

KUREHA CORPORATION Business Report 2020

Year ended March 31, 2020



KUREHA



The Pursuit of Excellence

Building on Core Strengths

Kureha Corporation is a manufacturer of highly originaive specialty chemicals and plastics that leverages proprietary technologies to develop products in the fields of advanced materials, agrochemicals, pharmaceuticals, and packaging materials. Since its establishment in 1944, Kureha has utilized its strengths in technology and innovation to provide a wide range of solutions suited to the market needs of each era.

Today, this corporate DNA drives Kureha to always pursue originality and excellence in harmony with the environment, and consistently create products that bring value to customers and society.

Corporate Philosophy

To be a company supporting an ever-changing society.

To be a company that changes society for the better.

We formulated our Corporate Identity to reflect our vision for Kureha.



We treasure
people and
the natural
environment.



We constantly
evolve through
innovation.



We contribute
to society by
developing
beneficial
products.

Contents

01 • Profile	20 • CSR	37 • Consolidated Statements of Changes in Equity
02 • At a Glance	22 • Corporate Governance	39 • Consolidated Statements of Cash Flows
03 • Consolidated Financial Highlights	27 • Management Team	40 • Notes to the Consolidated Financial Statements
04 • President's Message	28 • Consolidated Financial Summary	86 • Major Subsidiaries and Affiliates
08 • Kureha Medium-Term Management Plan	29 • Management Discussion and Analysis	87 • Investor Information
10 • Business Updates	34 • Consolidated Statements of Financial Position	
12 • Year's Highlight	36 • Consolidated Statements of Profit or Loss	
14 • Review of Operations	36 • Consolidated Statements of Comprehensive Income	
18 • Research & Development		



▶ R&D Innovation:

The Source of Our Competitiveness

We pride ourselves on our expertise in polymer engineering and processing as well as organic synthesis and carbon materials development. These technologies provide the base for the development of our original innovative materials and products. We are constantly adding and fusing new ideas to these accumulated technologies, and in the spirit of "if it doesn't exist, let's create it," each day we pursue technology solutions that only Kureha can provide to meet unmet needs.

The Pursuit of Excellence



▶ Originality and Quality to Answer Global Needs:

The Growth Potential in Global Markets

Kureha's overseas sales had reached 29% of total revenue in FY2019. Along with exports from Japan, we have production, processing and sales locations in the United States, Germany, the Netherlands, France, the U.K., China, Vietnam and Australia, enabling an effective response to needs in overseas markets. With continued growth expected in newly emerging countries and many other regions, we are taking active and strategic steps to expand sales of highly competitive products in line with the needs of overseas markets, whether for advanced materials, chemicals, or plastic products.



▶ Maximizing Earnings & Diversifying Risks:

The Path to Sustainable Growth

Our innovative products and services are broadly based but highly specialized, supporting a wide range of industries, including electrical and electronic-appliances, automotive, agriculture, medicine and energy. We maximize earnings and diversify risk through broad-based business development in promising growth fields such as the environment, energy, health and lifestyle. We continuously optimize our portfolio to align with shifting market needs while securing our earnings path.

FY2019 Revenue by Segment

Advanced Materials

¥41,842 million

29.4%



Specialty Chemicals

¥24,331 million

17.1%



**FY2019
Revenue**
¥142,398 million

Specialty Plastics

¥43,473 million

30.5%



Construction and Other Operations

¥14,457 million

10.2%

(Construction)

¥18,293 million

12.8%

(Other Operations)





Consolidated Financial Highlights

Kureha Corporation and Consolidated Subsidiaries
Years ended March 31, 2020 (FY2019) and 2019 (FY2018)

Business Areas

Advanced Plastics
Carbon Fibers & Products
Battery Materials

Agrochemicals
Pharmaceuticals
Industrial Chemicals

Household Products
Packaging Materials
Synthetic Fiber Products

Engineering & Construction
Environment Management
Transport/Warehousing

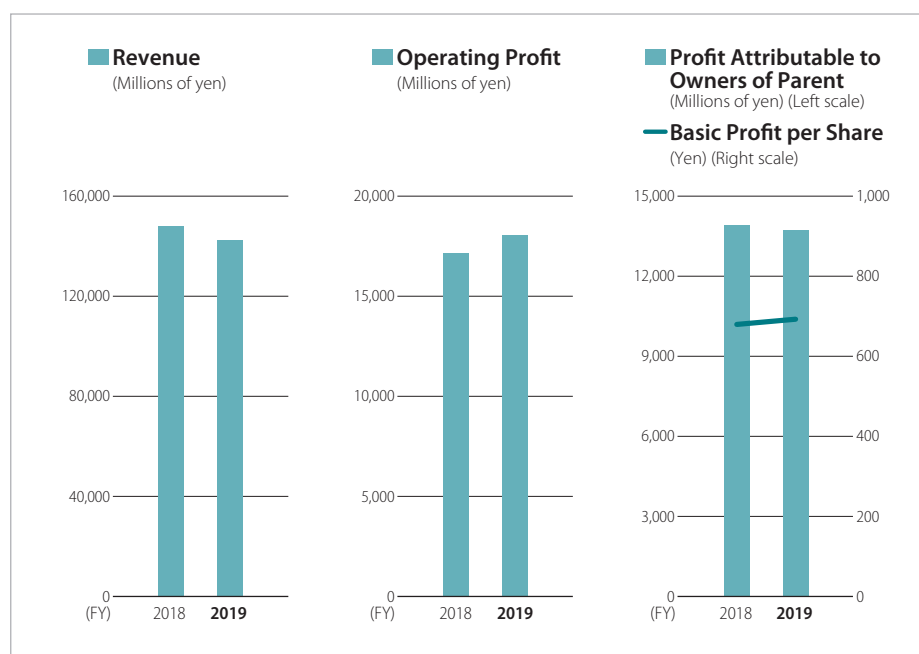
	Millions of yen		Thousands of U.S. dollars
	FY2019	FY2018	FY2019
For the year:			
Revenue	¥142,398	¥148,265	\$1,308,445
Operating profit	18,041	17,172	165,773
Profit attributable to owners of parent	13,719	13,933	126,060
Capital expenditure	14,928	13,174	137,170
Depreciation and amortization	12,110	10,310	111,278
Research and development expenses	5,995	5,270	55,090
Year-end:			
Total assets	¥246,890	¥247,352	\$2,268,591
Total equity attributable to owners of parent	164,990	160,551	1,516,039
Interest-bearing debt	37,317	39,018	342,894
		Yen	U.S. dollars
Amounts per share:			
Basic profit per share	¥ 692.61	¥ 679.55	\$ 6.36
Owners' equity per share	8,453.07	7,922.58	77.67
		Percent	
Ratios:			
Profit attributable to owners of parent to revenue	9.6%	9.4%	
Return on equity	8.4	9.0	
Return on assets	7.3	7.1	
Owner's equity ratio	66.8	64.9	

Notes: 1. For convenience only, U.S. dollar amounts have been translated from Japanese yen at the rate of ¥108.83 to US\$1, the rate of exchange prevailing on the Tokyo Foreign Exchange Market on March 31, 2020.

2. Return on equity = Profit attributable to owners of parent/Shareholders' equity × 100

3. Return on assets = Profit before tax/Total assets × 100

4. Owner's equity ratio = Owner's equity/Total liabilities and equity





Yutaka Kobayashi
President & Chief Executive Officer

Dear Shareholders,

In FY2019, the first year of the mid-term plan Kureha's Challenge 2020, we commemorated the 75th anniversary of our founding.

Regrettably, the business environment we faced this year was very different from the one in FY2018. Although the Japanese economy continued to grow moderately in the first half of the year due to steady domestic demand driven by expanding personal consumption, a consumption tax rise resulted in negative growth in the second half. Meanwhile, global economic momentum slowed due to factors including a deceleration of the Chinese economy and trade friction between the United States and China. This situation was compounded by the outbreak of COVID-19 in early 2020, which triggered a global economic crisis of extraordinary suddenness and severity.

While Kureha's Construction and Other segments recorded sales increases, revenue declined in

Advanced Materials, Specialty Chemicals and Specialty Plastics, leading Group revenue to fall by 4% year on year to 142.398 million yen. However, operating profit rose by 5.1% to 18,041 million yen while income before income taxes increased by 2.9% to 17,944 million yen. This was due to the recording of other income from the sale of land from Kureha's head office annex, which offset structural reform costs related to the polyglycolic acid (PGA) business and its line of processed resin products. Profit attributable to the owners of Kureha declined by 1.5% to 13,719 million yen due to an increase in income tax.

As originally planned, the dividend for FY2019 was 170 yen per share (an interim dividend of 85 yen and a year-end dividend of 85 yen). In addition, we acquired approximately 5 billion yen of treasury stock using cash received from the sale of land and businesses.

► Progress of the Mid-Term Management Plan, Kureha's Challenge 2020

In the year under review, which was the first year of the mid-term management plan Kureha's Challenge 2020 (FY2019 - 2020), Kureha expanded on the achievements of the previous mid-term management plan, Kureha's Challenge 2018. Based on the two fundamental concepts of product differentiation and new business creation, we continued our work to transform Kureha's business portfolio into one centered on Advanced Materials and to solidify our foundation for a leap forward as a high-value-added company.

In the field of polyvinylidene fluoride (PVDF), a resin used as a binder material for lithium-ion secondary batteries, we increased sales to major Chinese and South Korean capital lithium-ion battery (LiB) manufacturers, leveraging the production capacity expansion of 2000 tons/year that became operational at the Iwaki Factory in January 2019.

In the PGA business, sales of PGA-based frac plugs for shale oil and gas extraction increased. However, increasingly strict customer demands, intensified price

competition, and changes in the market environment such as a drop in crude oil prices, have necessitated a change in business strategy. While PGA frac plugs will maintain their positioning as core products, we will expand our portfolio in this business by developing unique products that leverage the expertise we have gained from frac plug development thus far. While the Group recorded large structural reform expenses in the year under review as a result of this change, we are confident that the new strategy will further strengthen our competitiveness.

Meanwhile, efforts to create new businesses are steadily progressing. The New Business Creation Project launched in FY2016 is now in its fourth year. Our aim is to expand our business portfolio with differentiated technologies that contribute to the resolution of social issues and help people live healthy lives.

To that end, we have invested in two start-up companies: Cambridge Touch Technologies Limited (UK), a developer of next-generation 3D multi-touch

sensor technology, and Boost Biomes Inc. (USA), which possesses microbial interaction analysis technology.

In addition, Kureha has strengthened its environmental business. The Sustainable Development Goals set forth by the United Nations require companies to contribute to the resolution of social issues, and the Group is seeking to add value by contributing to society through effective industrial waste treatment and decontamination of environmental

pollutants. Consequently, in April 2019, Kureha Ecology Management Co., Ltd., a group company that belongs to a related business, made Himeyuri Total Work Co., Ltd. a wholly owned subsidiary. This company provides integrated handling of industrial waste, from collection and transportation through to intermediate treatment and final disposal. In FY2019, Himeyuri Total Work recorded sales of 1.46 billion yen and operating profit of 480 million yen.

▶ Initiatives and Outlook for FY2020

In the final year of the mid-term management plan Kureha's Challenge 2020, our goals are to expand and ensure profit generation in the PGA business; further expand the PVDF business; optimize the business models of existing business; search for and nurture new businesses in Japan and overseas; and strengthen our management foundation. Kureha will steadily work toward these objectives.

1. Expanding the Advanced Materials Segment

In the PGA business, in order to cover the entire North American shale oil and gas market, our product development is now focused on enhancing the low-temperature decomposition performance of our frac plugs. We are also adding non-PGA degradable frac plugs to our product portfolio to meet diversifying customer needs. By reducing costs across the value chain, from the production of PGA resin through to the manufacturing and sales of frac plugs, we will raise the profitability of this business.

In the PVDF business, we have begun mass-producing PVDF for use as high-performance binder material in in-vehicle LiBs at the Changshu factory in China, with the aim of expanding supply capacity in line with market growth. Our goal is to increase profits by expanding sales to major Chinese and South Korean capital lithium-ion battery (LiB) manufacturers.

Among engineering plastics, polyphenylene sulfide (PPS) is also an investment target for the future. Demand for PPS, a resin capable of lowering the weight of automobiles by acting as a substitute for

metal, is expected to grow steadily. Construction work to increase Kureha's production capacity by 5,000 tons by early 2021 is now underway at the Iwaki Factory.

2. R&D

In addition to accelerating R&D to create new businesses, we will develop applications in existing businesses that differ from those that have existed in markets until now, and utilize unique functional and synthetic resins manufactured by Kureha to strengthen and expand downstream processed product businesses. Moreover, with digitalization progressing globally in all fields of business, we are establishing models for smart production and R&D while utilizing digital technology to boost operational efficiency.

3. Using Human Resources and Strengthening Governance

Investing in human resources is essential for the survival and growth of future businesses. In addition to developing and strengthening human resources for management and global business development, as well as technical and development personnel, we aim to appoint female managers as part of a group-wide diversity program. We are also preparing to introduce a new personnel system that will strengthen performance-based remuneration.

Strengthening corporate governance is central to strengthening the management foundation. In FY2019, Kureha appointed its first female outside corporate auditor. In addition, we have changed the employment form for executive officers from



an employment-type to a delegation-type system, and increased performance-based compensation (via stock options) to create a system that fosters a high degree of commitment from executive officers to enhance corporate value.

4. Impact of COVID-19

The COVID-19 pandemic has had a significant impact on Japan, the global community, and the world economy. Due to the extreme uncertainty of the current situation, it is difficult to foresee the extent to which, and for how long, business performance will be affected by the suspension of customer operations, supply chain disruptions, and changes in society caused by the virus. For this reason, Kureha has not yet made forecasts for FY2020 (as of August 2020).

That being said, throughout our 75-year history, we have faced many difficulties, including circumstances that can be described as crises. In such times, Kureha's employees have always overcome the challenges before them by combining their strengths

and making optimal use of their skills to generate numerous technological innovations.

Kureha seeks to generate sustainable value and profit growth by developing differentiated high-value products that contribute to society. Our employees are the driving force that enables us to realize this goal. I would like to take this moment to thank all of our employees for their hard work, and for being the force that moves us forward. The road ahead is challenging, but we will overcome COVID-19 in the same way we have overcome past challenges: Together, as one company, driven by your spirit, passion and ingenuity. I am convinced that Kureha can look forward to a prosperous future.

I would also like to thank you, dear shareholders, for your investment and confidence in us. We look forward to your continued support as we move toward our goals.

Yutaka Kobayashi

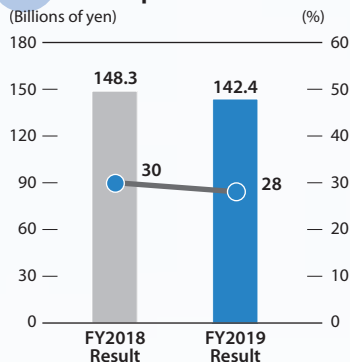
President & Chief Executive Officer
June 2020

Review of FY2019

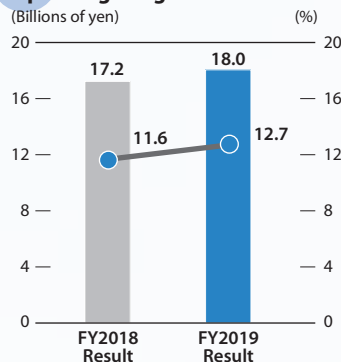
FY2019 was 1st year of our new Medium-term Management Plan “Kureha’s Challenge 2020.” Kureha’s business environment in FY2019 was more challenging than that of the previous year. External factors shaping market conditions include slowdowns in the semiconductor and industrial chemicals markets, a reduction in electric vehicle (EV) subsidies in China, plunging crude oil prices, and the unprecedented global economic shock caused by COVID-19. Although performance continued to be strong in the Construction and Other segments, as well as in the home and fiber products businesses in the Specialty Plastics segment, these extraordinary circumstances led to a reduction in Group revenue.

However, as shown by the operating profit increase to 18.0 billion yen and core operating profit of 16.0 billion yen, Kureha’s profit base remains strong. The challenging conditions have also demonstrated the importance of our continuous efforts to reduce costs, raise operating efficiency, and reinforce our capacity for innovation.

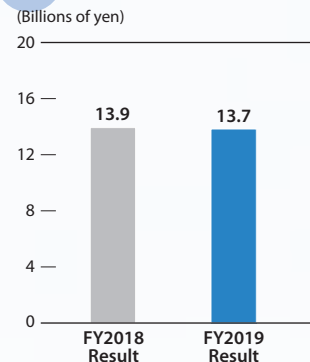
Revenue/ Overseas Proportion



Operating Profit/ Operating Margin



Profit Attributable to Owners of Parent



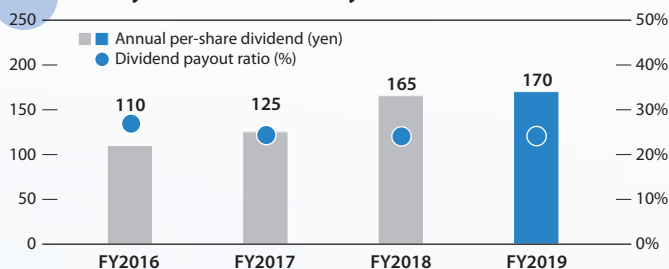
Capital Investment and R&D Expenditures

(Billions of yen)	FY2018 Result	FY2019 Result
Capital investment	13.2	14.9
Depreciation	10.3	12.1
R&D expenditures	5.3	6.0

ROA and ROE

	FY2018 Result	FY2019 Result
ROA	7.1%	7.3%
ROE	9.0%	8.4%

Dividend Payout and Dividend Payout Ratio



Share Repurchase



FY 2020 financial guidance is not announced as we are unable to assess the impact of new coronavirus on our global business operations. It will be announced promptly when we determine a reasonable forecast. Regarding current circumstances, achieving quantitative targets of Kureha’s Challenge 2020 is difficult. However, qualitative management goals are unchanged. We will continue to strive achieving these goals.

Management Goals and Priority Measures (Asterisks indicate a new priority measure)

Action 01

Expand the PGA Business and Generate Earnings

- Increase and stabilize sales of Kureha's original frac plugs, and establish a business foundation

Action 02

Strengthen the PVDF Business for Further Expansion

- Advance the development of high-performance LIB binders with competitive advantages
- Secure raw materials and raise production capacity to support business expansion

Action 03

Optimize the Business Models for Existing Businesses

- Revise business strategies and alliances to better respond to changes in the business environment*
- Develop new applications for downstream business; expand existing business in different markets and application fields*

Action 04

Explore and Develop New Businesses in Japan and Overseas

- Seek out new application business themes in Japan and overseas*
- Assess the themes already identified, prioritize the necessary resources, and utilize outside resources to accelerate commercialization
- Cultivate the personnel needed for downstream business development; invest the resources needed to accelerate technological innovations*

Action 05

Strengthen Management Foundations

- Build a value chain management structure led by business divisions
- Enhance efficiency of administrative tasks and group management
- Reinforce performance-based personnel and pay systems; promote talented middle-age/young employees and recruit senior workers; cultivate and strengthen human resources
- Enhance productivity by utilizing digital technologies; build smart operation models for production and R&D*
- Strengthen corporate social responsibility (CSR) management to encompass Sustainable Development Goals (SDGs); ensure strong governance particularly for safety, quality, and environment (SQE) management*

Having previously centered on the Specialty Chemicals segment, Kureha is now shifting to a business structure centered on the Advanced Materials segment. FY2019 updates for the advanced plastics products that make up the Advanced Materials segment are shown below.

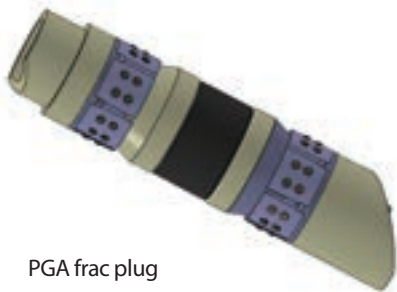
▶ Polyglycolic Acid (PGA)

PGA is a biodegradable resin with exceptional mechanical strength and gas barrier properties. Kureha is the only company in the world producing this resin on an industrial scale. We have high expectations for this innovative specialty polymer as a frac plug material that will revolutionize the shale oil and gas extraction process.

In FY2019, we steadily increased sales of Kureha-developed PGA plugs through our US subsidiary, having made a strong commitment to securing the profitability of the PGA business. However, alongside ever-stringent customer demands for quality and performance, Kureha faces downward pressure on prices in the US market for frac plugs used in shale oil/gas extraction due to the entry of cheap competitive products. Moreover, there are

concerns that shale oil/gas production will decline in 2020 due to the sharp fall in crude oil prices and the effects of Covid-19.

To further strengthen the competitiveness of our PGA plugs, it is necessary to conduct a thorough review of business assets that have accumulated over the past years. For this purpose, we have recorded structural reform expenses of 10.6 billion yen in other expenses for FY2019, including an impairment loss on fixed assets. In the future, while positioning PGA plugs as our core offering, we will also develop and sell non-PGA degradable plugs to meet customer needs in a one-stop manner. We will continue to strengthen this business by always supplying products of excellent performance and quality.



PGA frac plug

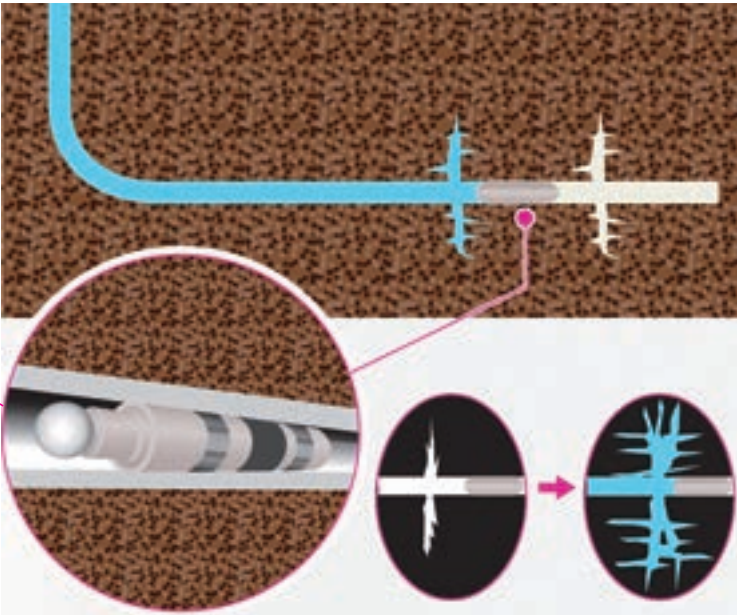


Image of shale oil and gas extraction process

▶ Polyvinylidene Fluoride (PVDF)

PVDF, when used as a binder for the connecting electrodes in lithium-ion batteries (LiBs), requires advanced electrical characteristics. As one of just a handful of companies that produces PVDF for this purpose, Kureha holds around a 40% share of the worldwide market for automotive PVDF binders, with acclaimed product performance. Going forward, we will continue to expand production. Alongside new capacity at our facility in China, which has begun to produce new grades of binder material for in-vehicle LiBs, we will work to remove bottlenecks at the Iwaki Factory in Japan by early 2021. Kureha is also considering options for adding an additional plant (delayed due to the pandemic) and will determine its location and production capacity by end-FY2020.



PVDF

▼ Used as a binder material for in-vehicle LiBs



Kureha holds around a 40% share of the worldwide market for automotive PVDF binders.

▶ Polyphenylene Sulfide (PPS)

PPS is gaining widespread use as a replacement for metal in various components owing to its excellent heat resistance, strength, and workability. Kureha produces these plastics to support the automotive industry both in Japan and overseas, and is actively working to develop this business globally. To meet further demand growth, we are expanding production capacity with an additional 5,000 tons per year at our Iwaki Factory in Japan. Construction started in 2019 as scheduled and will be completed in the fall of 2020. Commercial operation will begin in February 2021 once a trial run has been completed.



Construction is on-schedule

▶ Business Portfolio Restructuring

Kureha is currently reorganizing its business portfolio to raise the competitiveness and profitability of existing businesses. As part of these efforts, we made two decisions in 2019.

First, Kureha acquired Himeyuri Total Work Co., Ltd. in April 2019 through Kureha Ecology Management Co., Ltd. Himeyuri Total Work owns a final disposal site for industrial waste and has

an existing capital relationship with our group company Kureha Ecology Management. The acquisition is in line with the Kureha Group's policy of strengthening its environmental business and has created a vertical value chain enabling greater earnings stability in this business.

Vertical Value Chain of Industrial Disposal



As this example demonstrates, Kureha's policy is to make acquisitions after first developing a good relationship with the target firm over a longer period in which the parties get to know each other. The decision was taken to demonstrate our intention to actively develop our growth businesses.

Second, we transferred Kureha's blow bottle business to



Kureha's blow bottle business was transferred to transform our business portfolio into one centered on Advanced Materials.

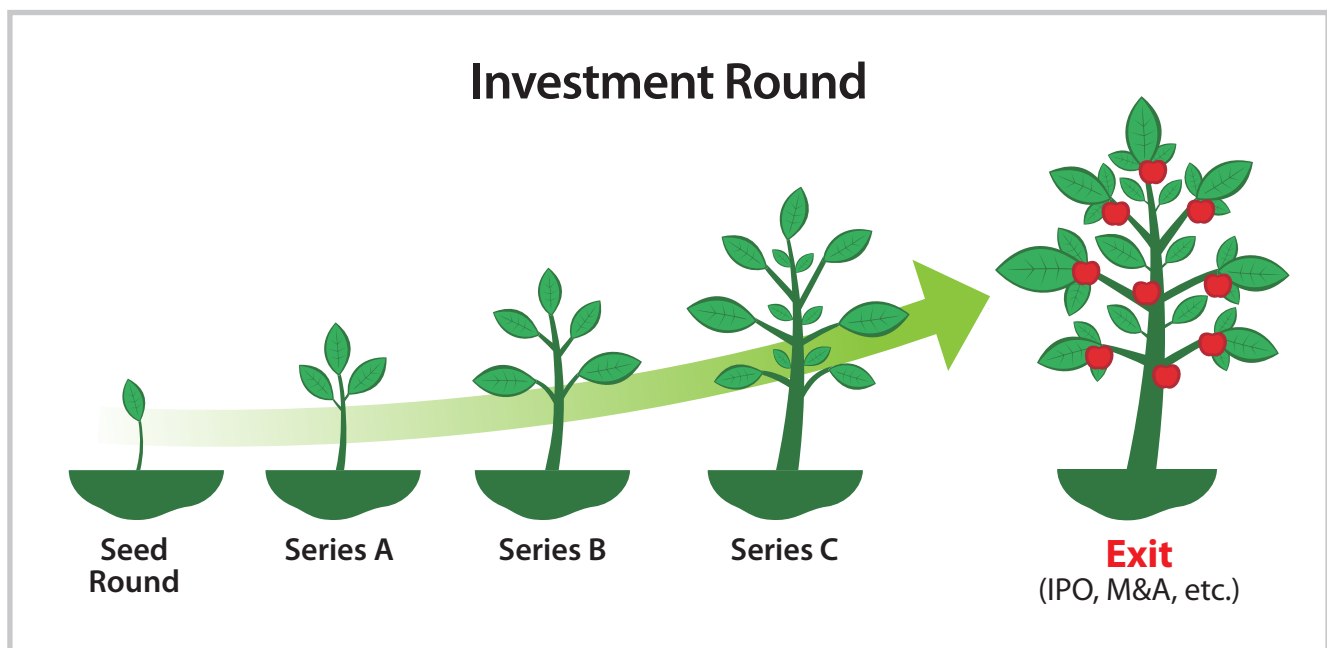
Kyodo Printing Co., Ltd. in November. A blow bottle is a multi-layer plastic container for food created through a co-extrusion hollow molding method. The container is made from EVOH resin with excellent gas barrier properties, with olefin resin used for the inner and outer layers. The excellent gas barrier properties make it difficult for moisture, oxygen and carbon dioxide to pass through the container, preventing spoilage due to microorganisms and oxygen, while also preserving aromas well. Due to these characteristics, blow bottles are used as containers for liquids such as mayonnaise, ketchup, sauce, dressing and oil.

While this product has continually contributed to Kureha's profits since 1965, the decision shows our determination to transform our business portfolio into one centered on Advanced Materials. Kureha gains 1.2 billion yen on this business transfer. We will make effective use of these funds by investing in growth fields to support the next leap of the Kureha Group.

▶ Investing in Growing Ventures for Future Growth Boost Biomes Inc. and Cambridge Touch Technologies

Exploring and developing new businesses in Japan and overseas is a key part of the Management Goals and Priority Measures set forth in Kureha's mid-term management plan Kureha's Challenge 2020. Against that background, in FY2019, Kureha America Inc.

made a seed investment in Boost Biomes Inc. (BBI) while Kureha Corporation led a round of Series B financing in Cambridge Touch Technologies (CTT).



Firstly, Boost Biomes is an early-stage startup that develops microbial products. The company has a microbiome discovery platform, a proprietary technology exclusively licensed by the Lawrence Berkeley National Laboratory. Their unique platform technology enables the company to identify interactions among members of a microbiome and quickly screen combinations of different microbes that yield desired effects suitable for use in various fields such as bio-fungicides and food preservatives.

Boost Biomes is developing new products to address critical needs in agriculture, increase crop yields and reduce post-harvest waste. Underlying the products is a proprietary microbiome technology platform that enables Boost a unique understanding of interactions within microbiomes, leading to superior products that are effective, safe, organic and natural. The value ground underpinning the company's activities are an excellent match with Kureha's own commitment to contributing to society in fields such as food packaging and agricultural chemicals.

Meanwhile, the Series B investment into CCT is expected to produce synergies with Kureha's development of piezo film products.

CTT is a fast-growing developer of next-generation touch sensors spun off from the University of Cambridge in the United Kingdom. The firm's UltraTouch Sensor is based on proprietary touch signal processing algorithms combined with Kureha's specialized piezoelectric film, KF Piezo. Due to its simple architecture, the technology enables lower costs and improved performance compared to existing technologies.

In 2016, Kureha began to support CTT's development of UltraTouch sensors by leveraging the material technologies and know-how accumulated by Kureha over the years.

Through this investment, Kureha will seek to expand its business scope by strengthening the downstream presence of KF Piezo. In this way, Kureha will continue to seek new alliances that enable us to obtain seeds of new business creation, even with businesses that are at an early stage of development.

▶ Advanced Materials



**Major Product Areas:
Advanced plastics (PPS, PVDF, PGA), carbon materials**

Advanced Materials revenue fell 9% year-on-year to 41.8 billion yen. Operating profit decreased by 19% to 3.7 billion yen.

PGA: Profitability Attained, Kureha Moving to Counter Adverse Market Conditions

In the PGA business, Kureha Energy Solutions (KES) successfully expanded sales volumes of PGA frac plugs for mid- and high-temperature wells. Sales of PGA stock shapes also grew in the second half of the year once destocking was completed in Q1. This positive momentum took the PGA business into the black by a slight margin. Kureha's innovative degradable frac plugs have now been adopted by 32 field operators in the United States, almost doubling year on year, and 51 field trials have been conducted.

However, challenges remain. Slow sales of frac plugs for low-temperature wells means our development of this product will require further effort. In addition, Kureha's expansion of the PGA business faces adverse external factors such as falling crude oil prices, increasingly stringent customer demands, and intensifying price competition. To enhance our competitiveness, Kureha will expand operations beyond our core PGA-based offering into the development and sales of non-PGA frac plugs. We will also seek to improve production efficiency throughout the value chain. Here, a key goal will be to significantly reduce business assets and the fixed cost burden left over from Kureha's initial, PET bottle-focused business development of global scope and create a much more agile organization capable of sustained growth. To implement this change in strategy, Kureha recorded business restructuring expenses of approximately 10.6 billion yen in Q4 FY 2019.

PVDF: External Factors Dampen Demand Growth in Q4

Demand for PVDF, a binder material for lithium-ion batteries (LiBs) that is vitally important for EV production, showed rapid growth for most of the fiscal year, leading Kureha to strengthen its customer base in South Korea and China. However, the reduction of EV subsidies implemented by the Chinese government in June dampened demand for such vehicles over the latter half of 2019 in China and consequently lowered demand for PVDF. Demand was further affected by COVID-19, which led customers in China and South Korea to halt operations and forced us to temporarily stop production at our factory in Changshu, China in February. The pandemic also extended the lead times for raw material delivery to our main factory in Iwaki, Japan, which up until that point had operated at full capacity. As a result, revenue in the PVDF business remained largely flat year on year while operating profit decreased.

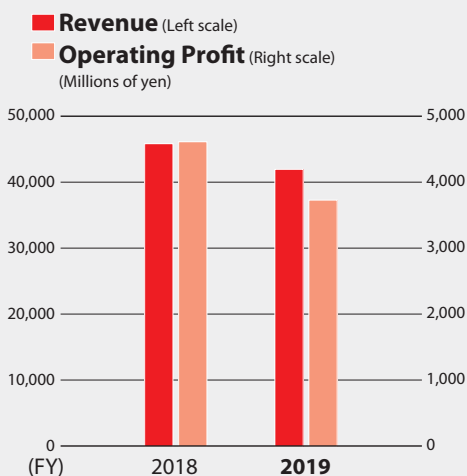
However, Kureha is taking steps to meet the fierce demand for this material once markets stabilize. The Iwaki Factory is enhancing its capacity for specialty polymer production in response to growing demand for advanced binder, and the Changshu Factory will begin volume production of specialty polymer for use in LiBs in Q1 FY2020. By end-FY2020, Kureha will also determine the location and production capacity of an additional PVDF plant.

PPS: Slowing Automotive Industry Momentum Affects Earnings

Revenue and operating profit declined in Kureha's polyphenylene sulfide (PPS) business due to exchange rate fluctuations and shifts in customer applications that we are now incorporating into our marketing strategy. However, Kureha anticipates continued strong demand for automotive applications and is on track to complete a capacity expansion of 5,000 tons / year at the Iwaki Factory in 2020. The combination of light weight and heat stability makes PPS an excellent replacement for metals and the material is finding wide-ranging application as the automotive industry shifts toward CASE (Connected, Autonomous, Shared & Electric) models.

Carbon Products: Slowing Global Semiconductor Demand Affects Revenue and Profits

Kureha's carbon products business was affected by lower sales volumes of heat-insulating materials used in the manufacturing of ingots for semiconductors, leading to reduced revenue and operating profit. This was mainly due to the general slowdown in the global semiconductor market seen in 2019.



Key products

- Polyphenylene sulfide (PPS)
- Polyvinylidene fluoride (PVDF)
- Polyglycolic acid (PGA)
- Carbon fibers
- Bead-shaped activated carbon

► Specialty Chemicals



Major Product Areas: Industrial chemicals, agrochemicals, pharmaceuticals

Specialty Chemicals revenue fell by 11% to 24.3 billion yen while operating profit decreased by 36% to 2.1 billion yen.

Agrochemicals: Adverse Weather Conditions Affect Fungicide Sales Volumes

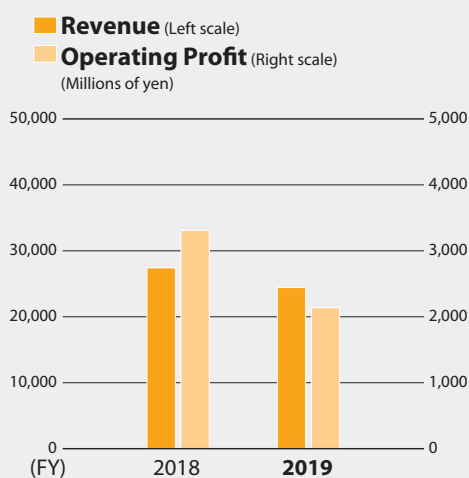
In the agrochemicals business, adverse weather conditions in Europe and flood damage in North America in connection with the severe 2019 hurricane season affected sales volumes of the wheat and rapeseed fungicide *Metconazole*. The resulting reduction in revenue and operating profit more than offset continued sales growth of rice seed treatment *Ipconazole*.

Pharmaceuticals: Sales Stable Year on Year, Offsetting Mandatory Drug Price Revisions

The new tablet version of *Kremezin*, a therapeutic agent for chronic kidney disease, maintained the healthy sales volumes seen in the previous year, offsetting government-mandated drug price revisions. Improved productivity and reduced research costs led to a rise in operating profit.

Industrial Chemicals: Revenue and Operating Profit Down on Lower Sales Volumes

Revenue and operating profit decreased due lower sales volumes of both organic and inorganic chemicals, although measures taken over the year to improve the operating margin, including price adjustments and cost reductions, helped to cushion the fall.



Key products

- Therapeutic agent for chronic renal failure
- Agricultural and horticulture fungicide
- Caustic soda
- Hydrochloric acid
- Sodium hypochlorite
- Monochlorobenzene
- para-Dichlorobenzene
- ortho-Dichlorobenzene



Agricultural and horticulture fungicide (*Metconazole*)



KREMEZIN® Tablets 500 mg

▶ Specialty Plastics



Major Product Areas:
Household packaging products, food packaging materials, auto-packaging machinery

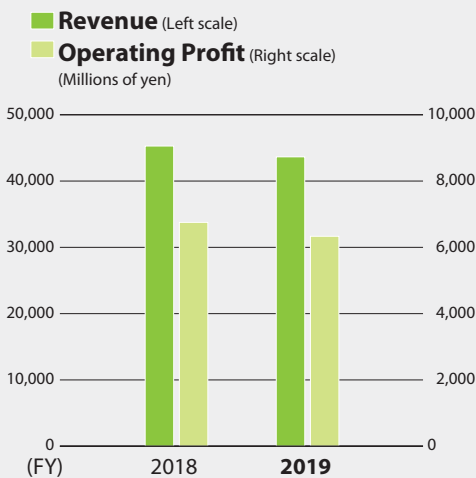
Specialty Plastics revenue was down by 4% to 43.5 billion yen, while operating profit decreased by 6% to 6.3 billion yen.

Home / Fiber Products: Continued Healthy Growth for New Krewrap and Kichinto-San

Home products continued to see healthy growth due to expanding sales of Kureha's flagship *NEW Krewrap* plastic wrap and increased profitability for the *Kichinto-san* product series. The business saw particularly notable growth during the spring of 2020, with sales rising by over 110% in February and March. During this time, pandemic-related restrictions such as school closures, together with the spread of remote work and people refraining from going out, led to increased meal consumption at home and higher demand for *NEW Krewrap*. In fiber products, sales volumes of Kureha's popular fishing line *Seaguar* also continued to grow.

Food Packaging Materials: Lower Sales Volumes for Heat-Shrink Multilayer Film

Slower sales of heat-shrink multilayer film in overseas markets resulted in lower revenue and operating profit for this business. The main factors were intensifying competition in Russia and Eastern Europe and lower meat production in Australia due to drought. The transfer of Kureha's blow bottle business to Kyodo Printing in November 2019 also affected earnings in this business.



Key products

- Household wrap film
- Plastic containers
- PVDF fishing lines
- Polyvinylidene chloride (PVDC) film
- Multilayer shrinkable film
- Machinery for auto-seal food packaging



Home-use wrap film, *NEW Krewrap*



Krehalon food packaging film



Seaguar fluorocarbon fishing lines

► Construction and Other Operations



Major Product Areas:

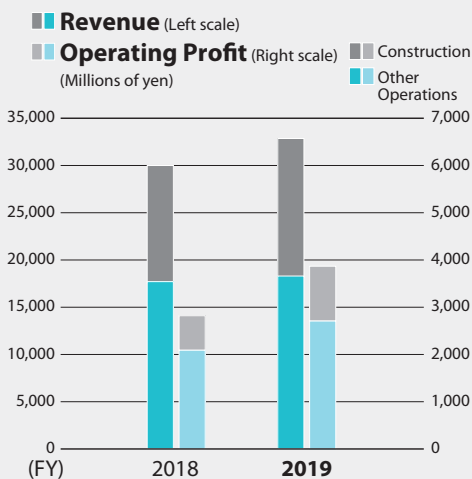
Construction, environmental engineering, transport/warehousing, and trading-related businesses

Construction: Higher Sales Volumes in Both Private and Public Sectors

Revenue and operating profit rose on the back of an increase in small and medium-sized private sector projects and higher sales volumes for public sector projects, the latter driven by reconstruction in the aftermath of Typhoon Hagibis. Continued cost reductions also contributed to the sound performance. As a result, revenue for Kureha's Construction segment rose by 16% to 14.5 billion yen, while operating profit climbed by 72% to 1.1 billion yen.

Other Operations: Solid Growth for the Waste Treatment Business

Kureha's industrial waste treatment business continued to grow due to a significant increase in the number of such projects. Kureha was also entrusted with the management and disposal of waste generated by Typhoon Hagibis. The acquisition and new consolidation of industrial waste treatment business Himeyuri Total Work Co. also contributed to the results. Meanwhile, the logistics business saw revenue and profit growth on a par with the previous year. In the hospital business, operating profit remained largely flat despite a slight revenue growth. As a result, revenue in Other Operations increased by 4% to 18.3 billion yen while operating profit rose by 30% to 2.7 billion yen.



Key products and services

- Civil engineering and construction
- Plant engineering and maintenance
- Industrial waste treatment and environmental engineering
- Environmental and physiochemical testing and analysis
- Transport and warehousing
- Medical hospital operation



Facility to detoxify low-concentration PCB wastes
[Kureha Ecology Management Co.]



Construction of water gate of Nakata River in Fukushima
[Kurehanishiki Construction Co.]

Research & Development

Since its founding in 1944, Kureha has worked with creativity and passion to generate proprietary technologies that enrich people's lives and contribute to the advancement of industry. With core strengths in organic synthesis, polymer technology, carbon control, evaluation techniques, and process engineering, Kureha continues to reinforce its market position through product differentiation and innovation.

Our R&D efforts are twofold—creating new businesses and strengthening strategic growth businesses. To create new businesses, we are focusing our proprietary technologies on latent market needs, exploring business themes in the areas of environment, energy and quality of life (medicine and food). For existing businesses, we focus on enhancing competitiveness in both quality and cost, as well as strengthening secondary process technologies to further expand in the downstream businesses. For both existing and new businesses, Kureha will pursue open innovation and active collaboration with outside organizations. In everything that we do, Kureha will bring unique value creation to bear on the challenges faced by society and communities around the world.



Research Center & Process Innovation Research Laboratories



Polymer Processing Research Laboratories

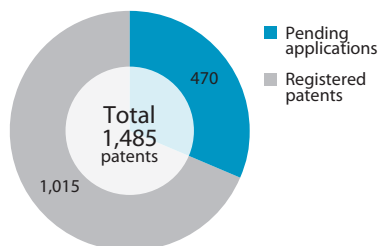
Strategy for Intellectual Property

Kureha uses three intellectual property strategies to maintain its technological advantages and advance its business operations.

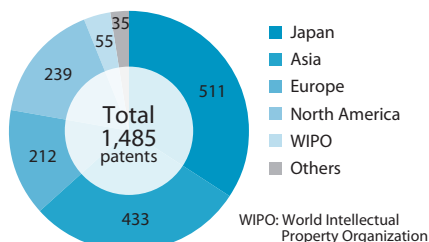
1. Assert intellectual property rights to R&D results to establish barriers to entry.
2. Utilize intellectual property rights to advance businesses.
3. Respect the intellectual property rights of others, and conduct appropriate intellectual property clearance.

The Kureha Group held 1,485 intellectual property rights as of March 2020, of which 1,015 are patent registrations. With the globalization of Kureha's business, we are also acquiring intellectual property rights in countries and territories outside Japan. Currently, 65.6% of the intellectual property rights held by the Kureha Group are outside Japan.

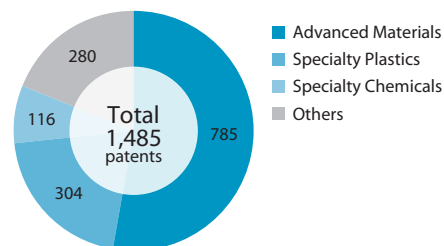
IP Held by Kureha Group



Global Distribution of IP



IP in Business Segments



FY2019 R&D Spending

Kureha's R&D spending amounted to ¥5,995 million in the fiscal year ended March 31, 2020 (FY2019). An overview of spending is as follows.

1) Advanced Materials segment

For *KF Polymer* (PVDF) and *Fortron KPS* (PPS), we are working on innovative methods for reducing costs by developing technology and improving manufacturing processes in order to raise productivity and ensure stable production. Particularly for *KF Polymer*, development effort has centered on binder materials for the large lithium-ion batteries used in hybrid and electric vehicles. We are accelerating the development of advanced binder grades and improved solutions for customers, which will enable us to expand our market share.

For PGA and *KUREHA Microspheres* (thermally expandable microcapsules), we are advancing forward with initiatives to differentiate performance and functions to meet market needs and developing new grades. Particularly for the PGA business, in addition to existing sales of frac plugs produced from Kureha's PGA for drilling operations in the field of shale oil and gas extraction, we also decided to push forward with the development and sales of non-PGA frac plugs by leveraging the knowledge and resources we have acquired thus far. We will continue to accelerate the development of new grades and related technology to bring PGA frac plugs to the forefront of the market.

FY2019 R&D spending in this segment amounted to ¥2,681 million.

2) Specialty Chemicals segment

In the agrochemicals business, we are working to enhance sales volumes and expand markets for *Metconazole* agricultural and horticultural fungicide and *Ipconazole* seed treatment fungicide. We are also optimizing our manufacturing systems to reduce costs for these fungicide products. Our agrochemical exploration has discovered promising new agents that are likely to finish the basic research stages, and we are working toward their development.

In pharmaceuticals, we have developed and launched new easy-to-dissolve tablets of *Kremezin*, a therapeutic agent for chronic renal failure, as part of our supporting research to enhance the earnings of *Kremezin*. We are also advancing basic evaluation research with the aim of creating original medical materials that can be differentiated from existing treatments and products.

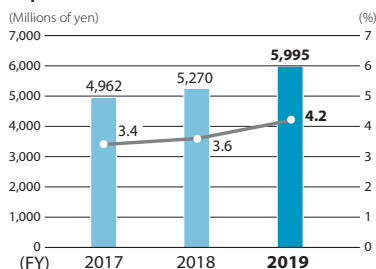
FY2019 R&D spending in this segment amounted to ¥1,644 million.

3) Specialty Plastics segment

For *Krehalon* food packaging film (PVDC film), we are committed to persistently listening to the needs of our customers and pursuing technology development to ensure stable supply, improve quality and comply with the sanitation laws enacted in each country. For *Krehalon ML* (multilayer heat-shrinkable film), we are collaborating with our related departments in Japan and overseas to differentiate performance and functions and develop new grades to expand markets and seek further growth in the future. In addition, to further expand global sales, we are actively providing technical support to customers in Japan and overseas.

FY2019 R&D spending in this segment amounted to ¥1,669 million.

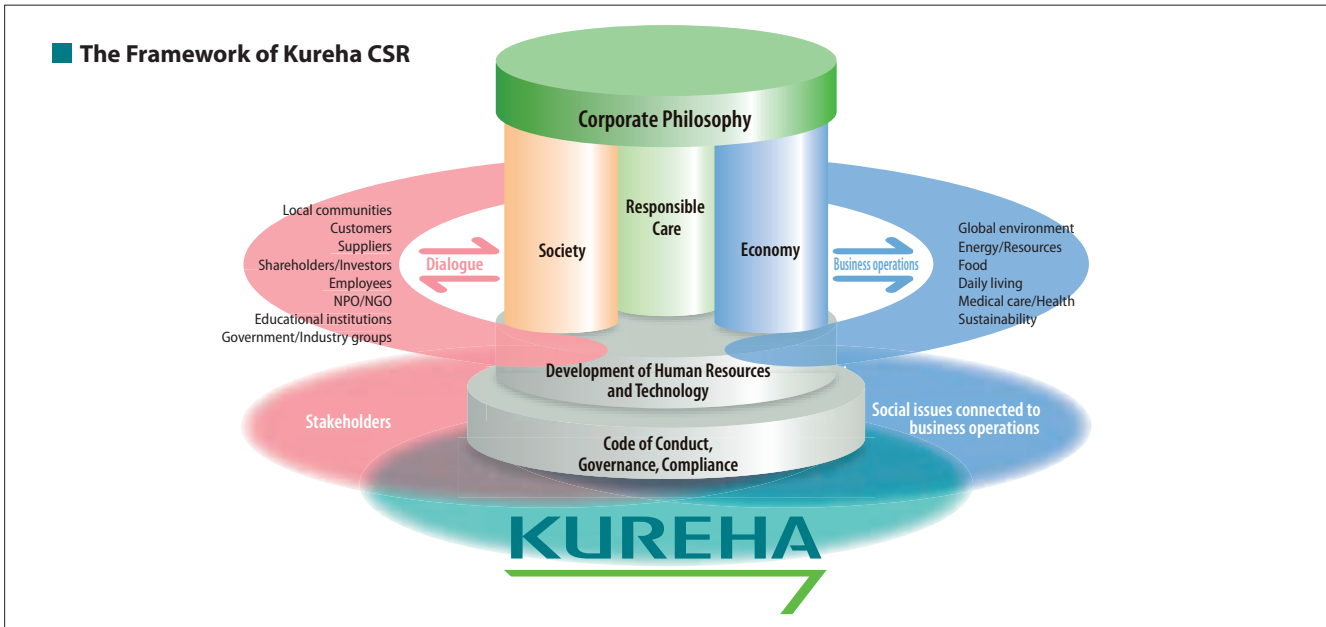
R&D Expenditure/Ratio of R&D Expenditure to Revenue



Our CSR

Kureha is continually working to strengthen its competitiveness to enhance its enterprise value over the longer term. Our corporate philosophy and vision for the future is expressed in our ESG (Environmental, Social, and Governance) measures, which are aligned with the UN's Sustainable Development Goals. As a responsible corporate citizen, we seek to achieve harmony with the

natural environment and contribute to the realization of a sustainable society, while reducing risk, providing motivation to employees and ensuring quality products and services. We firmly believe that generating environmental and social value alongside economic value leads to sound, sustainable growth as a company.



Kureha Submits Declaration of Voluntary Action to the White Logistics Movement

On September 20, Kureha submitted a declaration of voluntary action to the headquarters of the White Logistics Movement to demonstrate its support for the campaign. The White Logistics Movement is a government initiative to tackle the ever-worsening shortage of truck drivers in Japan, ensure a stable operation of the logistics necessary for people's daily lives and industrial activities, and contribute to economic growth. It is spearheaded by the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of Agriculture, Forestry and Fisheries. In April 2019, the three ministries called on listed companies and about 6,300 major companies from across Japan's prefectures to participate.

Kureha's efforts encompass the following five points: (1) Making proposals for and cooperating in improving logistics (2) Improving facilities on the shipper's side (3) Use of expressways (4) Modal shift to vessels and railroads (5) Separate contracts for freights and charges.

These steps will shorten waiting times and cargo handling times, reduce the burden on drivers, and clarify issues of compensation when these occur, thus helping to boost the attractiveness of the vitally important truck driver profession.

Support for Victims of Typhoon Hagibis

In October 2019, Typhoon Hagibis struck eastern Japan and caused a great deal of damage in Iwaki City, Fukushima Prefecture. While Kureha's Iwaki Factory suffered almost no damage, daily life in some areas was severely disrupted. Kureha therefore requested water

supplies from Sapporo Breweries Ltd., a company with whom we are continually exchanging information, and donated 20,160 530 ml plastic bottles (840 cases) to Iwaki City. The water was delivered to the multipurpose open space (Iwaki Green Base) inside the city's 21st Century Forest Park. We will continue to strengthen our co-existence with the local community so that we can come to each other's assistance in difficult times.

Educational Support for the Next Generation

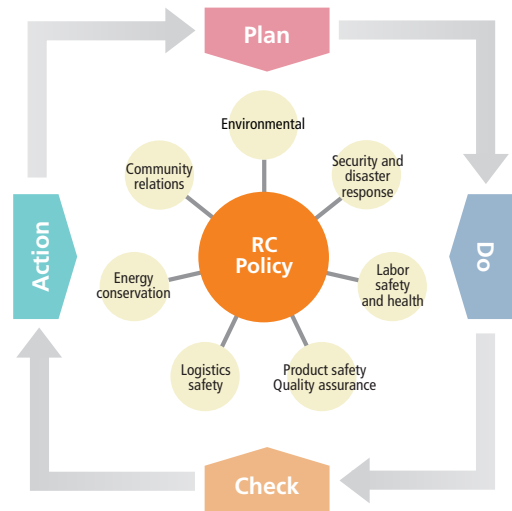
To support the education of the next generation, Kureha has been accepting school visits as part of children's social studies since 1999. We arrange various activities to make chemistry feel closer to the children's daily lives.

On May 17, fifth graders from Nakoso Daiichi Elementary School in Iwaki City visited the Iwaki Factory as part of their social studies. After watching a DVD introducing the operations, the children received a tour of the facilities, visiting the packaging factory and the pharmaceutical production factory. At the Skills Training Center, they underwent a learning program teaching them how to handle electric shocks and how to wash their hands well. At lunchtime, there was a picnic at Kureha General Ground under a blue sky that made the food look delicious. After the meal, the children's lively voices echoed as they played soccer and badminton on the grass.





Kureha, an inaugural member of the Japan Responsible Care Council founded in 1995, continues to pursue Responsible Care initiatives to improve health, safety and environmental performance throughout its operations. We regard our commitment to Responsible Care as an integral part of our corporate responsibility.



Responsible Care Implementation

Kureha is continually enhancing its responsible care initiatives under the direction of the Corporate Social Responsibility Committee and the Kureha Group Responsible Care Committee. We take proactive actions to protect the environment, improve labor safety and health and ensure product safety and quality, while being responsive and sensitive to community concerns. Our actions are in line with ISO14001, the international standards for environmental management, ISO9001 for product quality management as well as OHSAS18001 for labor safety and hygiene management, and are constantly improving through the Plan-Do-Check-Act cycle.

Reducing the Burden on the Environment

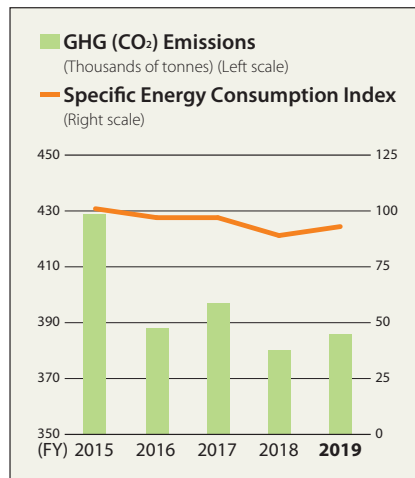
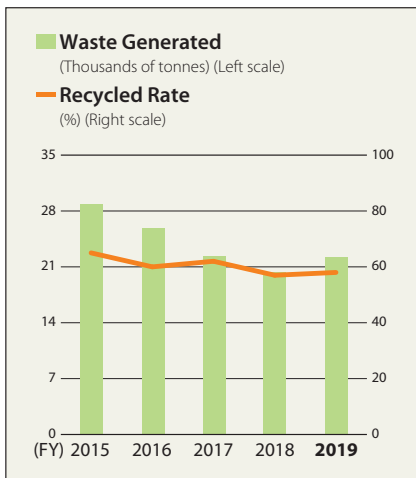
Since its establishment, Kureha has developed technologies and products with a view to reducing the burden on the environment. In our manufacturing facilities, we strive to minimize environmental impact by implementing strict measures to prevent air and water pollution, reduce chemical material and industrial wastes, and make effective use of energy.

Safety and Disaster Prevention

Safety and disaster prevention are among the most important responsibilities of a chemical manufacturing company. Kureha manages its facilities and operations in strict compliance with the relevant laws and regulations as well as voluntary safety standards set to best protect its employees and community. Comprehensive safety and emergency drills and training have been also conducted regularly at our manufacturing sites in order to enhance our preparedness for emergency situations, including a large-scale earthquake.

Contributing to the Community

In addition to Kureha General Hospital serving as a community medical facility in the southern part of Iwaki City, Kureha contributes to the local community in a variety of different ways. These include opening company sports facilities for public use, volunteering for clean up activities, teaching science classes at elementary schools and holding community meetings to initiate dialogue with local neighborhood associations.



Disaster prevention and safety drill at the Iwaki Factory

Kureha's Corporate Philosophy, Corporate Mission, and Employee Code of Conduct together constitute our company's identity. All executives and employees share these ideals, and constantly strive to achieve ambitious goals. Corporate governance is a critical element in maintaining and acting in accordance with this identity, and we have outlined our basic policies and stance in Kureha's Corporate Governance Guidelines. Kureha follows these guidelines to ensure compliance and enhance internal control functions, provide for fair and transparent management, and ensure a high standard of corporate governance.

Corporate Philosophy

- We treasure people and the natural environment.
- We constantly evolve through innovation.
- We contribute to society by developing beneficial products.

Corporate Mission

Kureha will continually strive in the pursuit of excellence.

Employee Code of Conduct

We always act as global corporate citizens, recognizing our corporate social responsibilities.

In relation to our clients: We will act with sincerity and with customer satisfaction as our priority.

In relation to our work: We will consistently pursue progress and innovation.
We will consistently respond to change and act with a global perspective.

In relation to our colleagues: We will maintain mutual respect and exhibit teamwork.

Decision-Making, Execution and Management Framework

- Supervisory and executive responsibilities are clearly distinguished to strengthen corporate governance and accelerate managerial decision-making and execution.

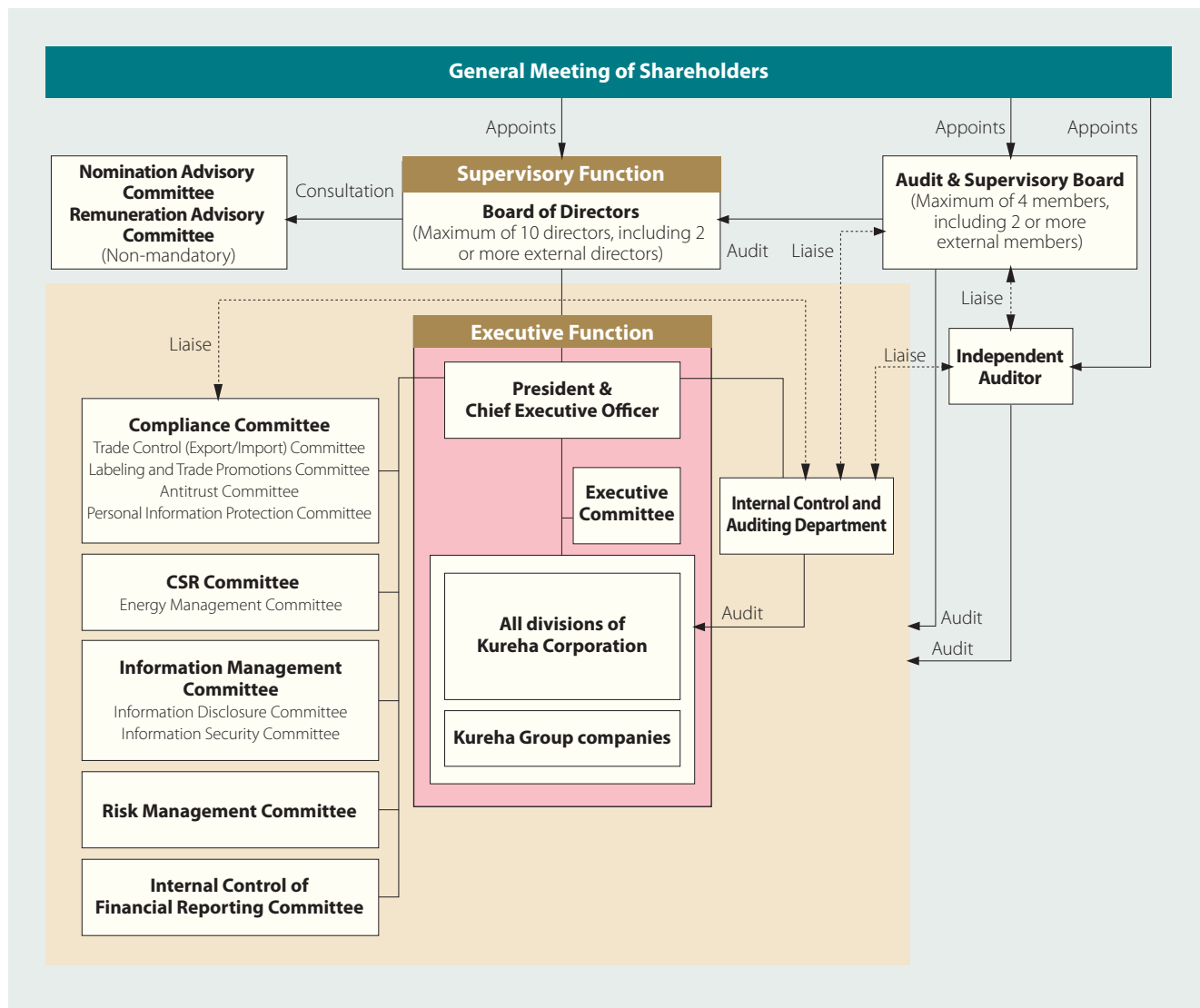
The Board of Directors, which is limited in size to a maximum of 10 directors, of whom at least 2 should be outside directors, consists of 3 directors and 2 outside directors as of June 2017. The Board, presided over by the President & Representative Director, meets once a month in principle, to make decisions on important management issues and supervise execution.

The Executive Committee, chaired by the President & CEO and comprised of executive officers meets twice a month in principle. The committee considers basic authoritative policies and mid- and long-term management strategy that cover all aspects of general management. The committee members pass resolutions on issues as authorized in official company regulations and take steps to ensure speedy implementation.

To clarify responsibilities for fiscal year results, a one-year term is given to all directors and executive officers.
- The consolidated Executive Committee, set up to unify the Kureha Group's internal policies and long-term management vision, is chaired by the President & CEO. It serves as a forum to exchange views on basic management policies and business strategies with representatives from each group company, with the aim of strengthening consolidated management. Meanwhile, the operations of group companies are supervised and managed in accordance with the Group Company Management Rules, in which the obligations of group companies are clearly specified, while giving autonomy, in terms of certain business and management issues required for reporting and consultation prior to making decisions within their companies.
- A total of three Audit & Supervisory Board Members (including two independent outside Audit & Supervisory Board Members) forms the Audit & Supervisory Board. This body works within a framework that allows them to monitor the deliberation processes of board resolutions and reports, as well as have a representative Audit & Supervisory Board Member attend and monitor meetings of the Executive Committee and the Consolidated Executive Committee. In addition, Audit & Supervisory Board Members are able to access documentation including all documents requiring senior approval, results of internal audits, and documentation on the status of customer inquiries.

Audit & Supervisory Board Members interact with accounting and internal control functions, for example to

Diagram of Internal Control Systems (As of June 26, 2020)



exchange opinions on audit planning and progress. They also regularly exchange opinions with the President & Representative Director and outside directors on management matters including corporate governance, business conditions and issues that the Company should address.

In addition, the Internal Control and Auditing Department acts independently of other departments and under direct management and supervision of the President & CEO. Based on an annual internal audit plan approved by the Board of Directors, this department assesses the suitability and effectiveness of internal management control systems including compliance and risk management. It then proposes necessary or desired changes and improvements, so as to enhance both management efficiency and public trust in Kureha.

4. A Nomination Advisory Committee and a Remuneration Advisory Committee have been established as voluntary advisory

bodies for the Board of Directors. Each committee comprises at least three directors, with outside directors in majority.

The Nomination Advisory Committee deliberates on matters concerning the appointment and dismissal of the President and Chief Executive Officer, Representative Directors, and Directors, as well as candidates to succeed the President and Chief Executive Officer and relevant succession plans, and reports its opinions and recommendations to the Board of Directors. The Remuneration Advisory Committee deliberates on matters related to the system and policies regarding remuneration for Directors, and reports its opinions and recommendations to the Board of Directors.

The establishment of these committees enhances transparency to the Board of Director's decision-making regarding these matters, and increases accountability to stakeholders.

Internal Control System

To further strengthen its internal control system, Kureha has established a set of basic policies, committees and internal rules to ensure that it observes laws and regulations and conducts its business operations in an appropriate and fair manner.

Under this system, Kureha publishes Internal Control Reports under the responsibility of the President & CEO.

In addition, Kureha has also established a set of Basic Rules for Internal Control of Financial Reports to ensure the reliability of the financial reports and to guarantee implementation of management's assessment and certified public accountant's auditing of the effectiveness of internal control of financial reports, as stipulated in the Financial Instruments and Exchange Law.

Independent Directors and Audit & Supervisory Board Members

Presently, Kureha's Board of Directors and Audit & Supervisory Board each include two independent members selected from outside the Company. They fulfill their respective roles and duties in providing independent and fair supervision over the Company's management and business execution, while serving the interest of its stakeholders. Their independence standards also meet the requirements prescribed by the Tokyo Stock Exchange as well as the 'Criteria for Determining the Independence of Outside Executives' established by the Company.

Outside Directors

1. Osamu Tosaka

Dr. Osamu Tosaka possesses advanced views and a wealth of experience in corporate management from a technological and research viewpoint due to his history of responsibility in international business and managing research and production divisions at a global food manufacturing company.

Dr. Tosaka was appointed Kureha Outside Director in June 2016.

2. Kazunari Higuchi

Mr. Kazunari Higuchi possesses advanced views and wealth of experiences in the management of financial institutions and business companies.

Mr. Kazunari Higuchi currently served as Audit & Supervisory Board Member of Taiyo Nippon Sanso Corporation until June

2020. Currently, he also serves as Outside Director of The Michinoku Bank, Ltd., there are no significant transactions between the bank and the Company or Group Companies.

Mr. Higuchi was appointed Kureha Outside Director in June 2020.

Outside Audit & Supervisory Board Members

1. Masaru Kiriyaama

Mr. Masaru Kiriyaama has extensive knowledge and expertise in risk management and compliance as well as financing and accounting through his previous work at Meiji Yasuda Life Insurance Company.

Mr. Kiriyaama was appointed Kureha Outside Audit & Supervisory Board Member in June 2019.

2. Yukako Oshimi

Ms. Oshimi is a lawyer and partner at SHIBATA, SUZUKI & NAKADA, a Tokyo-based independent law firm. She is specialized in corporate laws and compliance, serving currently as Outside Member of Risk Management and Compliance Committee at ORIX Asset Management Corporation and Outside Auditor at FUJII SOFT INCORPORATED.

Ms. Oshimi was appointed Kureha Outside Audit & Supervisory Board Member in June 2019.

Executive Remuneration

Executive remuneration reflects corporate performance. It is determined with consideration to enhancing medium- to long-term enterprise value, and in accordance with the compensation structure and levels appropriate to the roles and responsibilities required of each executive.

Total remuneration paid to directors and Audit & Supervisory Board Members in fiscal 2019 (ended March 31, 2020) was as follows.

Board directors (for total of 5 directors)	¥247.9 mil (of which ¥30.6 mil was paid to 2 outside directors)
Audit & Supervisory Board Members (for total of 3 members)	¥48.0 mil (of which ¥26.4 mil was paid to 2 outside Audit & Supervisory Board Members)

Note: The remuneration for board directors includes stock acquisition rights at a total value equivalent to 19.1 million yen, issued as reward-type stock options to 3 directors, not including outside directors.

Compliance Program Framework

Kureha has in place a compliance program framework, based on the Kureha Group Ethical Charter and its Compliance Rules.

Kureha's compliance objective is to ensure that all executives and employees act in a manner that is consistent with legal compliance and that also meets the standards of our society. This framework is constantly being improved and reinforced so as to cultivate a compliance-focused corporate culture.

The Compliance Committee, led by the President & Chief Executive Officer (CEO), keeps employees informed of compliance

issues through training programs and other activities based on the Compliance Handbook and the Compliance Standards. In addition, direct access to internal and external (legal) advisers for inquiries and reporting on compliance issues is maintained so that legal violations, confirmed or suspected, can be detected and deterred at an early stage.

Disclosure and Transparency

Impartial and continuous information disclosure ensures management transparency and builds trust with stakeholders. Kureha provides timely and appropriate disclosure in accordance with all applicable laws and regulations, as well as the Timely Disclosure Rules prescribed by the Tokyo Stock Exchange. Kureha also proactively releases information deemed to be valuable to shareholders.

Kureha's General Meeting of Shareholders is held annually in June. To ensure that shareholders have sufficient time to review the proposals, the proxy statement for the shareholders' meeting is posted on the Company's website at the end of May, and mailed

in early June. Shareholders are able to exercise their voting rights by post or via the Internet.

During the shareholders' meeting, Kureha uses video to clearly explain its business content and results, and makes every effort to respond directly and fully to shareholders' questions.

Kureha also holds regular briefings for institutional investors and analysts regarding its medium-term business strategies and results, and regularly provides individual hearings for investors in Japan and overseas.

Risk Management System

In response to various types of risk accompanying business activities, Kureha has established a risk management structure consisting of a Risk Management Committee, a CSR Committee and an Information Management Committee. Each committee is tasked with recognizing related risks, and proposes concrete measures to the President & Representative Director aimed at reducing and avoiding risk and manages implementation.

In addition, to respond to unforeseen circumstances, a Business Continuity Plan is in place for the establishment of an emergency response task force, with the objective of prioritizing the safety of personnel, minimizing economic damage, and

ensuring the continuation of corporate activities.

In terms of information management, Kureha works rigorously to ensure appropriate security and disclosure based on its regulations for information control, security and disclosure, with individual committees set up to oversee each of these areas.

To address environmental and safety risks, management procedures for the environment, quality, and labor safety have been established that comply with ISO 14001, ISO 9001, and OHSAS 18001 standards. In addition, Kureha is also continuing with ongoing efforts to improve environmental conservation, quality assurance, and occupational health and safety.

Compliance with the Corporate Governance Code

The Corporate Governance Code is a compilation of various regulations aimed at ensuring substantive corporate governance at listed companies. It was formulated in March 2015 in response to revisions made to the Japanese government's growth strategy, the Japan Revitalization Strategy, in 2014.

Kureha considers thorough corporate governance to be of vital importance for strengthening the management base to achieve medium- to long-term corporate growth. In November 2015, the Company formulated its own Corporate Governance Guideline.

Kureha's Steps to Strengthen Corporate Governance in the Last Two Fiscal Years

Kureha pursues not only financial stability but also stability in the non-financial aspects of our operations. Against this background, we are strengthening our measures in ESG areas. We have also made strengthening Kureha's management foundation a part of the action plan set forth in the mid-term management plan Kureha's Challenge 2020.

FY2018

Discontinuation of Countermeasures against Large-Scale Purchase of Kureha Shares, Etc. (Takeover Defense Measures)

Kureha has resolved to discontinue and abolish the Current Countermeasures on the expiration date.

As a means of preventing inappropriate persons from controlling the Company's financial and business policies, the Company continued the Countermeasures until March 2019.

However, Kureha has continued to consider as to the content of the Countermeasures in light of the business environment surrounding the Company, including the opinions of our shareholders, recent trends involving takeover defense measures and the stockholder composition. As a result, we have determined not to renew the Countermeasures and to abolish such measures.

Following the termination, we will continue to properly respond to any large-scale share acquisition attempted by a third party in accordance within the scope of the Financial Instruments and Exchange Law of Japan, the Japanese Companies Act, and other relevant laws and regulations. We will seek necessary and sufficient information from any such large-scale purchaser to enable our shareholders to accurately evaluate the conditions of a proposed acquisition. Also, we will disclose the opinions of the Board of Directors promptly and ensure that all shareholders are given sufficient time and information to deliberate with respect to such acquisition attempt.

Establishment of Nomination and Compensation Committees

By establishing a nomination committee and a compensation committee, Kureha enhances transparency to the Board of Director's decision-making regarding these matters and increases accountability to stakeholders.

Termination of Corporate Adviser System

Kureha aimed to further enhance corporate governance, make executive remunerations more closely linked with the business performance, and motivate Board Directors to contribute to the Company's performance and value creation while in office. To this end, Kureha terminated its current system of appointing former Board Directors to Executive Corporate Advisers or Senior Corporate Advisers.

FY2019

Introduction of a Delegation-Type Executive Officer System and Expanding Stock Options to Include Executive Officers

Kureha has reviewed its employment system and compensation system for executive officers. Shifting the employment form for executive officers from the conventional employment-type system to a delegation-type system will clarify scopes of authority and roles. This in turn will enable better focus on decision-making and oversight, while further revitalizing the Board of Directors. At the same time, we have expanded the scope of stock options to include executive officers. By doing so, we aim to increase the motivation of executive officers to work toward enhanced corporate value.

Note: Decision made in FY2019, started from FY2020.

Board of Directors



Yutaka Kobayashi
President &
Chief Executive Officer



Michihiro Sato
Senior Vice President
Managing Director, PGA Department
General Manager of Manufacturing &
Technology Division
Managing Director of R&D Division



Yoshio Noda
Senior Vice President
General Manager of
Finance & Accounting Division
General Manager of
Administration Division



Osamu Tosaka
Outside Director



Kazunari Higuchi
Outside Director

Audit & Supervisory Board



Masaru Kiriya



Toru Yoshida



Yukako Oshimi

Executive Officers

Naomitsu Nishihata
Senior Vice President
Deputy Managing Director,
PGA Department

Katsuhiko Nataka
Vice President, General Manager of
Advanced Products Division

Hiroyuki Sato
Vice President, General Manager,
Research & Development Division

Koji Suyama
Senior Vice President, General Manager
of Home Products & Packaging
Materials Division

Satoshi Yonezawa
Vice President, General Manager of
Chemicals Division

Hiroyuki Tanaka
Vice President, General Manager of
Iwaki Factory

Masahiro Namikawa
Vice President, General Manager of
Corporate Planning & Strategy Division

Consolidated Financial Summary

Kureha Corporation and Consolidated Subsidiaries
Years ended March 31, 2020 (FY2019) and 2019 (FY2018)

	Millions of yen	
	FY2019	FY2018
For the year:		
Revenue:	¥ 142,398	¥ 148,265
Domestic	102,718	103,862
Overseas	39,678	44,402
Revenue by segment:		
Advanced Materials	41,842	45,749
Specialty Chemicals	24,331	27,309
Specialty Plastics	43,473	45,148
Construction	14,457	12,415
Other Operations	18,293	17,643
Operating profit	18,041	17,172
Advanced Materials	3,711	4,607
Specialty Chemicals	2,127	3,301
Specialty Plastics	6,306	6,738
Construction	1,147	668
Other Operations	2,713	2,087
Elimination or corporate	2,033	(230)
Profit attributable to owners of parent	13,719	13,933
Capital expenditure	14,928	13,174
Depreciation and amortization	12,110	10,310
Research and development expenses	5,995	5,270
Advanced Materials	2,681	2,037
Specialty Chemicals	1,644	1,903
Specialty Plastics	1,669	1,329
Construction	—	—
Other Operations	—	—
Cash flows from operating activities	15,150	23,377
Cash flows from investing activities	5,483	(8,363)
Cash flows from financing activities	(19,353)	(15,478)
Year-end:		
Total assets	¥ 246,890	¥ 247,352
Total equity attributable to owners of parent	164,990	160,551
Interest-bearing debt	37,317	39,018
	Yen	
Amounts per share:		
Basic profit per share	¥ 692.61	¥ 679.55
Owners' equity per share	8,453.07	7,922.58
Cash dividends per share	170.00	165.00
	Percent	
Ratios:		
Operating profit to revenue	12.7%	11.6%
Profit attributable to owners of parent to revenue	9.6	9.4
Return on equity	8.4	9.0
Return on assets	7.3	7.1
Owner's equity ratio	66.8	64.9

Notes: 1. Return on equity = Profit attributable to owners of parent/Shareholders' equity × 100

2. Return on assets = Profit before tax/Total assets × 100

3. Owner's equity ratio = Owner's equity/Total liabilities and equity

Business environment

During the fiscal year ended March 31, 2020 (FY2019), the world economy was on a moderate recovery trend until the third quarter. Meanwhile, the Japanese economy recorded negative growth in the third quarter due to the impact of the consumption tax hike in October. From the fourth quarter onward, economic activities both in Japan and overseas decelerated sharply due to the spread of COVID-19. In these conditions, however, the effect on the financial results of the Kureha Group (“the Group”) for FY2019 was insignificant, supported partly by increased demand in Japan in the Specialty Plastics segment despite a slowdown in sales in the Asian region in the Advanced Materials segment.

Analysis of business results

Revenue of the Group in the subject fiscal year decreased by ¥5,867 million from the previous fiscal year to ¥142,398 million. Gross profit decreased by ¥1,450 million to ¥42,132 million, and gross profit margin improved from 29.4% to 29.6%. Selling, general and administrative expenses increased by ¥54 million to ¥28,105 million. Share of profit of entities accounted for using equity method increased by ¥29 million to ¥1,998 million, and other income (net of other expenses) amounted to an income of ¥2,016 million, an improvement of ¥2,344 million from the loss recorded in the previous fiscal year. As a result, operating profit increased by ¥868 million to ¥18,041 million, and the ratio of operating profit to revenue increased from 11.6% to 12.7%.

Finance loss amounted to ¥96 million, a decline of ¥358 million from the previous fiscal year. As a result, profit before tax increased by ¥509 million to ¥17,944 million.

Income tax expense was ¥4,117 million, and profit for the year decreased by ¥171 million to ¥13,827 million. The Group posted profit attributable to non-controlling interests of ¥108 million, and profit attributable to owners of parent decreased by ¥214 million to ¥13,719 million.

Cash flow analysis

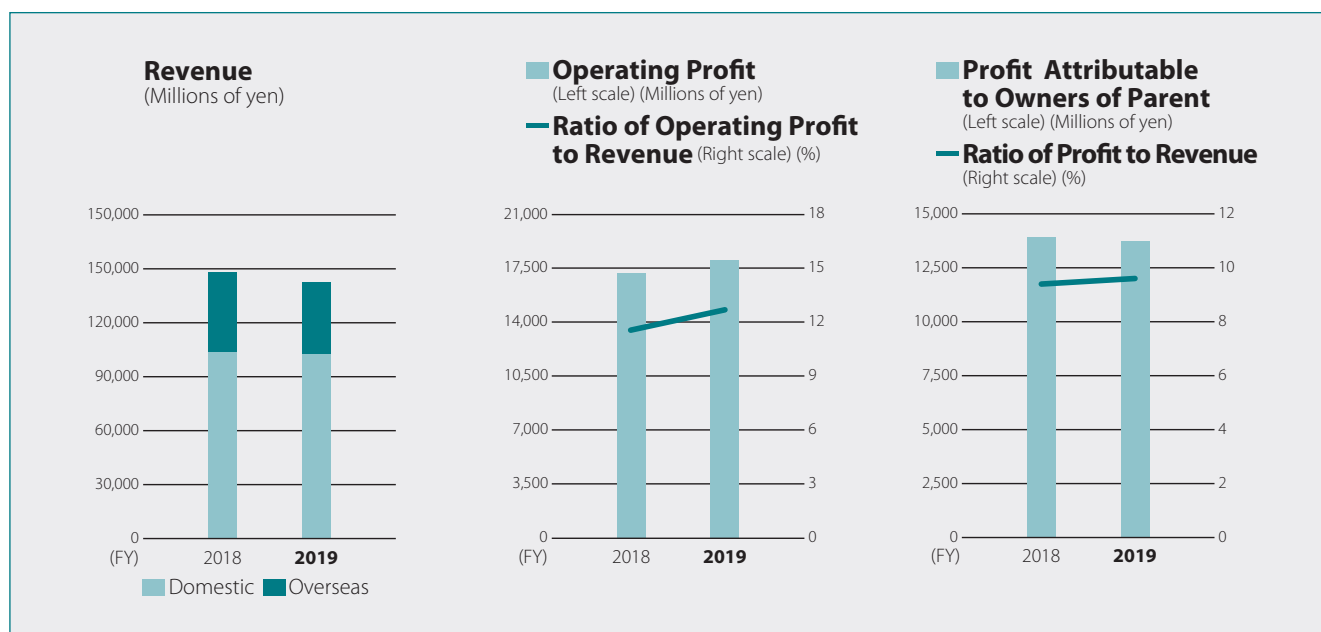
The balance of cash and cash equivalents at the end of the subject fiscal year (March 31, 2020) amounted to ¥7,268 million, an increase of ¥1,278 million from the end of the previous fiscal year (March 31, 2019). Even if the effect of COVID-19 continues, the Group is unlikely to face a funding shortfall for the time being, with such measures as securing an issuance limit on commercial papers and using commitment line agreements and overdraft agreements with financial institutions, in addition to securing cash and cash equivalents. An outline of individual cash flows and the main factors affecting each is as follows:

Cash flows from operating activities

Net cash provided by operating activities amounted to ¥15,150 million, a decrease of ¥8,227 million from the previous fiscal year. This was mainly due to an increase in expenditure for decreased trade and other payables, and an increase in income taxes paid.

Cash flows from investing activities

Net cash provided by investing activities amounted to ¥5,483 million, compared to net cash used of ¥8,363 million in the previous fiscal year. This was mainly because there was an increase in proceeds from sales of property, plant and equipment, and intangible assets, and an increase in proceeds from sales of investment securities.



Cash flows from financing activities

Net cash used in financing activities amounted to ¥19,353 million, an increase of ¥3,874 million from the previous fiscal year. This was mainly due to an increase in acquisition of treasury stock, and other factors.

Financial policy

The Kureha Group procures required capital through borrowing from financial institutions, and the issuance of corporate bonds and commercial papers. In addition, a cash management system has been introduced, in order to ensure that the Group is effectively utilizing funds and reducing finance costs. The Group also ensures the liquidity of funds by securing an issuance limit on commercial papers and using commitment line agreements and overdraft agreements with financial institutions, in addition to securing cash and cash equivalents. Given these measures, even if the effect of COVID-19 continues, the Group is unlikely to face a funding shortfall for the time being.

The Group's basic policy is to maximize cash flows from operating activities by securing earnings in line with its business plan and by enhancing asset efficiency, and to allocate cash with priority given to capital expenditure for new businesses and expansion of existing businesses, investments and loans, research and development, and dividend payments to investors. In line with this policy, the Group procures required capital with priority given to securing long-term funding, and in consideration of the balance between long- and short-term borrowings.

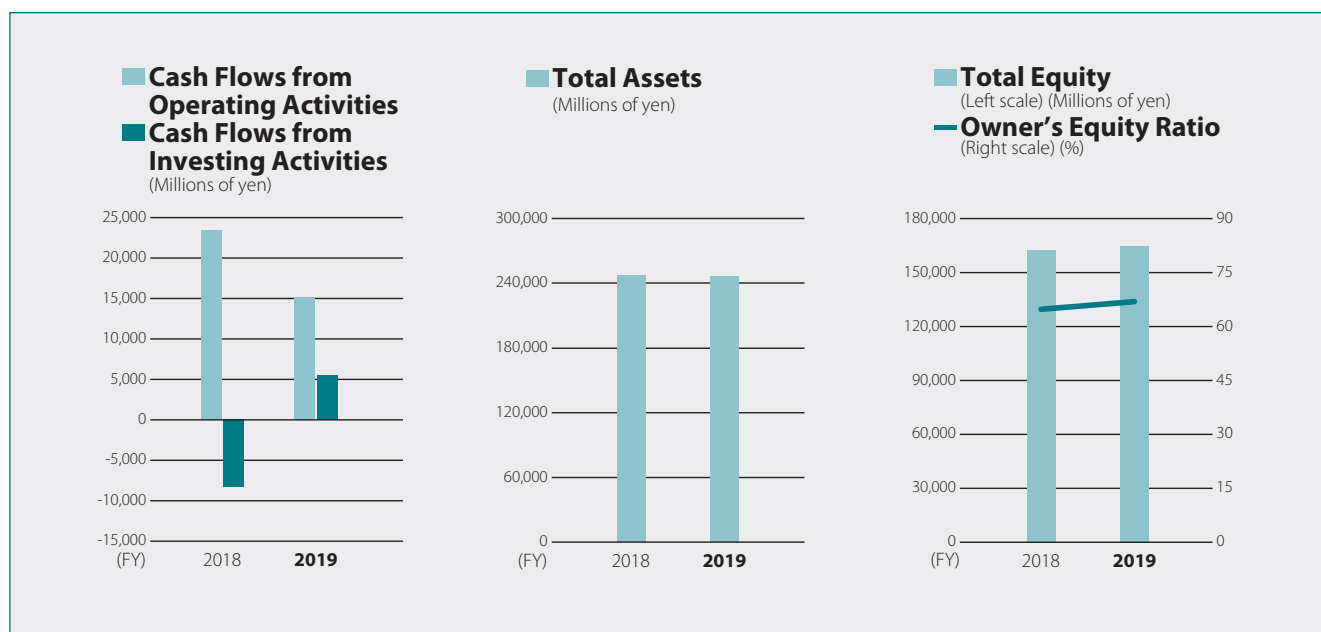
In regard to important planned outflows of capital and the sources of those funds, the Group intends to conduct capital

expenditure centered on the Advanced Materials Division, and intends for capital required to be procured from cash-at-hand, corporate bonds, and borrowings.

Balance sheet analysis

As of March 31, 2020, the Kureha Group's total assets amounted to ¥246,890 million, a decrease of ¥461 million from the end of the previous fiscal year (March 31, 2019). Current assets totaled ¥79,011 million, an increase of ¥233 million from the end of the previous fiscal year, mainly due to increases in cash and cash equivalents and other current assets, despite a decrease in trade receivables. Non-current assets amounted to ¥167,879 million, a decrease of ¥695 million from the end of the previous fiscal year. This was because, although property, plant and equipment increased ¥2,229 million from the end of the previous fiscal year to ¥119,782 million, there was a decline in assets associated with sales of investment securities. The rise in property, plant and equipment was a result of an increase owing to capital expenditures at facilities including the Iwaki Factory as well as new consolidation and the application of IFRS 16 "Leases," offsetting a decrease caused by business asset reorganization associated with a structural reform in the polyglycolic acid (PGA) business.

Total liabilities at the end of the subject fiscal year amounted to ¥80,266 million, a decrease of ¥4,917 million from the end of the previous fiscal year. This was mainly because of a decline in trade payables, and a decline in interest-bearing debt by ¥1,701 million from the end of the previous fiscal year to ¥37,317 million due to repayments of bonds payable, despite an increase due to new consolidation, the application of IFRS 16 "Leases," and other factors.



Total equity at the end of the subject fiscal year amounted to ¥166,623 million, an increase of ¥4,456 million from the end of the previous fiscal year. This was primarily due to the posting of profit attributable to owners of parent of ¥13,719 million, despite the payment of dividends in an amount of ¥3,608 million and purchase of treasury shares in an amount of ¥5,003 million.

As a result of the above, the ratio of owners' equity to gross assets increased by 1.9 percentage points from the previous fiscal year to 66.8%. ROE (Profit attributable to owners of parent/Equity capital) declined by 0.6 percentage points to 8.4%. ROA (Profit before tax/Total assets) increased by 0.2 percentage points to 7.3%.

There was no impact of COVID-19 on securing liquidity and protecting receivables of the Kureha Group for the subject fiscal year.

Overview of capital expenditure

Total capital expenditure of the Kureha Group during the fiscal year ended March 31, 2020 amounted to ¥14,928 million.

Capital expenditure by business segment

The Advanced Materials segment invested ¥7,270 million, mainly in manufacturing-related facilities for PPS resin (Kureha Corporation), and an extrusion processing plant for plastic stock shapes and films (Kureha Extron Co., Ltd.).

The Specialty Chemicals segment invested ¥743 million, primarily in manufacturing-related facilities for industrial chemicals (Kureha Corporation).

The Specialty Plastics segment invested ¥1,883 million, primarily in manufacturing-related facilities for PVDC resin (Kureha Corporation).

The Construction segment invested ¥87 million in facilities. The Other Operations segment invested ¥2,437 million,

mainly in industrial waste processing facilities (Kureha Ecology Management Co., Ltd.).

In addition, as a joint initiative, the Advanced Materials, Specialty Chemicals, and Specialty Plastics segments invested ¥2,504 million in such areas as research and development facilities (Kureha Corporation) and common factory facilities (Kureha Corporation).

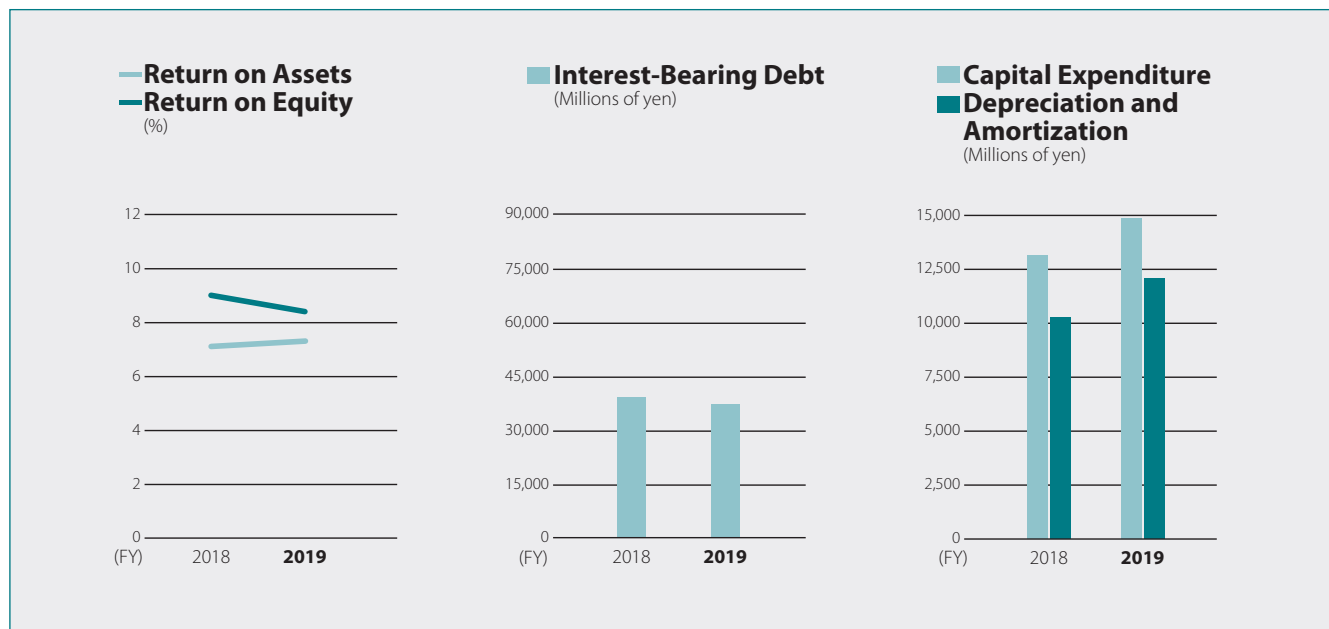
Capital required for these investments was procured from cash-at-hand, corporate bonds, and borrowings.

An amount of increase as a result of business combinations is not included in the amount of capital expenditure.

Business and other risks

The Kureha Group's business operations are diverse, comprising the Advanced Materials segment focused on processed PGA resin products, PVDF resin, and PPS resin; the Specialty Chemicals segment focused on pharmaceuticals, agrochemicals and industrial chemicals; the Specialty Plastics segment focused on household products and food packaging; the Construction segment focused on construction and engineering; and the Other Operations segment including environmental businesses and logistics. Also geographically, the Group conducts business globally.

Among the major risks that are deemed likely to have a considerable impact on the operating results and other aspects of the Kureha Group, the risk associated with COVID-19 is the one that is most likely to actualize with greater impact on operating results, etc. Until the global spread of this disease is brought under control, each business of the Group may be affected as follows. Additionally, it is difficult to reasonably calculate the impact on the operating results and other aspects at this moment.



Forward-looking statements in this text are based on evaluations made as of the date of submission of this report.

Advanced Materials segment

Polyglycolic acid (PGA) business: Operating rates of U.S. shale oil and gas extraction operators—key customers for the business—have dropped sharply due to lower crude oil prices caused by declining demand, which is affecting the sales of PGA resin products. It is expected that sales of PGA resin products will remain sluggish until the crude oil prices recover.

Polyvinylidene fluoride (PVDF) business: Sales of products for binders in lithium-ion batteries may temporarily slow as the operating rates of the automotive industry decline.

Advanced materials other than the above are targeted for applications mainly in the areas of automobiles, electrical and electronics, and therefore they may be also affected by stagnant production activities of customers in these areas, which may cause sales to decline.

Specialty Chemicals segment

Agrochemicals business: As the business is dependent on outsourced production, it may face the operational risk of outsourcing contractors.

Industrial chemicals: As operating fields of its sales destinations are broad, there may be a decline in demand and the softening of market conditions due to stagnant economic activities in Japan and overseas.

Specialty Plastics segment

Household products business: Demand is increasing with more households eating meals at home due to self-restraint in going out, but currently production and logistics operations are not being disturbed.

Commercial-use packaging materials business: Due to restrictions on outings in Europe, production activities of customers including the meat-packing industry are stagnant, which has affected, and may continue to affect the sales of commercial-use packaging materials.

Construction and Other Operations segments

Construction business: Stagnant economic activities in Japan may cause a decrease in orders for construction projects.

Environmental business: The industrial waste processing business may face lower volume of waste due to stagnant economic activities in Japan.

Hospital business: The business may see reduced opportunities to cope with COVID-19 and decreased number of patients coming to hospitals.

As to our overall business activities, we have set up a Company-wide COVID-19 Countermeasures Headquarters that monitors the effect on the working environment and health conditions of the Group's employees in Japan and overseas, in an effort of securing safety, preventing the spread of infection, mitigating impacts on our business operations, and ensuring

business continuity. Specific measures that have commenced include the development and operation of a system required for teleworking, and an epidemic prevention system on entering manufacturing sites.

Major risks other than COVID-19 are as follows:

(1) Changes in external business environment

The Group's business is exposed to external factors such as changes in markets or customers, and intensification of competition with rival companies. Accordingly, changes such as a decrease in demand for the Group's principal products, customers shifting production overseas, and an increase in production capacity by competing firms, could have a negative effect on the Group's operating results and other aspects.

(2) Changes in fuel and raw material prices

Petrochemical raw materials such as naphtha and coal used by the Group, as well as fuel, are susceptible to changes in market conditions. As a result, changes such as an increase in the price of these raw materials, or the inability to shift the additional cost to product prices in a timely and appropriate manner, could have a negative effect on the Group's operating results and other aspects.

(3) Product liability and goods quality

The Group's core business is chemical manufacturing. The Group is acutely aware of the risks connected with its products and the manufacturing process, and is careful to continually exercise Responsible Care (autonomous management for environmental conservation, disaster safety and other measures). In addition, the Group utilizes product liability insurance. However, should a significant, unforeseen quality issue arise, there could be a negative effect on the Group's operating results and other aspects.

(4) Changes in operating environment peculiar to pharmaceutical business

One of the Group's main businesses is the manufacture and sale of pharmaceuticals. Accordingly, revisions to drug prices under Japan's medical insurance system, as well as the rise of the usage of generic drugs, could have a negative effect on the Group's operating results and other aspects.

(5) Country risks

The Group conducts business globally. Accordingly, changes such as deterioration in the political or economic situation in each country and region, the enactment or abolishment of laws and regulations, international tax practice risks such as transfer price taxation, and deterioration in public safety, as well as unforeseen circumstances such as terrorism, armed conflict or natural disaster, could have a negative effect on the Group's operating results and other aspects.

(6) Currency fluctuations

The items in the Group's financial statements not denominated in yen are susceptible to fluctuations in exchange rates when converted into yen. The Group concludes exchange contracts and takes other steps to minimize the effects of fluctuations in exchange rates. However, fluctuations in exchange rates beyond those predicted could have a negative effect on the Group's operating results and other aspects.

(7) Fluctuations in investment securities prices

The Group holds investment securities (approximately 10% of total assets on a consolidated basis) for the purpose of long-term holdings as of the end of the subject fiscal year. The Group is striving to reduce these holdings based on a periodic review of the necessity of such holdings, however, price fluctuations in the stock market, or significant changes in the financial position of the issuing companies, could have a negative effect on the Group's operating results and other aspects.

(8) Occurrence of natural disasters or accidents

Manufacturing of the Group's principal products is concentrated in the Iwaki Factory (Iwaki, Fukushima Prefecture), and as such the Group makes continual efforts focused on this facility to ensure safety of its people and facilities, including the formulation of business continuity plan (BCP), implementation of disaster prevention drills, and renewal of production facilities. However, damage to production facilities as a result of natural disasters such as major earthquakes or typhoons, or due to fires and other accidents, could have a negative effect on the Group's operating results and other aspects.

(9) Occurrence of litigation

The Group has established the "Kureha Group Ethical Charter," "Compliance Rules" and "Compliance Standards," and strives to ensure that the Group strictly complies with all laws, regulations and societal norms through training and seminars. However, there is a risk of the occurrence of lawsuits, administrative measures or other action in relation to the Group's domestic or overseas businesses. A major lawsuit or other action filed against Kureha could have a negative effect on the Group's operating results and other aspects.

(10) Emergence of new technologies

The Group is committed to research and development in all its business fields, aiming to "develop differentiated products in the specialty chemicals field, and become a high value-added company that continually contributes to society." Particularly in the Advanced Materials segment, the Group considers it essential to develop and bring to market new products in a timely manner, given the remarkable pace of technological innovation.

However, in cases where it is not possible to continuously develop and supply new products to meet customer needs, or in cases where other companies come up with revolutionary new technologies, there is a risk of obsolescence of some Kureha products and technologies due to rapid technological advance, or of product prices falling more steeply than anticipated due to intensified price competition triggered by new entrants in Japan and overseas. In such case, they could have a negative effect on the Group's operating results and other aspects.



Consolidated Statements of Financial Position

Kureha Corporation and Consolidated Subsidiaries
As of March 31, 2020 (FY2019) and 2019 (FY2018)

	Millions of yen	
	FY2019	FY2018
ASSETS		
Current assets:		
Cash and cash equivalents (Notes 8, 23)	¥ 7,268	¥ 5,989
Trade and other receivables (Notes 9, 23, 24)	28,327	30,721
Other financial assets (Note 23)	2	28
Inventories (Note 10)	38,240	38,328
Other current assets (Note 24)	5,173	3,709
Total current assets	79,011	78,777
Non-current assets:		
Property, plant and equipment, net (Notes 3, 11, 13, 16)	119,782	117,553
Intangible assets, net (Notes 12, 13)	842	1,094
Investments accounted for using equity method (Note 14)	13,120	13,152
Other financial assets (Notes 16, 23)	24,574	28,589
Deferred tax assets (Note 15)	2,599	1,249
Other non-current assets (Note 19)	6,958	6,935
Total non-current assets	167,879	168,574
Total assets	¥246,890	¥247,352

Millions of yen

	FY2019	FY2018
LIABILITIES AND EQUITY		
Current liabilities:		
Trade and other payables (Notes 16, 17, 23)	¥ 19,424	¥ 24,011
Bonds and loans payable (Notes 16, 23)	15,549	23,038
Other financial liabilities (Notes 3, 16, 23)	1,582	523
Accrued income taxes	4,750	2,897
Provisions (Note 18)	6,339	6,176
Other current liabilities (Note 24)	6,473	7,348
Total current liabilities	54,121	63,995
Non-current liabilities:		
Bonds and loans payable (Notes 16, 23)	18,648	15,514
Other financial liabilities (Notes 3, 16, 23)	2,580	1,009
Deferred tax liabilities (Note 15)	1,221	2,546
Provisions (Note 18)	1,465	671
Net defined benefit liability (Note 19)	295	329
Other non-current liabilities	1,932	1,116
Total non-current liabilities	26,144	21,188
Total liabilities	80,266	85,184
Equity:		
Shareholders' equity:		
Capital stock, no par value (Note 21)	18,169	18,169
Capital surplus (Note 21)	15,044	15,044
Less: Treasury stock, at cost (Note 21)	(8,693)	(3,689)
Retained earnings (Note 21)	135,918	122,363
Other components of equity (Note 21)	4,551	8,664
Total equity attributable to owners of parent	164,990	160,551
Non-controlling interests	1,633	1,616
Total equity	166,623	162,167
Total liabilities and equity	¥246,890	¥247,352

Consolidated Statements of Profit or Loss

Kureha Corporation and its Consolidated Subsidiaries
For the fiscal years ended March 31, 2020 (FY2019) and 2019 (FY2018)

	Millions of yen	
	FY2019	FY2018
Revenue (Notes 6, 24)	¥142,398	¥148,265
Cost of sales (Notes 10, 11, 12, 19)	100,265	104,683
Gross profit	42,132	43,582
Selling, general and administrative expenses (Notes 11, 12, 19, 20)	28,105	28,051
Share of profit of entities accounted for using equity method (Notes 6, 14)	1,998	1,969
Other income (Notes 7, 25)	13,447	615
Other expenses (Notes 4, 6, 10, 11, 12, 13, 26)	11,431	944
Operating profit (Note 6)	18,041	17,172
Finance income (Note 27)	545	651
Finance costs (Note 27)	642	389
Profit before tax	17,944	17,435
Income tax expense (Note 15)	4,117	3,435
Profit for the year	13,827	13,999
Profit attributable to:		
Owners of parent	13,719	13,933
Non-controlling interests	108	65
Total	¥ 13,827	¥ 13,999
Profit per share (in Yen):		
Basic (Note 28)	¥ 692.61	¥ 679.55
Diluted (Note 28)	692.03	679.07

Consolidated Statements of Comprehensive Income

Kureha Corporation and its Consolidated Subsidiaries
For the fiscal years ended March 31, 2020 (FY2019) and 2019 (FY2018)

	Millions of yen	
	FY2019	FY2018
Profit for the year	¥13,827	¥13,999
Other comprehensive income (loss):		
Items that will not be reclassified to profit or loss:		
Financial assets measured at fair value through other comprehensive income (Notes 23, 29)	796	1,504
Remeasurements of defined benefit plans (Note 29)	(328)	304
Total	467	1,809
Items that may be reclassified subsequently to profit or loss:		
Exchange differences on translating foreign operations (Note 29)	(1,174)	692
Total	(1,174)	692
Total other comprehensive income (loss)	(707)	2,501
Comprehensive income (loss)	¥13,119	¥16,500
Comprehensive income (loss) attributable to:		
Owners of parent	¥13,046	¥16,465
Non-controlling interests	72	34
Comprehensive income (loss)	¥13,119	¥16,500



Consolidated Statements of Changes in Equity

Kureha Corporation and its Consolidated Subsidiaries

FY2018 (From April 1, 2018 To March 31, 2019)

Millions of yen

	Total equity attributable to owners of parent				Other components of equity	
	Capital, no par value	Capital surplus	Treasury stock, at cost	Retained earnings	Stock acquisition rights	Exchange differences on translating foreign operations
BALANCE-APRIL 1, 2018	¥18,169	¥15,267	¥ (685)	¥108,715	¥52	¥(4,370)
Profit for the period				13,933		
Other comprehensive income						684
Comprehensive income	—	—	—	13,933	—	684
Acquisition of treasury stock (Note 21)			(3,004)			
Share-based payment transaction (Note 20)					11	
Dividends (Note 22)				(2,891)		
Equity transactions with non-controlling interests		(222)				
Reclassification from other components of equity to retained earnings				2,605		
Total transactions with owners	—	(222)	(3,004)	(286)	11	—
BALANCE-MARCH 31, 2019	¥18,169	¥15,044	¥(3,689)	¥122,363	¥63	¥(3,686)

	Total equity attributable to owners of parent				Other components of equity	
	Financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit plans	Total	Total	Non-controlling interests	Total equity
BALANCE-APRIL 1, 2018	¥13,043	¥ —	¥ 8,725	¥150,193	¥1,847	¥152,041
Profit for the period			—	13,933	65	13,999
Other comprehensive income	1,545	302	2,532	2,532	(30)	2,501
Comprehensive income	1,545	302	2,532	16,465	34	16,500
Acquisition of treasury stock (Note 21)			—	(3,004)		(3,004)
Share-based payment transaction (Note 20)			11	11		11
Dividends (Note 22)			—	(2,891)	(105)	(2,996)
Equity transactions with non-controlling interests			—	(222)	(160)	(383)
Reclassification from other components of equity to retained earnings	(2,302)	(302)	(2,605)	—		—
Total transactions with owners	(2,302)	(302)	(2,594)	(6,107)	(265)	(6,373)
BALANCE-MARCH 31, 2019	¥12,286	¥ —	¥ 8,664	¥160,551	¥1,616	¥162,167

FY2019 (From April 1, 2019 To March 31, 2020)

Millions of yen

	Total equity attributable to owners of parent					
	Capital, no par value	Capital surplus	Treasury stock, at cost	Retained earnings	Other components of equity	
					Stock acquisition rights	Exchange differences on translating foreign operations
BALANCE-APRIL 1, 2019	¥18,169	¥15,044	¥(3,689)	¥122,363	¥63	¥(3,686)
Cumulative effect of accounting change (Note 3)				(13)		
Restated balance-April 1, 2019	18,169	15,044	(3,689)	122,349	63	(3,686)
Profit for the period				13,719		
Other comprehensive income						(1,172)
Comprehensive income	—	—	—	13,719	—	(1,172)
Acquisition of treasury stock (Note 21)			(5,003)			
Share-based payment transaction (Note 20)					17	
Dividends (Note 22)				(3,608)		
Equity transactions with non-controlling interests				0		
Reclassification from other components of equity to retained earnings				3,457		
Total transactions with owners	—	—	(5,003)	(150)	17	—
BALANCE-MARCH 31, 2020	¥18,169	¥15,044	¥(8,693)	¥135,918	¥80	¥(4,858)

	Total equity attributable to owners of parent					
	Financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit plans	Total	Total	Non-controlling interests	Total equity
BALANCE-APRIL 1, 2019	¥12,286	¥ —	¥ 8,664	¥160,551	¥1,616	¥162,167
Cumulative effect of accounting change (Note 3)			—	(13)		(13)
Restated balance-April 1, 2019	12,286	—	8,664	160,537	1,616	162,153
Profit for the period			—	13,719	108	13,827
Other comprehensive income	824	(325)	(672)	(672)	(35)	(707)
Comprehensive income	824	(325)	(672)	13,046	72	13,119
Acquisition of treasury stock (Note 21)			—	(5,003)		(5,003)
Share-based payment transaction (Note 20)			17	17		17
Dividends (Note 22)			—	(3,608)	(54)	(3,663)
Equity transactions with non-controlling interests			—	0	(0)	0
Reclassification from other components of equity to retained earnings	(3,782)	325	(3,457)	—		—
Total transactions with owners	(3,782)	325	(3,439)	(8,594)	(55)	(8,649)
BALANCE-MARCH 31, 2020	¥ 9,329	¥ —	¥ 4,551	¥164,990	¥1,633	¥166,623

Consolidated Statements of Cash Flows

Kureha Corporation and its Consolidated Subsidiaries
For the fiscal years ended March 31, 2020 (FY2019) and 2019 (FY2018)

	Millions of yen	
	FY2019	FY2018
Cash flows from operating activities:		
Profit before tax	¥ 17,944	¥ 17,435
Depreciation and amortization	12,110	10,310
Impairment loss (Note 13)	5,218	—
Gain on bargain purchase (Notes 7, 25)	(1,460)	—
Gain on sale of businesses (Notes 7, 25)	(1,200)	—
Finance income	(544)	(647)
Finance costs	312	359
Share of (profit) loss of entities accounted for using equity method	(1,998)	(1,969)
(Profit) loss on disposal and sale of property, plant and equipment, and intangible assets (Note 25)	(9,585)	758
(Increase) decrease in trade and other receivables	2,427	961
(Increase) decrease in inventories	(419)	(2,407)
Increase (decrease) in trade and other payables	(3,410)	2,625
Increase (decrease) in provision	(55)	241
Increase (decrease) in net defined benefit asset and liability	(457)	(547)
Other, net	(197)	(1,257)
Subtotal	18,684	25,862
Interest and dividends received	1,757	1,656
Interest paid	(274)	(375)
Income taxes paid	(5,016)	(3,766)
Cash flows from operating activities	15,150	23,377
Cash flows from investing activities:		
Proceeds from sales of property, plant and equipment, and intangible assets	10,826	59
Proceeds from down-payment related to sales of property, plant and equipment	—	1,175
Payments for purchases of property, plant and equipment, and intangible assets	(13,649)	(13,438)
Proceeds from sales of investment securities	6,146	4,102
Purchase of investment securities	(624)	(25)
Proceeds from purchase of shares of subsidiaries that result in change in scope of consolidation (Note 7)	1,409	—
Proceeds from sale of businesses (Note 7)	1,677	—
Proceeds from government grants	79	247
Other, net	(381)	(485)
Cash flows from investing activities	5,483	(8,363)
Cash flows from financing activities:		
Dividends paid (Note 22)	(3,608)	(2,891)
Dividends paid to non-controlling interests	(54)	(105)
Net increase (decrease) in commercial paper and short-term loans payable (Note 30)	1,293	(3,730)
Proceeds from non-current loans payable (Note 30)	6,000	—
Repayments of non-current loans payable (Note 30)	(9,250)	(5,051)
Proceeds from issue of bonds (Note 30)	—	4,971
Repayments of bonds (Note 30)	(7,000)	(5,000)
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	—	(383)
Acquisition of treasury stock (Note 21)	(5,003)	(3,004)
Other, net	(1,729)	(283)
Cash flows from financing activities	(19,353)	(15,478)
Effect of exchange rate changes on cash and cash equivalents	(1)	(22)
Net increase (decrease) in cash and cash equivalents	1,278	(486)
Cash and cash equivalents at beginning of year	5,989	6,475
Cash and cash equivalents at end of year (Note 8)	¥ 7,268	¥ 5,989



Notes to the Consolidated Financial Statements

Kureha Corporation and its Consolidated Subsidiaries
For the fiscal years ended March 31, 2020 (FY2019) and 2019 (FY2018)

1. Reporting entity

Kureha Corporation (the “Company”) is a company registered in Japan and listed on the Tokyo Stock Exchange. The locations of the Company’s registered headquarters and main offices are available on the Company’s website at <https://www.kureha.co.jp/en/>. The consolidated financial statements of the Company for FY2019 (from April 1, 2019 to March 31, 2020) comprise the Company and its subsidiaries (collectively the “Group”), and the Group’s interests in its affiliates. The Group operates its businesses primarily in the manufacturing and sale of advanced materials, specialty chemicals, and specialty plastics, and engages in business activities including construction and repair of facilities, logistics and environmental protection, and other services.

2. Basis of preparation of the consolidated financial statements

(1) Matters concerning compliance with IFRS

The Group’s consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (“IFRS”).

The Group has adopted the provision of Article 93 of *Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements* because the Group satisfies the requirements for a “Designated IFRS Specified Company” as set forth in Article 1-2 of said Ordinance.

(2) Basis of measurement

The Group’s consolidated financial statements have been prepared on a historical cost basis except for some of the financial assets, financial liabilities, employee benefits and other items, which have been measured at fair value, as stated in “3. Significant accounting policies.”

(3) Functional currency and presentation currency

The consolidated financial statements are presented in Japanese yen, which is the Company’s functional currency. In principle, all financial information presented in Japanese yen has been rounded down to the nearest million.

(4) Approval of the consolidated financial statements

The consolidated financial statements have been approved at the Board of Directors meeting held on June 24, 2020.

3. Significant accounting policies

The accounting policies set out below have been applied consistently to all the periods presented in the consolidated financial statements, unless otherwise specified.

(1) Basis of consolidation

1) Subsidiaries

A subsidiary is an entity which is controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

The financial statements of a subsidiary are included in the scope of consolidation from the date the Group obtains control of the subsidiary until the date it loses such control of the subsidiary.

When the accounting policies adopted by a subsidiary differ from those adopted by the Group, the financial statements of a subsidiary are adjusted as necessary.

When the closing date of the financial statements of a subsidiary differs from that of the Group’s consolidated financial statements, the Group uses the financial statements based on a provisional settlement of accounts.

Intra-group balances and transactions, and any unrealized gains and losses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements.

Comprehensive income of the subsidiaries is allocated to owners of the parent and non-controlling interests, even when the non-controlling interests will result in a negative balance.

2) Affiliates

An affiliate is an entity over which the Group has significant influence in the financial and operating policy decisions, but that is not controlled or jointly controlled by the Group. If the Group holds between 20 percent and 50 percent of the voting rights of another entity, it is presumed that the Group has significant influence over the other entity. An investment in an affiliate is accounted for using the equity method.

When the closing date of the affiliate’s financial statements differs from that of the Group’s consolidated financial statements, the Group uses the financial statements based on a provisional settlement of accounts.

3) Joint ventures

A joint venture is an entity with a contractual agreement whereby two or more parties including the Group undertake an economic activity that is subject to joint control, which is the contractually agreed sharing of control over an economic activity, and exists only when the strategic financial and operating decisions relating to the activity require the unanimous consent of the parties sharing control.

The joint ventures held by the Group are accounted for using the equity method.

(2) Business combinations

Business combinations are accounted for using the acquisition method. The consideration transferred by the Company as an acquirer is measured as the aggregate of the acquisition-date fair value of the assets given, liabilities assumed and equity instruments issued by the Company in exchange for control of the acquiree. If (a) the aggregate of the consideration transferred by the Company, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree in a business combination achieved in stages (step acquisitions) exceeds (b) the fair value of identifiable assets and liabilities, the excess is recognized as goodwill in the consolidated statements of financial position. If, in the contrary, the amount of (a) above falls below the amount of (b), the difference is recognized immediately as profit or loss in the consolidated statements of profit or loss.

Acquisition-related costs, which are the costs the Group incurs to effect a business combination, are expensed as incurred.

As additional acquisitions of non-controlling interests in the Group's subsidiaries are accounted for as equity transactions, no goodwill is recognized as a result of such transactions.

(3) Foreign currency translation

1) Foreign currency transactions

The items included in the financial statements of each entity of the Group are measured in its functional currency. Foreign currency transactions are converted into the functional currency of each entity using the spot exchange rate at the transaction date. Monetary assets and liabilities denominated in foreign currencies are converted into the functional currency using the exchange rate at the end of the reporting period. Foreign exchange gains and losses resulting from the currency conversion and settlement are recognized in profit or loss, except where gains and losses arising from financial assets measured at fair value through other comprehensive income and cash flow hedges are recognized in other comprehensive income.

2) Financial statements of foreign operations

Assets and liabilities of foreign operations (including goodwill and fair value adjustments arising from the acquisition of foreign operations) are translated into Japanese yen using the exchange rate at the end of the reporting period, and revenue and expense items are translated into Japanese yen using the average exchange rates during the period. Exchange differences arising from the translation of financial statements of the foreign operations are recognized in other comprehensive income. In the event of a loss of control or significant influence (or joint control) due to the disposal of foreign operations, the relevant cumulative amount of translation differences associated with the foreign operations is reclassified into profit or loss as part of gain or loss on disposal.

(4) Cash and cash equivalents

Cash and cash equivalents are comprised of cash on hand; demand deposits; and short-term, highly liquid investments with a maturity of three months or less from the date of acquisition that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

(5) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories includes costs of purchase, costs of conversion and all the other costs incurred in bringing the inventories to their present location and condition, and the cost is determined using the periodic average method if items of inventories are interchangeable or the specific identification method if they are not interchangeable. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. Any difference arising from the measurement is recognized in profit or loss.

(6) Property, plant and equipment

The Group uses the cost model to measure items of property, plant and equipment. They are stated at cost less any accumulated depreciation and any accumulated impairment losses.

The cost of an item of property, plant and equipment includes directly attributable costs of acquisition, costs of dismantling, removing or restoring the item, and borrowing costs eligible for capitalization.

Except for non-depreciable assets such as land, an item of property, plant and equipment is depreciated using the straight-line method over the estimated useful life. The estimated useful lives of the major classes of assets are presented as follows:

Buildings and structures:	10 to 50 years
Machinery and equipment:	7 to 20 years
Vehicles, tools, furniture and fixtures:	4 to 10 years

The estimated useful life, depreciation method and residual value of an asset are reviewed at the end of each reporting period. Any changes are accounted for prospectively as a change in accounting estimate.

(7) Intangible assets

1) Goodwill

The measurement of goodwill upon initial recognition is described in “3. Significant accounting policies, (2) Business combinations.” Goodwill is stated at cost less any accumulated impairment losses.

Goodwill is not amortized, but instead tested for impairment annually or whenever there are indications that goodwill may be impaired. An impairment loss for goodwill is recognized in the consolidated statements of profit or loss and is not subsequently reversed.

2) Other intangible assets

The Group uses the cost model to measure a separately acquired intangible asset other than goodwill. With respect to an internally generated intangible asset, expenditure on such an asset is recognized as expenses in the period in which they are incurred except for development expenditures that qualify for capitalization.

Intangible assets with definite useful lives are stated at cost less any accumulated depreciation and any accumulated impairment losses, depreciated using the straight-line method over the estimated useful life, and tested for impairment whenever there are indications that the assets may be impaired. The estimated useful lives of the major classes of assets are presented as follows:

Trademarks:	10 years
Software:	5 years

The estimated useful life, amortization method and residual value of an asset are reviewed at the end of each reporting period. Any changes are accounted for prospectively as a change in accounting estimate.

Intangible assets with indefinite useful lives and those not yet available for use are not amortized, but instead tested for impairment individually or at a cash-generating unit level annually or whenever there are indications that they may be impaired.

(8) Lease

The Group has adopted IFRS 16 “Leases” since FY2019.

A lease liability under a lease transaction is measured at the discounted present value of the total lease payments that are not paid at inception of the lease, and is included in other financial liabilities. A right-of-use asset is initially measured based on the initial measurement amount of the lease liability adjusted for initial direct costs and prepaid lease payments, etc. and added costs such as obligations of restoration to original conditions required by the terms of the lease. A right-of-use asset is depreciated on a systematic basis over the lease term, and is included in property, plant and equipment or intangible assets.

Lease payments are apportioned between finance costs and the repayment portion of the outstanding lease liability so as to produce a constant periodic rate of interest on the remaining balance of the lease liability. Finance costs are presented separately from depreciation of right-of-use assets in the consolidated statements of profit or loss.

Whether or not a contract is, or contains, a lease is determined based on the substance of the contract even if it does not take the legal form of a lease.

Additionally, right-of-use assets and lease liabilities are not recognized for a short-term lease that ends within 12 months or a lease for which the underlying asset is of low value. Lease payments related to such leases are recognized in profit or loss on either a straight-line basis over the lease term or another systematic basis.

(Change in accounting policies)

The Group has adopted the standard described below since FY2019.

Standard	Title	Details of new or amended standard
IFRS 16	Leases	Amendments to accounting treatment for lease agreements

In adopting IFRS 16, the Group has employed the method of recognizing the cumulative effect of changes in accounting policies on the date of initial application, which is utilized as a transitional measure. The weighted average for lessee’s incremental borrowing rate applied to lease liabilities recognized in the consolidated statement of financial position as of the date of initial application is 0.7%. Lease liabilities recognized in the consolidated statement of financial position as of the date of initial application under the transitional measure is 2,912 million yen.

In accordance with adoption of this standard, primarily, property, plant and equipment increased by 2,594 million yen, other financial liabilities under current liabilities increased by 1,111 million yen, and other financial liabilities under non-current liabilities increased by 1,491 million yen in the consolidated statements of financial position for FY2019, in comparison with the case where the previous accounting standard was adopted. This adoption has only minor effect on the consolidated statements of profit or loss.

(9) Impairment of non-financial assets

The Group assesses at the end of each reporting period whether there is any indication that its non-financial assets other than inventories and deferred tax assets may be impaired. If any such indication exists, it estimates the recoverable amount of the asset. Goodwill and an intangible asset with indefinite useful life or an intangible asset not yet available for use are tested for impairment annually regardless of whether there is an indication of impairment.

The recoverable amount of an asset or a cash-generating unit is the higher of its value in use and fair value less costs of disposal. In determining the value in use, estimated future cash flows are discounted using a pre-tax discount rate that reflects the time value of money and the risks specific to the asset.

Assets that are not individually tested for impairment are integrated with the smallest cash-generating unit that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets. The Group's corporate assets do not generate independent cash inflows. If there is an indication that the corporate assets may be impaired, the recoverable amount is determined for the cash-generating unit to which the corporate assets belong.

Goodwill acquired in a business combination is allocated to each of the cash-generating units that is expected to benefit from the synergies of the combination to ensure that goodwill is tested for impairment reflecting the smallest unit to which the goodwill relates.

Impairment losses are recognized as profit or loss when the carrying amount of an asset or a cash-generating unit exceeds its estimated recoverable amount.

The Group assesses at the end of each reporting period whether there is any indication that an impairment loss recognized in prior periods for an asset other than goodwill may have decreased or may no longer exist. An impairment loss is reversed if there is a change in the estimates used to determine the asset's recoverable amount.

(10) Financial Instruments

1) Non-derivative financial assets

(i) Initial recognition and measurement

The Group initially recognizes sale and purchase of securities on the account day and initially recognizes other financial assets when the Group becomes party to the contractual provisions of the financial assets.

At initial recognition, the financial assets are classified as financial assets measured at fair value through profit or loss, financial assets measured at fair value through other comprehensive income, or financial assets measured at amortized cost.

Financial assets are classified as financial assets measured at amortized cost if both of the following conditions are met. Otherwise financial assets are classified as financial assets measured at fair value.

- The financial assets are held within a business model whose objective is to hold assets in order to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Of financial assets measured at fair value, certain equity instruments such as stocks that are held with the purpose of facilitating business relations with investees are initially designated as financial assets measured at fair value through other comprehensive income. Other financial assets are designated as financial assets measured at fair value through profit or loss.

All financial assets are measured at fair value plus transaction costs directly attributable to acquisition of the financial assets unless the financial assets are classified as financial assets measured at fair value through profit or loss.

(ii) Subsequent measurement

Measurement of financial assets after initial recognition is performed as follows according to the classification:

(a) Financial assets measured at amortized cost

These financial assets are measured at amortized cost using the effective interest method.

(b) Financial assets measured at fair value through other comprehensive income

These financial assets are measured at fair value after initial recognition, and subsequent changes in fair value are included in other comprehensive income. If the Group disposes of an investment, or if the fair value of the investment declines significantly, for example, the cumulative gains or losses recognized in other comprehensive income are reclassified from other components of equity to retained earnings.

Dividends from the financial assets measured at fair value through other comprehensive income are recognized as finance income in profit or loss.

(c) Financial assets measured at fair value through profit or loss

Financial assets designated to be measured at fair value through profit or loss, or financial assets other than (a) and (b) above are measured at fair value, and subsequent changes in their fair value are recognized in profit or loss.

(iii) Derecognition of financial assets

The Group derecognizes financial assets when the rights to receive benefits expire or when the Group transfers financial assets or substantially all the risks and rewards of ownership of the financial assets.

(iv) Impairment of financial assets

With respect to financial assets measured at amortized cost, the Group recognizes allowance for doubtful accounts based on the expected credit loss model for such financial assets. At each reporting date, the Group assesses whether the credit risks on the financial assets have increased significantly since initial recognition. If the credit risk on a financial asset has increased significantly since the initial recognition, the allowance for doubtful accounts is measured at an amount equal to the lifetime expected credit losses. If the risk on a financial asset has not increased significantly since the initial recognition, the allowance for doubtful accounts for the financial asset is measured at an amount equal to the 12-month expected credit losses. However, the allowance for doubtful accounts on trade and other receivables is always measured at an amount equal to the lifetime expected credit losses.

The Group estimates expected credit losses of a financial asset in a way that reflects:

- an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes;
- the time value of money; and
- reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions and forecasts of future economic conditions.

The amounts of these measurements are recognized in profit or loss.

2) Non-derivative financial liabilities

(i) Initial recognition and measurement

The Group initially recognizes a financial liability when the Group becomes party to the contractual provisions of the financial liability.

At the initial recognition, the Group classifies financial liabilities as financial liabilities measured at fair value through profit or loss or financial liabilities measured at amortized cost.

All financial liabilities are measured in the full amount after deducting transaction costs directly attributable to the financial liabilities from the fair value unless the financial liabilities are classified as financial liabilities measured at fair value through profit or loss.

(ii) Subsequent measurement

Financial liabilities measured at fair value through profit or loss are measured at fair value, and subsequent changes in the fair value are recognized in profit or loss.

After initial recognition, financial liabilities measured at amortized cost are measured at amortized cost using the effective interest method. Amortization using the effective interest method and gains and losses upon derecognition are recognized in profit or loss in its consolidated statements of profit or loss for the period.

(iii) Derecognition of financial liabilities

The Group derecognizes financial liabilities when they are discharged, cancelled or expired.

3) Derivatives and hedge accounting

The Group uses derivatives such as forward exchange contracts and interest rate swaps to hedge foreign currency risk and interest rate risk.

Derivatives are initially measured at fair value at the date when the derivative contract is entered into and are subsequently measured at fair value. Changes in the fair value of derivatives are immediately recognized in profit or loss except for those that qualify for hedge accounting.

The Group formally designates and documents the hedging relationship and the risk management objective and strategy for undertaking the hedge. The documentation includes the hedging instrument, the hedged item, the nature of the risk being hedged and the methods of assessing whether the hedging relationship meets the hedge effectiveness requirements. In addition, the Group assesses whether the hedging relationship meets the hedge effectiveness requirements, both at the inception and on an ongoing basis.

Hedging relationship that meet the criteria for hedge accounting are accounted as follows.

Changes in fair value of a derivative designated as fair value hedges are recognized in profit or loss. The carrying amount of hedged items is measured at fair value and the changes in the fair value of hedged items attributable to the hedged risk are recognized as profit or loss with adjustments to the carrying amount of the hedged items.

With regard to cash flow hedge, the effective portions of the gain or loss on the hedging instrument are recognized in other comprehensive income as the line item titled “Cash flow hedges.” Subsequently, such amounts associated with forward exchange contracts are reclassified as reclassification adjustment from equity to profit or loss in the same period in which the hedged item affects profit or loss. With regard to interest rate swaps, the changes in gains and losses on the hedging instrument are recognized as other comprehensive income.

Hedge accounting is discontinued prospectively when, and only when, the hedging relationship ceases to meet the qualifying criteria. This includes instances when the hedging instrument expires or is sold, terminated or exercised.

(11) Employee benefits

1) Post-retirement benefits

The Group has defined benefit plan and defined contribution plan as post-employment benefit plan.

The net defined benefit liability (asset) associated with the defined benefit plans is calculated by deducting the fair value of the plan assets from the present value of defined benefit obligations. The present value of defined benefit obligations and related current service costs and prior service costs are measured annually by independent actuaries based on the projected unit credit method. The discount rate is calculated by reference to market yields at the end of the fiscal year on highly rated corporate bonds denominated in the same currency as those used for future benefit payment, corresponding to the discount period determined based on the period until annual future payment dates.

Remeasurements of all of the net benefit liability (asset) arising from the defined benefit plans are recognized at once in other comprehensive income in the period in which they are incurred and immediately reclassified from other components of equity to retained earnings.

Current service costs are recognized as profit or loss for the period in which they are incurred.

Prior service costs are immediately recognized as profit or loss for the period in which they are incurred.

Contributions to defined contribution plans are recognized as an expense when they are paid.

2) Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis, and are recognized at once when the related services are rendered. When there is a legal or constructive obligation to make payments of bonuses and paid leave expenses, and the obligation can be estimated reliably, the estimated amount to be paid under the relevant plans is accounted for as a liability.

(12) Share-based payments

The Group has a stock option plan accounted for as an equity-settled share-based payment plan. Stock options are estimated using its fair value at the grant date and recognized as expenses over the vesting periods with corresponding increases to equity and taking into account the estimated number of options to be vested. The fair value of options granted is measured using the Black-Scholes model based on the terms and conditions of the options.

(13) Provisions

The Group recognizes a provision when the Group has a present obligation (legal or constructive) as a result of a past event; it is probable that the Group will be required to settle the obligation through an outflow of resources embodying economic benefits, and a reliable estimate can be made of the amount of the obligation.

The amount of provision is measured at the present value of the expenditures expected to be required to settle the obligation. In calculating the present value, the pre-tax discount rate that reflects the current market assessment of the time value of money and the risks that are specific to the obligation is applied. Unwinding of the discount associated with the passage of time is recognized as finance costs.

(14) Levies

For levies that are an outflow of resources embodying economic benefits required by a government to the Group in accordance with laws and regulations, the estimated payment is recognized as a liability when the obligation event that triggers the payment of levies prescribed by laws and regulations occurs.

(15) Revenue

The Group recognizes revenue based on the five-step approach described below.

Step 1: Identify the contract(s) with a customer

Step 2: Identify performance obligations in the contract

Step 3: Determine the transaction price

Step 4: Allocate the transaction price to each performance obligation in the contract

Step 5: Recognize revenue when the performance obligation is satisfied

With regard to the timing when the performance obligation is satisfied, the Group recognizes revenue after determining whether control over goods or services is transferred to a customer over a certain period of time or at a single point in time.

The Group operates its businesses primarily in the manufacturing and sale of advanced materials, specialty chemicals, and specialty plastics and with regard to sales of these products, the Group determines that a customer obtains control over a product and the performance obligation is satisfied when the product is delivered to the customer. Accordingly, the Group principally recognizes revenue at the time of delivery of its product to the customer.

With regard to provision of services, the Group determines that the performance obligation is satisfied while control over a service is transferred to a customer over a certain period of time and therefore, recognizes revenue principally in accordance with the progress of the service.

Revenue is measured at the amount of consideration promised in a contract with a customer less discounts, rebates, returns, taxes collected for a third party, etc. In addition, in the event that another party is involved in providing goods or services to a customer, the Group, if it is deemed as a principal, recognizes revenue on the gross amount basis (amount of consideration to which it expects to be entitled) and, if it is deemed as an agent, recognizes revenue on the net amount basis (amount of fee or commission to which it expects to be entitled).

(16) Government grants

Government grants are recognized at fair value when there is reasonable assurance that the Group will comply with the conditions attaching to them and the grants will be received.

Government grants related to expense items are recognized as revenue on a systematic basis over the period in which the Group recognizes the related expenses for which the grants are intended to compensate. Government grants related to assets are directly deducted in arriving at the carrying value of the assets. Government grants are recognized in profit or loss over the useful lives of the depreciable assets as a reduction in depreciation.

(17) Finance income and finance costs

Finance income consists mainly of interest income and dividend income. Interest income is recognized when accrued by using the effective interest method. Dividend income is recognized when the Group's right to receive the dividends is established.

Finance costs consist mainly of interest expenses. Interest expenses are recognized when incurred by using the effective interest method.

(18) Income taxes

Income tax expenses consist of current tax expense and deferred tax expense. Income taxes are recognized in profit or loss, except when they arise from business combinations, and from items that are recognized directly in equity or in other comprehensive income.

Current tax expense is measured by the expected taxes payable to or receivable from tax authorities. The tax rates and tax laws that are used to calculate the tax amount are those enacted or substantively enacted by the end of the fiscal year in jurisdictions in which the Group operates business and earns taxable income.

Deferred tax expense is calculated based on temporary differences between the carrying amounts of assets and liabilities for financial accounting purposes and the tax bases of such assets and liabilities. Deferred tax assets are recognized for deductible temporary differences, the carryforwards of unused tax credits and the carryforwards of unused tax losses to the extent that it is probable that future taxable income will be available against which such deferred tax assets can be recovered. Deferred tax liabilities are recognized, in principle, for taxable temporary differences.

Deferred tax assets and liabilities are not recognized for the following temporary differences:

- Temporary differences arising from initial recognition of goodwill,
- Temporary differences arising from initial recognition of assets and liabilities from transactions that are not business combinations and affect neither accounting profit nor taxable income (tax loss),
- Deductible temporary differences on investments in subsidiaries and affiliates, when it is probable that such temporary differences will not reverse in the foreseeable future, or when it is unlikely that taxable income will be earned against which the temporary difference can be utilized,
- Taxable temporary differences on investments in subsidiaries and affiliates, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the assets are realized or the liabilities are settled, based on the tax rates and tax laws enacted or substantively enacted by the end of the fiscal year.

Deferred tax assets and liabilities are offset if the Group has a legally enforceable right to set off current tax assets against current tax liabilities and income taxes are levied by the same taxation authority on the same taxable entity.

(19) Treasury stock

Treasury stock is recognized at cost and deducted from equity. No gains or losses are recognized on the repurchase, sale or retirement of shares of the Company's treasury stock. Any difference between the carrying amount and consideration received on the sale of shares of the treasury stock is recognized directly as capital surplus.

(20) Profit per share

Basic profit per share are calculated by dividing profit attributable to owners of parent by the weighted average number of ordinary shares outstanding during the period, adjusted for treasury stocks held. Diluted profit per share is calculated by adjusting for the effects of all dilutive potential ordinary shares.

4. Significant accounting estimates and associated judgments

In preparing the Group's consolidated financial statements in compliance with IFRSs, the management is required to make judgments, estimates and assumptions that affect the adoption of accounting policies and the reportable amount of assets, liabilities and revenue and expenses. Actual results may differ from such estimates.

The estimates and their underlying assumptions are reviewed on an ongoing basis. The effect of a change in accounting estimates is recognized in the accounting period in which such estimates are changed and also in the future accounting periods.

Estimates and assumptions that may have material impact on the preparation of the Group's consolidated financial statements are as follows:

- Useful lives of property, plant and equipment (Item (6) of 3. Significant accounting policies and 11. Property, plant and equipment)
Except for non-depreciable assets such as land, an item of property, plant and equipment is depreciated using the straight-line method over the estimated useful life. These assumptions in estimates are determined based on the best possible estimates and judgments by the management, but may be affected by the result of uncertain changes in economic conditions in the future. If it becomes necessary to review the assumptions, there could be a significant effect on the consolidated financial statements.
- Impairment of property, plant and equipment; goodwill and intangible assets (Item (9) of 3. Significant accounting policies and 13. Impairment of non-financial assets)
The Group assesses at the end of each reporting period whether there is any indication that its non-financial assets other than inventories and deferred tax assets may be impaired. In determining recoverable amounts in impairment testing, assumptions are made as to estimated future cash flows, discount rates, and other items. These assumptions are determined based on the best possible estimates and judgments by the management, but may be affected by the result of uncertain changes in economic conditions in the future. If it becomes necessary to review the assumptions, there could be a significant effect on the consolidated financial statements.
- Valuation of inventories (Item (5) of 3. Significant accounting policies and 10. Inventories)
Inventories are measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale, but the Group may incur a loss if the market environment deteriorates further than expected and net realizable value declines significantly.
- Recoverability of deferred tax assets (Item (18) of 3. Significant accounting policies and 15. Income taxes)
Deferred tax assets are recognized for deductible temporary differences, the carryforwards of unused tax credits and the carryforwards of unused tax losses to the extent that it is probable that future taxable income will be available against which such deferred tax assets can be recovered. Deferred tax liabilities are recognized, in principle, for taxable temporary differences. In judging the probability of recording taxable income, the timing for recording taxable income and amount thereof are estimated based on a business plan. Such estimates are made based on the best possible estimates by the management, but may differ from actual results due to the result of uncertain changes in economic conditions in the future.
- Valuation of defined benefit obligations (Item (11) of 3. Significant accounting policies and 19. Employee benefits)
The net defined benefit liability (asset) associated with the defined benefit plans is calculated by deducting the fair value of the plan assets from the present value of defined benefit obligations. The present value of defined benefit obligations and related current service costs and prior service costs are measured annually by independent actuaries based on the projected unit credit method. The discount rate is calculated by reference to market yields at the end of the fiscal year on highly rated corporate bonds denominated in the same currency as those used for future benefit payment, corresponding to the discount period determined based on the period until annual future payment dates. These assumptions are determined after comprehensively taking into consideration all information that is available. These assumptions in actuarial calculations may be affected by factors such as an uncertain economic environment and changes in social situations in the future, and thus involve risks of causing a material revision in the measurement amount of defined benefit obligations in the future.

- Recognition of provisions (Item (13) of 3. Significant accounting policies and 18. Provisions)

The Group recognizes a provision when the Group has a present obligation (legal or constructive) as a result of a past event; it is probable that the Group will be required to settle the obligation through an outflow of resources embodying economic benefits, and a reliable estimate can be made of the amount of the obligation. Assumptions used in the measurement of these provisions may be affected by uncertain changes in economic conditions in the future, and thus involve risks of causing a material revision in the measurement amount of provisions in the future.

- Assumption on valuation of financial instruments (Item (10) of 3. Significant accounting policies and 23. Financial instruments)

At the Group, measurement of financial assets after initial recognition is performed as follows according to the classification:

- Financial assets measured at amortized cost
These financial assets are measured at amortized cost using the effective interest method.
- Financial assets measured at fair value through other comprehensive income
These financial assets are measured at fair value after initial recognition, and subsequent changes in fair value are included in other comprehensive income. If the Group disposes of an investment, or if the fair value of the investment declines significantly, for example, the cumulative gains or losses recognized in other comprehensive income are reclassified from other components of equity to retained earnings.
Dividends from the financial assets measured at fair value through other comprehensive income are recognized as finance income in profit or loss.
- Financial assets measured at fair value through profit or loss
Financial assets designated to be measured at fair value through profit or loss, or financial assets other than (a) and (b) above are measured at fair value, and subsequent changes in their fair value are recognized in profit or loss. These conditions are determined after taking into consideration all the information that is available. These conditions may be affected by factors such as an uncertain economic environment and changes in social situations in the future, and could have a significant effect on the consolidated financial statements.

Judgments made by the management in the course of applying the accounting policies are as follows:

- Determination of scope of consolidation (Item (1) of 3. Significant accounting policies) and
- Classification of financial instruments (Item (10) of 3. Significant accounting policies and 22. Financial instruments).

(Change in accounting estimates)

(Change in valuation method for inventories)

Inventories are measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

In changing the business strategy for the polyglycolic acid (PGA) business, the Group has reviewed the future business environment and projected earnings. In order to more appropriately reflect declines in profitability of inventories held for the said business in our financial position and operating results, in FY2019 we decided to adopt the method whereby net realizable value is estimated by factoring in data based on revenue for the current fiscal year and projected revenue for the next fiscal year.

The effect of this change is recorded in “Other expenses” in the consolidated statements of profit or loss. As a result, operating profit and profit before tax for FY2019 decreased by 5,388 million yen each compared to the previous method.

(Additional information)

(Effect of COVID-19 on accounting estimates)

The Group is continuing stable business operations while securing a safe working environment for its employees, etc., and working to prevent infection and mitigate the risk of infection. In FY2019, although the Advanced Materials segment experienced a temporary shutdown of its factory in China as well as weakness in sales, the overall effect on operating results was immaterial supported partly by increased demand in Japan in the Specialty Plastics segment. In the procurement of raw materials, etc. and logistics operations, there was no significant effect despite some delays. Declines in market prices of raw materials, etc. led to lower production costs across the company, but a steep drop in crude oil prices affected operating rates of U.S. shale oil and gas extraction operators—customers for the processed PGA resin products business—and caused orders to decrease for the said business. In financial terms, there are no uncollectible receivables and the liquidity of funds has been secured.

In light of these circumstances, it is extremely difficult to project the effect of COVID-19 on the Group’s future operating results given the lack of precedents that can be referenced in forming accounting estimates or a unified view on the future infection spread and the timing when the disease is contained. Meanwhile, for FY2019, based on an assumption that sales fell in the processed PGA resin products business as the U.S. shale oil and gas market had slowed due to short-term declines in crude oil prices, the Group made accounting estimates regarding inventory valuations, impairment of non-financial assets, and judgment regarding the recoverability of deferred tax assets, and these were reflected in the accounting treatment.

This accounting treatment under these accounting estimates are based on assumptions that the Company regards as reasonable and may differ from the results actually realized depending on the status of COVID-19. See the section entitled “Business and other risks” for further details on the risks to each business segment of the Group associated with the spread of COVID-19.

5. Standards and interpretations issued but not yet adopted

There are no new standards or interpretations having significant effects among those that were established or amended by the date of approval of the consolidated financial statements but not adopted early by the Group.

6. Segment information

(1) Overview of reportable segments

The Group’s reportable segments are components for which separate financial information is available and whose operating results are regularly reviewed by the Board of Directors to decide on the allocation of operating resources and assess their performance.

The Group has separate divisions by product, and each division formulates a comprehensive strategy for business activities in domestic and overseas markets.

Accordingly, the Group consists of segments by product and service on the basis of the business divisions, and has the five reportable segments of “Advanced Materials,” “Specialty Chemicals,” “Specialty Plastics,” “Construction,” and “Other Operations.”

Major products and services for each segment are as follows:

Segment	Products and services
Advanced Materials	polyphenylene sulfide (PPS), polyvinylidene fluoride (PVDF), processed polyglycolic acid (PGA) products, carbon fiber, bead-shaped activated carbon
Specialty Chemicals	agricultural and horticultural fungicides, therapeutic agent for chronic renal failure, caustic soda, hydrochloric acid, sodium hypochlorite, monochlorobenzene, para-dichlorobenzene, ortho-dichlorobenzene
Specialty Plastics	household plastic wrap, garbage bags for kitchen sink, plastic food containers, cooking paper, PVDF fishing lines, polyvinylidene chloride (PVDC) film, multilayer heat-shrinkable film, multilayer bottle, auto-pack machinery (for food packaging)
Construction	civil engineering and construction contracting business, construction and management service
Other Operations	industrial waste management and environmental processing facilities, physiochemical and biochemical testing, analysis and measurement services, transport and warehousing, medical services

(2) Information on reportable segments

The accounting policies for the reportable segments are the same as those of the Group stated in “3. Significant accounting policies.” Intersegment revenue is principally based on the market price.

The Group's segment information is as follows:

Millions of yen								
FY2018 (From April 1, 2018 To March 31, 2019)								
Reportable segments								
	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Total	Adjustment (Note)	Consolidated
Revenue								
Revenue from external customers	¥45,749	¥27,309	¥45,148	¥12,415	¥17,643	¥148,265	¥ —	¥148,265
Intersegment revenue	782	227	230	6,093	5,923	13,258	(13,258)	—
Total	46,531	27,537	45,379	18,509	23,566	161,523	(13,258)	148,265
Operating profit	4,607	3,301	6,738	668	2,087	17,403	(230)	17,172
Finance income								651
Finance costs								(389)
Profit before tax								17,435
Other items								
Segment assets	89,575	21,187	39,911	7,734	18,913	177,322	70,029	247,352
Depreciation and amortization	3,381	1,155	2,310	102	1,279	8,228	2,081	10,310
Impairment loss	—	—	—	—	—	—	—	—
Share of profit of entities accounted for using equity method	1,690	—	238	—	40	1,969	—	1,969
Increases in property, plant and equipment, and intangible assets	¥ 7,067	¥ 510	¥ 1,541	¥ 62	¥ 1,675	¥ 10,856	¥ 2,317	¥ 13,174

Note: Adjustment to operating profit consists mainly of 97 million yen of profit resulting from elimination of intersegment transactions, 615 million yen of other income and 944 million yen of other expenses not allocated to any reportable segment.
Adjustment to segment assets includes corporate assets not allocated to reportable segments, which mainly consist of cash and deposits, investment securities and shared facilities of the Company.

Millions of yen								
FY2019 (From April 1, 2019 To March 31, 2020)								
Reportable segments								
	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Total	Adjustment (Note)	Consolidated
Revenue								
Revenue from external customers	¥41,842	¥24,331	¥43,473	¥14,457	¥18,293	¥142,398	¥ —	¥142,398
Intersegment revenue	608	218	200	5,739	6,330	13,097	(13,097)	—
Total	42,451	24,549	43,673	20,197	24,623	155,495	(13,097)	142,398
Operating profit	3,711	2,127	6,306	1,147	2,713	16,007	2,033	18,041
Finance income								545
Finance costs								(642)
Profit before tax								17,944
Other items								
Segment assets	86,512	21,339	36,709	8,556	25,915	179,032	67,857	246,890
Depreciation and amortization	3,683	1,176	2,214	216	2,287	9,577	2,532	12,110
Impairment loss	—	—	—	—	—	—	5,218	5,218
Share of profit of entities accounted for using equity method	1,791	—	207	—	—	1,998	—	1,998
Increases in property, plant and equipment, and intangible assets	¥ 7,270	¥ 743	¥ 1,883	¥ 87	¥ 2,437	¥ 12,423	¥ 2,504	¥ 14,928

Note: Adjustment to operating profit consists mainly of 17 million yen of profit resulting from elimination of intersegment transactions, 13,447 million yen of other income (10,177 million yen of gain on sale of fixed assets, 1,460 million yen of gain on bargain purchase, 1,200 million yen of gain on sale of businesses, etc.) and 11,431 million yen of other expenses (10,607 million yen of business restructuring expenses, etc.) not allocated to any reportable segment.

Adjustment to segment assets includes corporate assets not allocated to reportable segments, which mainly consist of cash and deposits, investment securities and shared facilities of the Company.

Adjustment to impairment losses includes impairment losses for fixed assets of 5,218 million yen associated with the Advanced Materials segment.

(3) Information on products and services

This information is omitted because the same information is disclosed in “(1) Overview of reportable segments” and “(2) Information on reportable segments.”

(4) Information by geographical area

Revenue from external customers

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Japan	¥102,718	¥103,862
Asia	15,291	18,061
Europe	10,589	13,533
Other	13,798	12,808
Total	¥142,398	¥148,265

Note: Revenues are classified based on the location of customers.

Non-current assets (property, plant and equipment and intangible assets)

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Japan	¥103,290	¥ 94,319
U.S.	8,037	13,936
Other	9,297	10,390
Total	¥120,625	¥118,647

Note: Non-current assets are classified based on the location of the assets.

(5) Information on major customers

This information is omitted because no customer accounted for 10% or more of revenue from external customers in the consolidated statements of profit or loss.

7. Business combinations

(Business combination due to acquisition)

FY2019 (From April 1, 2019 To March 31, 2020)

(1) Overview of business combination

Kureha Ecology Management Co., Ltd. which is a consolidated subsidiary of the Company, has acquired shares of Himeyuri total work Co., Ltd. as described below on April 1, 2019, based on a share transfer contract concluded on March 1, 2019.

1) Name and business of acquiree

Name: Himeyuri total work Co., Ltd.

Main business: final disposal of industrial waste (controlled landfill)

2) Reason for acquisition

The Group, through its business activities, is making earnest efforts to solve social issues in fields such as the global environment, energy and resources, food, life, and medical and health, and Kureha Ecology Management Co., Ltd. strives to conserve the global environment through the collection, transportation, and intermediate disposal of industrial wastes. By making into a subsidiary Himeyuri total work Co., Ltd., which operates final disposal sites and has business transactions with the Group since its founding, we can provide an integrated service from collection and transportation to intermediate and final disposal of industrial wastes and the Group will have a structure which can further satisfy the needs of customers and local communities.

3) Acquisition date

April 1, 2019

4) Ratio of voting rights acquired

Ratio of voting rights owned immediately before the acquisition date: 19%

Ratio of voting rights acquired additionally on the acquisition date: 81%

Ratio of voting rights after acquisition: 100%

5) Fair values of consideration transferred, assets acquired and liabilities assumed, equity interest owned immediately before the acquisition date, and gain on bargain purchase

Item	Amount (Millions of yen)
Consideration transferred (cash)	¥ 470
Fair values of assets acquired and liabilities assumed	
Current assets	¥ 2,164
Property, plant and equipment	5,493
Other non-current assets	797
Non-current assets	6,290
Current liabilities	(451)
Long-term loans payable	(4,583)
Other non-current liabilities	(1,037)
Non-current liabilities	(5,621)
Fair values of assets acquired and liabilities assumed (net)	2,382
Equity interest owned immediately before the acquisition date *1	452
Gain on bargain purchase *2	¥ 1,460

*1 As a result of remeasuring the equity interest in the acquiree owned immediately before the acquisition date using the fair value as of the acquisition date, a gain on step acquisitions of 20 million yen was recorded in “Other income” in the consolidated statements of profit or loss.

*2 Gain on bargain purchase arose as the net fair value of assets acquired and liabilities assumed exceeded the fair value of consideration transferred, and was recorded in “Other income” in the consolidated statements of profit or loss.

6) Acquisition-related expenses

This information is omitted because the impact of acquisition-related expenses is insignificant.

(2) Cash flows related to acquisition

Cash and cash equivalents paid for acquisition: 475 million yen

Cash and cash equivalents owned by acquiree at the time of acquisition: 1,884 million yen

Proceeds from acquisition of subsidiary: 1,409 million yen

(3) Effect on operating results

Revenue and profit for the year generated from the acquiree after the acquisition date are omitted because their impact on the consolidated statements of profit or loss is insignificant.

(Business transfer due to company split)

FY2019 (From April 1, 2019 To March 31, 2020)

The Company has entered into a contract by which the blow bottle business operated by the Company was succeeded by Kyodo Printing Co., Ltd. (hereinafter, “Kyodo Printing”) on July 24, 2019 by way of a company split (simplified absorption-type company split) (hereinafter, the “Company Split”), and Kyodo Printing succeeded the business on November 1, 2019.

(1) Purpose of the Company Split

The Company believes that succession of the blow bottle business by Kyodo Printing will bring a synergistic effect to the living and industrial materials business and product line of Kyodo Printing, allow for continuous provision of value-added products and services to its customers, and contribute to the mutual development of the business of the Company and Kyodo Printing.

(2) Summary of the Company Split

1) Date of Company Split

November 1, 2019

2) Form of the Company Split

It is an absorption-type company split by which the Company becomes the split company and Kyodo Printing becomes the succeeding company. The company split took place without the approval of a general meeting of shareholders of the Company as it was a simplified absorption-type company split as stipulated in Article 784, Paragraph 2 of the Companies Act.

3) Allotment in the Company Split

As consideration for the Company Split, the Company received cash in an amount of 1,677 million yen from Kyodo Printing.

(3) Details of business that was split

1) Details of business that was split

Manufacturing and sale of blow bottles

2) Operating results of business that was split (from April 1, 2019 to October 31, 2019)

Revenue: 1,101 million yen

3) Item of assets and liabilities that were split and amounts thereof

Inventories: 186 million yen

Property, plant and equipment: 291 million yen

Total assets: 477 million yen

(Note) No liability was succeeded.

4) Accounting treatment

Gain on sale of businesses of 1,200 million yen, which is the difference between the consideration for the Company Split and the assets that were split, was recorded in “Other income” in the consolidated statements of profit or loss.

8. Cash and cash equivalents

Cash and cash equivalents comprise cash and deposits. The balances of “cash and cash equivalents” in the statements of financial position as of the end of FY2018 and FY2019 equal the balances of “cash and cash equivalents” presented in the corresponding consolidated statements of cash flows.

9. Trade and other receivables

The breakdown of trade and other receivables is as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Trade notes and accounts receivable	¥27,300	¥29,610
Other	1,199	1,276
Allowance for doubtful accounts	(171)	(165)
Total	¥28,327	¥30,721

10. Inventories

The breakdown of inventories is as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Merchandise and finished goods	¥31,828	¥32,070
Work in process	1,361	1,411
Raw materials and supplies	5,051	4,846
Total	¥38,240	¥38,328

Note: The amounts of inventory write-down recognized as expense for FY2018 and FY2019 are 619 million yen and 5,315 million yen, respectively. Of the said amounts, that for FY2018 was included in “Cost of sales,” and that for FY2019 was included in “Cost of sales” in an amount of negative 72 million yen and in “Other expenses” as business restructuring expenses in an amount of 5,388 million yen in the consolidated statements of profit or loss.

11. Property, plant and equipment

(1) Changes in carrying amount, cost, and accumulated depreciation and accumulated impairment losses

Carrying amount

	Millions of yen						
	Buildings and structures	Machinery, equipment and vehicles	Land	Construction in progress	Right-of-use assets	Other	Total
Balance as of April 1, 2018	¥40,940	¥44,902	¥17,863	¥ 7,517	—	¥ 3,012	¥114,236
Acquisitions	4,184	8,049	18	(342)	—	1,123	13,032
Disposals	(49)	(150)	(0)	—	—	(8)	(207)
Depreciation	(3,111)	(5,739)	—	—	—	(1,090)	(9,940)
Impairment loss	—	—	—	—	—	—	—
Direct deduction due to government grants	—	—	—	—	—	—	—
Exchange rate differences	49	386	(6)	8	—	(5)	432
Other changes	—	(0)	—	—	—	0	—
Balance as of March 31, 2019	¥42,013	¥47,449	¥17,875	¥ 7,183	—	¥ 3,031	¥117,553
Change in accounting policies	—	—	—	—	3,325	(432)	2,892
Balance as of April 1, 2019	¥42,013	¥47,449	¥17,875	¥ 7,183	¥ 3,325	¥ 2,598	¥120,445
Acquisitions	3,646	3,895	0	4,432	1,768	769	14,511
Acquisitions due to business combination	3,708	1,434	342	—	—	7	5,493
Disposals	(219)	(459)	(1,738)	—	(673)	(17)	(3,108)
Depreciation	(3,428)	(6,105)	—	—	(1,352)	(880)	(11,767)
Impairment loss	(785)	(4,111)	—	—	—	(12)	(4,908)
Direct deduction due to government grants	—	—	—	—	—	—	—
Exchange rate differences	(239)	(605)	(8)	(13)	—	(16)	(882)
Other changes	—	(0)	—	—	—	—	(0)
Balance as of March 31, 2020	¥44,695	¥41,497	¥16,471	¥11,602	¥ 3,067	¥ 2,447	¥119,782

Notes: 1. Depreciation is recorded in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statements of profit or loss.

2. Impairment loss is recorded in “Other expenses” in the consolidated statements of profit or loss. See the section entitled “13. Impairment of non-financial assets” for further details on impairment.

3. The line item “Acquisitions” above includes transfers from construction in progress to items of property, plant and equipment.

4. See the section entitled “7. Business combinations (Business combination due to acquisition)” for further details on acquisitions due to business combination.

Cost

	Millions of yen						
	Buildings and structures	Machinery, equipment and vehicles	Land	Construction in progress	Right-of-use assets	Other	Total
Balance as of April 1, 2018	¥106,222	¥165,733	¥18,458	¥ 7,517	—	¥16,291	¥314,223
Balance as of March 31, 2019	¥109,930	¥171,079	¥18,470	¥ 7,183	—	¥16,354	¥323,018
Balance as of March 31, 2020	¥117,182	¥170,427	¥17,066	¥11,602	¥5,816	¥15,012	¥337,106

Accumulated depreciation and accumulated impairment losses

	Millions of yen					
	Buildings and structures	Machinery, equipment and vehicles	Land	Right-of-use assets	Other	Total
Balance as of April 1, 2018	¥65,282	¥120,830	¥594	—	¥13,278	¥199,986
Balance as of March 31, 2019	¥67,917	¥123,629	¥594	—	¥13,323	¥205,464
Balance as of March 31, 2020	¥72,486	¥128,929	¥594	¥2,748	¥12,564	¥217,324

(2) Government grants that were directly deducted from the cost of fixed assets (by applying reduction entry to fixed assets) are as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Amount subject to reduction entry	¥7,309	¥7,309

Note: The amount represents direct deduction of subsidy from the carrying amounts of building, machinery and equipment, etc. related to Fukushima Business Investment Subsidy for Revitalization of Industries.

(3) The breakdown of right-of-use assets is as follows:

	Millions of yen
	FY2019 (As of March 31, 2020)
Buildings and structures	¥1,744
Machinery, equipment and vehicles	241
Land	732
Other	347
Total right-of-use assets	¥3,067

(4) Profit and loss related to right-of-use assets are as follows:

	Millions of yen
	FY2019 (From April 1, 2019 To March 31, 2020)
Depreciation of right-of-use assets	
Buildings and structures	¥ 979
Machinery, equipment and vehicles	107
Land	93
Other	172
Total	1,352
Interest expenses on lease liabilities	13
Expenses on short-term leases	409
Expenses on leases of low-value assets	¥ 75

Cash outflows for leases are as follows:

	Millions of yen
	FY2019 (From April 1, 2019 To March 31, 2020)
Total cash outflows for leases	¥1,848

12. Intangible assets

(1) Changes in carrying amount, cost, and accumulated amortization and accumulated impairment losses

Carrying amount

	Millions of yen		
	Software	Other	Total
Balance as of April 1, 2018	¥ 729	¥ 606	¥1,336
Acquisitions	126	15	142
Disposals	(15)	(0)	(15)
Amortization	(273)	(96)	(369)
Exchange rate differences	(0)	1	1
Other changes	—	—	—
Balance as of March 31, 2019	¥ 567	¥ 526	¥1,094
Acquisitions	407	8	416
Acquisitions due to business combination	—	5	5
Disposals	(4)	(3)	(7)
Amortization	(243)	(99)	(342)
Impairment loss	—	(310)	(310)
Exchange rate differences	(1)	(11)	(12)
Other changes	—	—	—
Balance as of March 31, 2020	¥ 726	¥ 116	¥ 842

Notes: 1. Amortization of intangible assets is recorded in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statements of profit or loss.

2. Impairment loss is recorded in “Other expenses” in the consolidated statements of profit or loss. See the section entitled “13. Impairment of non-financial assets” for further details on impairment.

3. The line item “Acquisitions” above mainly represents the amounts of intangible assets purchased from external parties.

4. See the section entitled “7. Business combinations (Business combination due to acquisition)” for further details on acquisitions due to business combination.

Cost

	Millions of yen		
	Software	Other	Total
Balance as of April 1, 2018	¥1,727	¥1,006	¥2,734
Balance as of March 31, 2019	¥1,640	¥1,011	¥2,652
Balance as of March 31, 2020	¥1,724	¥1,005	¥2,729

Accumulated amortization and accumulated impairment losses

	Millions of yen		
	Software	Other	Total
Balance as of April 1, 2018	¥ 997	¥400	¥1,397
Balance as of March 31, 2019	¥1,072	¥485	¥1,557
Balance as of March 31, 2020	¥ 998	¥889	¥1,887

(2) Research and development expenses

The total amounts of expenditures for research and development recognized as expense for FY2018 and FY2019 are 5,270 million yen and 5,995 million yen, respectively.

13. Impairment of non-financial assets

(1) Impairment loss

The Group recognizes impairment losses when either the carrying amount of an asset or a cash-generating unit exceeds its estimated recoverable amount.

The Group recognized impairment losses for property, plant and equipment and intangible assets for FY2019 in an amount of 5,218 million yen.

(2) Main events and circumstances that led to recognition of impairment losses

FY2018 (From April 1, 2018 To March 31, 2019)

Not applicable.

FY2019 (From April 1, 2019 To March 31, 2020)

Segment	Purpose of use	Location	Type of assets	Millions of yen			
				Amount			
Advanced Materials	Manufacturing facility	Omitama, Ibaraki	Buildings	¥	22		
			Machinery and equipment		359		
			Tools, furniture and fixtures		12		
			Intangible assets		310		
			Total		705		
		West Virginia, U.S.	Buildings		762		
			Machinery and equipment		3,751		
			Total		4,513		
			Total				5,218

In principle, the Group has grouped the operating assets by segment and by company, and idle assets and assets for lease by individual properties.

Recoverable value is the higher of value in use and fair value less costs of disposal. Value in use is the present value of future cash flows calculated by using pre-tax weighted average cost of capital of a cash-generating unit. Fair value less costs of disposal is evaluated either by the estimated disposal amount or the amount reasonably calculated based on assessed values of fixed assets for property tax.

For the manufacturing facility in the Advanced Materials segment, the Group conducted a thorough review and assessment of its business, including projected earnings upon implementing a business restructuring in the PGA business. Consequently, for the abovementioned manufacturing facility, the Group wrote down the carrying amount of fixed assets associated with the PGA business to their recoverable values and recognized the reduction of 5,218 million yen as other expenses. The Group measures recoverable value based on value in use, which is calculated after discounting future cash flows of 8.6%.

In recording impairment, etc., of business assets for the PGA business, estimates have been made assuming that there will be a decrease in demand in FY2020 due to the spread of COVID-19 and a drop in crude oil prices. In addition, actual results may differ from these estimates.

14. Investments accounted for using the equity method

(1) The aggregate carrying amounts of the Group's interests in individually immaterial affiliates and joint ventures are as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Joint ventures	¥10,621	¥10,475
Affiliates	2,499	2,677

(2) The aggregate amounts of profit for the year, other comprehensive income and comprehensive income of individually immaterial affiliates and joint venture that are adjusted to reflect the portion of ownership interests are as follows:

Joint ventures

	Millions of yen	
	FY2019 (From April 1, 2019 to March 31, 2020)	FY2018 (From April 1, 2018 to March 31, 2019)
Profit for the year	¥1,791	¥1,731
Comprehensive income	1,791	1,731

Affiliates

	Millions of yen	
	FY2019 (From April 1, 2019 to March 31, 2020)	FY2018 (From April 1, 2018 to March 31, 2019)
Profit for the year	¥207	¥238
Comprehensive income	207	238

15. Income taxes

(1) Breakdown of deferred tax assets and deferred tax liabilities

The breakdown of deferred tax assets and deferred tax liabilities by major cause and the details of changes are as follows:

FY2018 (From April 1, 2018 To March 31, 2019)

	Millions of yen			
	As of April 1, 2018	Amount recognized in profit or loss	Amount recognized in other comprehensive income	As of March 31, 2019
Deferred tax assets				
Loss on valuation of inventories	¥ 1,334	¥ 230	¥ —	¥ 1,565
Impairment loss	1,177	(246)	—	930
Provisions	1,885	91	—	1,976
Unrealized gain on fixed assets	1,732	(21)	—	1,711
Tax loss carryforwards	3,169	(263)	—	2,905
Amount in excess of allowed depreciation limit	574	69	—	643
Other	2,246	235	1	2,484
Subtotal	12,120	95	1	12,217
Deferred tax liabilities				
Financial assets measured at fair value through other comprehensive income	(5,843)	—	337	(5,505)
Accelerated depreciation and amortization of foreign operations	(3,464)	10	—	(3,453)
Deemed cost	(2,200)	—	—	(2,200)
Net defined benefit assets	(1,538)	(149)	(110)	(1,797)
Other	(539)	(17)	—	(557)
Subtotal	(13,585)	(156)	227	(13,514)
Net amount	¥ (1,465)	¥ (61)	¥ 229	¥ (1,296)

Note: A difference between the amount recognized in profit or loss and total deferred tax expenses is mainly due to exchange rate fluctuations.

FY2019 (From April 1, 2019 To March 31, 2020)

	Millions of yen				As of March 31, 2020
	As of April 1, 2019	Amount recognized in profit or loss	Amount recognized in other comprehensive income	Business combinations (Note 1)	
Deferred tax assets					
Loss on valuation of inventories	¥ 1,565	¥ 1,572	¥ —	¥ —	¥ 3,138
Impairment loss	930	1,110	—	2	2,044
Provisions	1,976	(106)	—	129	1,999
Unrealized gain on fixed assets	1,711	183	—	—	1,895
Tax loss carryforwards	2,905	(1,530)	—	16	1,392
Amount in excess of allowed depreciation limit	643	92	—	—	736
Other	2,484	(123)	(1)	280	2,639
Subtotal	12,217	1,200	(1)	428	13,845
Deferred tax liabilities					
Financial assets measured at fair value through other comprehensive income	(5,505)	—	1,361	(49)	(4,192)
Accelerated depreciation and amortization of foreign operations	(3,453)	103	—	—	(3,350)
Deemed cost	(2,200)	—	—	—	(2,200)
Net defined benefit assets	(1,797)	(142)	120	—	(1,819)
Other	(557)	(160)	—	(186)	(903)
Subtotal	(13,514)	(199)	1,481	(235)	(12,466)
Net amount	¥ (1,296)	¥ 1,001	¥1,480	¥ 193	¥ 1,378

Notes: 1. See the section entitled “7. Business combinations (Business combination due to acquisition)” for further details on business combinations.

2. A difference between the amount recognized in profit or loss and total deferred tax expenses is mainly due to exchange rate fluctuations.

(2) Deductible temporary differences, etc. for which deferred tax assets are not recognized

Deductible temporary differences and tax loss carryforwards for which deferred tax assets were not recognized are as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Deductible temporary differences	¥ 5,962	¥6,090
Tax loss carryforwards	4,130	2,005
Total	¥10,092	¥8,096

Note: The breakdown by expiry date of tax loss carryforwards for which deferred tax assets were not recognized is as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Due in one year or less	¥ 175	¥ 451
Due after one year through five years	975	1,553
Due after five years	2,978	—
Total	¥4,130	¥2,005

(3) Temporary differences arising from investments in subsidiaries for which deferred tax liabilities were not recognized

Not applicable.

(4) Income tax expense

The breakdown of income tax expense is as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 to March 31, 2020)	FY2018 (From April 1, 2018 to March 31, 2019)
Current tax expense	¥ 5,138	¥3,393
Deferred tax expense	(1,021)	41
Total	¥ 4,117	¥3,435

(5) Reconciliation of statutory effective tax rate and actual tax rate

The reconciliation of the statutory effective tax rate and actual tax rate is as follows.

The actual tax rate represents the ratio of income tax expense to profit before tax.

	Millions of yen	
	FY2019 (From April 1, 2019 to March 31, 2020)	FY2018 (From April 1, 2018 to March 31, 2019)
Statutory effective tax rate	30.46%	30.46%
Permanently non-deductible items such as entertainment expenses	0.63%	0.53%
Permanently non-taxable items such as dividend income	(0.21)%	(0.22)%
Tax credit on research expense	(9.87)%	(6.91)%
Effect of unrecognized tax loss carryforwards or temporary differences	2.27%	(3.60)%
Gain on bargain purchase	(2.48)%	—
Difference in tax rates at foreign operations	1.80%	—
Other	0.34%	(0.55)%
Actual tax rate	22.94%	19.71%

Note: The Group is subject mainly to income tax, inhabitant tax and enterprise tax, based on which the statutory effective tax rate above is calculated. The Group's foreign operations are subject to income and other taxes at their respective locations.

16. Assets pledged as collateral and secured obligations

Assets pledged as collateral and obligations with pledged assets are as follows:

(1) Assets pledged as collateral

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Property, plant and equipment	¥31,722	¥34,600
Other financial assets	265	340
Total	¥31,987	¥34,940

(2) Obligations with pledged assets

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Trade and other payables	¥ 768	¥ 563
Loans payable	289	359
Other financial liabilities	241	260
Total	1,299	1,182
Current liabilities	800	632
Non-current liabilities	¥ 499	¥ 549

17. Trade and other payables

The breakdown of trade and other payables is as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Trade notes and accounts payable	¥14,796	¥18,602
Other	4,628	5,408
Total	¥19,424	¥24,011

18. Provisions

The breakdown of provisions and the details of changes are as follows:

	Millions of yen		
	Provision for employee benefits (Note)	Other	Total
Balance as of April 1, 2018	¥ 5,740	¥ 870	¥ 6,610
Increases during the period	4,397	253	4,651
Decreases during the period (provisions used)	(4,154)	(255)	(4,409)
Decreases during the period (provisions reversed)	—	—	—
Exchange rate differences	(3)	—	(3)
Balance as of March 31, 2019	5,979	868	6,848
Increases during the period	4,373	620	4,993
Increases due to business combinations	11	1,009	1,021
Decreases during the period (provisions used)	(4,299)	(723)	(5,022)
Decreases during the period (provisions reversed)	—	(26)	(26)
Exchange rate differences	(8)	—	(8)
Balance as of March 31, 2020	¥ 6,057	¥1,748	¥ 7,805

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Current liabilities	¥6,339	¥6,176
Non-current liabilities	1,465	671
Total	¥7,805	¥6,848

Note: Provision for employee benefits represent an estimated amount of expenditures for costs associated mainly with unused paid leaves and bonuses. The expected timing of any resulting outflows of economic benefits is mostly within one year from the end of each fiscal year.

19. Employee benefits

The Company and certain consolidated subsidiaries have adopted the funded and unfunded defined benefit plans and defined contribution plans to provide for retirement benefits to the employees.

(1) Defined benefit plan

The defined benefit plans adopted by the Group mainly consists of defined benefit corporate pension plans and lump-sum retirement benefit plans.

The Group's defined benefit corporate pension plan is a contract-type corporate pension plan managed under a cash balance plan. Under the plan, each participant is given a hypothetical individual account to record their funded amount which will be the source of pension payment. Interest credit based on the market interest rate trends and contribution credit based primarily on a level of compensation are the two main items accumulated in the hypothetical individual account. Certain consolidated subsidiaries make lump-sum or pension payments based on the amount of salary and the lengths of service.

Under the contract-type corporate pension plan, plan assets management is entrusted to asset management institutions in accordance with the defined benefit corporate pension regulations agreed between labor and management. In addition, the Group abides by the rules provided under the Defined-Benefit Corporate Pension Law that requires recalculation of the amount of contribution at least every five years to maintain the plan's funded status into the future.

Under the lump-sum retirement benefit plan, lump-sum payment is made based on the amount of salary and the lengths of service.

(2) Amounts related to defined benefit plans reported in the consolidated financial statements

1) Amounts recognized in the consolidated statements of financial position

The amounts recognized in the consolidated statements of financial position are as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Present value of defined benefit obligations under funded plans (with plan assets)	¥ 21,007	¥ 21,586
Fair value of plan assets	(26,780)	(27,345)
Funded status	(5,772)	(5,759)
Present value of defined benefit obligations under unfunded plans (without plan assets)	235	249
Net amount of liability and asset recognized in the consolidated statements of financial position	(5,537)	(5,509)
Net defined benefit liability	295	329
Net defined benefit asset	¥ 5,832	¥ 5,839

Note: Net defined benefit asset is recorded under "Other non-current assets" in the consolidated statements of financial position.

2) Amounts recognized in the consolidated statements of profit or loss

The amounts of defined benefit cost recognized in the consolidated statements of profit or loss are as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Service cost	¥1,150	¥1,164
Net interest	(24)	(25)
Prior service costs	14	—
Total defined benefit cost	¥1,140	¥1,139

Note: Defined benefit cost is recorded under "Cost of sales" and "Selling, general and administrative expenses" in the consolidated statements of profit or loss.

3) Changes in the present value of defined benefit obligations
Changes in the present value of defined benefit obligations are as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Present value of defined benefit obligations (beginning of the year)	¥21,835	¥22,399
Service cost	1,150	1,164
Interest cost	92	117
Benefits paid	(1,651)	(1,681)
Prior service costs	14	—
New consolidation	44	—
Remeasurements	(241)	(156)
(i) Actuarial differences arising from changes in demographical assumptions	—	—
(ii) Actuarial differences arising from changes in financial assumptions	(287)	228
(iii) Other adjustments to actual results	45	(384)
Exchange rate differences	(3)	(7)
Present value of defined benefit obligations (end of the year) (Note)	¥21,243	¥21,835

Note: The weighted average duration of defined benefit obligations for the FY2018 and FY2019 were 9.8 years and 9.8 years, respectively.

4) Fair value of plan assets

The Group's investment policy is designed to ensure the total return in a long term to fund for the stable payments of pension benefits and lump-sum payments into the future.

Accordingly, taking into account the maturity and financial position of the Group by giving consideration to expected rate of return from fundamental investment assets, standard deviation of the rate of return, and the correlation coefficient of these rates, the Group formulates a strategic asset mix ratio from a mid-to-long term standpoint, which is considered as an optimal portfolio on a long-term basis. The Group reviews the investment policy as necessary and provides comprehensive management over its assets and liabilities.

The Group manages risks appropriately through diversified asset management by investing in multiple asset classes and funds that have different risk and return characteristics, thereby balancing the risk exposure.

Changes in fair value of plan assets are as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Fair value of plan assets (beginning of the year)	¥27,345	¥26,956
Interest income	117	143
Return on plan assets	(671)	235
Contributions by the employer (Note)	1,550	1,631
Benefits paid	(1,592)	(1,615)
New consolidation	33	—
Exchange rate differences	(2)	(5)
Fair value of plan assets (end of the year)	¥26,780	¥27,345

Note: Expected contribution for the year ending March 31, 2021 is 1,540 million yen.

5) The breakdown of the fair value of plan assets
The breakdown of the fair value of plan assets are as follows:

	Millions of yen			
	FY2019 (As of March 31, 2020)		FY2018 (As of March 31, 2019)	
	Quoted market price in an active market		Quoted market price in an active market	
	Available	Not available	Available	Not available
Bonds	¥12,515	¥ —	¥ 9,680	¥ —
Stocks	7,257	—	8,205	—
General accounts of life insurance companies	—	6,768	—	6,794
Other	—	238	—	2,664
Total	¥19,773	¥7,007	¥17,886	¥9,459

6) Major assumptions used for actuarial calculations
Major assumptions used for actuarial calculations are as follows:

	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Discount rate (weighted average)	0.6%	0.4%

7) Sensitivity analysis

Effects on defined benefit obligations due to changes in actuarial assumptions are as follows:

Sensitivity analysis is performed by applying the same method used to calculate defined benefit obligations recognized in the consolidated statements of financial position, based on the change in assumption that can be reasonably estimated at the end of the reporting period. Under the analysis, all other variables are assumed to remain constant.

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
0.1% increase in discount rate	¥(205)	¥(207)
0.1% decrease in discount rate	205	207

(3) Defined contribution plan

Amounts of contribution to the defined contribution plan recognized as expenses for FY2018 and FY2019 were 2,056 million yen and 2,150 million yen, respectively. The amounts are recorded under “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statements of profit or loss.

(4) Employee benefit expenses

Total employee benefit expenses excluding the above items for FY2018 and FY2019 were 29,981 million yen and 30,205 million yen, respectively. The amounts are recorded under “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statements of profit or loss.

20. Share-based payments

(1) Details of share-based payment plan

The Company has a stock option plan that grants rights to its directors (excluding outside directors) to purchase the Company’s shares. The plan is accounted for as an equity-settled share-based payment plan.

The Company's stock option plan outstanding in FY2018 and FY2019 are as follows:

Date of resolution	June 25, 2009	June 25, 2010	June 24, 2011	June 26, 2012	June 25, 2013
Number of shares granted (shares)	5,550	5,530	5,660	7,650	5,670
Grant date	July 22, 2009	July 21, 2010	July 20, 2011	July 18, 2012	July 17, 2013
Fair value at grant date (yen)	4,870	4,060	3,600	2,780	2,890
Vesting condition (Note)	Continued service from June 25, 2009 to June 24, 2010	Continued service from June 25, 2010 to June 24, 2011	Continued service from June 24, 2011 to June 23, 2012	Continued service from June 26, 2012 to June 25, 2013	Continued service from June 25, 2013 to June 24, 2014
Expiry date	July 21, 2039	July 20, 2040	July 19, 2041	July 17, 2042	July 16, 2043
Shares outstanding as of the end of FY2018	530	580	660	1,300	1,810
Shares outstanding as of the end of FY2019	530	580	660	1,300	1,810

Date of resolution	June 25, 2014	June 24, 2015	June 24, 2016	June 27, 2017	June 26, 2018
Number of shares granted (shares)	3,390	3,410	4,050	2,120	1,500
Grant date	July 16, 2014	July 22, 2015	July 20, 2016	July 19, 2017	July 18, 2018
Fair value at grant date (Yen)	5,060	4,260	3,680	5,299	7,393
Vesting condition (Note)	Continued service from June 25, 2014 to June 24, 2015	Continued service from June 24, 2015 to June 23, 2016	Continued service from June 24, 2016 to June 23, 2017	Continued service from June 27, 2017 to June 26, 2018	Continued service from June 26, 2018 to June 25, 2019
Expiry date	July 15, 2044	July 21, 2045	July 19, 2046	July 18, 2047	July 17, 2048
Shares outstanding as of the end of FY2018	1,140	2,570	3,050	2,120	1,500
Shares outstanding as of the end of FY2019	1,140	2,570	3,050	2,120	1,500

Date of resolution	June 25, 2019	Total
Number of shares granted (shares)	2,740	47,270
Grant date	July 24, 2019	—
Fair value at grant date (Yen)	6,976	—
Vesting condition (Note)	Continued service from June 25, 2019 to June 24, 2020	—
Expiry date	July 23, 2049	—
Shares outstanding as of the end of FY2018	—	15,260
Shares outstanding as of the end of FY2019	2,740	18,000

Note: If a director retires during the vesting period, exercisable stock acquisition rights will decrease in accordance with the director's service period.

(2) Number of outstanding stock options and weighted average exercise price

	FY2019 (From April 1, 2019 To March 31, 2020)		FY2018 (From April 1, 2018 To March 31, 2019)	
	Number of options (shares)	Weighted average exercise price (yen)	Number of options (shares)	Weighted average exercise price (yen)
Outstanding at the beginning of the year	15,260	1	13,760	1
Granted	2,740	1	1,500	1
Exercised	—	—	—	—
Outstanding at the end of the year	18,000	1	15,260	1
Exercisable at the end of the year	—	—	—	—

Note: Weighted average fair value of stock options outstanding at the end of FY2018 and FY2019 were 4,352 yen and 4,751 yen, respectively. Weighted average contractual life remaining for FY2018 and FY2019 were 25.6 years and 25.2 years, respectively.

(3) Expenses in relation to stock options are as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Selling, general and administrative expenses	¥17	¥11

(4) Fair value of stock options granted was calculated as follows:

	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Expected volatility (Note 1)	34.3%	24.8%
Expected remaining life (Note 2)	1.0 years	2.0 years
Expected dividend (Note 3)	165 yen/share	125 yen/share
Risk-free rate (Note 4)	(0.19)%	(0.12)%

Notes: 1. Expected volatility for FY2018 and FY2019 are calculated using the actual share price over a period of two years (from July 2016 to July 2018) and two years (from July 2017 to July 2019), respectively.

2. Expected retirement date used in the computation is estimated based on the average service period.

3. Expected dividend for FY2018 and FY2019 are calculated based on the actual annual dividend amounts for the years ended March 2018 and March 2019, respectively.

4. Risk-free rates are calculated by linear interpolation between spot rates of separated principal component of JGBs with a maturity corresponding to the expected remaining life.

21. Paid-in capital and other equity items

(1) Numbers of authorized shares and issued (and fully paid) shares

Changes in the numbers of authorized shares and issued shares are as follows:

	Shares	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Number of authorized shares		
Common stock	60,000,000	60,000,000
Number of issued shares		
Balance as of the beginning of the year	20,805,407	20,805,407
Increases during the year	—	—
Decreases during the year	—	—
Balance as of the end of the year	20,805,407	20,805,407

Note: All of the shares issued by the Company are shares of common stock with no par value and no limits to any rights of the shareholders.

(2) Treasury stock

Changes in treasury stock are as follows:

	Shares	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Balance as of the beginning of the year	540,325	150,740
Increases during the year (Note)	746,666	389,585
Decreases during the year	—	—
Balance as of the end of the year	1,286,991	540,325

Note: Increases during FY2018 were due to 685 shares resulting from purchase of shares less than one trading unit and 388,900 shares resulting from acquisition based on a resolution of the Board of Directors' meeting held on November 7, 2018 and increases during FY2019 were due to 666 shares resulting from purchase of shares less than one trading unit and 746,000 shares resulting from acquisition based on a resolution of the Board of Directors' meeting held on May 14, 2019.

(3) Capital surplus and retained earnings

(a) Capital surplus

Under the Companies Act, 50% or more of the total amount paid in or contributed upon share issue must be recorded as share capital while the remaining amount must be recorded as legal capital surplus, which is a component of capital surplus. The amount of legal capital surplus may be transferred to share capital by a resolution of a general meeting of shareholders.

(b) Retained earnings

Under the Companies Act, 10% of the amount of surplus that decreased due to distribution of surplus must be accumulated as legal capital surplus or legal retained earnings until the aggregate amount of legal capital surplus and legal retained earnings equals 25% of the capital stock. The amount reserved in legal retained earnings may be appropriated to compensate accumulated deficit. It may also be reversed by a resolution of a shareholders' meeting.

(4) Other components of equity

(a) Stock acquisition rights

This amount represents the increase in equity arising from the reception or acquisition of goods or services pertaining to equity-settled share-based payment plan.

(b) Exchange differences on translating foreign operations

This amount represents exchange differences arising from translating the financial statements of foreign operations to Japanese yen, which is the presentation currency of the Group.

(c) Financial assets measured at fair value through other comprehensive income

The amount represents the difference between the cost and the year-end fair value of equity instruments measured at fair value through other comprehensive income.

22. Dividends

(1) Amounts of dividends paid

FY2018 (From April 1, 2018 To March 31, 2019)

Resolution	Class of shares	Total amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors' meeting held on April 17, 2018	Common stock	¥1,445	¥70.00	March 31, 2018	June 4, 2018
Board of Directors' meeting held on October 23, 2018	Common stock	1,445	70.00	September 30, 2018	December 4, 2018

FY2019 (From April 1, 2019 To March 31, 2020)

Resolution	Class of shares	Total amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors' meeting held on April 23, 2019	Common stock	¥1,925	¥95.00	March 31, 2019	June 4, 2019
Board of Directors' meeting held on October 24, 2019	Common stock	1,682	85.00	September 30, 2019	December 3, 2019

(2) Dividends whose record date is in the current fiscal year but whose effective date is in the following fiscal year

FY2018 (From April 1, 2018 To March 31, 2019)

Resolution	Class of shares	Source of dividends	Total amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors' meeting held on April 23, 2019	Common stock	Retained earnings	¥1,925	¥95.00	March 31, 2019	June 4, 2019

FY2019 (From April 1, 2019 To March 31, 2020)

Resolution	Class of shares	Source of dividends	Total amount of dividends (Millions of yen)	Dividend per share (Yen)	Record date	Effective date
Board of Directors' meeting held on April 21, 2020	Common stock	Retained earnings	¥1,659	¥85.00	March 31, 2020	June 2, 2020

23. Financial instruments

(1) Capital management

In order to maintain proper capital adequacy ratio and to maximize shareholder's value, the Group determines an appropriate amount of dividends, acquires its own shares, grants stock acquisition rights and raises funds through debt capital and equity capital.

The followings are the key indicators employed by the Group in managing the Group's capital.

The Group is not subject to any significant externally imposed capital requirements (except for general requirements such as those required by the Companies Act and other laws and regulations).

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Interest-bearing debt	¥ 37,317	¥ 39,018
Less: Cash and cash equivalents	(7,268)	(5,989)
Net interest-bearing debt	30,049	33,029
Equity capital	164,990	160,551
Equity-to-asset ratio (Equity ratio)	66.8%	64.9%

Note: Equity capital presented above represents total equity attributable to owners of the parent.

Equity-to-asset ratio (Equity ratio) = Equity capital / Total liabilities and equity

(2) Basic policies on financial instruments

The Group uses financial instruments, mainly bank loans and bonds for the purpose of raising its necessary fund based on its capital expenditure plan. Cash surpluses, if any, are invested only in short-term deposits, etc. Working capital for short-term ongoing operations is procured from short-term bank loans. Derivatives are used, not for speculative purposes, but to manage exposure to financial risks as described below.

(3) Description of financial instruments and associated risk

Receivables such as trade notes and trade accounts are exposed to customer credit risk. Although receivables in foreign currencies are exposed to the market risk of fluctuation in foreign currency exchange rates, the position, net of payables in foreign currencies, is hedged principally by using forward foreign currency contracts. Other financial assets such as investments securities are equity instruments of customers and suppliers of the Group, and are exposed to the risk of market price fluctuations. The Group also provides long-term loans to the employees.

Payment terms of payables, such as trade notes and trade accounts, are less than one year. Although payables in foreign currencies, partly accompanied by the import of materials, are exposed to the market risk of fluctuation in foreign currency exchange rates, the position, net of payables in foreign currencies, is hedged principally by using forward foreign currency contracts.

Loans payable, bonds payable and lease liabilities related to finance lease are mainly used to procure necessary funds for capital expenditure, most of which carry fixed interest rates.

Derivatives mainly include forward foreign currency contracts which are used to manage exposure to risks from fluctuations in foreign currency exchange rates of trade receivables and payables denominated in foreign currencies.

(4) Risk management structure related to financial instruments and quantitative information on risk

a. Credit risk

1) Management of risk pertaining to counterparty default

Credit risk is the risk of economic loss arising from counterparty's failure to repay or service debt according to the contractual terms. The Group manages its credit risk from receivables on the basis of internal guidelines, which include setting up an individual credit limit and monitoring of payment terms and balances of major customers by each business administration department to identify the default risk of customers at an early stage. A credit limit is changed, if necessary, based on a periodic monitoring of customers' financial positions. The Group mitigates the risk of receivable collection due to deteriorating financial position by utilizing such facilities as credit insurance or factoring.

In using derivatives, the Group chooses highly creditworthy financial institutions to avoid counterparty risk.

The same method of risk control is applicable to consolidated subsidiaries.

2) Quantitative information on credit risk

i) Maximum exposure to credit risk

Maximum exposure to the credit risk is the sum of the carrying amounts of financial assets, net of impairment losses presented in the consolidated statements of financial position, and the balance of guarantee obligations.

ii) Credit risk exposure of the Group pertaining to trade and other receivables

The credit risk exposure of the Group pertaining to trade and other receivables are as follows:

FY2018 (As of March 31, 2019)

(Millions of yen)						
Financial assets for which the allowance for doubtful accounts is measured at an amount equal to lifetime expected credit loss						
Days in arrears	Financial assets for which the allowance for doubtful accounts is measured at an amount equal to 12-month expected credit loss	Financial assets for which credit risk increased significantly after initial recognition	Financial asset for which the allowance for doubtful accounts is always measured at an amount equal to a lifetime expected credit loss		Credit-impaired financial assets	Total
Current	¥2,462	¥—	¥28,970		¥ 30	¥31,463
Within 30 days	0	—	354		—	354
Between 31 to 60 days	—	—	95		—	95
Between 61 to 90 days	—	—	20		—	20
Over 90 days	—	—	169		77	246
Total	¥2,462	¥—	¥29,610		¥107	¥32,180

FY2019 (As of March 31, 2020)

(Millions of yen)					
Financial assets for which the allowance for doubtful accounts is measured at an amount equal to lifetime expected credit loss					
Days in arrears	Financial assets for which the allowance for doubtful accounts is measured at an amount equal to 12-month expected credit loss	Financial assets for which credit risk increased significantly after initial recognition	Financial asset for which the allowance for doubtful accounts is always measured at an amount equal to a lifetime expected credit loss	Credit-impaired financial assets	Total
Current	¥2,652	¥—	¥26,351	¥30	¥29,033
Within 30 days	1	—	676	—	677
Between 31 to 60 days	—	—	108	—	108
Between 61 to 90 days	—	—	15	—	15
Over 90 days	—	—	148	64	213
Total	¥2,653	¥—	¥27,300	¥94	¥30,048

iii) Analysis of changes in allowance for doubtful accounts

The Group reviews the recoverability of trade receivables depending on the credit conditions of counterparties and records allowance for doubtful accounts accordingly. Changes in allowance for doubtful accounts are as follows:

FY2018 (From April 1, 2018 To March 31, 2019)

(Millions of yen)					
Lifetime expected credit loss					
	12-month expected credit loss	Financial assets for which credit risk increased significantly after initial recognition	Financial asset for which the allowance for doubtful accounts is always measured at an amount equal to a lifetime expected credit loss	Credit-impaired financial assets	Total
Beginning balance	¥—	¥—	¥ 159	¥ 77	¥ 237
Increases during the year (allowances made)	—	—	171	17	188
Decreases during the year (allowances used)	—	—	(5)	—	(5)
Decreases during the year (allowances reversed)	—	—	(153)	(13)	(167)
Exchange differences	—	—	(5)	0	(5)
Ending balance	¥—	¥—	¥ 165	¥ 81	¥ 247

FY2019 (From April 1, 2019 To March 31, 2020)

(Millions of yen)					
	12-month expected credit loss	Financial assets for which credit risk increased significantly after initial recognition	Lifetime expected credit loss		Total
			Financial asset for which the allowance for doubtful accounts is always measured at an amount equal to a lifetime expected credit loss	Credit-impaired financial assets	
Beginning balance	¥—	¥—	¥ 165	¥ 81	¥ 247
Increases during the year (allowances made)	—	—	172	16	189
Decreases during the year (allowances used)	—	—	—	—	—
Decreases during the year (allowances reversed)	—	—	(161)	(11)	(173)
Exchange differences	—	—	(5)	—	(5)
Ending balance	¥—	¥—	¥ 171	¥ 86	¥ 258

b. Liquidity risk

1) Management of liquidity risk related to fund procurement

Trade payables and loans payable are exposed to liquidity risk. In the Group, each entity manages its liquidity risk by formulating a monthly cash flow plan and the Company manages it by using commercial paper and commitment line.

2) Quantitative information on liquidity risk

The breakdown of financial liabilities including derivative financial instruments by due date is as follows:

FY2018 (As of March 31, 2019)

(Millions of yen)								
	Carrying amount	Contractual cash flows	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years
Trade and other payables	¥24,011	¥24,011	¥24,011	¥ —	¥ —	¥ —	¥ —	¥ —
Bonds and loans payable	38,552	38,611	23,046	2,243	1,055	7,053	5,052	160
Other financial liabilities	1,519	1,519	510	149	111	59	42	646
Derivative liabilities	13	13	13	—	—	—	—	—
Total	¥64,096	¥64,155	¥47,580	¥2,392	¥1,167	¥7,113	¥5,094	¥807

FY2019 (As of March 31, 2020)

(Millions of yen)								
	Carrying amount	Contractual cash flows	Due within one year	Due after one year through two years	Due after two years through three years	Due after three years through four years	Due after four years through five years	Due after five years
Trade and other payables	¥19,424	¥19,424	¥19,424	¥ —	¥ —	¥ —	¥ —	¥ —
Bonds and loans payable	34,198	34,236	15,549	1,496	7,694	5,592	564	3,338
Lease liabilities	3,118	3,118	1,310	746	309	183	139	428
Other financial liabilities	1,043	1,043	270	39	36	36	36	623
Derivative liabilities	2	2	2	—	—	—	—	—
Total	¥57,787	¥57,825	¥36,557	¥2,283	¥8,040	¥5,813	¥740	¥4,390

c. Market risk

1) Market risk management

The Company and certain consolidated subsidiaries manage market risk resulting from fluctuations in foreign currency exchange rates of foreign currency trade receivables and payables, which are to be identified through management per month and per currency. Such foreign exchange risk is hedged principally by forward foreign currency contracts. Investment securities are managed by monitoring market values and financial position of issuers on a regular basis. Basic principles of derivative transactions are based on the internal guidelines which prescribe the authority and the limit for each transaction. The same principles are applicable to the consolidated subsidiaries.

2) Quantitative information on market risk

i) Sensitivity analysis of foreign currency risk

With regard to the foreign-currency-denominated loans payable and receivable held by the Group as of the end of FY2018 and FY2019, the following sensitivity analysis shows an impact on profit before tax in the consolidated statements of profit or loss of the Group, when the yen depreciates by 1% against the U.S. dollar and Chinese yuan (sensitivity to foreign currency). The analysis is based on the assumption that all other variable factors are held constant.

Item	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
U.S. dollar	¥17	¥19
Chinese yuan	0	1

ii) Sensitivity analysis of interest rate risk

With regard to the financial instruments held by the Group as of the end of FY2018 and FY2019, the following sensitivity analysis shows an impact on profit before income taxes in the consolidated statements of profit or loss of the Group, when the interest rate increases by 0.1% (sensitivity to interest rate). The analysis is based on the assumption that all other variable factors are held constant.

Item	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Effect on profit before tax	¥(10)	¥(10)

iii) Sensitivity analysis of share price fluctuation risk

With regard to the listed shares held by the Group as of the end of FY2018 and FY2019, the following sensitivity analysis shows an impact on other comprehensive income (before taking into account tax benefit) in the consolidated statements of comprehensive income of the Group, when the share price declines by 10% (sensitivity to share price). The analysis is based on the assumption that all other variable factors are held constant.

Item	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Effect on other comprehensive income	¥(2,087)	¥(2,581)

(5) Fair value of financial instruments

1) Carrying amounts and fair values of financial assets and financial liabilities

Carrying amounts and fair values of financial assets and financial liabilities by class held by the Group are as follow:

	Millions of yen			
	FY2019 (As of March 31, 2020)		FY2018 (As of March 31, 2019)	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Financial assets measured at amortized cost				
Other financial assets	¥ 1,462	¥ 1,462	¥ 1,239	¥ 1,239
Financial assets measured at fair value through other comprehensive income				
Other financial assets	23,114	23,114	27,378	27,378
Total	24,576	24,576	28,618	28,618
Financial liabilities				
Financial liabilities measured at amortized cost				
Bonds and loans payable	34,198	34,348	38,552	38,685
Other financial liabilities	4,161	4,161	1,519	1,519
Financial liabilities measured at fair value through profit or loss				
Derivative liabilities	2	2	13	13
Total	¥38,362	¥38,512	¥40,085	¥40,218

2) Method of fair value measurement

Fair values of key financial assets and financial liabilities are determined as follows.

i) Cash and cash equivalents, trade and other receivables and trade and other payables

Classified as financial assets measured at amortized cost. The carrying amounts of these accounts approximate fair value because of their short maturities. Therefore, information on fair values is omitted.

ii) Other financial assets

The fair values of marketable shares are presented based on the price on the stock exchange. The fair values of unlisted shares are determined using reasonable valuation techniques.

The fair values of long-term loans receivable are measured at the present value of the future cash flows discounted by a rate of return, a reasonable rate such as government bond rate added to a credit spread, with respect to each credit risk segment of credit control.

The carrying amount of others approximates fair value because of its short maturities.

iii) Bonds and borrowings

The fair values of bonds are measured based on the market price.

The fair values of borrowings are measured by discounting the principal and interest by an assumed new borrowing rate.

iv) Other financial liabilities

The fair values of lease liabilities are measured by discounting them at the prevailing interest rate to be applied for similar lease transactions.

The carrying amount of others approximates fair value because of its short maturities.

v) Derivative transactions

The fair values of forward exchange contracts are measured based on forward exchange rates.

3) Classification of the fair values of financial instruments measured at fair value by hierarchy level

The fair value measurements are categorized into the following three levels in a fair value hierarchy.

Level 1: Quoted prices (unadjusted) in active markets for identical assets and liabilities that the Group can access at the measurement date.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3: Unobservable inputs for the asset or liability.

In the case of several inputs used to measure the fair value, the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement. Transfers between the levels of fair value hierarchy are recognized assuming that such transfers occurred at the end of each reporting period.

i) Financial assets and liabilities recognized at fair value

FY2018 (As of March 31, 2019)

	Millions of yen			Total
	Level 1	Level 2	Level 3	
Financial assets				
Financial assets measured at fair value through other comprehensive income				
Other financial assets	¥25,817	¥—	¥1,561	¥27,378
Total	25,817	—	1,561	27,378
Financial liabilities				
Financial liabilities measured at fair value through profit or loss				
Derivative liabilities	—	13	—	13
Total	¥ —	¥13	¥ —	¥ 13

Note: There were no transfers between different levels of the fair value hierarchy.

FY2019 (As of March 31, 2020)

	Millions of yen			Total
	Level 1	Level 2	Level 3	
Financial assets				
Financial assets measured at fair value through other comprehensive income				
Other financial assets	¥20,872	¥—	¥2,241	¥23,114
Total	20,872	—	2,241	23,114
Financial liabilities				
Financial liabilities measured at fair value through profit or loss				
Derivative liabilities	—	2	—	2
Total	¥ —	¥ 2	¥ —	¥ 2

Note: There were no transfers between different levels of the fair value hierarchy.

ii) Information on fair value measurement categorized in Level 2 and Level 3

Financial assets and financial liabilities categorized in Level 2 arise from derivative transactions. The fair value of these assets and liabilities are measured based on the observable inputs such as the forward exchange rate or the interest rate. Financial assets categorized in Level 3 are mainly unlisted equity instruments. The fair values of unlisted equity instruments are measured by applying valuation techniques such as market multiple method and net asset value method, in addition to using unobservable inputs including valuation multiples.

The fair values of financial assets categorized in Level 3 on a recurring or non-recurring basis are measured in accordance with the provisions of the Group's accounting policies. In measuring the fair value, the Group uses valuation techniques and inputs that reflect the nature, characteristics and risks of the relevant financial instruments most appropriately. The results of the measurement are reviewed by senior managers.

If each unobservable input used to measure financial instruments categorized in Level 3 is changed to a reasonable alternative assumption, no material changes in the amount of fair values would be assumed.

iii) Changes in financial instruments categorized in Level 3

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through other comprehensive income
Beginning balance	¥1,561	¥1,540
Gains or losses for the period (Note 1)	(0)	16
Purchase, etc. (Note 2)	695	5
Sale	(14)	(0)
Ending balance	¥2,241	¥1,561

Notes: 1. The line item “Gains or losses for the period” above is presented in “Financial assets measured at fair value through other comprehensive income” in the consolidated statements of comprehensive income.

2. “Purchase, etc.” includes an increase due to new consolidation.

iv) Information on financial assets measured at fair value through other comprehensive income

The Group classifies long-term investments held mainly for the purpose of maintaining amicable relationships with its business partners as financial assets measured at fair value through other comprehensive income.

(a) Major items and fair values

The fair values of financial assets measured at fair value through other comprehensive income by item are as follows:

FY2018 (As of March 31, 2019)

Item	Millions of yen
	Fair value
Daiichi Sankyo Company, Limited	¥10,200
NOF Corporation	3,434
Tosoh Corporation	2,249
Taiyo Nippon Sanso Corporation	1,562
Kuraray Co., Ltd.	928

FY2019 (As of March 31, 2020)

Item	Millions of yen
	Fair value
Daiichi Sankyo Company, Limited	¥7,434
NOF Corporation	3,124
Tosoh Corporation	1,608
Taiyo Nippon Sanso Corporation	1,484
Kuraray Co., Ltd.	721

(b) Dividend income

The breakdown of dividend income on financial assets measured at fair value through other comprehensive income is as follows:

Item	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Investments held at the end of the year	¥489	¥546
Investments derecognized during the year	42	74
Total	¥531	¥621

(c) Derecognized financial assets measured at fair value through other comprehensive income

The fair values on the date of derecognition and cumulative gains and losses (before taxes) of the financial assets measured at fair value through other comprehensive income that were derecognized during the year are as follows:

Item	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Fair value	¥ 6,150	¥4,102
Cumulative gains or losses	(5,440)	3,320

Notes: 1. For the purpose mainly of reviewing the relationship with the customers, the Group disposes the financial assets measured at fair value through other comprehensive income and derecognizes such financial assets.

2. The Group reclassifies to retained earnings cumulative gains or losses arising from changes in the fair values of financial assets measured at fair values through other comprehensive income in either of the following cases: when an asset is derecognized; or when there is a significant decline in the fair value, etc. The amount of cumulative gains or losses (after taxes) in other comprehensive income reclassified to retained earnings for FY2018 and FY2019 were 2,302 million yen and 3,782 million yen, respectively.

v) Breakdown of fair values of financial instruments measured at amortized cost by hierarchy level

The breakdown of financial assets and liabilities measured at amortized cost by fair value hierarchy is as follows. The financial assets whose carrying amounts approximate their fair values are not included in the table below.

FY2018 (As of March 31, 2019)

	Millions of yen			
	Level 1	Level 2	Level 3	Total
Financial assets				
Other financial assets	¥—	¥ 1,239	¥—	¥ 1,239
Total	—	1,239	—	1,239
Financial liabilities				
Bonds payable	—	19,028	—	19,028
Loans payable	—	18,656	—	18,656
Commercial papers	—	1,000	—	1,000
Total	¥—	¥38,685	¥—	¥38,685

FY2019 (As of March 31, 2020)

	Millions of yen			
	Level 1	Level 2	Level 3	Total
Financial assets				
Other financial assets	¥—	¥ 1,462	¥—	¥ 1,462
Total	—	1,462	—	1,462
Financial liabilities				
Bonds payable	—	11,974	—	11,974
Loans payable	—	20,373	—	20,373
Commercial papers	—	2,000	—	2,000
Total	¥—	¥34,348	¥—	¥34,348

(6) Derivatives

Derivative transactions to which hedge accounting is not applied

FY2018 (As of March 31, 2019)

		Millions of yen			
Type		Contract amount	Contract amount due after one year	Fair value	Unrealized gains or losses
Off-market transactions	Forward exchange contracts (Selling)				
	Euro	¥ 328	¥—	¥ 4	¥ 4
	Chinese yuan	160	—	(0)	(0)
	U.S. dollar	878	—	(3)	(3)
	Forward exchange contracts (Buying)				
	Chinese yuan	149	—	(1)	(1)
	Japanese yen	438	—	(32)	(32)
	U.S. dollar	1,976	—	22	22
	British pound	130	—	(1)	(1)
	Total	¥4,061	¥—	¥(13)	¥(13)

Notes: 1. The fair values of derivative transactions are calculated using forward exchange rates.

2. Unrealized gains or losses on foreign exchange contracts are presented as the fair values of the contracts.

FY2019 (As of March 31, 2020)

		Millions of yen			
Type		Contract amount	Contract amount due after one year	Fair value	Unrealized gains or losses
Off-market transactions	Forward exchange contracts (Selling)				
	Euro	¥ 438	¥—	¥(3)	¥(3)
	Chinese yuan	107	—	2	2
	U.S. dollar	1,702	—	(5)	(5)
	Forward exchange contracts (Buying)				
	Euro	219	—	3	3
	Chinese yuan	166	—	(1)	(1)
	U.S. dollar	1,959	—	1	1
	Total	¥4,594	¥—	¥(2)	¥(2)

Notes: 1. The fair values of derivative transactions are calculated using forward exchange rates.

2. Unrealized gains or losses on foreign exchange contracts are presented as the fair values of the contracts.

24. Revenue

(1) Disaggregation of revenue

The Group has separate divisions by product, and each division formulates a comprehensive strategy for business activities in domestic and overseas markets.

Accordingly, the Group consists of segments by product and service on the basis of the business divisions, and has the five reportable segments of “Advanced Materials,” “Specialty Chemicals,” “Specialty Plastics,” “Construction,” and “Other Operations.” Main products and services of each reportable segment are described in “6. Segment information.”

With regard to sales of advanced materials, specialty chemicals, and specialty plastics, the Group determines that a customer obtains control over a product and the performance obligation is satisfied when the product is delivered to the customer. Accordingly, the Group principally recognizes revenue at the time of delivery of its product to the customer. In addition, revenue generated from sales of products is measured at the amount of consideration promised in a contract with a customer less discounts, rebates, etc. The consideration is paid generally within three months after the performance obligation is satisfied. It does not include significant financial components.

With regard to provision of construction and other services, the Group determines that the performance obligation is satisfied while control over a service is transferred to a customer over a certain period of time and therefore, recognizes revenue principally in accordance with the progress of the service. In addition, progress of construction is measured by the proportion of the contract costs incurred to the estimated total contract costs. The consideration is paid generally within three months after the performance obligation is satisfied. It does not include significant financial components.

Relationships between revenue by reportable segment and revenue disaggregated by type are as follows.

FY2018 (From April 1, 2018 To March 31, 2019)

Millions of yen						
	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Total
Sale of products	¥45,747	¥26,590	¥45,148	¥ —	¥ —	¥117,486
Construction	—	—	—	12,415	2,353	14,769
Provision of other services	2	718	—	—	15,289	16,009
Total	¥45,749	¥27,309	¥45,148	¥12,415	¥17,643	¥148,265

FY2019 (From April 1, 2019 To March 31, 2020)

Millions of yen						
	Advanced Materials	Specialty Chemicals	Specialty Plastics	Construction	Other Operations	Total
Sale of products	¥41,840	¥23,971	¥43,473	¥ —	¥ —	¥109,285
Construction	—	—	—	14,457	1,144	15,602
Provision of other services	2	359	—	—	17,148	17,510
Total	¥41,842	¥24,331	¥43,473	¥14,457	¥18,293	¥142,398

(2) Contract balance

The Group records contract assets relating to consideration on construction work in progress, records contract liabilities relating to advances received from customers, and records refund liabilities by estimating rebates for which payment is expected in the future.

FY2018 (From April 1, 2018 To March 31, 2019)

Millions of yen		
	Beginning of FY2018 (As of April 1, 2018)	FY2018 (As of March 31, 2019)
Trade receivables	¥31,907	¥29,610
Contract assets	2,036	1,789
Contract liabilities	732	1,876
Refund liabilities	¥ 918	¥ 896

FY2019 (From April 1, 2019 To March 31, 2020)

Millions of yen		
	Beginning of FY2019 (As of April 1, 2019)	FY2019 (As of March 31, 2020)
Trade receivables	¥29,610	¥27,300
Contract assets	1,789	3,113
Contract liabilities	1,876	665
Refund liabilities	¥ 896	¥ 982

Note: With respect to revenue recognized during the FY2018 and FY2019, the amounts included in contract liabilities were 732 million yen and 1,876 million yen at the beginning of the year, respectively. In the consolidated statements of financial position, contract assets are included in “Other current assets,” and contract liabilities and refund liabilities are included in “Other current liabilities.”

25. Other income

The breakdown of “Other income” is as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Gain on sale of fixed assets (Note)	¥10,177	¥ 19
Gain on bargain purchase	1,460	—
Gain on sale of businesses	1,200	—
Gain on government grants	317	343
Other	292	252
Total	¥13,447	¥615

Note: Gain on sale of fixed assets mainly consists of 9,272 million yen of gain on sale of land associated with the headquarters annex building.

26. Other expenses

The breakdown of “Other expenses” is as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Business restructuring expenses (Note)	¥10,607	¥ —
Loss on retirement and sale of property, plant and equipment, and intangible assets	591	766
Other	232	177
Total	¥11,431	¥944

Note: Business restructuring expenses consist of impairment losses of property, plant and equipment and intangible assets of 5,218 million yen, and effect of change in valuation method of inventories of 5,388 million yen.

27. Finance income and finance costs

The breakdown of finance income is as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Interest income	¥ 12	¥ 26
Dividend income	531	621
Other	1	4
Total	¥545	¥651

The breakdown of finance costs is as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Interest expenses	¥312	¥359
Foreign exchange losses	320	20
Other	9	9
Total	¥642	¥389

28. Profit per share

(1) Basis for determining basic profit per share

	Millions of yen, unless otherwise stated	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Profit attributable to ordinary equity holders of parent:		
Profit attributable to owners of parent	¥13,719	¥13,933
Profit not attributable to ordinary equity holders of parent	—	—
Profit used for determining basic profit per share	13,719	13,933
Weighted average number of common stock during the period (shares)	19,807,880	20,504,133
Basic profit per share (yen)	692.61	679.55

(2) Basis for determining diluted profit per share

	Millions of yen, unless otherwise stated	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Profit attributable to ordinary equity holders including dilutive effects:		
Profit used for determining basic profit per share	¥13,719	¥13,933
Adjustments on profit	—	—
Profit used for determining diluted profit per share	13,719	13,933
Weighted average number of common stock during the period (shares):		
Dilutive effects (shares)	16,737	14,593
Weighted average number of common stock including dilutive effects (shares)	19,824,617	20,518,726
Diluted profit per share (yen)	692.03	679.07

29. Other comprehensive income

Reclassification adjustment and tax effect for other comprehensive income are as follows:

FY2018 (From April 1, 2018 To March 31, 2019)

	Millions of yen				
	Amount arising during the year	Reclassification adjustment	Amount before tax effect	Tax effect	Amount after tax effect
Items that will not be reclassified to profit or loss:					
Financial assets measured at fair value through other comprehensive income	¥2,185	¥—	¥2,185	¥(680)	¥1,504
Remeasurements of defined benefit plans	413	—	413	(109)	304
Total	2,598	—	2,598	(789)	1,809
Items that may be reclassified subsequently to profit or loss:					
Exchange differences on translating foreign operations	692	—	692	—	692
Total	692	—	692	—	692
Total	¥3,291	¥—	¥3,291	¥(789)	¥2,501

FY2019 (From April 1, 2019 To March 31, 2020)

	Millions of yen				
	Amount arising during the year	Reclassification adjustment	Amount before tax effect	Tax effect	Amount after tax effect
Items that will not be reclassified to profit or loss:					
Financial assets measured at fair value through other comprehensive income	¥ 1,227	¥—	¥ 1,227	¥(431)	¥ 796
Remeasurements of defined benefit plans	(445)	—	(445)	116	(328)
Total	782	—	782	(315)	467
Items that may be reclassified subsequently to profit or loss:					
Exchange differences on translating foreign operations	(1,174)	—	(1,174)	—	(1,174)
Total	(1,174)	—	(1,174)	—	(1,174)
Total	¥ (392)	¥—	¥ (392)	¥(315)	¥ (707)

30. Cash flow information

The table below presents reconciliations regarding liabilities arising from financing activities.

FY2018 (From April 1, 2018 To March 31, 2019)

	Millions of yen					
	As of April 1, 2018	Cash flow	Non-cash transactions			As of March 31, 2019
			Business combinations	Amortized cost measurement	Exchange rate changes	
Short-term loans payable and commercial paper	¥15,704	¥(3,730)	¥—	¥—	¥(57)	¥11,917
Long-term loans payable	12,762	(5,051)	—	—	(16)	7,694
Bonds	18,949	(28)	—	20	—	18,940
Total	¥47,416	¥(8,810)	¥—	¥20	¥(73)	¥38,552

FY2019 (From April 1, 2019 To March 31, 2020)

	Millions of yen					
	As of April 1, 2019	Cash flow	Non-cash transactions			As of March 31, 2020
			Business combinations	Amortized cost measurement	Exchange rate changes	
Short-term loans payable and commercial paper	¥11,917	¥ 1,293	¥ —	¥—	¥(259)	¥12,951
Long-term loans payable	7,694	(3,250)	4,863	—	(22)	9,285
Bonds	18,940	(7,000)	—	20	—	11,961
Total	¥38,552	¥(8,957)	¥4,863	¥20	¥(281)	¥34,198

Note: See the section entitled “7. Business combinations (Business combination due to acquisition)” for further details on business combinations.

31. Related party transactions

(1) Related party transactions

There were no related party transactions to be reported (excluding those eliminated in the consolidated financial statements).

(2) Executive compensation

The compensation for the Group's management executives was as follows:

	Millions of yen	
	FY2019 (From April 1, 2019 To March 31, 2020)	FY2018 (From April 1, 2018 To March 31, 2019)
Basic compensation	¥205	¥210
Bonus	71	62
Share-based compensation	19	11
Total	¥295	¥283

32. Major subsidiaries

Major subsidiaries of the Group are disclosed in page XX of our Business Report.

33. Loan commitments

The Company and certain consolidated subsidiaries have entered into overdraft agreements and loan commitment agreements with multiple financial institutions in order to efficiently procure working capital. The balances of undrawn credit facilities pursuant to these agreements are as follows:

	Millions of yen	
	FY2019 (As of March 31, 2020)	FY2018 (As of March 31, 2019)
Aggregate amount of maximum overdraft limit and loan commitment	¥5,675	¥6,069
Less: Drawn down balance	1,200	—
Balance of undrawn credit facilities	¥4,475	¥6,069

5) Consolidated supplementary schedules
[Details of bonds]

(Millions of yen)							
Issuer	Type	Issue date	Beginning balance FY2019 (as of Apr. 1, 2019)	Ending balance FY2019 (as of Mar. 31, 2020)	Interest rate (%)	Collateral	Maturity date
Kureha Corporation	The 5th unsecured bonds	March 6, 2015	¥ 6,991 (6,991)	¥ —	0.30 per annum	None	March 6, 2020
Kureha Corporation	The 6th unsecured bonds	September 1, 2017	6,974	6,982	0.14 per annum	None	September 1, 2022
Kureha Corporation	The 7th unsecured bonds	October 18, 2018	4,974	4,979	0.14 per annum	None	October 18, 2023
Total	—	—	18,940 ¥(6,991)	¥11,961	—	—	—

Note: The aggregate annual amounts to be redeemed within five years after the end of FY2019 are as follows:

(Millions of yen)				
Within one year	Over one year and within two years	Over two years and within three years	Over three years and within four years	Over four years and within five years
¥—	¥—	¥7,000	¥5,000	¥—

[Details of loans payable]

(Millions of yen)				
Classifications	Beginning balance FY2019 (as of Apr. 1, 2019)	Ending balance FY2019 (as of Mar. 31, 2020)	Average interest rate (%)	Maturity date
Short-term loans payable	¥10,917	¥10,951	1.42	—
Current portion of long-term loans payable	4,129	2,598	0.72	—
Current portion of lease liabilities	195	1,310	0.67	—
Commercial papers (current portion)	1,000	2,000	(0.00)	—
Long-term loans payable (excluding the current portion)	3,565	6,686	0.72	April 2021 to April 2034
Lease liabilities (excluding the current portion)	269	1,807	0.67	April 2021 to March 2033
Total	¥20,077	¥25,355	—	—

Notes: 1. "Average interest rate" is presented as the weighted average interest rate against the loans outstanding at the end of the year.
2. The aggregate annual amounts of long-term loans payable and lease liabilities to be repaid within five years after the end of FY2019 are as follows:

(Millions of yen)				
	Over one year and within two years	Over two years and within three years	Over three years and within four years	Over four years and within five years
Long-term loans payable	¥1,496	¥694	¥592	¥564
Lease liabilities	746	309	183	139

[Details of asset retirement obligations]

The disclosure is omitted because the amounts of asset retirement obligations as of the beginning and end of FY2019 were less than 1% of the total liabilities and equity as of the same dates.

(2) Other information
Quarterly information for FY2019

(Millions of yen, unless otherwise stated)				
(Cumulative period)	First quarter	Second quarter	Third quarter	FY2019
Revenue	¥32,025	¥69,578	¥ 105,436	¥142,398
Profit before tax	4,569	10,141	25,868	17,944
Profit attributable to owners of parent	3,808	8,357	20,720	13,719
Basic profit per share (yen)	188.86	417.23	1,041.10	692.61

(Yen)				
(Each quarter)	First quarter	Second quarter	Third quarter	Fourth quarter
Basic profit (loss) per share	¥188.86	¥236.86	¥629.23	¥(358.65)

Note: In regard to the business combination with Himeyuri total work Co., Ltd. conducted on April 1, 2019, provisional accounting was made in the first quarter. Following the settlement of its accounting in the second quarter, relevant figures for the first quarter were revised to reflect the content of the settlement of the provisional accounting.

Major Subsidiaries and Affiliates

Country	Company Name	Major Business
Japan	Kureha Trading Co., Ltd.	Trading of chemical and plastic products
	Kureha Extron Co., Ltd.	Manufacture/sale of plastic products
	Kureha Gohsen Co., Ltd.	Manufacture/sale of plastic fiber and products
	Kurehanishiki Construction Co., Ltd.	Construction
	Kureha Engineering Co., Ltd.	Plant engineering and maintenance
	Kureha Ecology Management Co., Ltd.	Waste treatment and management
	Kureha Special Laboratory Co., Ltd.	Environmental/physiochemical evaluation and analysis
	Kureha Unyu Co., Ltd.	Transportation and storage services
	Kureha Service Co., Ltd.	Real estate, travel and welfare services for Kureha Group
	Kureha-kai Medical Corporation	Hospital operations (Kureha General Hospital)
USA	Kureha America Inc.	Holding company and finance/sales of advanced products and fishing lines
	Kureha PGA LLC	Manufacture/sale of PGA resins
	Kureha Energy Solutions LLC	Sale of PGA downhole tools
	Fortron Industries LLC*	Manufacture/sale of PPS resins and compounds
Germany	Kureha GmbH	Sale of advanced products
Netherlands	Kureha Europe B.V.	Holding company and finance
	Krehalon B.V.	Manufacture/sale of food packaging products
Australia	Krehalon Australia Pty. Ltd.	Sale of food packaging products
China	Kureha (China) Investment Co., Ltd.	Holding company and finance
	Kureha (Shanghai) Carbon Fiber Materials Co., Ltd.	Manufacture/sale of carbon fiber products
	Kureha (Changshu) Fluoropolymers Co., Ltd.	Manufacture/sale of PVDF resins and compounds
	Nantong SKT New Material Co., Ltd.*	Manufacture/sale of PVDC resins and compounds
Vietnam	Kureha Vietnam Co., Ltd.	Manufacture/sale of food packaging films

*Affiliates accounted for by equity method

Corporate Data

Corporate Name	Kureha Corporation
Headquarters	3-3-2, Nihonbashi-Hamacho, Chuo-ku, Tokyo 103-8552, Japan Tel: 81-3-3249-4666 Fax: 81-3-3249-4744
Establishment	June 21, 1944
Paid-in Capital	¥18,169 million
Number of Employees	4,271 (Consolidated)
Independent Auditor	Ernst & Young ShinNihon LLC

Stock Information

Number of Shares of Common Stock Issued	20,805,407 shares
Number of Shareholders	11,754
Number of Shares Held by Foreign Shareholders	5,857,238 (28.2% of total)
Stock Exchange Listings	Tokyo Stock Exchange
Transfer Agent	Mizuho Trust & Banking Co., Ltd.

Major Stockholders

Japan Trustee Service Bank, Ltd. (Trust account)
Meiji Yasuda Life Insurance Company
The Master Trust Bank of Japan Ltd. (Trust account)
Japan Trustee Service Bank, Ltd. (Trust account 9)
Tokio Marine & Nichido Fire Insurance Co., Ltd.
J.P. MORGAN BANK LUXEMBOURG S.A. 380578
Mizuho Bank, Ltd.
J.P. MORGAN CHASE BANK 385151
Japan Trustee Services Bank, Ltd. (Trust account 5)
STATE STREET BANK AND TRUST COMPANY 505001



<https://www.kureha.co.jp/>

