

FY2018 Earnings Presentation (Overview)

KURARAY CO., LTD.

Overview of FY2018 Results

(Billion yen)

	FY2018	FY2017	Difference
Net Sales	603.0	518.4	84.5(16.3%)
Operating Income	65.8	76.4	-10.5(-13.8%)
Ordinary Income	61.2	74.2	-13.0(-17.6%)
Net Income※	33.6	54.5	-20.8(-38.4%)

Reference

JPY/USD	110	112
JPY/EUR	130	127
Domestic naptha (JPY 1,000/kl)	51	39

※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.

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

Outcomes of Main FY2018 Initiatives

Implementation of the following measures based on the main management strategies of PROUD 2020

Pursue competitive superiority

- ◆ Optical-use poval film: Decided capacity expansion in line with market needs
- ◆ PVB film: Boosted highly functional film production capacity of South Korean plant
- ◆ Water-soluble PVA film: Boosted production capacity and decided to construct a new U.S. plant
- ◆ EVAL: U.S. plant launched with a boosted production capacity of +11,000 tons per year
- ◆ Isoprene: Decided to invest in the construction of a new plant in Thailand
- ◆ Newly established Corporate Marketing Group determined target business fields and started Groupwide collaborations

Expand new business fields

- ◆ Liquid crystal polymer film *VECSTAR*: Boosted production capacity due to increased demand
- ◆ Decided to invest in U.S. resin production facilities to expand the business of the bio-based barrier material *PLANTIC*.

Enhance comprehensive strengths of the Kuraray Group

- ◆ Promote integration of the Calgon Carbon Corporation
- ◆ Introduced a global SAP system
- ◆ Strengthened working style reform efforts
 - Increased operational efficiency
 - Introduced work-from-home system

Forecast for FY2019

(Billion yen)

	FY2019	FY2018	Difference
Net Sales	630.0	603.0	27.0
Operating Income	79.0	65.8	13.2
Ordinary Income	75.0	61.2	13.8
Net Income*	47.0	33.6	13.4

Domestic naphtha
(JPY1,000/kl)

¥43

¥51

USD (average)

¥110

¥110

EUR (average)

¥130

¥130

*Net Income Attributable to Owners of the Parent

Key Initiatives for FY2019

Pursue competitive superiority

- ◆ **EVAL**: Consider new plant investment
- ◆ **Water-soluble PVA film**: Consider investment and construction site of a new plant
- ◆ **Isoprene**: Advance the new plant project in Thailand
- ◆ **Calgon Carbon**: Consider boosting U.S. production capacity
- ◆ **Meltblown nonwoven fabric**: Decide on boosting production capacity
- ◆ **Strengthened quality improvement and production efficiency using IoT**

Expand new business fields

- ◆ **Liquid crystal polymer film VECSTAR**: Consider investment in full-scale mass production facilities
- ◆ **Discover new fields and create new applications by enhancing corporate marketing functions**

Enhance comprehensive strengths of the Kuraray Group

- ◆ **Promote integration of the Calgon Carbon business and generate synergies**
- ◆ **Promote working style reforms**

**FY2018: ¥42 per share scheduled
(interim: ¥20, year-end: ¥22)**

- Share Buyback
 - Fiscal 2018 results (May 16, 2018 to June 4, 2018)
 - Total shares acquired: 2,200,000;
Total value of shares acquired: ¥3,728,894,000

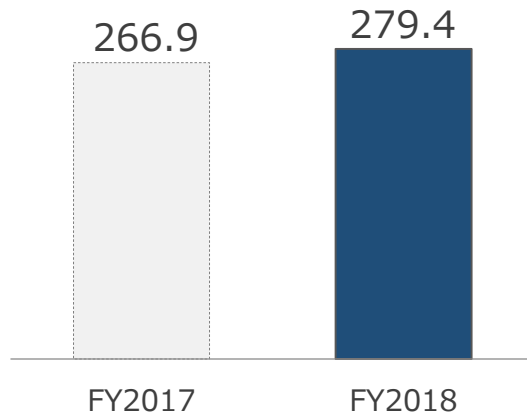
**FY2019: ¥42 per share scheduled
(interim: ¥20, year-end: ¥22)**

- Share Buyback
 - Fiscal 2019 scheduled (February 14, 2019 to December 26, 2019)
 - Maximum number of shares : Up to 5.0 million shares;
Maximum value of buyback : Up to ¥10.0 billion

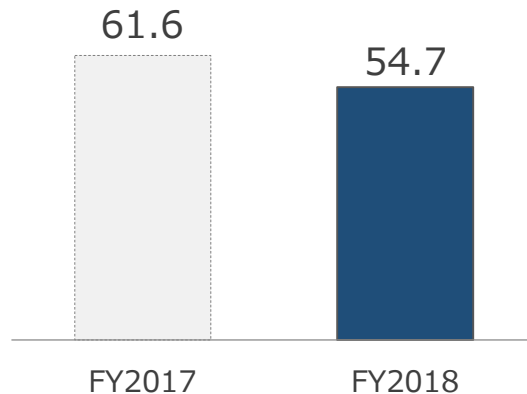
FY2018 Results (Details)

KURARAY CO., LTD.

Net Sales (Billion yen)



Operating Income (Billion yen)



■ PVA resin

Remained firm due to an increase in high-value added products, despite a decrease in sales volume.

■ Optical-use poval film

Sales of optical-use poval film rose due to a favorable 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 facilities 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 expanded but were impacted by the higher raw material and fuel prices.

■ PVB film

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

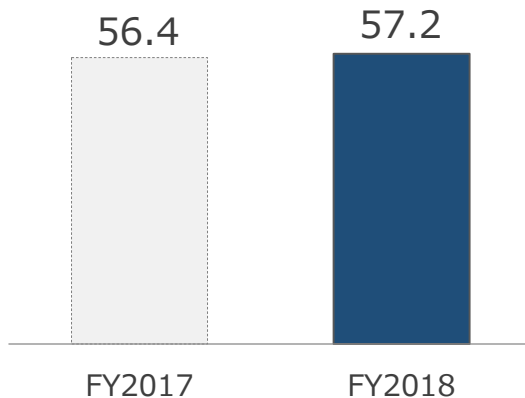
■ EVAL

EVAL were affected by shutdown maintenance and a fire in May 2018 at the U.S. plant.

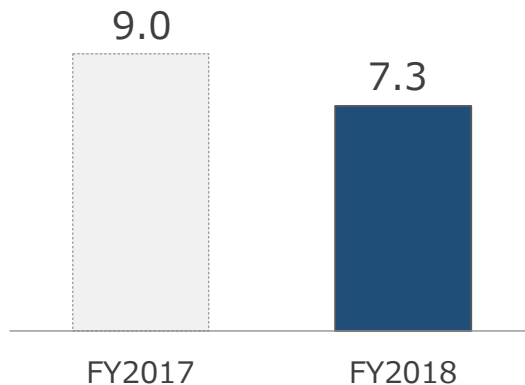
*Following the change in the method used for evaluating products, raw materials, and work in process under inventories to the first-in first-out. Figures for the fiscal 2017 have been restated.

*Operating income in the 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.

Net Sales (Billion yen)



Operating Income (Billion yen)



■ Isoprene

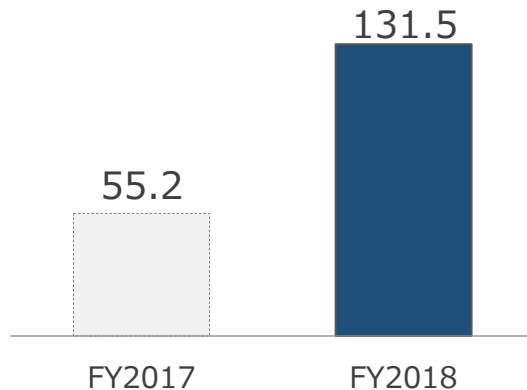
In isoprene chemicals and *SEPTON*, sales were affected by higher raw material and fuel costs throughout the year. In addition, amount of shipment declined from the latter half of the year, resulting in sales roughly equal to the previous year.

■ GENESTAR

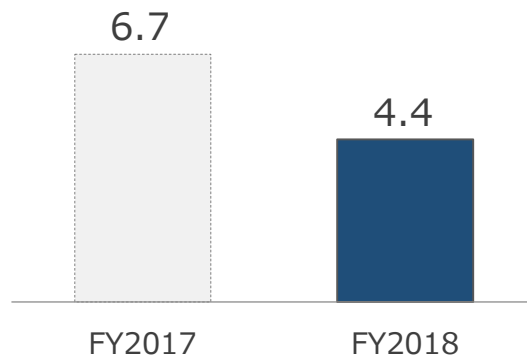
The sales volume expanded, especially for automotive and connector applications, but was impacted by higher raw material and fuel prices.

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Net Sales (Billion yen)



Operating Income (Billion yen)



■ Methacrylic Resin

Sales were favorable due to an expansion in sales of high-value added products in addition to continuing healthy market conditions.

■ Medical

In the medical business, sales were favorable, especially for cosmetic and restorative dentistry products.

■ Carbon Materials

The sales volume of general purpose applications decreased.

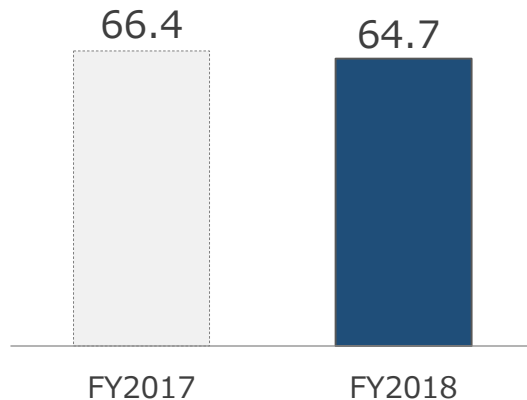
■ Calgon Carbon

Performance was affected by goodwill and other depreciation expenses, which were finalized in the fourth quarter.

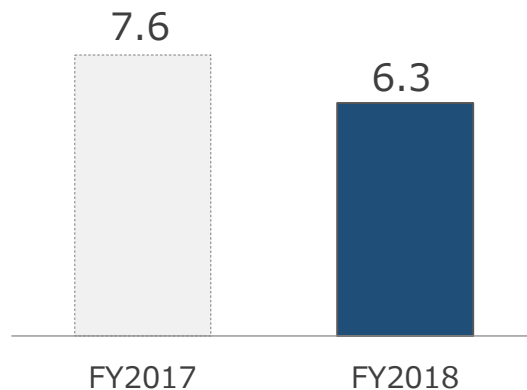
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*Calgon Carbon results are included in results from the first quarter of fiscal 2018.

Net Sales (Billion yen)



Operating Income (Billion yen)



■ **CLARINO**

Sales of *CLARINO* use in sports shoes declined but continued to expand for luxury item applications.

■ **Fibers and Industrial Materials**

Sales of *KURALON* were negatively affected by lower exports and higher raw material and fuel costs.

■ **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 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 fiscal 2017 onward.

Sales and Operating Income by Segment

(Billion yen)

	FY2018		FY2017		Difference	
	Net Sales	Operating Income	Net Sales	Operating Income	Net Sales	Operating Income
Vinyl Acetate	279.4	54.7	266.9	61.6	12.5	(6.9)
Isoprene	57.2	7.3	56.4	9.0	0.8	(1.7)
Functional Materials	131.5	4.4	55.2	6.7	76.3	(2.3)
Fibers & Textiles	64.7	6.3	66.4	7.6	(1.7)	(1.3)
Trading	138.8	4.2	131.7	3.9	7.1	0.3
Other Business	58.0	1.2	51.4	3.0	6.6	(1.8)
Elimination & Corporate	(126.7)	(12.3)	(109.5)	(15.4)	(17.2)	3.1
Total	603.0	65.8	518.4	76.4	84.5	(10.5)

*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.

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

Extraordinary loss of FY2018

(Billion yen)

	FY2018	Main factors
Impairment loss	6.7	Bio-based barrier material <i>PLANTIC</i> and others
Disaster loss, Cost related to the suspension of operations	3.1	Fire at the U.S. <i>EVVAL</i> plant and others
Expenses incurred upon acquisition	1.0	Related to the Calgon Carbon Corporation acquisition
Loss on disposal of tangible fixed assets	0.7	
Total	11.5	

Cash Flow for FY2018

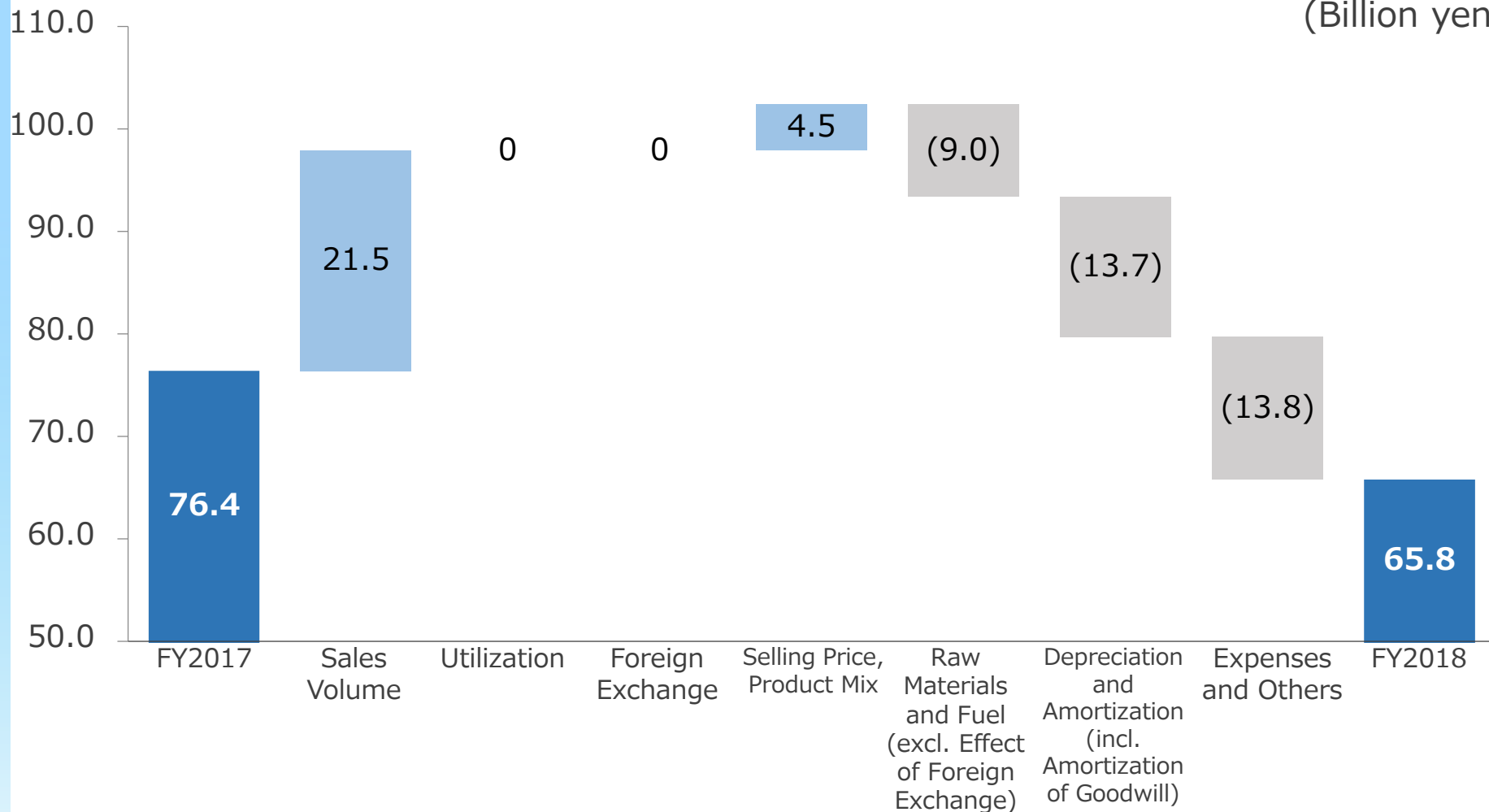
(Billion yen)

	FY2018	FY2017	Difference
Operating CF	75.2	84.6	(9.4)
Investing CF*	(67.6)	(58.0)	(9.6)
Free CF*	7.6	26.6	(19.0)
M&A	(119.8)	0	(119.8)
EPS	¥96.05	¥154.85	(¥58.80) (-38.0%)
BPS	¥1,592.96	¥1,587.60	¥5.36 (+0.3%)
CAPEX(Decision basis)	146.0	54.7	91.3
CAPEX(Acceptance basis)	66.8	54.5	12.3
Depreciation and Amortization (incl. amortization of goodwill)	56.7	43.0	13.7
R&D Expenses	21.2	21.0	0.2

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

Factors Affecting the Change in Operating Income [1]

(Billion yen)



	FY2017	FY2018
Domestic naphtha(JPY1,000/kl)	¥39	¥51
USD (average)	¥112	¥110
EUR (average)	¥127	¥130

Factors Affecting the Change in Operating Income [2]

(Billion yen)

FY2017

76.4

Impact of consolidation of Calgon Carbon Corporation (CCC) (3.0)

Impact of fire at U.S. the *EVVAL* plant (4.0)

(10.5)

Volume and capacity utilization (excluding impact of consolidation of CCC) +6.0

Terms of trade (raw materials, fuels, sales prices, exchange rates) (4.5)

Other expenses (excluding impact of consolidation of CCC) (5.0)

FY2018

65.8

Raw material prices and exchange rates

FY2017

FY2018

Domestic naphtha(JPY1,000/kl)

¥39

¥51

USD (average)

¥112

¥110

EUR (average)

¥127

¥130

Balance Sheet [1]: Assets

(Billion yen)

	Dec. 31, 2018	Dec. 31, 2017	Difference
Current Assets	398.7	360.5	38.2
Noncurrent Assets	548.4	416.3	132.1
Total Assets	947.1	776.7	170.4

Reference: Exchange rates at end of period

	Dec. 31, 2018	Dec. 31, 2017
JPY/USD	111	113
JPY/EUR	127	135

Balance Sheet [2]: Liabilities and Net Assets

(Billion yen)

	Dec. 31, 2018	Dec. 31, 2017	Difference
Current Liabilities	144.8	108.1	36.7
Noncurrent Liabilities	235.3	103.2	132.1
Total Liabilities	380.1	211.2	168.8
Net Assets	567.0	565.5	1.5
Total Liabilities and Net Assets	947.1	776.7	170.4

Reference: Exchange rates at end of period

	Dec. 31, 2018	Dec. 31, 2017
JPY/USD	111	113
JPY/EUR	127	135

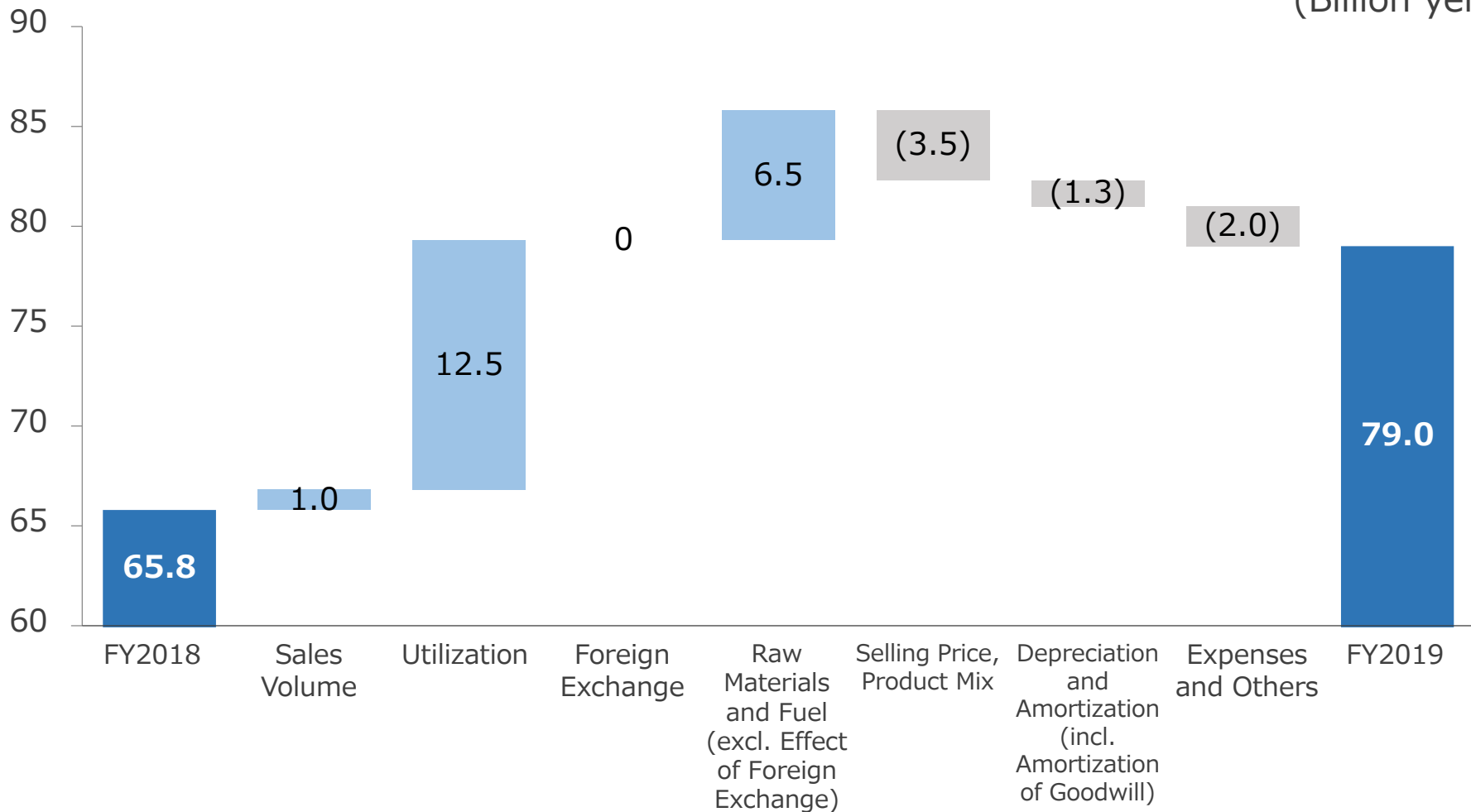
Forecast for FY2019

(Billion yen)

	FY2019 Full-Year Forecast	FY2018 Full-Year Results	Difference
Net Sales	630.0	603.0	27.0
Operating Income	79.0	65.8	13.2
Ordinary Income	75.0	61.2	13.8
Net Income	47.0	33.6	13.4
EPS	¥134.79	¥96.05	(+¥38.74)
Dividends per share	¥42	¥42	¥0
CAPEX(Decision basis)	100.0	146.0	(46.0)
CAPEX(Acceptance basis)	103.0	66.8	36.2
Depreciation and Amortization (incl. amortization of goodwill)	58.0	56.7	1.3
R&D Expenses	22.5	21.2	1.3

Factors Affecting the Change in Operating Income

(Billion yen)



	FY2018	FY2019
Domestic naphtha(JPY1,000/kl)	¥51	¥43
USD (average)	¥110	¥110
EUR (average)	¥130	¥130

Net Sales by Segment

(Billion yen)

	FY2019 Full-Year Forecast		FY2018 Full-Year Results		Difference	
	Net Sales	Operating Income	Net Sales	Operating Income	Net Sales	Operating Income
Vinyl Acetate	295.0	64.0	279.4	54.7	15.6	9.3
Isoprene	60.0	8.5	57.2	7.3	2.8	1.2
Functional Materials	138.0	6.0	131.5	4.4	6.5	1.6
Fibers & Textiles	68.0	7.0	64.7	6.3	3.3	0.7
Trading	145.0	4.5	138.8	4.2	6.2	0.3
Other Business	58.0	1.5	58.0	1.2	0	0.3
Elimination & Corporate	(134.0)	(12.5)	(126.7)	(12.3)	(7.3)	(0.2)
Total	630.0	79.0	603.0	65.8	27.0	13.2

【Ref.】 Forecast for FY2019

(Billion yen)

	FY2019 Full-Year Forecast		FY2018 Full-Year Results		Difference	
	1H	2H	1H	2H	1H	2H
Net Sales	312.0	318.0	301.4	301.6	10.6	16.4
Operating Income	38.5	40.5	38.2	27.6	0.3	12.9
Ordinary Income	36.5	38.5	36.5	24.7	0	13.8
Net Income*	23.0	24.0	23.8	9.8	(0.8)	14.2

*Net Income Attributable to Owners of the Parent

【Ref.】 FY2019 Forecast by Segment

(Billion yen)

	Net Sales			Operating Income		
	1H	2H	Full Year	1H	2H	Full Year
Vinyl Acetate	147.0	148.0	295.0	31.0	33.0	64.0
Isoprene	30.0	30.0	60.0	5.0	3.5	8.5
Functional Materials	68.0	70.0	138.0	3.0	3.0	6.0
Fibers & Textiles	34.0	34.0	68.0	3.0	4.0	7.0
Trading	70.0	75.0	145.0	2.2	2.3	4.5
Other Business	29.0	29.0	58.0	0.5	1.0	1.5
Elimination & Corporate	(66.0)	(68.0)	(134.0)	(6.2)	(6.3)	(12.5)
Total	312.0	318.0	630.0	38.5	40.5	79.0

【Ref.】 Net Sales by Segment

(Billion yen)

	FY2019 Full-Year Forecast		FY2018 Full-Year Results		Difference	
	1H	2H	1H	2H	1H	2H
Vinyl Acetate	147.0	148.0	137.8	141.5	9.2	6.5
Isoprene	30.0	30.0	28.9	28.3	1.1	1.7
Functional Materials	68.0	70.0	65.3	66.2	2.7	3.8
Fibers & Textiles	34.0	34.0	33.5	31.3	0.5	2.7
Trading	70.0	75.0	68.4	70.4	1.6	4.6
Other Business	29.0	29.0	29.2	28.8	(0.2)	0.2
Elimination & Corporate	(66.0)	(68.0)	(61.8)	(65.0)	(4.2)	(3.0)
Total	312.0	318.0	301.4	301.6	10.6	16.4

【Ref.】 Operating Income by Segment

(Billion yen)

	FY2019 Full-Year Forecast		FY2018 Full-Year Results		Difference	
	1H	2H	1H	2H	1H	2H
Vinyl Acetate	31.0	33.0	29.0	25.8	2.0	7.2
Isoprene	5.0	3.5	4.8	2.4	0.2	1.1
Functional Materials	3.0	3.0	3.8	0.6	(0.8)	2.4
Fibers & Textiles	3.0	4.0	3.3	3.0	(0.3)	1.0
Trading	2.2	2.3	2.1	2.1	0.1	0.2
Other Business	0.5	1.0	0.7	0.5	(0.2)	0.5
Elimination & Corporate	(6.2)	(6.3)	(5.5)	(6.8)	(0.7)	0.5
Total	38.5	40.5	38.2	27.6	0.3	12.9

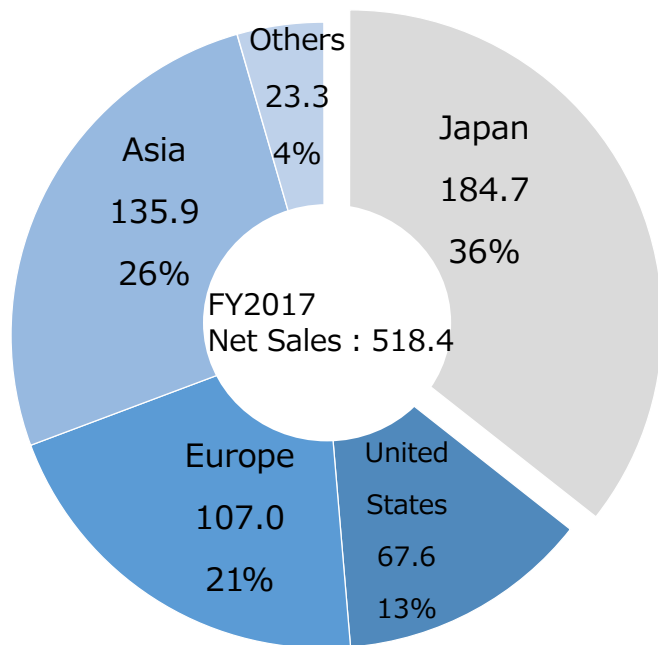
【Ref.】 Fiscal 2018 Overseas Net Sales Ratio

Overseas net sales ratio rose due to the new consolidation of Calgon Carbon Corporation

(Billion yen)

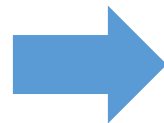
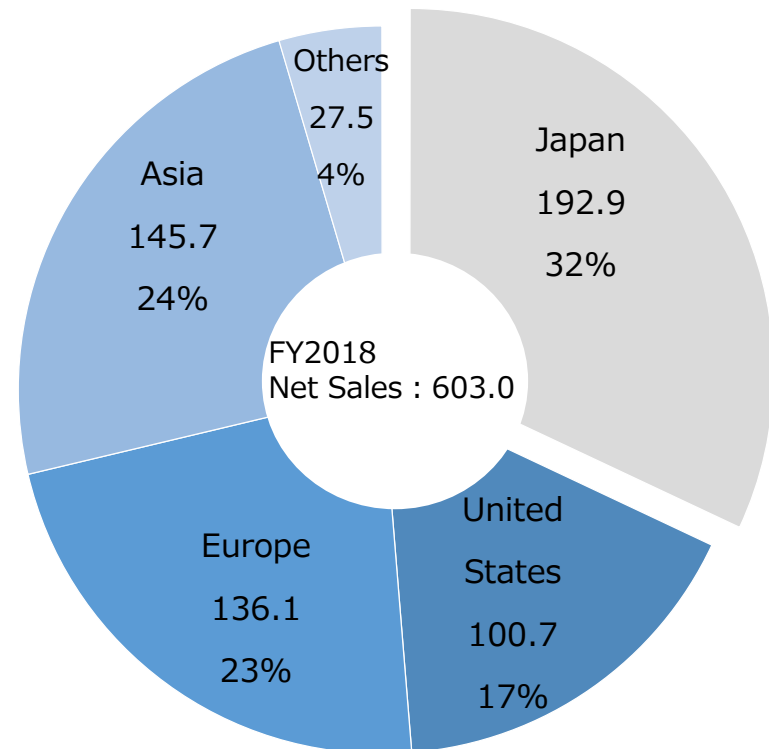
FY2017

Overseas net sales ratio : 64%



FY2018

Overseas net sales ratio : 68%



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.