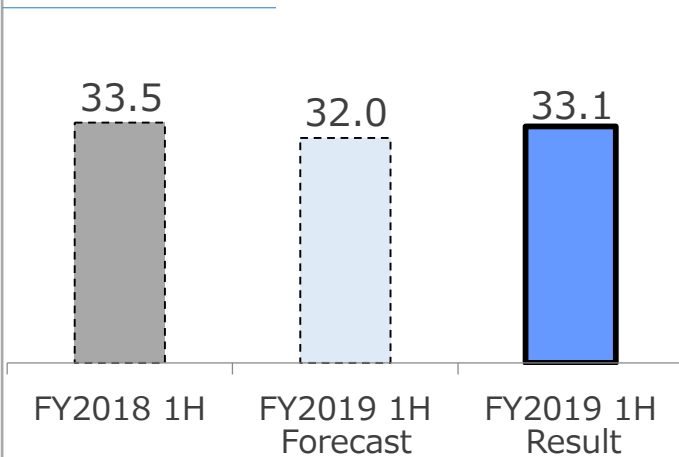
Sales of esthetic restorative dentistry products remained firm.

### ■ Carbon Materials & Calgon Carbon

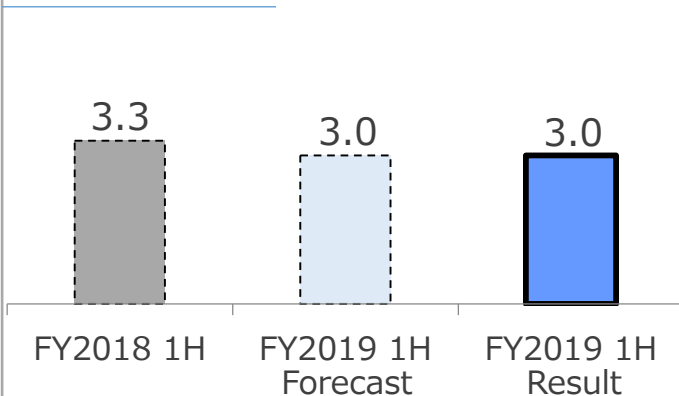
Although sales for high value-added products increased in Carbon Materials, Calgon Carbon was impacted by a decline in operations due to issues with the utility facility in the 1st quarter.

Note: Because the temporary accounting treatment for the business combination with Calgon Carbon Corporation was determined at the end of fiscal 2018, the effect of said determination has been applied to the figures for the corresponding period of the previous fiscal year.

## Net Sales (Billion yen)



## Operating Income (Billion yen)



### ■ CLARINO™

Although sales continued to be performing well for luxury item applications, sales declined for use in shoes.

### ■ Fibers and Industrial Materials

Although sales of KURALON™ increased for use in reinforcing rubber, exports of FRC application were affected by the economic slow-down.

### ■ Consumer Goods and Materials

Sales of KURAFLEX™ decreased for commodity use, though sales of high value-added products remained stable.

# Sales and Operating Income by Segment

(Billion yen)

	1H FY2019		1H FY2018		Difference	
	Net Sales	Operating Income	Net Sales	Operating Income	Net Sales	Operating Income
Vinyl Acetate	134.7	23.1	137.8	29.0	(3.1)	(5.9)
Isoprene	27.4	3.4	28.9	4.8	(1.5)	(1.4)
Functional Materials	62.6	2.2	65.3	1.9	(2.7)	0.3
Fibers & Textiles	33.1	3.0	33.5	3.3	(0.4)	(0.3)
Trading	64.8	2.1	68.4	2.1	(3.6)	0
Others	26.0	0.4	29.2	0.7	(3.2)	(0.3)
Elimination & Corporate	(61.2)	(6.2)	(61.8)	(5.5)	0.6	(0.7)
<b>Total</b>	<b>287.4</b>	<b>27.9</b>	<b>301.4</b>	<b>36.3</b>	<b>(14.0)</b>	<b>(8.3)</b>

Note: Because the temporary accounting treatment for the business combination with Calgon Carbon Corporation was determined at the end of fiscal 2018, the effect of said determination has been applied to the figures for the corresponding period of the previous fiscal year.

# Cash Flow for 1H FY2019

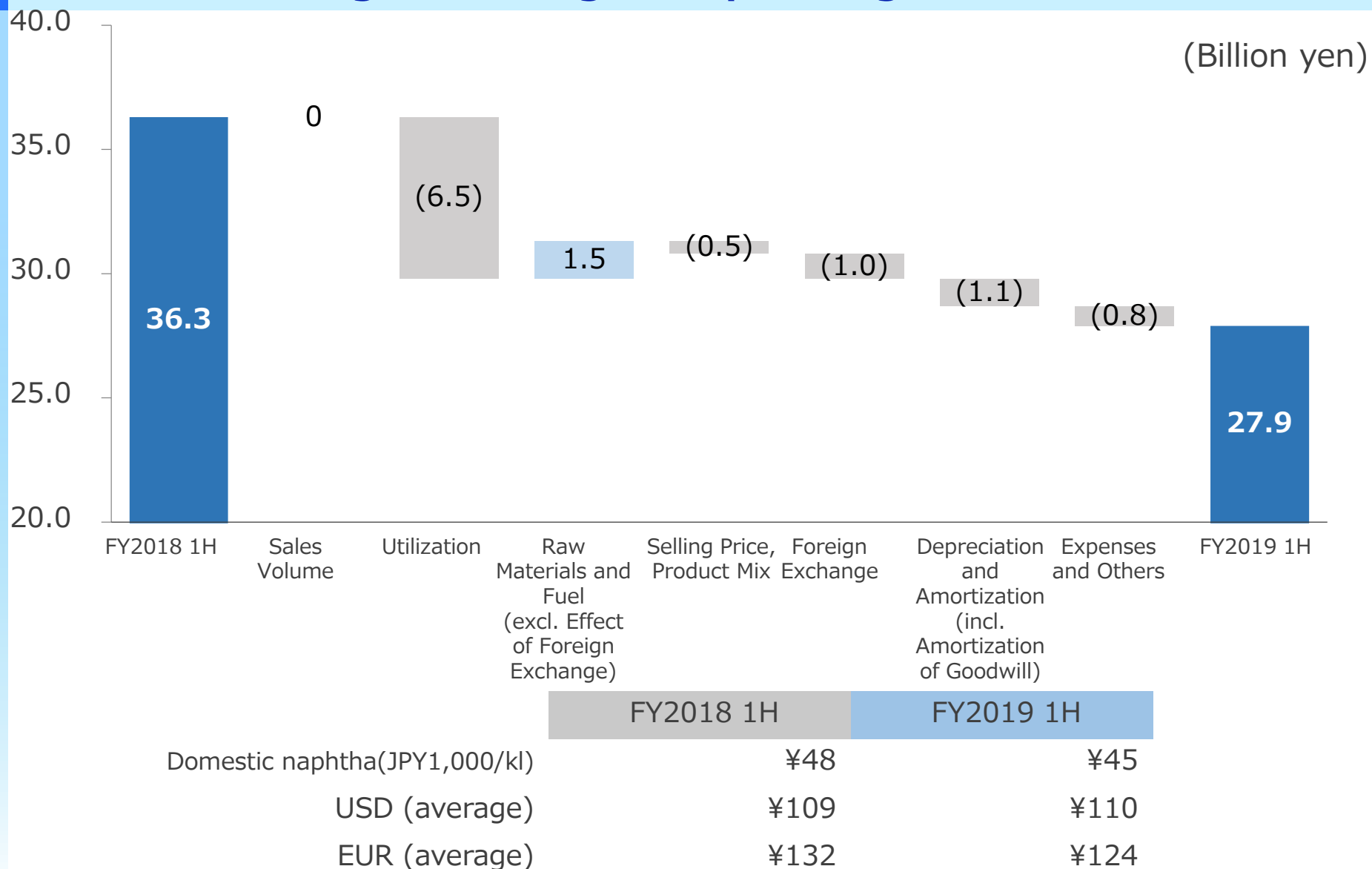
(Billion yen)

	1H FY2019	1H FY2018	Difference
Operating CF	37.4	30.8	6.6
Investing CF*	(40.9)	(31.3)	(9.6)
Free CF*	(3.5)	(0.5)	(3.0)
<b>M&amp;A</b>	<b>0.0</b>	<b>(119.8)</b>	<b>119.8</b>
CAPEX(Acceptance basis)	44.8	27.5	17.3
Depreciation and Amortization(incl.amortization of goodwill)	28.4	27.3	1.1
R&D Expenses	10.6	10.3	0.3

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

Note: Because the temporary accounting treatment for the business combination with Calgon Carbon Corporation was determined at the end of fiscal 2018, the effect of said determination has been applied to the figures for the corresponding period of the previous fiscal year.

# Factors Affecting the Change in Operating Income



Note: Because the temporary accounting treatment for the business combination with Calgon Carbon Corporation was determined at the end of fiscal 2018, the effect of said determination has been applied to the figures for the corresponding period of the previous fiscal year.

## Balance Sheet [1]: Assets

(Billion yen)

	June 30, 2019	Dec. 31, 2018	Difference
Current Assets	394.8	394.9	(0.1)
Noncurrent Assets	569.8	552.2	17.6
Total Assets	964.6	947.1	17.5

Reference: Exchange rates at end of period

	June 30, 2019	Dec. 31, 2018
JPY/USD	108	111
JPY/EUR	122	127

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

(Billion yen)

	June 30, 2019	Dec. 31, 2018	Difference
Current Liabilities	153.7	144.8	8.9
Noncurrent Liabilities	253.9	235.3	18.7
Total Liabilities	407.7	380.1	27.6
Net Assets	556.9	567.0	(10.1)
Total Liabilities and Net Assets	964.6	947.1	17.5

Reference: Exchange rates at end of period

	June 30, 2019	Dec. 31, 2018
JPY/USD	108	111
JPY/EUR	122	127

# Forecast for FY2019

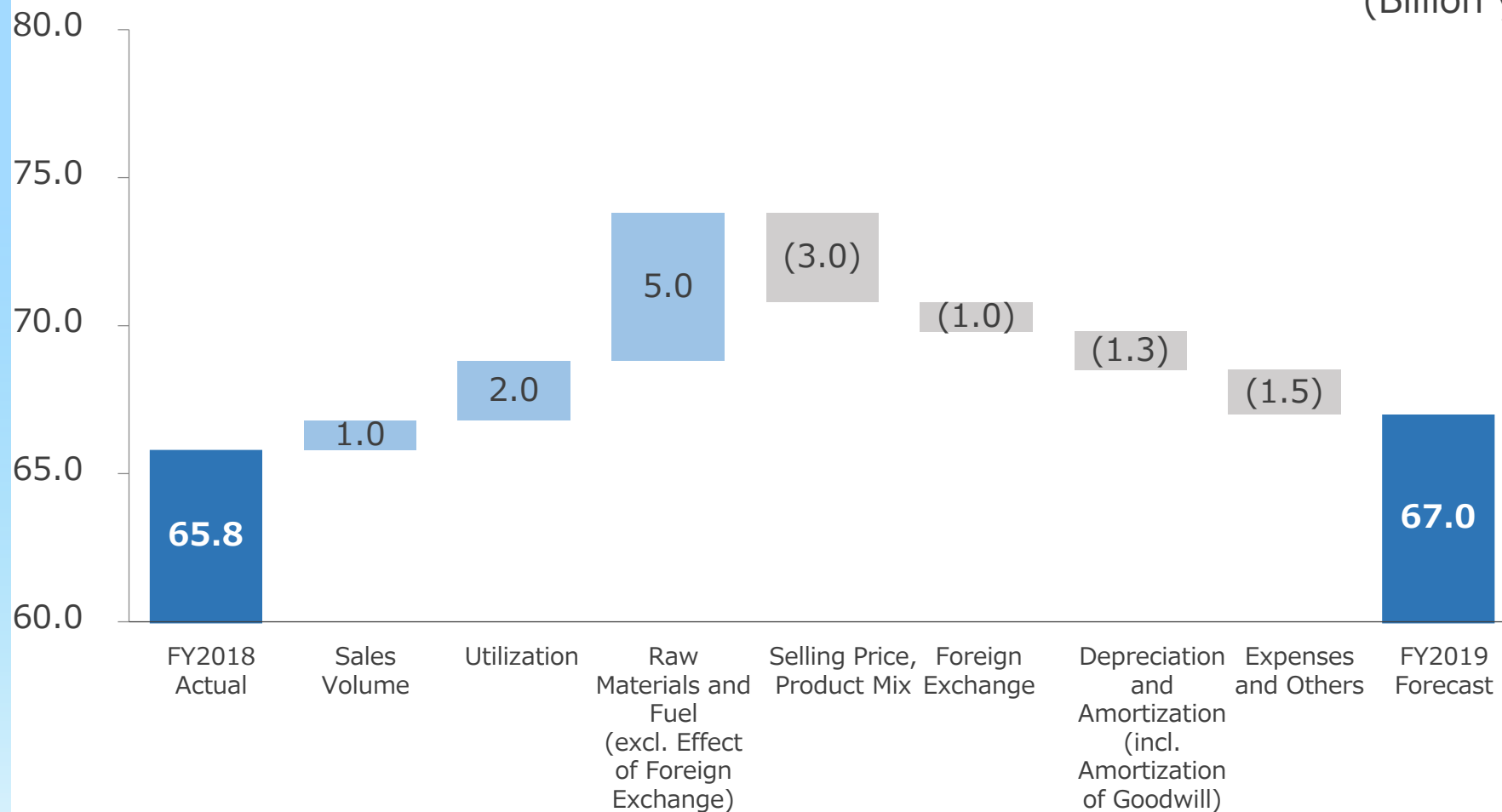
(Billion yen)

	<b>FY2019 Full-Year Forecast</b>	<b>FY2018 Full-Year Results</b>	<b>Difference</b>
<b>Net Sales</b>	<b>600.0</b>	603.0	(3.0)
<b>Operating Income</b>	<b>67.0</b>	65.8	1.2
<b>Ordinary Income</b>	<b>62.5</b>	61.2	1.3
<b>Net Income*</b>	<b>38.0</b>	33.6	4.4
<b>EPS</b>	<b>¥109.76</b>	¥96.05	¥13.71
<b>Dividends per share</b>	<b>¥42</b>	¥42	¥0
<b>CAPEX(Decision basis)</b>	<b>95.0</b>	146.0	(51.0)
<b>CAPEX(Acceptance basis)</b>	<b>96.0</b>	66.8	29.2
<b>Depreciation and Amortization (incl. amortization of goodwill)</b>	<b>58.0</b>	56.7	1.3
<b>R&amp;D Expenses</b>	<b>22.0</b>	21.2	0.8



# Factors Affecting the Change in Operating Income

(Billion yen)



	FY2018	FY2019
Domestic naphtha(JPY1,000/kl)	¥51	¥45
USD (average)	¥110	¥110
EUR (average)	¥130	¥125

# Forecast for FY2019

(Billion yen)

	FY2019 Revised Forecast (August 8, 2019)			FY2019 Original Forecast (Announced May 15, 2019)			Difference		
	1H (Act)	2H	Full	1H	2H	Full	1H	2H	Full
Net Sales	287.4	312.6	600.0	290.0	318.0	608.0	(2.6)	(5.4)	(8.0)
Operating Income	27.9	39.1	67.0	29.0	40.5	69.5	(1.1)	(1.4)	(2.5)
Ordinary Income	24.7	37.8	62.5	26.5	38.5	65.0	(1.8)	(0.7)	(2.5)
Net Income*	13.3	24.7	38.0	16.0	24.0	40.0	(2.7)	0.7	(2.0)

\*Net Income Attributable to Owners of the Parent.

# Forecast for FY2019

(Billion yen)

	FY2019 Revised Forecast (August 8, 2019)			FY2018 Results			Difference		
	1H (Act)	2H	Full	1H	2H	Full	1H	2H	Full
Net Sales	287.4	312.6	600.0	301.4	301.6	603.0	(14.0)	11.0	(3.0)
Operating Income	27.9	39.1	67.0	36.3	29.5	65.8	(8.3)	9.6	1.2
Ordinary Income	24.7	37.8	62.5	34.6	26.6	61.2	(9.9)	11.2	1.3
Net Income*	13.3	24.7	38.0	22.6	11.0	33.6	(9.3)	13.7	4.4

\*Net Income Attributable to Owners of the Parent.

Note: Because the temporary accounting treatment for the business combination with Calgon Carbon Corporation was determined at the end of fiscal 2018, the effect of said determination has been applied to the figures for the corresponding period of the previous fiscal year.

# Net Sales by Segment

(Billion yen)

	FY2019 Revised Forecast			FY2018 Results			Difference			Difference from Original forecast (May 15, 2019)		
	1H (Act)	2H	Full	1H	2H	Full	1H	2H	Full	1H	2H	Full
Vinyl Acetate	134.7	149.3	284.0	137.8	141.5	279.4	(3.1)	7.8	4.6	(0.3)	1.3	1.0
Isoprene	27.4	29.6	57.0	28.9	28.3	57.2	(1.5)	1.3	(0.2)	(0.6)	(0.4)	(1.0)
Functional Materials	62.6	67.4	130.0	65.3	66.2	131.5	(2.7)	1.2	(1.5)	(0.4)	(2.6)	(3.0)
Fibers & Textiles	33.1	34.9	68.0	33.5	31.3	64.7	(0.4)	3.6	3.3	1.1	0.9	2.0
Trading	64.8	75.2	140.0	68.4	70.4	138.8	(3.6)	4.8	1.2	(5.2)	0.2	(5.0)
Others	26.0	26.0	52.0	29.2	28.8	58.0	(3.2)	(2.8)	(6.0)	(2.0)	(3.0)	(5.0)
Elimination & Corporate	(61.2)	(69.8)	(131.0)	(61.8)	(65.0)	(126.7)	0.6	(4.8)	(4.3)	4.8	(1.8)	3.0
<b>Total</b>	<b>287.4</b>	<b>312.6</b>	<b>600.0</b>	<b>301.4</b>	<b>301.6</b>	<b>603.0</b>	<b>(14.0)</b>	<b>11.0</b>	<b>(3.0)</b>	<b>(2.6)</b>	<b>(5.4)</b>	<b>(8.0)</b>

# Operating Income by Segment

(Billion yen)

	FY2019 Revised Forecast (August 8, 2019)			FY2018 Results			Difference			Difference from Original forecast (May 15, 2019)		
	1H (Act)	2H	Full	1H	2H	Full	1H	2H	Full	1H	2H	Full
Vinyl Acetate	23.1	30.9	54.0	29.0	25.8	54.7	(5.9)	5.1	(0.7)	(0.4)	(2.1)	(2.5)
Isoprene	3.4	3.6	7.0	4.8	2.4	7.3	(1.4)	1.2	(0.3)	(0.6)	0.1	(0.5)
Functional Materials	2.2	3.3	5.5	1.9	2.5	4.4	0.3	0.8	1.1	0.7	0.3	1.0
Fibers & Textiles	3.0	4.0	7.0	3.3	3.0	6.3	(0.3)	1.0	0.7	0	0	0
Trading	2.1	2.4	4.5	2.1	2.1	4.2	0	0.3	0.3	(0.1)	0.1	0
Others	0.4	0.6	1.0	0.7	0.5	1.2	(0.3)	0.1	(0.2)	(0.1)	(0.4)	(0.5)
Elimination & Corporate	(6.2)	(5.8)	(12.0)	(5.5)	(6.8)	(12.3)	(0.7)	1.0	0.3	(0.5)	0.5	0
<b>Total</b>	<b>27.9</b>	<b>39.1</b>	<b>67.0</b>	<b>36.3</b>	<b>29.5</b>	<b>65.8</b>	<b>(8.3)</b>	<b>9.6</b>	<b>1.2</b>	<b>(1.1)</b>	<b>(1.4)</b>	<b>(2.5)</b>

Note: Because the temporary accounting treatment for the business combination with Calgon Carbon Corporation was determined at the end of fiscal 2018, the effect of said determination has been applied to the figures for the corresponding period of the previous fiscal year.

# kuraray

All figures are rounded to the nearest hundred million yen.

This presentation contains various forward-looking statements which are based on the current expectations and assumptions of future events. All figures and statements with respect to the future performance, projections, and business plans of Kuraray and its group companies constitute forward-looking statements. Although Kuraray believes that its expectations and assumptions are reasonable, actual results and trends of Kuraray's performance could differ materially from those expressed or implied by such figures or statements due to risks and uncertainties in the future business circumstances. The factors which may cause such difference include, without limitation: (1) general market and economic conditions in Asia including Japan, the U.S., Europe and other regions; (2) fluctuations of currency exchange rates, especially between the Japanese yen and the U.S. dollar and other foreign currencies; (3) changes in raw material and fuel costs; (4) industrial competition and price fluctuations in Japan and international markets; (5) advance or delay in the construction of new plants and production lines; (6) successful development of new products and technologies; and (7) changes in laws and regulations (including tax and environmental) and legal proceedings.