KURITA

A Creator of Unique Value

KURITA WATER INDUSTRIES LTD.
Integrated Report **2020**

Financial Section

For the year ended March 31, 2020

CONTENTS

Management's Discussion and Analysis

Kurita Water Industries Ltd. and Consolidated Subsidiaries

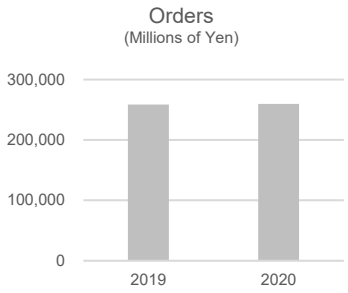
1. Business Results

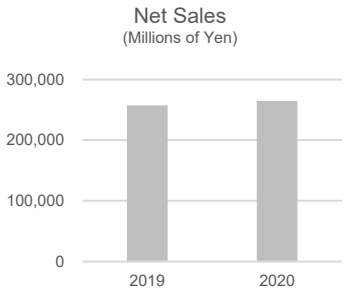
The global economy took a sharp downturn in the current fiscal year, as slowing economic growth in China and Europe, due to prolonged US-China trade friction and the Brexit issue, was compounded by the COVID-19 outbreak at period end. Sluggishness in the Japanese economy was also exacerbated by the effects of a consumption tax hike in the fall and restricted social movement due to COVID-19.
In the markets in which the Group operates, production activity among Japanese manufacturers remained weak due to sluggish export demand, while capital investment also continued to be cautious. Overseas, capital investments, particularly in the East Asian electronics sector, tended to be delayed, and flagging production activity was accompanied by a greater sense of slowdown.

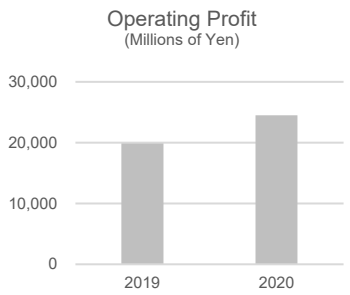
Under these conditions, the Group entered the second year of its medium-term management plan, Maximize Value Proposition 2022 (MVP-22). Leveraging the products, technology, and services of the Water Treatment Chemicals, Water Treatment Facilities, and Maintenance Services segments, Kurita accelerated development of total solutions to address problems facing customers and society. Marketing, sales, technology, and development efforts came together to create horizontally deployable solution models that combine products, technologies, services, and contract methods. The Group's efforts yielded six models, including one that maximizes the effectiveness of water treatment chemicals in the paper production process by combining equipment and IT/sensing technology to improve plant water quality and productivity. Domestically, the sales functions of all three segments were integrated into a single office to reinforce the Group's total solutions sales system by market and region. A new company, Kurita Kitakantou Co., Ltd., was established to provide water treatment chemicals and maintenance services. Overseas, to quickly realize production and sales synergies with U.S. Water Service, Inc., which was consolidated in the previous fiscal year, that company was merged with existing US-based subsidiaries Kurita America Inc., and Fremont Industries LLC. The goal was to build a system that can supply total solutions throughout the United States. Kurita also acquired US-based Avista Technologies, Inc. and UK-based Avista Technologies (UK) Ltd. (below, Avista Technologies), both of which provide reverse osmosis (RO) chemicals and RO management services, gaining a highly competitive technology and business model to grow in the global RO chemicals market. Kurita also signed an agreement to acquire additional shares of US-based Pentagon Technologies Group, Inc. (below, Pentagon Technologies), making it a subsidiary, which will help expand the tool cleaning business overseas and strengthen Kurita's competitive edge in the electronics industry.

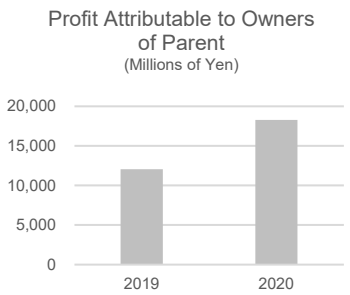
In response to the COVID-19 outbreak, Kurita worked to provide products and services to customers while ensuring the safety of employees, taking into account the situation of each country in terms of case numbers, lockdowns, and movement restrictions.

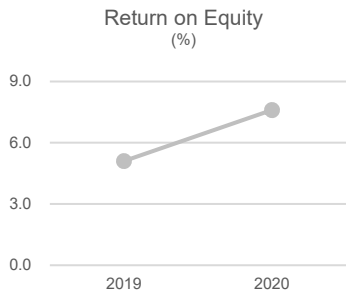
As a result of these factors, orders increased 0.4% year on year to ¥259,545 million, while net sales increased 2.9% year on year to ¥264,807 million. Profit was up significantly: Operating profit rose 38.4% over the previous year to ¥27,479 million, while profit before tax rose 31.7% to ¥26,691 million, and profit attributable to owners of parent increased 51.8% to ¥18,287 million. Although a ¥2,305 million loss on sale of property, plant and equipment was recorded the current fiscal year in line with the decision to relocate a R&D base, this was offset by a ¥4,777 million gain on sale of property, plant and equipment due to the partial sale of facilities in the ultrapure water supply business. Rising income also reflected the effect of one-time losses in the previous fiscal year, including a ¥2,867 million loss on the sale of the aluminum compound business of Kurita Europe GmbH and a ¥1,171 million impairment loss on goodwill of Kurita Water Treatment New Materials (Jiangyin) Co., Ltd.











2. Business Segment Information

(1) Water Treatment Chemicals

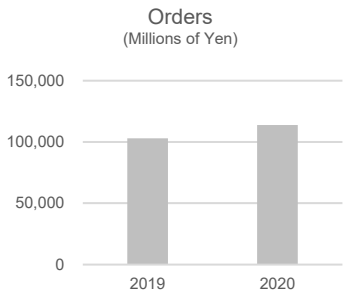
Under MVP-22, the Water Treatment Chemicals segment aims to improve profitability by transforming its business model and strengthening its overseas business foundation.

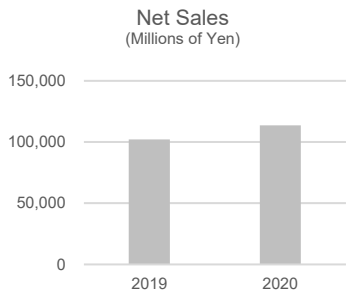
The domestic focus was on developing total solutions based on a thorough understanding of customers and their needs, in order to win orders for service contract-type businesses that share benefits with customers by boosting productivity and reducing environmental burden. Overseas, the US sales network was expanded as U.S. Water Services, Inc. became a consolidated subsidiary. The acquisition of Avista Technologies strengthened the RO chemicals and services business and provided a framework for global expansion. The Group also worked to boost efficiency and profitability in each region by reviewing its products and services and integrating its US-based subsidiaries.

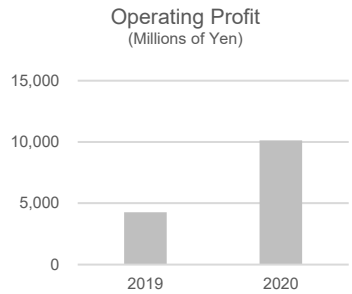
In terms of products and services, the focus of the segment was on finalizing and proposing solution models, including a model that maximize the effectiveness of water treatment chemicals in the paper production process by combining equipment and IT/sensing technology, improving plant water quality and productivity. Service contract-type businesses also grew with the launch of the S.sensing® CS model, finalized in the previous fiscal year, which combines IT/sensing technology to enable optimization and automatic control of chemical amounts added to wastewater treatment. The segment also focused on creating value for customers by leveraging technologies, such as Dropwise Technology (drop-shaped condensation) which improves heat transfer efficiency.

Regarding orders and net sales, orders in Japan were down due in part to the effect of one-time petroleum refining and petrochemicals orders recorded in the previous fiscal year. Sales were up, however, mainly in process chemicals for steel applications, reflecting efforts to win new customers by proposing total solutions that contribute to energy saving and productivity at customer plants. Both overseas orders and sales were also up, as a decline in sales following transfer of the European aluminum compound business the previous fiscal year and the effect of a strong yen were offset by strong performance of water treatment chemicals business at newly consolidated U.S. Water Services (12 months) and Avista Technologies (10 months). After one-time losses in the previous fiscal year, including a loss on the sale of the European aluminum compound business and an impairment loss on goodwill tied to the decision to transfer the water treatment chemicals production functions of a Chinese subsidiary, operating profit in the fiscal year under review increased significantly.

As a result, year-on-year, overall orders for the segment were up 10.5% to ¥113,777 million, net sales increased 11.3% to ¥113,632 million, and operating profit increased 137.8% to ¥10,127 million.







(2) Water Treatment Facilities

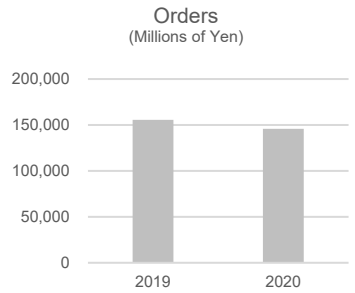
Under MVP-22, the Water Treatment Facilities segment is aiming to draw on the knowledge and technical capabilities it has cultivated in the ultrapure water supply field to win comprehensive maintenance and operation management contract proposals, starting with large-scale engineering, procurement, and construction (EPC) projects, thereby boosting profitability.

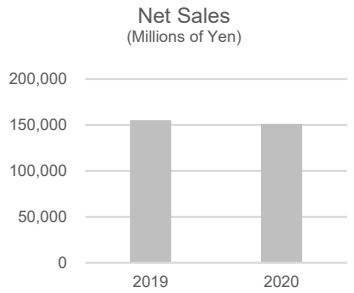
In Japan, in addition to rolling out more total solutions, the Group improved the cost of sales ratio of maintenance projects and boosted efficiency of operation management using AI, IoT, and sensing technologies. Kurita also made aggressive capital investments targeting future profitability in the ultrapure water supply and tool cleaning businesses. Overseas, in addition to efforts to develop reclaimed water supply services mainly in China, Kurita signed an agreement to acquire additional shares in Pentagon Technologies, making the company a consolidated subsidiary, which strengthens the Group's competitiveness in the tool cleaning market.

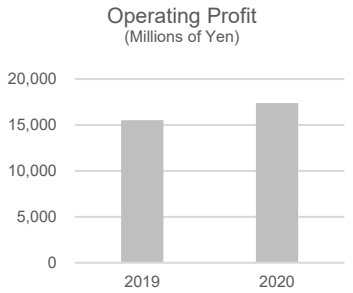
Regarding products and services, Kurita expanded its service contract-type businesses, building a solution model centering on reclaimed water supply services using the CORR™ (Customized Optimal Readymade Recycle) standard wastewater recovery system, and increasing market applications by expanding the KWSS® (Kurita Water Supply Service) lineup. On the production side, Kurita worked to improve engineering and construction quality by enhancing its plant production-related business processes and introducing and reinforcing operation of risk management systems.

Domestic orders and sales in the electronics industry decreased, following strong orders and sales for large-scale water treatment facility projects in the previous fiscal year, but maintenance service orders and sales were up in line with progress in expansion and renovation construction projects to boost production capacity at customer plants. In general industry, new orders for water treatment facilities were down, but sales increased due to progress in large-scale orders received in the previous fiscal year. In maintenance services, following strong performance in the previous fiscal year, orders decreased slightly and sales increased only slightly. Orders for water treatment facilities in the electric power field were down following orders for several large-scale projects received in the previous fiscal year, but sales were up due to progress in these projects. In soil remediation, both orders and sales declined as several large-scale projects were completed. Overseas, orders were up, reflecting in part strong full-year performance at newly consolidated U.S. Water Services, but overall sales were down, reflecting strong sales for several large-scale projects in the Chinese and South Korean electronics industry in the previous fiscal year and the impact of the strong yen. Both domestic and overseas ultrapure water supply sales were up along with the start of contracts for new projects, notwithstanding decreases related to contract changes with some customers. The cost of sales ratio improved thanks to efforts to avoid additional production-related costs in the Water Treatment Facilities business. This, together with the gain on sale of property, plant and equipment due to the partial sale of equipment in the ultrapure water supply business, led to higher operating profit for the segment as a whole.

As a result of these factors, overall orders for the Water Treatment Facilities segment decreased 6.3% year on year to ¥145,768 million, net sales decreased 2.6% year on year to ¥151,174 million, and operating profit increased 12.1% year on year to ¥17,390 million.



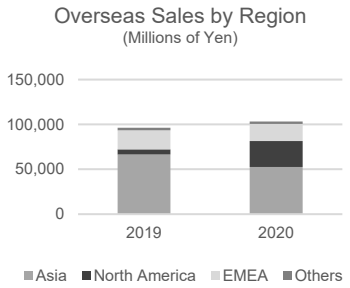




3. Regional Segment Information

Although overseas sales in the Water Treatment Facilities segment decreased, growth in the Water Treatment Chemicals segment drove a 7.2% year-on-year increase in sales to ¥103,107 million. The ratio of overseas sales to total consolidated sales was also up, from 37.0% in the previous fiscal year to 38.9 %.

By region, new consolidation of U.S. Water Services and Avista Technologies, Inc. significantly boosted sales in North America, but sales in Asia declined significantly due to a decrease in sales to China and South Korea in both the water treatment chemicals and the water treatment facilities businesses. Lower sales in Europe mainly reflected the sale of the aluminum compound business of Kurita Europe GmbH in the previous fiscal year.



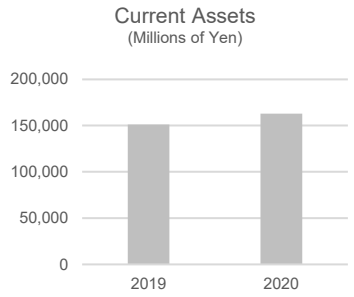
4. Financial Position

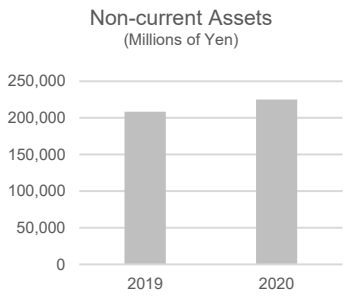
(1) Assets

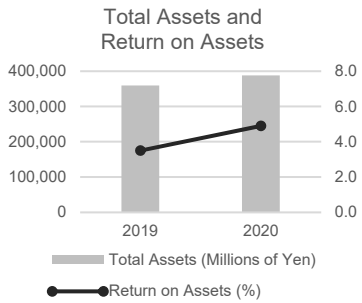
Current assets were ¥162,847 million, an increase of ¥11,782 million from the end of the previous consolidated fiscal year. This mainly reflects a ¥14,667 million increase in cash and cash equivalents due to the partial execution of commitment lines, although funds were used primarily for business acquisitions and capital investments.

Non-current assets were ¥224,902 million at the end of the consolidated fiscal year, a year-on-year increase of ¥16,468 million. The ¥5,510 million increase in right-of-use assets was mainly due to the acquisition of land use rights. The ¥3,275 million increase in goodwill reflects the newly recorded goodwill following acquisition of water treatment chemicals operations in North America and Europe. The ¥6,513 million increase in investments accounted for using the equity method is due to the increase in the number of equity-method affiliates in the Water Treatment Chemicals and Water Treatment Facilities segments.

As a result, total assets were ¥387,749 million, an increase of ¥28,249 million from the end of the previous consolidated fiscal year.







(2) Liabilities

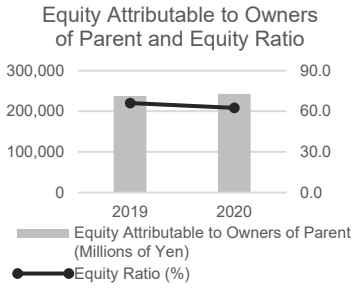
Current liabilities were ¥94,408 million, an increase of ¥20,887 million from the end of the previous consolidated fiscal year, primarily as trade and other payables decreased by ¥14,297 million, while borrowings increased by ¥34,986 million due mainly to partial execution of the commitment line.

Non-current liabilities were ¥49,232 million, an increase of ¥2,439 million from the end of the previous consolidated fiscal year. This was mainly due to a ¥4,073 million increase in lease obligations related to the acquisition of land use rights.

As a result, total liabilities were ¥143,640 million, an increase of ¥23,325 million from the end of the previous consolidated fiscal year.

(3) Shareholders' Equity

Total equity stood at ¥244,108 million, an increase of ¥4,924 million from the end of the previous fiscal year. This was due mainly to a decrease in foreign currency translation adjustments for overseas operating entities in line with the yen's appreciation against foreign currencies. As a result, while other components of equity decreased by ¥4,622 million, retained earnings increased by ¥11,796 million, due to the recording of profit in excess of year-end and interim dividends.



5. Cash Flow

Cash and cash equivalents at the end of the fiscal year totaled ¥50,215 million, an increase of ¥14,667 million from the end of the previous fiscal year.

(1) Cash Flows from Operating Activities

Net cash provided by operating activities was ¥37,376 million, a ¥3,767 million year-on-year decrease. This was mainly due to higher income taxes paid (¥10,847 million) among other factors, despite higher cash provided from profit before tax (¥26,691 million) and higher depreciation and amortization (¥18,700 million).

(2) Cash Flows from Investing Activities

Net cash used in investing activities was ¥43,683 million, a ¥8,219 million year-on-year decrease. The total mainly reflects cash used for purchase of property, plant and equipment of ¥31,168 million, cash used for payments for acquisition of businesses of ¥8,501 million, and cash used for the purchase of investments in associates of ¥5,915 million.

(3) Cash Flows from Financing Activities

Net cash provided by financing activities was ¥21,981 million, a net increase of ¥35,434 million from the previous fiscal year. This mainly reflects a net increase of ¥35,001 million in short-term borrowings, which offset the ¥6,539 million used for dividend payments.

6. Commitment Line

The Kurita Group's basic policy is to secure the liquidity needed for business operations and maintain a stable financing structure. The Group basically uses its own funds to meet short-term working capital needs, and also basically uses its own funds for capital investments and other investments in growth fields, while anticipating procurement through bank loans as required. At the end of the fiscal year under review, the Group had concluded commitment line agreements with four financial institutions, with executed borrowings of ¥35,000 million and an unused available balance of ¥35,600 million.

7. Research and Development

The Kurita Group develops technologies to reinforce its core businesses, such as in the areas of boiler and cooling water treatment, ultrapure water production, water and wastewater treatment, water reclamation, and soil and groundwater remediation. The Group is also working to deepen its technological base, developing analytical technology and new materials to support its core technologies. In addition, the

Group is actively developing the products and technologies needed to provide original solutions that enhance the corporate value and competitiveness of customers and help address social issues.

Going forward, Kurita will continue to refine the water-related technology it has cultivated over many years, aiming to realize the corporate vision of being “a creator of unique value to the solution of water and the environment” contributing to bringing about a sustainable society. The Group’s development centers in Japan, Germany, and Singapore are working together to proactively develop products and technologies that meet the wide-ranging needs of industry and society.

R&D activities are performed mainly by the Research and Development Division of Kurita Water Industries Ltd. There are approximately 180 R&D staff across the Group, representing 2.7% of all employees. Total R&D expenses in the fiscal year under review were ¥5,693 million, equivalent to 2.1% of net sales.

(1) Water Treatment Chemicals

Kurita is working to develop water treatment and environmental technologies that contribute to saving energy, reducing environmental burden, and enhancing customer productivity, as well as chemical technologies for production processes, diagnostics, and chemical treatment control. Total R&D expenses related to this segment were ¥2,002 million for the year.

<Major Accomplishments for the Year>

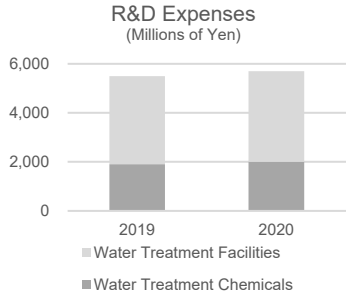
- In the wastewater treatment market, Kurita drew on its unique sensing technologies to develop a sludge dehydrating system that automatically controls optimal chemical additive amounts to achieve greater sludge dehydration, reducing sludge waste volume and saving labor.
- To reduce water treatment costs for cooling water systems and blowdown recovery equipment at plants and in air conditioning equipment, Kurita developed a system that generates biocide on-site.
- Targeting the tissue paper production process particularly in emerging countries where production levels are growing rapidly, Kurita developed a chemical that makes it difficult for the paper to tear even when wet, thereby also contributing to lower production costs.

(2) Water Treatment Facilities

Kurita is working to bring about further advances in the quality of ultrapure water to support productivity improvements in the electronics industry, as well as developing wastewater treatments to stay ahead of evolving environmental regulations. The Group is also working on technologies that meet the needs of recycling-oriented societies, such as for wastewater reclamation and reuse, waste reduction, and creating renewable energy sources through recycling. Total R&D expenses for the segment for the fiscal year under review were ¥3,691 million.

<Major Accomplishments for the Year>

- Kurita developed techniques to speed the start-up time needed to yield standard water quality when a water treatment membrane unit is newly installed or replaced in an ultrapure water production system, significantly shortening system downtimes.
- Targeting power generation facilities that use biogas recovered through methane fermentation of residue food and other waste, Kurita developed an operation control technology that stably generates methane gas from a variety of waste raw materials.
- Kurita developed a solution for treating the high-concentration soil and groundwater pollution sources often found under plants and other structures, combining a technique to purify pollutants in a short-period of time through heat and other treatments with a simulation technology to predict the timeframe from pollution to remediation.



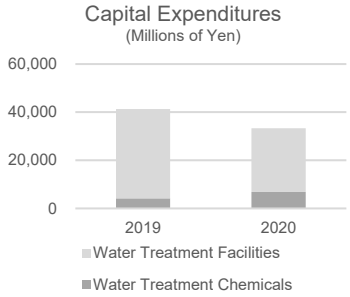
8. Capital Expenditures

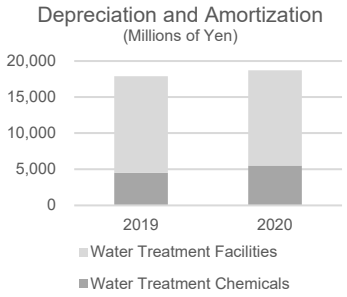
The Kurita Group is committed to making the investments needed to pursue technological innovation, expand production capacity, and contend with intensifying competition. In the fiscal year under review, capital expenditures totaled ¥31,729 million. This was a decrease of ¥8,274 million compared with the previous fiscal year, including the right-of-use assets recorded for the year.

The Water Treatment Chemicals segment carried out capital expenditures totaling ¥6,423 million, mainly to expand and upgrade existing facilities, representing a ¥2,647 million increase compared with the previous year. In addition, the Water Treatment Facilities segment undertook capital expenditures totaling ¥25,306 million, a year-on-year increase of ¥10,921 million. This mainly reflected installation and expansion of facilities for the ultrapure water supply and tool cleaning businesses.

The Group disposed of the land and facilities of Kurita Development Center in Tochigi Prefecture in the fiscal year under review, and plans to open a new R&D center in Akishima City, Tokyo in April 2022.

In the one-year period following the fiscal year under review, the Group plans to undertake a total of ¥23 billion in capital expenditures for new construction, expansion, and renovation. In terms of equipment for the ultrapure water supply business in particular, in light of significant fluctuations in the economy and in customer capital investment trends, the Group had not formulated specific capital expenditure plans for individual projects as of the end of the fiscal year under review.





9. Dividend Policy

The Kurita Group's basic policy is to continue to payout stable dividends to shareholders.

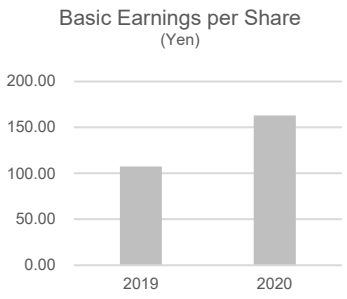
Specifically, Kurita has set a payout ratio target of 30%-50%. The Group will work to continue dividend increases, making decisions based on payout ratios for the most recent five years to respond flexibly to yearly fluctuations in business performance.

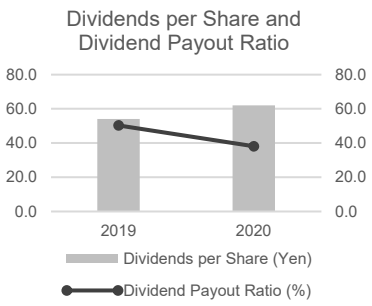
The Group's basic policy is to pay dividends from capital surplus twice a year, an interim and a year-end dividend.

The decision-making body for paying dividends from capital surplus is the General Meeting of Shareholders for year-end dividends and the Board of Directors for interim dividends.

Regarding dividends paid from capital surplus for the fiscal year under review, in consideration of future business growth and with shareholder support, it was decided to pay a total dividend of ¥62 per share, including an interim dividend of ¥31 per share. As a result, the dividend payout ratio was 46.7% for the year.

Regarding retained earnings, Kurita will prioritize the use of retained earnings for businesses that promise growth areas while maintaining rigorous investment discipline. If the Group determines that capital surplus has accumulated, it will consider the repurchase of shares, taking the share price status into account, as well as seek to improve capital efficiency and increase returns to shareholders.


Basic Earnings per Share
(Yen)
200.00
150.00
100.00
50.00
0.00
2019
2020


Dividends per Share and
Dividend Payout Ratio
80.0
60.0
40.0
20.0
0.0
2019
2020
Dividends per Share (Yen)
Dividend Payout Ratio (%)

Business Risks

Kurita Water Industries Ltd. and Consolidated Subsidiaries

The Executive General Manager of the Corporate Planning and Control Division is designated as the officer in charge of monitoring risks facing the Kurita Group and promoting risk management. The officer seeks to regularly analyze and assess risks facing Kurita Water Industries and the Kurita Group companies, and to continue monitoring risks to prevent problems from materializing.

The following are summaries of major foreseeable risks present in the business environments in which the Kurita Group operates. Forward-looking statements herein are based on judgments made by management as of March 31, 2020.

1. Impact of the COVID-19 pandemic

Countries took measures to contain the spread of COVID-19, such as lockdowns, restrictions on movement, and calls to stay home, putting a severe constraint on economic activities. The Group implemented measures to prevent infection based on public directives and requests in each country, and continues to conduct operations that contribute to the business continuity of customers and to maintaining social and industrial infrastructure. However, amid uncertainties regarding the duration of the pandemic and global economic recovery, it is possible that the Group's financial results may be affected by factors such as a decline in customer plant utilization or delays in capital investment.

2. Economic and Market Conditions

The Group's Water Treatment Chemicals and Water Treatment Facilities businesses are affected by economic conditions in Japan and countries and regions outside Japan where the Group operates. Demand in the Water Treatment Chemicals business fluctuates in response to factory capacity utilization rates in industries such as steel, petroleum refining and petrochemicals, and pulp and paper—the main areas of demand for the business. Such demand fluctuations may affect the Group's financial results. Demand in the Water Treatment Facilities business fluctuates in response to trends in capital expenditures in electronics—the main area of demand for the business—and other industries. Such demand fluctuations may affect the Group's financial results.

More intense competition with rivals in the Group's business domains could lead to declines in prices of products and services, which could lower the Group's profitability.

3. Overseas Business Development

The Group is striving to expand its business outside Japan. In contrast to the Japanese market, doing business in overseas markets involves a number of inherent risks, including the risk of changes to local laws and regulations, the risk of political and economic instability, and the risk of foreign exchange rate fluctuations. If such risks materialized, the Group's financial results could be affected.

4. Product and Service Quality

Although the Group has created a quality management system and undertakes continuous improvements to increase customer satisfaction, it is difficult to completely eliminate the risk of damage compensation due to defects in products or services.

If liabilities materialize that exceed liability insurance coverage, it could affect the Group's financial results.

5. Materials and Parts Procurement

The Group procures raw materials and parts from outside the Group for the manufacture of products and fabrication of facilities. The prices of raw materials and parts fluctuate based on changes in market conditions, and this may affect the Group's financial results.

6. New Product Development

The Group continuously endeavors to develop new technology and appealing new products.

The success of new technology and product development efforts cannot be guaranteed. The Group may not be able to offer new technologies or superior products, services, or solution models that meet the needs of its customers in a timely fashion. The Group may also fail to keep pace with rapid technological innovation and changing customer needs. Failure to develop superior new products, services, or solution models could limit future growth and profitability or otherwise affect the Group's financial results.

7. Dependence on Information Systems

The Group's use of information systems is increasing, as is the importance of information systems to the Group's business. If a computer virus or some other factor were to obstruct the functions of the Group's information systems, the Group's business activities, financial results, and financial condition could be negatively affected.

8. Intellectual Property

The Group recognizes the importance of intellectual property and continually seeks to register its own intellectual property while avoiding infringing the intellectual property rights held by third parties, both in Japan and overseas. Given the wide scope of the Group's business, however, there is potential for the Group's intellectual property rights to be infringed and potential for the Group to infringe the rights held by third parties. Such occurrences may affect the Group's financial results.

9. Impairment loss on fixed assets

(1) Impairment loss on goodwill

The Kurita Group has acquired companies to obtain a foundation for overseas business as well as competitive technologies and business models. As a result, the current balance of goodwill exceeds 10% of consolidated total assets. Goodwill is not amortized, and is tested for impairment annually, or whenever there are signs of possible impairment.

If, because of changes in the business environment, an acquisition does not yield expected benefits, or if there is a difference between the estimated future cash flows obtained by the impairment test and actual cash flows, impairment losses on goodwill or other impairment losses may occur, and may affect the Group's financial results and financial condition.

(2) Impairment loss on property, plant and equipment

When deciding whether to make investments, such as in ultrapure water supply equipment to be installed at customer plants, the Group carefully considers factors such as the customer's business conditions, customer contract terms, and return on investment, before proceeding. However, in cases where a customer withdraws from a business or suspends production, impairment losses on fixed assets may occur, and may affect the Group's financial results and financial condition.

10. Exchange rate fluctuations

The ratio of overseas sales to total consolidated sales in the Kurita Group has increased to nearly 40% due to overseas acquisitions and other factors.

The local currency-denominated financial statements of each overseas subsidiary are reflected in the consolidated financial statements after conversion to Japanese yen. Therefore, exchange rate fluctuations may affect the Group's business results and financial condition.

11. Large-Scale Natural Disasters

The Kurita Group Business Continuity Management (BCM) Policy was established in anticipation of an earthquake, typhoon, or other kind of natural disaster, and the Group conducts disaster response training for officers and employees. However, any direct or indirect disruption to business execution could negatively affect the Group's business activities, financial results, and financial condition.

Consolidated Statement of Financial Position

Kurita Water Industries Ltd. and Consolidated Subsidiaries

		Millions of yen			Thousands of U.S. dollars
	Notes	Transition date (April 1, 2018)	2019	2020	2020
Assets					
Current assets					
Cash and cash equivalents	9	¥60,531	¥35,547	¥50,215	$460,688
Trade and other receivables	10, 25, 34	89,354	100,497	96,974	889,669
Other financial assets	11, 34	2,809	1,709	2,562	23,504
Inventories	12	8,078	9,273	9,247	84,834
Other current assets		2,619	4,036	3,847	35,293
Total current assets		163,393	151,065	162,847	1,494,009
Non-current assets					
Property, plant and equipment	13	81,336	103,366	106,358	975,761
Right-of-use assets	20	11,331	12,274	17,784	163,155
Goodwill	14	19,966	43,758	47,033	431,495
Intangible assets	14	10,197	12,355	13,381	122,761
Investments accounted for using equity method	16	1,098	956	7,469	68,522
Other financial assets	11, 34	40,103	28,629	28,465	261,146
Deferred tax assets	17	4,581	6,877	4,295	39,403
Other non-current assets		277	216	113	1,036
Total non-current assets		168,893	208,434	224,902	2,063,321
Total assets	7	¥332,287	¥359,500	¥387,749	$3,557,330

	Notes	Millions of yen			Thousands of U.S. dollars
		Transition date (April 1, 2018)	2019	2020	2020
Liabilities and equity					
Liabilities					
Current liabilities					
Trade and other payables	18, 34	¥40,139	¥49,977	¥35,680	$327,339
Borrowings	19, 34	2,963	385	35,371	324,504
Lease liabilities	20, 34	2,958	3,818	4,234	38,844
Other financial liabilities	19, 34	12	1	219	2,009
Income taxes payable		4,737	5,887	1,998	18,330
Provisions	22	572	1,338	1,557	14,284
Other current liabilities		10,729	12,112	15,345	140,779
Total current liabilities		62,113	73,521	94,408	866,128
Non-current liabilities					
Borrowings	19, 34	2,331	1,717	1,305	11,972
Lease liabilities	20, 34	9,397	9,628	13,701	125,697
Other financial liabilities	19, 34	1,122	1,771	2,562	23,504
Retirement benefit liability	21	16,374	16,580	16,913	155,165
Provisions	22	331	491	499	4,577
Deferred tax liabilities	17	547	1,219	1,346	12,348
Other non-current liabilities		761	15,385	12,903	118,376
Total non-current liabilities		30,868	46,793	49,232	451,669
Total liabilities		92,981	120,315	143,640	1,317,798
Equity					
Share capital	23	13,450	13,450	13,450	123,394
Capital surplus	23	10,959	10,265	8,212	75,339
Treasury shares	23	(10,943)	(10,932)	(10,893)	(99,935)
Other components of equity	23	16,785	4,838	216	1,981
Retained earnings	23	207,005	219,660	231,456	2,123,449
Equity attributable to owners of parent		237,257	237,282	242,442	2,224,238
Non-controlling interests		2,048	1,902	1,666	15,284
Total equity		239,305	239,184	244,108	2,239,522
Total liabilities and equity		¥332,287	¥359,500	¥387,749	$3,557,330

Consolidated Statement of Profit or Loss

Kurita Water Industries Ltd. and Consolidated Subsidiaries

	Notes	Millions of yen		Thousands of U.S. dollars
		2019	2020	2020
Net sales	7, 25	¥257,331	¥264,807	$2,429,422
Cost of sales		(174,670)	(172,092)	(1,578,825)
Gross profit		82,661	92,715	850,596
Selling, general and administrative expenses	26	(56,994)	(66,060)	(606,055)
Other income	27	1,024	5,832	53,504
Other expenses	28	(6,831)	(5,006)	(45,926)
Operating profit	7	19,860	27,479	252,100
Finance income	29	781	569	5,220
Finance costs	29	(521)	(1,417)	(13,000)
Share of profit of investments accounted for using equity method	16	146	60	550
Profit before tax		20,267	26,691	244,871
Income tax expense	17	(8,279)	(8,378)	(76,862)
Profit		11,987	18,312	168,000
Profit attributable to				
Owners of parent		12,050	18,287	167,770
Non-controlling interests		(63)	25	229
Profit		¥11,987	¥18,312	$168,000

	Notes	Yen		U.S. dollars
		2019	2020	2020
Earnings per share				
Basic earnings per share	31	¥107.33	¥162.86	$1.49
Diluted earnings per share		—	—	—

Consolidated Statement of Comprehensive Income

Kurita Water Industries Ltd. and Consolidated Subsidiaries

	Notes	Millions of yen		Thousands of U.S. dollars
		2019	2020	2020
Profit		¥11,987	¥18,312	$168,000
Other comprehensive income				
Items that will not be reclassified to profit or loss				
Net change in fair value of financial assets measured at fair value through other comprehensive income	30	(1,044)	(462)	(4,238)
Remeasurements of defined benefit plans	30	(72)	62	568
Total of items that will not be reclassified to profit or loss	30	(1,116)	(400)	(3,669)
Items that may be reclassified to profit or loss				
Exchange differences on translation of foreign operations	30	(4,593)	(4,316)	(39,596)
Cash flow hedges	30	308	192	1,761
Share of other comprehensive income of investments accounted for using equity method	30	(153)	(94)	(862)
Total of items that may be reclassified to profit or loss	30	(4,437)	(4,219)	(38,706)
Total other comprehensive income	30	(5,554)	(4,619)	(42,376)
Comprehensive income		¥6,432	¥13,693	$125,623
Comprehensive income attributable to				
Owners of parent		¥6,543	¥13,717	$125,844
Non-controlling interests		(110)	(24)	(220)
Comprehensive income		¥6,432	¥13,693	$125,623

Consolidated Statement of Changes in Equity

Kurita Water Industries Ltd. and Consolidated Subsidiaries

		Millions of yen											
		Equity attributable to owners of parent											
					Other components of equity								
	Notes	Share capital	Capital surplus	Treasury shares	Exchange differences on translation of foreign operations	Cash flow hedges	Financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit plans	Total	Retained earnings	Total	Non-controlling interests	Total
Balance as of April 1, 2018		¥13,450	¥10,959	¥(10,943)	¥ —	¥2	¥16,783	¥ —	¥16,785	¥207,005	¥237,257	¥2,048	¥239,305
Profit									—	12,050	12,050	(63)	11,987
Other comprehensive income					(4,699)	308	(1,046)	(70)	(5,507)		(5,507)	(47)	(5,554)
Comprehensive income		—	—	—	(4,699)	308	(1,046)	(70)	(5,507)	12,050	6,543	(110)	6,432
Purchase of treasury shares	23			(2)					—		(2)		(2)
Dividends	24								—	(5,968)	(5,968)	(38)	(6,006)
Share-based remuneration transactions	33		158						—		158	1	159
Changes in ownership interest in subsidiaries			(294)		28				28		(265)	1	(264)
Transfer from other components of equity to retained earnings							(6,538)	70	(6,467)	6,467	—		—
Other			(558)	14					—	104	(439)		(439)
Total transactions with owners		—	(694)	11	28	—	(6,538)	70	(6,439)	604	(6,518)	(35)	(6,553)
Balance as of March 31, 2019		¥13,450	¥10,265	¥(10,932)	¥(4,671)	¥310	¥9,199	¥ —	¥4,838	¥219,660	¥237,282	¥1,902	¥239,184
Profit									—	18,287	18,287	25	18,312
Other comprehensive income					(4,362)	192	(462)	63	(4,569)		(4,569)	(49)	(4,619)
Comprehensive income		—	—	—	(4,362)	192	(462)	63	(4,569)	18,287	13,717	(24)	13,693
Purchase of treasury shares	23			(3)					—		(3)		(3)
Dividends	24								—	(6,521)	(6,521)	(24)	(6,546)
Share-based remuneration transactions	33		103	42					—		145	8	154
Changes in ownership interest in subsidiaries			(1,385)		0				0		(1,385)	(196)	(1,581)
Transfer from other components of equity to retained earnings							10	(63)	(52)	52	—		—
Other			(771)						—	(21)	(792)		(792)
Total transactions with owners		—	(2,053)	38	0	—	10	(63)	(52)	(6,490)	(8,557)	(211)	(8,769)
Balance as of March 31, 2020		¥13,450	¥8,212	¥(10,893)	¥(9,033)	¥503	¥8,747	¥ —	¥216	¥231,456	¥242,442	¥1,666	¥244,108

		Thousands of U.S. dollars											
		Equity attributable to owners of parent											
					Other components of equity								
	Notes	Share capital	Capital surplus	Treasury shares	Exchange differences on translation of foreign operations	Cash flow hedges	Financial assets measured at fair value through other comprehensive income	Remeasurements of defined benefit plans	Total	Retained earnings	Total	Non-controlling interests	Total
Balance as of March 31, 2019		$123,394	$94,174	$(100,293)	$(42,853)	$2,844	$84,394	$ —	$44,385	$2,015,229	$2,176,899	$17,449	$2,194,348
Profit									—	167,770	167,770	229	168,000
Other comprehensive income					(40,018)	1,761	(4,238)	577	(41,917)		(41,917)	(449)	(42,376)
Comprehensive income					(40,018)	1,761	(4,238)	577	(41,917)	167,770	125,844	(220)	125,623
Purchase of treasury shares	23			(27)					—		(27)		(27)
Dividends	24								—	(59,825)	(59,825)	(220)	(60,055)
Share-based remuneration transactions	33		944	385					—		1,330	73	1,412
Changes in ownership interest in subsidiaries			(12,706)		0				0		(12,706)	(1,798)	(14,504)
Transfer from other components of equity to retained earnings							91	(577)	(477)	477	—		—
Other			(7,073)						—	(192)	(7,266)		(7,266)
Total transactions with owners		—	(18,834)	348	0	—	91	(577)	(477)	(59,541)	(78,504)	(1,935)	(80,449)
Balance as of March 31, 2020		$123,394	$75,339	$(99,935)	$(82,871)	$4,614	$80,247	$ —	$1,981	$2,123,449	$2,224,238	$15,284	$2,239,522

Consolidated Statement of Cash Flows

Kurita Water Industries Ltd. and Consolidated Subsidiaries

	Note	Millions of yen		Thousands of U.S. dollars
		2019	2020	2020
Cash flows from operating activities				
Profit before tax		¥20,267	¥26,691	$244,871
Depreciation and amortization		17,872	18,700	171,559
Share of loss (profit) of investments accounted for using equity method		(146)	(60)	(550)
Loss (gain) on sale of fixed assets		559	(2,471)	(22,669)
Decrease (increase) in inventories		(259)	(169)	(1,550)
Decrease (increase) in trade and other receivables		(9,059)	4,527	41,532
Increase (decrease) in trade and other payables		14,504	(1,893)	(17,366)
Other		5,815	2,652	24,330
Subtotal		49,553	47,977	440,155
Interest received		165	141	1,293
Dividends received		712	410	3,761
Interest paid		(371)	(305)	(2,798)
Income taxes paid		(8,915)	(10,847)	(99,513)
Net cash provided by operating activities		41,143	37,376	342,899
Cash flows from investing activities				
Payments into time deposits		(19,408)	(1,951)	(17,899)
Proceeds from withdrawal of time deposits		19,999	1,545	14,174
Purchase of property, plant and equipment		(28,600)	(31,168)	(285,944)
Proceeds from sale of property, plant and equipment		479	5,942	54,513
Purchase of intangible assets		(1,235)	(1,534)	(14,073)
Proceeds from sale and redemption of investments		13,335	41	376
Payments for acquisition of businesses (after deduction of cash and cash equivalents included in acquired assets)	8, 32	(33,374)	(8,501)	(77,990)
Purchase of investments in associates		—	(5,915)	(54,266)
Other		(3,096)	(2,140)	(19,633)
Net cash used in investing activities		(51,902)	(43,683)	(400,761)
Cash flows from financing activities				
Net increase (decrease) in short-term borrowings		(2,417)	35,001	321,110
Repayments of long-term borrowings		(594)	(384)	(3,522)
Repayments of lease liabilities		(3,338)	(4,514)	(41,412)
Dividends paid	24	(6,011)	(6,539)	(59,990)
Purchase of investments in subsidiaries not resulting in change in scope of consolidation		(1,094)	(1,588)	(14,568)
Other		3	7	64
Net cash provided by (used in) financing activities		(13,453)	21,981	201,660
Effect of exchange rate changes on cash and cash equivalents		(771)	(1,006)	(9,229)
Net increase (decrease) in cash and cash equivalents		(24,984)	14,667	134,559
Cash and cash equivalents at beginning of period	9	60,531	35,547	326,119
Cash and cash equivalents at end of period	9	¥35,547	¥50,215	$460,688

Notes to Consolidated Financial Statements

Kurita Water Industries Ltd. and Consolidated Subsidiaries

1. Reporting entity

Kurita Water Industries Ltd. (the “Company”) is a stock company located in Japan, which lists its shares on the Tokyo Stock Exchange. The registered addresses of its head office and major offices are disclosed on its official website (https://www.kurita.co.jp/english/).
The Company’s consolidated financial statements consists of the Company and its consolidated subsidiaries (together, the “Group”).
The major businesses of the Group are the water treatment chemicals business and the water treatment facilities business. Details regarding these businesses are provided in Note 7. “Segment information.”

2. Basis of preparation

(3) Compliance with IFRS and matters concerning first-time adoption of IFRS

The consolidated financial statements of the Group are prepared in compliance with International Financial Reporting Standards (IFRS), pursuant to the provisions of Article 93 of the Regulation on Terminology, Forms, and Preparation Method of Consolidated Financial Statements (Ministry of Finance Order No. 28 of 1976), as the Group meets the requirements for a “specified company complying with designated international accounting standards” set forth in Article 1-2 of the said regulation.

The consolidated financial statements of the Group were approved by Michiya Kadota, President and Representative Director, on June 29, 2020.

The Group has adopted IFRS for the first time from the consolidated fiscal year ended March 31, 2020, and the date of transition to IFRS is April 1, 2018. The impact of the transition to IFRS on the Group’s financial position, operating results and cash flows on the transition date and in the comparative fiscal years are stated in Note 39. “First-time adoption.”

With the exception of IFRS not adopted early and exemptions allowed pursuant to the provisions of IFRS 1 “First-time Adoption of International Financial Reporting Standards” (hereinafter “IFRS 1”), the accounting policies of the Group are in compliance with IFRS effective as of March 31, 2020. The exemptions that have been applied are stated in Note 39. “First-time adoption.”

(4) Basis for measurement

As stated in Note 3. “Significant accounting policies,” the consolidated financial statements of the Group have been prepared based on acquisition cost, with the exception of specified financial instruments, etc., measured at fair value.

(5) Functional currency and presentation currency

The consolidated financial statements of the Group are presented in Japanese yen, which is the functional currency of the Company. Amounts are presented in millions of yen, with fractional amounts less than one million yen rounded down to the nearest million yen.
The translation of yen amounts as of or for the year ended March 31, 2020 into U.S. dollars is included solely for the convenience of readers and has been made, as a matter of arithmetical computation only, at the rate of ¥109 to US$1, the prevailing rate on the Tokyo Foreign Exchange Market on March 31, 2020. The translation should not be construed as a representation that yen amounts have been, could have been or could in the future be converted into U.S. dollars at the above or any other rate.

3. Significant accounting policies

The consolidated financial statements of the Group are prepared based on the financial statements of the Company, its consolidated subsidiaries and its associates using unified accounting policies.

(1) Basis for consolidation
1) Subsidiaries

A subsidiary is a company that is controlled by the Group. When the Group is exposed, or has rights, to variable returns from its involvement with the company and has the current ability to affect those returns through its power over the company, the Group considers that it controls the company.
The financial statements of a subsidiary are included in the consolidated financial statements from the date the Group gains control until the date when it ceases to control the subsidiary.

If accounting policies adopted by a subsidiary differ from that adopted by the Group, appropriate adjustments are made to the financial statements of the subsidiary, as necessary.

Intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between entities of the Group and profits or losses resulting from intragroup transactions that are recognized in assets, are eliminated in full in preparing the consolidated financial statements.

The comprehensive income of subsidiaries is attributed to owners of parent and non-controlling interests, even if the balance of non-controlling interests is negative.

When the Group has disposed of part of the ownership interests in the subsidiary; and it still continues to control a subsidiary, such transaction is accounted for as an equity transaction.
Differences between the adjustment of non-controlling interests and the fair value of the consideration are recognized directly in equity as equity attributable to owners of parent.

If the Group loses control of a subsidiary, the gain or loss associated with the loss of control is recognized in profit or loss.

When the end of the reporting period of a subsidiary is different from that of the Company, the subsidiary's additional financial information as of the same date of that of the Company, which is prepared for consolidation purpose, is used for the consolidation.

2) Associates

An associate is a company over which the Group has significant influence. When the Group has the power to participate in the financial and operating policy decisions of an investee but it is not control or joint control of those policies, the Group considers that it has a significant influence over the company. Investment in an associate is accounted for using the equity method from the date the Group comes to have significant influence until the date when it loses significant influence.

When applying the equity method, if an associate uses accounting policies other than those adopted in the consolidated financial statements, appropriate adjustments are made to the associate's financial statements in preparing the consolidated financial statements to ensure conformity with the accounting policies of the Group.

The consolidated financial statements include investments in associates whose end of the reporting period is different from that of the Company since it is impracticable to unify their reporting periods with that of the Company due to reasons such as their relationships with other shareholders. Adjustments are made for the effects of significant transactions or events that occur during the period resulting from the difference in the reporting period. The date of the end of the reporting period of these associates accounted for using the equity method is December 31.

Profits resulting from transactions with an associate accounted for using the equity method that are recognized in assets, are deducted from investment in associates to the extent of the Group's ownership interests in the associate. Losses resulting from transactions with an associate that are recognized in assets are deducted from investment in associates in the same manner unless the losses indicate an impairment that requires recognition in the consolidated financial statements.

(2) Business combinations

The Group accounts for each business combination by applying the acquisition method.
The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the acquirer, the liabilities assumed and the equity instruments issued by the Group in exchange for control of the acquiree. If the consideration transferred exceeds the net of the amounts of the identifiable assets acquired and the liabilities assumed measured at their acquisition-date fair values, the Group recognizes the excess as goodwill in the consolidated statement of financial position. Conversely, if the consideration is less than the net of the fair values, the difference is immediately recognized as income in the consolidated statement of profit or loss.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the business combination occurs, provisional amounts are used for the accounting, and the provisional amounts recognized are adjusted during a measurement period of within one year from the acquisition date.
Acquisition-related costs incurred are recognized as expenses.
The additional acquisition of non-controlling interests after control of an acquiree is obtained is accounted for as an equity transaction and no goodwill is recognized from such transaction.

The Group has applied the exemptions set out in IFRS 1 and has not retrospectively applied IFRS 3 “Business Combinations” to business combinations before the date of transition to IFRS.
Therefore, goodwill that resulted from business combinations before the date of transition to IFRS is recorded at the carrying amount as of the date of transition to IFRS under Japanese GAAP.

(3) Foreign currency translation

The consolidated financial statements of the Group are presented in Japanese yen, which is the functional currency of the Company. Each company in the Group determines its own functional currency, and the transactions of each company are measured in its functional currency.

Foreign currency transactions are translated into the functional currency at the average exchange rate during the period unless the exchange rate fluctuates significantly during such period. Foreign currency monetary assets and liabilities are translated using the closing rate as of each reporting period. Exchange differences arising from such translations and settlements are recognized in profit or loss. However, exchange differences arising from financial assets measured at fair value through other comprehensive income and cash flow hedges are recognized in other comprehensive income.

For foreign operations, assets and liabilities of are translated into Japanese yen at the closing rate at the end of each reporting period, and income and expenses are translated into Japanese yen at the average exchange rate during the period unless the exchange rate fluctuates significantly during such period. All resulting exchange differences are recognized in other comprehensive income. On the disposal of a foreign operation, the cumulative amount of the exchange differences related to such foreign operation are reclassified from equity to profit or loss in the period of the disposal.
Having applied the exemptions set out in IFRS 1, the Group has deemed the cumulative amount of the exchange differences to be zero at the date of transfer to IFRS and reclassified all such differences to retained earnings.

(4) Financial instruments
1) Financial assets
(i) Initial recognition and measurement

The Group classifies financial assets as fair value through profit or loss, fair value through other comprehensive income, or measured at amortized cost. This classification is determined at initial recognition of the assets. The Group recognizes a financial asset at the date when the Group becomes party to the contract of the financial instruments.

A financial asset is classified as financial assets measured at amortized cost if both of the following conditions are met; otherwise it is classified as financial assets measured at fair value:

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows
- 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.

With regard to financial assets measured at fair value, with the exception of equity instruments held for trading which must be measured at fair value through profit or loss, each equity instrument is designated to be measured at fair value through profit or loss, or to be measured at fair value through other comprehensive income, and such designation is applied on a continuous basis.
All financial assets, unless classified as measured at fair value through profit or loss, are measured at their fair value plus transaction costs that are directly attributable to the financial assets.

(ii) Classification and subsequent measurement

After initial recognition, financial assets are measured based on their classification as follows:

(a) Financial assets measured at amortized cost
Financial assets measured at amortized cost are measured at amortized cost using the effective interest method.

(b) Other financial assets
Financial assets other than those measured at amortized cost are measured at fair value. Subsequent changes in the fair value of financial assets measured at fair value are recognized as profit or loss.

However, for investments in equity instruments that are designated to be measured at fair value through other comprehensive income, subsequent changes in their fair value are recognized in other comprehensive income, and if they are derecognized or their fair value has declined significantly, the amount previously recognized in other comprehensive income is reclassified to retained earnings. Dividends from that investment are recognized in profit or loss.

(iii) Derecognition

A financial asset is derecognized when the rights to receive benefits from the financial asset expire or the financial asset is transferred or substantially all of the risks and rewards of ownership of the financial asset are transferred.

2) Impairment of financial assets

Under IFRS 9 “Financial Instruments” (hereinafter “IFRS 9”), the Group estimates expected credit losses for financial assets that are subject to the impairment requirements of IFRS 9 at each reporting date and recognizes an allowance for doubtful accounts for such expected credit losses.
After initial recognition, expected credit losses are measured at the reporting date for each category of financial assets as follows:

Stage 1 Financial assets for which credit risk has not increased significantly since initial recognition:
12-month expected credit losses

Stage 2 Financial assets for which credit risk has increased significantly since initial recognition but no credit impairment has been identified:
Lifetime expected credit losses

Stage 3 Credit-impaired financial assets:
Lifetime expected credit losses

The Group directly reduces the carrying amount of a financial asset when its future recovery cannot be realistically expected and all collateral on the financial asset is enforced or all collateral on the financial asset is enforced or transferred to the Group.

The Group determines that the credit risk on a financial asset has increased significantly since initial recognition if contractual payments are more than 60 days past due, that a financial instrument is in default if payments are more than one year past due, and that a financial asset is credit-impaired if at least one of the following events occurs:

- Significant financial difficulty for the issuer or obligor;
- A breach of contract, such as a default or delinquency in interest or principal payment;
- The creditor, for economic or legal reasons relating to the debtor's financial difficulty, granting to the debtor a concession that the creditor would not otherwise consider;
- It has become probable that the debtor will enter bankruptcy or other financial reorganization;
- The disappearance of an active market for that financial asset because of financial difficulties; or
- Substantial discounts on a purchased or originated financial asset that reflects the incurred credit losses.

The Group evaluates stage 1 financial instruments on a collective basis and stage 2 and 3 financial instruments on an individual basis.

12-month and lifetime expected credit losses are measured using reasonable and supportable information about past events, current conditions and forecasts of future economic conditions that is available without undue cost or effort at the end of the reporting period.

When an event that has an adverse impact on the estimated future cash flows of credit-impaired financial assets that were purchased or originated has occurred, that is, there is evidence that their credit is impaired, at initial recognition, for such purchased or originated credit-impaired financial assets, the cumulative changes in expected credit losses over their remaining life subsequent to initial recognition are recognized as an allowance for doubtful accounts at the reporting date.

3) Financial liabilities

(i) Initial recognition and measurement

The Group classifies financial liabilities as fair value through profit or loss or measured at amortized cost. This classification is determined at initial recognition of the financial liabilities.
All financial liabilities are initially measured at fair value, while financial liabilities measured at amortized cost are measured at their fair vale minus transaction costs that are directly attributable to the financial liabilities.

(ii) Classification and subsequent measurement

After initial recognition, financial liabilities are measured based on their classification as follows:

(a) Financial liabilities measured at fair value through profit or loss
Financial liabilities measured at fair value through profit or loss are subsequently measured at fair value after initial recognition, and any gain or loss arising from remeasurements is recognized as profit or loss.

(b) Financial liabilities measured at amortized cost
Financial liabilities measured at amortized cost are measured at amortized cost using the effective interest method after initial recognition. Amortization using the effective interest method and any gain or loss on derecognition are recognized as profit or loss in the consolidated statement of profit or loss.

(iii) Derecognition

A financial liability is derecognized when the obligation is discharged or cancelled or expires.

4) Offsetting financial instruments

A financial asset and a financial liability are offset and the net amounts are presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to set off the recognized amounts and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

5) Derivatives and hedge accounting

The Group uses derivatives, such as foreign exchange contracts and currency swap contracts, to hedge currency risks and interest rate risks. Derivatives are classified into financial assets measured at fair value through profit or loss and financial liabilities measured at fair value through profit or loss. Derivatives that meet the requirements for hedge accounting are designated as hedging instruments and hedge accounting is applied.

For the adoption of hedge accounting, the Group formally designates and documents the hedging relationship and the risk management objectives and strategies at the inception of the hedge. The documentation includes the details of the hedging instruments, the hedged items, the nature of the risks being hedged and the method of assessing hedge effectiveness. The Group assesses the hedging relationship on an ongoing basis with respect to whether the hedging relationship will be effective in the future.

The Group applies cash flow hedges to interest rate-related derivative transactions that meet the requirements for hedge accounting.

The portion of the changes in fair value of hedging instruments of cash flow hedges that is determined to be an effective hedge is recognized in other comprehensive income, and is accumulated as other components of equity until the hedged transaction is executed and recognized in profit or loss. The ineffective portion is recognized as profit or loss.

The amount that has been accumulated in other components of equity related to hedging instruments is reclassified to profit or loss when a hedged transaction affects profit or loss.
If a hedged transaction results in the recognition of non-financial assets or liabilities, the amounts that have been accumulated in other components of equity are accounted for as an adjustment to the initial cost of the non-financial assets or liabilities.

When forecast transactions are no longer expected to occur, hedge accounting is discontinued, and any cumulative gains and losses that have been accumulated in other components of equity are reclassified to profit or loss. Even if hedge accounting is discontinued, when hedged future cash flows are expected to occur, the amount that has been accumulated as other components of equity by the time of discontinuation of hedge accounting continues to be recognized in other components of equity until such future cash flows occur.

The Group does not apply fair value hedges or hedges of net investments in foreign operations.

6) Fair value of financial instruments

For fair value of financial instruments that are traded in active markets as of each fiscal year-end, quoted market prices or dealer prices are referred to.
Fair value of financial instruments for which there is no active market is calculated using appropriate valuation techniques.

(5) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits withdrawable at any time and short-term, highly liquid investments with a maturity of three months or less from the acquisition date that are readily convertible to cash and which are subject to an insignificant risk of change in value.

(6) Inventories

The cost of inventories includes all costs of purchase, costs of conversion and all other costs incurred in bringing the inventories to their present location and condition.
Inventories are measured at the lower of cost and net realizable value. The cost is principally assigned by using the moving average method. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and estimated costs necessary to sell.

(7) Property, plant and equipment

The cost model is applied to property, plant and equipment and they are measured at cost less accumulated depreciation and accumulated impairment losses.
The cost includes any costs directly attributable to the acquisition of the asset, as well as costs of dismantling, removal, and restoration.

Except for assets that are not subject to depreciation, such as land, each asset is depreciated over its estimated useful life using the straight-line method (however, some assets, such as equipment for research and development, are depreciated using the diminishing balance method).

The estimated useful lives of major asset items are as follows:

- Buildings and structures: 2 – 65 years;
- Machinery, equipment and vehicles: 4 – 10 years

Estimated useful lives and depreciation methods, etc., are reviewed at each fiscal year-end, and if any changes occur, they are amended prospectively as changes in accounting estimates.

(8) Goodwill and intangible assets
1) Goodwill

The Group measures goodwill as the amount of the consideration transferred that is measured at the acquisition-date fair value, including the recognized amount of non-controlling interests in an acquiree, less the net of the acquisition-date amounts (usually fair value) of identifiable assets acquired and liabilities assumed.

Goodwill is not amortized. Goodwill is allocated to cash-generating units identified based on the region in which the business is conducted and the type of business and is tested for impairment annually or whenever there is any indication of impairment.
Impairment losses on goodwill are recognized in the consolidated statement of profit or loss, and they are not reversed in a subsequent period.

Goodwill is presented at the amount of acquisition cost less accumulated impairment losses.

2) Intangible assets

The cost model is applied to intangible assets, and such assets are measured at cost less accumulated amortization and accumulated impairment losses.

A separately acquired intangible asset is measured initially at cost. The cost of an intangible asset acquired in a business combination is measured at fair value at the acquisition date.
Expenditure on internally generated intangible assets, with the exception of an intangible asset arising from development that meets the recognition criteria, is recognized as expense when it is incurred.

An intangible asset with finite useful life is amortized over its estimated useful life using the straight-line method.

Estimated useful lives and amortization methods for intangible assets with finite useful lives are reviewed at each fiscal year-end, and if any changes occur, they are amended prospectively as changes in accounting estimates.

The estimated useful lives of major intangible assets with finite useful lives are as follows:

- Software: 5 years;
- Customer-related assets: 8 -16 years

An intangible asset with indefinite useful life and an intangible asset not yet available for use are not amortized and are instead tested for impairment annually or whenever there is any indication of impairment for each individual asset or each cash-generating unit.

(9) Leases

For lease transactions as a lessee, at the commencement date of the lease, the Group measures a right-of-use asset at cost and a lease liability at the present value of the lease payments that are not paid at that date.
A right-of-use asset is depreciated over the shorter of its useful life or its lease term using the straight-line method.

Lease payments are apportioned to finance costs and repayments of lease liabilities using the effective interest method, and finance costs are recognized in the consolidated statement of profit or loss.

However, for short-term leases with a lease term of 12 months or less and leases for which the underlying assets are of low value, right-of-use assets and lease liabilities are not recognized, and the total lease payments are recognized as an expense on either a straight-line basis over the lease term or another systematic basis.

(10) Impairment of non-financial assets

The Group assesses at the end of each reporting period whether there is any indication of impairment for each asset. If there is any indication that an asset may be impaired or if the asset is required to test for impairment at least annually, the Group estimates the recoverable amount of the asset. If it is not possible to estimate the recoverable amount of the individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

The recoverable amount of an asset or cash-generating unit is measured at the higher of its fair value less costs of disposal or its value in use. When the carrying amount of the asset or cash-generating unit exceeds its recoverable amount, impairment losses for the asset are recognized and the carrying amount is reduced to its recoverable amount.

Value in use is determined as estimated future cash flows that are discounted to the present value, using a pre-tax discount rate that reflects the current market assessments of the time value of money, the risks specific to the asset and other factors. In calculating fair value less costs of disposal, an appropriate valuation model is used, supported by available indicators of fair value.

For an asset other than goodwill, the Group assesses whether there is any indication that an impairment loss recognized in the prior periods for the asset may no longer exist or may have decreased, such as any changes in the assumptions used to calculate the recoverable amount of the asset. If any such indication exists, the Group estimates the recoverable amount of the asset or cash-generating unit. When the recoverable amount exceeds the carrying amount of the asset or cash-generating unit, impairment losses are reversed up to the lower of the calculated recoverable amount and the carrying amount less depreciation and amortization, in the case where no impairment losses have been recognized in the prior periods.

(11) Employee benefits
1) Post-employment benefits

The Group implements defined benefit plans and defined contribution plans as its employees' post-employment benefit program.

The Group determines the present value of its defined benefit obligations and the related current service cost and prior service cost using the projected unit credit method.

The discount rate is determined by reference to market yields at the end of the reporting period on high quality corporate bonds corresponding to the discount period, which is determined based on the period up to the expected benefit payment date in each future reporting period.

Remeasurements of defined benefit liability (asset) are recognized collectively as other comprehensive income in the period of their occurrence, and are immediately reclassified from other components of equity to retained earnings.

Prior service cost is amortized over the average period until benefits are vested using the straight-line method, while if the benefit has already been vested immediately after the introduction or change of the defined benefit plan, the prior service cost is recognized as profit or loss in the period in which it was incurred.

Contributions for retirement benefits under defined contribution plans are recognized as expenses at the time of contribution.

2) Short-term employee benefits

The Group recognizes the undiscounted amount of short-term employee benefits as an expense when an employee has rendered related service.
For bonus plans and paid absences, the Group recognizes the amount estimated to be paid under the applicable plan as liabilities when the Group has legal or constructive obligations to make such payments and reliable estimates of the obligations can be made.

(12) Share-based payment

The Group has introduced a performance-linked stock compensation program. The consideration for services received under the program is measured by reference to the fair value of the Company's shares on the grant date or is measured at the fair value of the incurred liabilities, and is recognized as an expense over the corresponding period, while the same amount is recognized as an increase in capital surplus or liabilities.
The details of the program are provided in “Overview of performance-linked stock compensation program” in Note 33. “Share-based payment.”

(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 highly probable that the Group will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Where the effect of the time value of money is material, the provision is measured at the present value of the expenditures expected to be required to settle the obligation. For calculation of the present value, a pre-tax discount rate that reflects the current market assessment of the time value of money and risks specific to the liability is used.

(14) Revenue
1) Revenue from contracts with customers

For revenue from contracts with customers, the Group identifies the contract with a customer, identifies the performance obligations in the contract at contract inception, determines the transaction price, allocates the transaction price to the performance obligations in the contract, and recognizes the revenue when the Group satisfies a performance obligation.

A performance obligation is satisfied when control of the goods or services associated with an identified performance obligation is transferred to the customer.

Revenue from contracts with customers is classified into the following:

- Revenue from sales of products

  For product sales contracts with customers, revenue is recognized when the product is delivered to the customer.

  The consideration under the product sales contract is collected within a reasonable period after the time of delivery of the product to the customer and includes no significant financial component.

  Consumption taxes, value-added taxes, etc., are deducted from the transaction price when the Group is found to act as an agent of the taxation authority in the transaction, taking into comprehensive consideration the laws and regulations as well as the actual situation regarding transactions in each country. An amount substantially equivalent to the discount from the sales price under the contract with a customer is deducted from transaction price.

  The Group has no significant obligations to return goods or to refund.

- Technology revenue

  Technology revenue is recognized on an accrual basis in accordance with the substance of the relevant contractual arrangements. The Group earns revenue under the contracts that allow third parties to manufacture and sell its products and use its technologies.

2) Interest revenue

Interest revenue is calculated by using the effective interest method.
For the financial assets described in (4) Financial instruments 2) Impairment of financial assets, interest revenue is recognized by using the effective interest method as follows, for each category of financial assets:

Stage 1 and stage 2 financial assets:
Carrying amount before deducting allowance for doubtful accounts × effective interest rate

Stage 3 financial assets:
Carrying amount after deducting allowance for doubtful accounts × effective interest rate

Purchased or originated credit-impaired financial assets:
Carrying amount after deducting allowance for doubtful accounts × credit-adjusted effective interest rate

3) Dividends

Dividends are recognized when the shareholders' rights to receive payment are established.

(15) 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 that the grants will be received.

Government grants are recognized in profit or loss on a systematic basis over the periods in which the Group recognizes as expense the related costs for which the grants are intended to compensate.

Government grants related to assets are deducted from the carrying value of the assets.

(16) Income taxes

Income tax expense in the consolidated statement of profit or loss is presented as the aggregate amount of current tax and deferred tax.

Income taxes are recognized as profit or loss, except for the tax arising from items that are recognized in other comprehensive income or directly in equity, and the tax arising from business combinations.

Current taxes are measured at the amount expected to be paid to or recovered from the taxation authorities.
The amount of these taxes is calculated using the tax rates and tax laws that have been enacted or substantively enacted by the end of the reporting period.

Deferred taxes are recognized related to the temporary differences between the carrying amount of an asset and a liability at the end of the period for accounting purposes and its tax base.
A deferred tax asset is recognized for deductible temporary differences, unused tax credits and unused tax losses to the extent that it is probable that taxable profits will be available against which they can be utilized. A deferred tax liability is recognized, in principle, for all taxable temporary differences.

However, deferred tax assets or liabilities are not recognized for the following temporary differences deferred taxes arises from:

- The initial recognition of goodwill;
- The initial recognition of an asset or a liability in a transaction which is not a business combination and affects neither accounting profit nor taxable profit (tax loss) at the time of the transaction;
- For deductible temporary differences arising from investments in subsidiaries and associates and interests in joint arrangements when it is probable that the temporary differences will not reverse in the foreseeable future or it is not probable that taxable profits will be available against which the temporary differences can be utilized; or
- For taxable temporary differences associated with investments in subsidiaries and associates and interests in joint arrangements when the timing of the reversal of temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

At the end of each reporting period, the Group reassesses unrecognized deferred tax assets and recognizes a previously unrecognized deferred tax asset to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates that have been enacted or substantively enacted by the end of the reporting period.

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

The income tax expense for each quarter is calculated based on an estimated yearly effective tax rate.

(17) Equity
1) Ordinary shares

For ordinary shares issued by the Company, the total issue price of the shares is recorded in share capital and capital surplus, and transaction costs, net of related tax effects, are deducted from capital surplus.

2) Treasury shares

Treasury shares are measured at cost and deducted from equity. No gain or loss is recognized in profit or loss on the purchase, sale or cancellation of treasury shares. The difference between the carrying amount and the consideration received from the sale is recognized in equity.

3) Put options granted to non-controlling shareholders

The Company has granted, to non-controlling shareholders, put options related to interests in Kurita Fracta Holdings, Inc., a consolidated subsidiary of the Company. If the contractual conditions are met, option holders are allowed to sell shares in Kurita Fracta Holdings, Inc. to the Company at the exercise price determined in accordance with the contractual conditions, and the Company must make payments if the options are exercised. The present values of such possible payments are initially recognized as financial liabilities and the same amounts are deducted from capital surplus. Changes in the fair value of financial liabilities subsequent to initial recognition are recognized as capital surplus. If the options expire without being exercised, the financial liabilities are derecognized and reclassified to capital surplus.

(18) Earnings per share

Basic earnings per share are calculated by dividing profit or loss attributable to common shareholders of the parent by the weighted average number of common shares outstanding, after adjusting for treasury shares, during the period.

4. Significant accounting estimates and judgments

In preparing the consolidated financial statements of the Group, the management is required to make judgments, estimates and assumptions that affect the application of accounting policies and the disclosure of reported amounts of income, expenses, assets and liabilities. However, actual results may differ from these estimates.

The estimates and their underlying assumptions are reviewed on a continuous basis. The impact of these reviews on estimates and assumptions are recognized in the period in which the estimates or assumptions are reviewed, the reporting period, and subsequent reporting periods.

In the application of the accounting policies, estimates and judgments that may have a significant effect on the amounts recognized in the consolidated financial statements of the Group are as follows:

- Impairment of non-financial assets
  （Note 3. “Significant accounting policies (10) Impairment of non-financial assets”）
- Impairment of goodwill and intangible assets
  （Note 3. “Significant accounting policies (8) Goodwill and intangible assets”）
- Useful lives of intangible assets
  （Note 3. “Significant accounting policies (8) Goodwill and intangible assets”）
- Recoverability of deferred tax assets
  （Note 3. “Significant accounting policies (16) Income taxes”）
- Provisions
  （Note 3. “Significant accounting policies (13) Provisions”）
- Measurement of defined benefit obligations
  （Note 3. “Significant accounting policies (11) Employee benefits”）
- Fair value of financial instruments
  （Note 3. “Significant accounting policies (4) Financial instruments”）
- Revenue
  （Note 3. “Significant accounting policies (14) Revenue”）

(Additional information)

The spread of the coronavirus disease 2019 (COVID-19) is an event that has had a wide-reaching effect on the economy and corporate activities, and the Group is also suffering from impacts, including a decrease in net sales. It is difficult to reasonably predict the future spread of the disease, or when the spread would converge. Therefore, the Group has made accounting estimates, including impairment tests for goodwill and intangible assets, based on the assumption that, according to information, etc., from external sources, the spread of COVID-19 is likely to begin to subside by the end of September of this year, although its remaining impact will continue to affect the economy in the fiscal year ending March 31, 2021.
If a revision should become necessary, it may have a significant impact on the amounts to be recognized in the consolidated financial statements from the fiscal year ending March 31, 2021 onward.

5. New standards not yet applied

With respect to the standards or interpretations newly issued or amended by the date of the approval of the consolidated financial statements, the Group has not applied them early as of March 31, 2020.

The impact of the application is not stated herein, due to its immateriality.

6. Additional information

At a meeting of the Board of Directors held on January 30, 2020, the Company resolved to establish a new research and development base (new global technology center) in Akishima-shi, Tokyo in April 2022. The existing research and development base, the functions of Kurita Global Technology Center (Nogi-machi, Shimotsuga-gun, Tochigi), will be transferred to the new global technology center on March 31, 2022. A purchase agreement for the land and building for the research and development base was concluded on March 16, 2020.

(1) Purpose of the establishment of the new global technology center

The Company will establish the new base in response to the aging of the existing Kurita Global Technology Center. The project is aimed at building a development environment with state-of-the-art equipment and analytical instruments, so as to accelerate the creation of leading-edge technologies and total solutions related to “water and the environment.” The Company will position the new global technology center as the core of its global research and development system, aiming to make a research and development facility that is open to society, where new innovations are created through interactions with customers and other stakeholders.

(2) Overview of the new global technology center

Name	New Research and Development Facility (tentative name), New Multi-Functional Facility (tentative name)
Location	Parts of 3993-1 and 3993-8 Aza Kohake, Haijima-cho, Akishima-shi, Tokyo
Site area	30,381.37㎡
Total floor area	38,075㎡
Construction of the buildings (planned)	New Research and Development Facility: A five-story building and other structures New Multi-Functional Facility: A three-story building
Construction cost	Approximately ¥30 billion ($275,229 thousand) (The Company’s own funds and debt financing)
Commencement of construction	May 2020
Completion of construction	March 2022 (planned)
Opening (commencement of operation)	April 2022 (planned)

7. Segment information

(1) Overview of reportable segments

The Company's reportable segments are components of the Group about which separate financial information is available. These segments are subject to periodic review to enable the Company's Board of Directors to decide how to allocate resources and assess performance.

The Group plans comprehensive strategies for the products and services that it handles in Japan and overseas and conducts business accordingly. The Group's operations are therefore classified into two reportable segments, the Water Treatment Chemicals business and the Water Treatment Facilities business.

The Water Treatment Chemicals business manufactures and sells water treatment chemicals and equipment and provides maintenance services. The Water Treatment Facilities business manufactures and sells water treatment equipment and facilities, provides ultrapure water, chemical cleaning, tool cleaning, soil and groundwater remediation services, and provides maintenance services that encompass operation, maintenance, and management of water treatment facilities.

(2) Information on reportable segments

Fiscal year ended March 31, 2019

	Millions of yen				
	Reportable segments				
2019	Water treatment chemicals	Water treatment facilities	Total	Adjustments (Notes)	Consolidated
Net sales					
Sales to external customers	¥102,126	¥155,204	¥257,331	¥ —	¥257,331
Intersegment sales	785	1,526	2,312	(2,312)	—
Total	102,912	156,731	259,643	(2,312)	257,331
Segment profit	4,258	15,518	19,776	83	19,860
Finance income					781
Finance costs					(521)
Share of profit of investments accounted for using equity method					146
Profit before tax					¥20,267
Segment assets	¥115,017	¥200,975	¥315,993	¥43,507	¥359,500
Other items					
Depreciation and amortization	¥4,502	¥13,369	¥17,872	¥ —	¥17,872
Impairment losses	1,171	—	1,171	—	1,171
Investments accounted for using equity method	875	53	929	26	956
Capital expenditures	4,182	37,071	41,254	—	41,254

Notes
1. Adjustments to segment profit include the elimination of inter-segment transactions, etc.
2. Segment profit presents the amount of operating profit.
3. Adjustments to segment assets include the elimination of inter-segment transactions, etc., and consist mainly of corporate assets unallocated to reportable segments.
4. Capital expenditures include an increase in right-of-use assets.
5. Capital expenditures do not include assets acquired through business acquisitions.

Fiscal year ended March 31, 2020

	Millions of yen				
	Reportable segments				
2020	Water treatment chemicals	Water treatment facilities	Total	Adjustments (Notes)	Consolidated
Net sales					
Sales to external customers	¥113,632	¥151,174	¥264,807	¥ —	¥264,807
Intersegment sales	681	1,777	2,458	(2,458)	—
Total	114,313	152,952	267,265	(2,458)	264,807
Segment profit	10,127	17,390	27,518	(38)	27,479
Finance income					569
Finance costs					(1,417)
Share of profit of investments accounted for using equity method					60
Profit before tax					¥26,691
Segment assets	¥119,960	¥209,015	¥328,975	¥58,774	¥387,749
Other items					
Depreciation and amortization	¥5,496	¥13,204	¥18,700	¥ —	¥18,700
Impairment losses	—	29	29	—	29
Investments accounted for using equity method	2,489	4,960	7,449	20	7,469
Capital expenditures	6,853	26,428	33,281	—	33,281

	Thousands of U.S. dollars				
	Reportable segments				
2020	Water treatment chemicals	Water treatment facilities	Total	Adjustments (Notes)	Consolidated
Net sales					
Sales to external customers	$1,042,495	$1,386,917	$2,429,422	$ —	$2,429,422
Intersegment sales	6,247	16,302	22,550	(22,550)	—
Total	1,048,743	1,403,229	2,451,972	(22,550)	2,429,422
Segment profit	92,908	159,541	252,458	(348)	252,100
Finance income					5,220
Finance costs					(13,000)
Share of profit of investments accounted for using equity method					550
Profit before tax					$244,871
Segment assets	$1,100,550	$1,917,568	$3,018,119	$539,211	$3,557,330
Other items					
Depreciation and amortization	$50,422	$121,137	$171,559	$ —	$171,559
Impairment losses	—	266	266	—	266
Investments accounted for using equity method	22,834	45,504	68,339	183	68,522
Capital expenditures	62,871	242,458	305,330	—	305,330

Notes
1. Adjustments to segment profit include the elimination of inter-segment transactions, etc.
2. Segment profit presents the amount of operating profit.
3. Adjustments to segment assets include the elimination of inter-segment transactions, etc., and consist mainly of corporate assets unallocated to reportable segments.
4. Capital expenditures include an increase in right-of-use assets.
5. Capital expenditures do not include assets acquired through business acquisitions.

(3) Information about products and services

This information is omitted since the classification of products and services herein follows the same classification as used for reportable segments.

(4) Information about geographical areas

Non-current assets and net sales to external customers by geographical areas are as follows:

1) Non-current assets

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Japan	¥78,360	¥101,896	¥110,963	$1,018,009
Asia	21,026	18,833	17,446	160,055
North America	4,080	35,186	40,161	368,449
EMEA	18,876	15,480	15,695	143,990
Other	711	573	405	3,715
Total	¥123,056	¥171,970	¥184,671	$1,694,229

Note Non-current assets are allocated based on the location of assets, and financial instruments or deferred tax assets are not included. EMEA refers to the European, Middle Eastern and African regions.

2) Net sales

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Japan	¥161,212	¥161,699	$1,483,477
Asia	66,520	52,509	481,733
North America	5,589	28,826	264,458
EMEA	21,297	19,132	175,522
Other	2,711	2,639	24,211
Total	¥257,331	¥264,807	$2,429,422

Note Net sales are allocated to a country or areas based on the locations of customers. EMEA refers to the European, Middle Eastern and African regions.

(5) Information about major customers

This information is omitted since there is no single external customer that accounts for 10% or more of the net sales in the consolidated statement of profit or loss.

8. Business combinations and Acquisition of non-controlling interests

Fiscal year ended March 31, 2019

(Acquisition of Fracta, Inc. and Fracta)

On May 31, 2018, the Group acquired 60.63% (fully diluted basis: 50.1%) of the shares with voting rights of Fracta, Inc. (currently Kurita Fracta Holdings, Inc.). Through the investment in Fracta, Inc., the Group also acquired Fracta, a wholly owned subsidiary of Fracta, Inc. Fracta, Inc. develops software services to predict the deterioration of water pipes utilizing AI and ML at Fracta. The Group will create and expand new digital businesses utilizing IoT and AI in the fields of water and the environment by acquiring the advanced technologies and know-how in AI and ML of Fracta, Inc. and applying them to the water treatment technologies and services of the Company.

(1) Assets acquired and liabilities assumed

The fair value of identifiable assets acquired and liabilities assumed of Fracta, Inc. and Fracta as of the acquisition date are as follows:

2019	Millions of yen
Fair value of consideration (cash)	¥3,968
Fair value of assets acquired and liabilities assumed	
Cash and cash equivalents	1,778
Other current assets	15
Non-current assets	43
Other current liabilities	(142)
Fair value of assets acquired and liabilities assumed (net)	1,694
Non-controlling interests	783
Goodwill	¥3,057

Non-controlling interests are measured at their ownership interests of the fair value of the identifiable net assets of the acquiree.

The amount of goodwill occurred was ¥3,057 million, which reflects expected excess earning power. For goodwill, the Group does not expect any amount that can be deductible for tax purposes.

Net sales and profit of Fracta, Inc. and Fracta, which are included in the consolidated statement of profit or loss for the fiscal year ended March 31, 2019, are immaterial.

Pro forma information, under the assumption that the business combination was conducted at the beginning of the fiscal year ended March 31, 2019, is not stated here, as its effect on the consolidated statement of profit or loss is immaterial.

(2) Transactions that are accounted for separately from business combination

Acquisition-related costs were ¥177 million. The amount is recorded in other expenses in the consolidated statement of profit or loss.

(Acquisition of Global Water Services Holding Company, Inc., U.S. Water Services, Inc. and two other companies)

The Group acquired all shares outstanding of Global Water Services Holding Company, Inc., a holding company of a water treatment chemicals and facilities manufacturing and sales company in the United States, through Kurita America Holdings Inc., a wholly owned subsidiary of the Company, on March 25, 2019. Through the investment in Global Water Services Holding Company, Inc., the Group also acquired U.S. Water Services, Inc., a wholly owned subsidiary of Global Water Services Holding Company, and two other companies.
The Group aims to significantly expand its overseas businesses by establishing platforms in four regions around the world – Japan, Asia, Europe and the Americas. This investment is made as a part of its strategy of strengthening business in the United States, a strategic market. The Group will also accelerate business development in the United States by establishing even closer relationships with customers through the development of the service contract business model making full use of IT and sensing by combining the Group's products, with their competitive advantage and highly unique services such as pure water supply and wastewater reclamation, into the solid customer base and sales channels of U.S. Water Services, Inc.

(1) Assets acquired and liabilities assumed

The fair value of identifiable assets acquired and liabilities assumed of Global Water Services Holding Company, Inc., U.S. Water Services, Inc. and two other companies as of the acquisition date are as follows:

2019	Millions of yen
Fair value of consideration (cash)	¥30,630
Fair value of assets acquired and liabilities assumed	
Cash and cash equivalents	429
Trade receivables	2,870
Other current assets	1,525
Trade and other payables	5,085
Non-current assets	(1,930)
Other current liabilities	(644)
Fair value of assets acquired and liabilities assumed (net)	7,335
Goodwill	¥23,295

In the fourth quarter of the fiscal year ended March 31, 2020, the amount of goodwill as of the acquisition date increased by ¥5,613 million, due to finalization of the provisional accounting process. This was mainly attributable to a decrease of ¥5,160 million in intangible assets.

The amount of goodwill occurred was ¥23,295 million, which reflects expected excess earning power. For goodwill, the Group does not expect any amounts that can be deductible for tax purposes.

Net sales and profit of Global Water Services Holding Company, Inc., U.S. Water Services, Inc. and two other companies, which are included in the consolidated statement of profit or loss for the fiscal year ended March 31, 2019, are immaterial.

Pro forma information, under the assumption that the business combination was conducted at the beginning of the fiscal year ended March 31, 2019, is not stated here, as its effect on the consolidated statement of profit or loss is immaterial.

(2) Transactions that are accounted for separately from business combination

Acquisition-related costs were ¥958 million. The amount is recorded in other expenses in the consolidated statement of profit or loss.

Fiscal year ended March 31, 2020

(Acquisition of Avista Technologies, Inc., Avista Technologies (UK) Ltd. and Avista Singapore Pte Ltd.)

The Group acquired all shares outstanding of Avista Technologies, Inc., a manufacturing and sales company of water treatment chemicals in the United States, through Kurita America Holdings Inc., a wholly owned subsidiary of the Company, on May 15, 2019. Through the investment in Avista Technologies, Inc., the Group also acquired Avista Singapore Pte Ltd., a wholly owned subsidiary of Avista Technologies, Inc. On the same date, the Group acquired all shares outstanding of Avista Technologies (UK) Ltd., a manufacturing and sales company of water treatment chemicals in the United Kingdom, through Kurita Europe GmbH, a wholly owned subsidiary of the Company.
Avista Technologies specializes in reverse osmosis (RO) chemicals that are applied to RO membranes, one of the components of water treatment facilities, among water treatment chemicals. It manufactures and sells a wide variety of RO chemicals. Avista Technologies also develops services including RO membrane cleaning and has many customers in a broad range of industrial fields including mining, chemical, oil, marine oilfields, food, beverages and local governments, mainly in the United States. Avista Technologies (UK) develops similar businesses in EMEA (Europe, the Middle East and Africa) through licensing from Avista Technologies. The Group will bolster the product lineup of RO chemicals by combining RO chemicals of Avista Technologies and distinctive RO chemicals of the Company and will seek to expand sales of RO chemicals by proposing a wider range of products to all customers. The Group will also strengthen its RO membrane-related services by sharing the technologies and know-how of the both companies.

(1) Assets acquired and liabilities assumed

The fair value of identifiable assets acquired and liabilities assumed of Avista Technologies, Inc. and Avista Singapore Pte Ltd. as of the acquisition date are as follows:

2020	Millions of yen	Thousands of U.S. dollars
Fair value of consideration (cash)	¥7,615	$69,862
Fair value of assets acquired and liabilities assumed		
Cash and cash equivalents	248	2,275
Trade receivables	341	3,128
Other current assets	142	1,302
Non-current assets	3,244	29,761
Trade and other payables	(666)	(6,110)
Non-current liabilities	(50)	(458)
Fair value of assets acquired and liabilities assumed (net)	3,259	29,899
Goodwill	¥4,355	$39,954

In the fourth quarter of the fiscal year ended March 31, 2020, the amount of goodwill as of the acquisition date decreased by ¥2,858 million ($26,220 thousand), due to finalization of the provisional accounting process. This was mainly attributable to an increase of ¥1,764 million ($16,183 thousand) in intangible assets.

The amount of goodwill that occurred was ¥4,355 million ($39,954 thousand), which reflects expected excess earning power. The Group expects that some amount of the recognized goodwill can be deductible for tax purposes.

The fair value of identifiable assets acquired and liabilities assumed of Avista Technologies (UK) Ltd. as of the acquisition date are as follows:

2020	Millions of yen	Thousands of U.S. dollars
Fair value of consideration (cash)	¥1,889	$17,330
Fair value of assets acquired and liabilities assumed		
Cash and cash equivalents	957	8,779
Other current assets	223	2,045
Non-current assets	723	6,633
Other current liabilities	(256)	(2,348)
Non-current liabilities	(141)	(1,293)
Fair value of assets acquired and liabilities assumed (net)	1,505	13,807
Goodwill	¥383	$3,513

In the fourth quarter of the fiscal year ended March 31, 2020, the amount of goodwill as of the acquisition date decreased by ¥578 million ($5,302 thousand), due to finalization of the provisional accounting process. This was mainly attributable to an increase of ¥702 million ($6,440 thousand) in intangible assets.

The amount of goodwill that occurred was ¥383 million ($3,513 thousand), which reflects expected excess earning power. For goodwill, the Group does not expect any amounts that can be deductible for tax purposes.

Net sales and profit of Avista Technologies, Inc., Avista Technologies (UK) Ltd., and Avista Singapore Pte Ltd., which are included in the consolidated statement of profit or loss for the fiscal year ended March 31, 2020, are immaterial.

Pro forma information, under the assumption that the business combination was conducted at the beginning of the fiscal year ended March 31, 2020, is not stated here, as its effect on the consolidated statement of profit or loss for the fiscal year ended March 31, 2020, is immaterial.

(2) Transactions that are accounted for separately from business combination

Acquisition-related costs were ¥325 million ($2,981 thousand). The amount is recorded in other expenses in the consolidated statement of profit or loss.

Business combinations of entities or businesses under common control

(1) Outline of the transaction

1) Company names and businesses at the time of business combination

(i) Surviving company
Name: U.S. Water Services, Inc.
Business: Manufacture, sale, and export and import of water treatment chemicals, manufacture, sale, design, building, and maintenance of water treatment equipment, and operation and maintenance of water treatment facilities

(ii) Merged companies
Name: Kurita America, Inc.
Business: Manufacture and sale of water treatment chemicals, manufacture and sale of water treatment equipment, and operation and maintenance of water treatment facilities

Name: Fremont Industries, LLC
Business: Manufacture and sale of water treatment chemicals

Name: Global Water Services Holding Company, Inc.
Business: Holding company of U.S. Water Services, Inc.

2) Date of business combination

March 31, 2020

3) Legal form of business combination

An absorption-type merger. The surviving company is U.S. Water Services, Inc. (a consolidated subsidiary of Kurita America Holdings Inc., a wholly owned subsidiary of the Company). The merged companies are Kurita America, Inc., Fremont Industries, LLC, and Global Water Services Holding Company, Inc. (all of them are consolidated subsidiaries of Kurita America Holdings Inc., a wholly owned subsidiary of the Company). The Company contributed shares in Kurita America, Inc. to Kurita America Holdings Inc., a wholly owned subsidiary of the Company, in kind.

4) Name of the company after business combination

The company name after the business combination became Kurita America Inc. on April 1, 2020.

5) Main reason of integration

To integrate sales and production systems, business models, products, technologies, and management systems, improve efficiency in business operation, and provide total solutions to customers.

(2) Outline of accounting

The business combination under common control is a business combination in which all companies or businesses involved are ultimately controlled by the same company before and after the business combination. The control is not temporary. The Group continues to perform accounting treatment based on carrying the amount for all business combination transactions under common control.

9. Cash and cash equivalents

The breakdown of cash and cash equivalents is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Cash and deposits	¥60,531	¥34,319	¥49,140	$450,825
Short-term investments	—	1,228	1,074	9,853
Total	¥60,531	¥35,547	¥50,215	$460,688

The balance of cash and cash equivalents in the consolidated statement of financial position matches that in the consolidated statement of cash flows.

10. Trade and other receivables

The breakdown of trade and other receivables is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Notes and accounts receivable - trade	¥64,499	¥69,117	¥69,338	$636,128
Accounts receivable - other	345	747	2,839	26,045
Contract asset	24,127	30,153	24,218	222,183
Lease receivables	872	1,049	1,067	9,788
Allowance for doubtful accounts	(489)	(568)	(489)	(4,486)
Total	¥89,354	¥100,497	¥96,974	$889,669

Notes 1. In the consolidated statement of financial position, trade and other receivables are presented in the amount after deduction of allowance for doubtful accounts.
2. With the exception of lease receivables, trade and other receivables are classified as financial assets measured at amortized cost.

11. Other financial assets

(1) Breakdown of other financial assets

The breakdown of other financial assets is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Shares	¥34,748	¥21,960	¥21,002	$192,678
Insurance funds	1,780	2,779	3,463	31,770
Leasehold deposits	1,288	1,441	1,708	15,669
Time deposits	2,413	1,030	2,062	18,917
Other	2,681	3,126	2,791	25,605
Total	¥42,912	¥30,339	¥31,027	$284,651
Current assets	¥2,809	¥1,709	¥2,562	$23,504
Non-current assets	40,103	28,629	28,465	261,146

Notes 1. In the consolidated statement of financial position, other financial assets are presented in the amount after deduction of allowance for doubtful accounts.
2. Insurance funds, shares, and time deposits and leasehold deposits are classified as financial assets measured at fair value through profit or loss, financial assets measured at fair value through other comprehensive income and financial assets measured at amortized cost, respectively. Other consists primarily of financial assets measured at amortized cost.

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

Major equity instruments and their fair values, of financial assets measured at fair value through other comprehensive income, are as follows:

	Millions of yen			Thousands of U.S. dollars
Name of shares	Transition date (April 1, 2018)	2019	2020	2020
Daikin Industries, Ltd.	¥8,303	¥6,425	¥6,524	$59,853
ONO PHARMACEUTICAL CO., LTD.	9,083	4,485	5,141	47,165
Yakult Honsha Co., Ltd.	2,768	2,722	2,248	20,623
Shin-Etsu Chemical Co., Ltd.	1,967	1,659	1,918	17,596
Tokio Marine Holdings, Inc.	1,975	1,118	1,032	9,467

Note Shares are held primarily for business relationship purposes, and are therefore designated as financial assets measured at fair value through other comprehensive income.

The Group sells (derecognizes) financial assets measured at fair value through other comprehensive income in order to ensure the efficient and effective use of the assets it holds.

Fair values at the time of sales and cumulative gain or loss on disposal recognized as other comprehensive income in equity are as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Fair value	¥22,011	¥41	$376
Cumulative gain or loss on disposal recognized as other comprehensive income in equity	8,676	28	256

Note Cumulative gain or loss on disposal recognized as other comprehensive income in equity are reclassified to retained earnings when the assets are sold or when their fair value declines significantly.

12. Inventories

The breakdown of inventories is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Finished goods	¥4,257	¥5,001	¥5,038	$46,220
Work in process	1,000	1,092	1,291	11,844
Raw materials and supplies	2,820	3,179	2,917	26,761
Total	¥8,078	¥9,273	¥9,247	$84,834

13. Property, plant and equipment

Changes in carrying amount, acquisition cost, accumulated depreciation and impairment losses of property, plant and equipment are as follows:

1) Carrying amount

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Land	Construction in progress	Other	Total
Balance as of April 1, 2018	¥12,000	¥42,912	¥15,333	¥8,015	¥3,074	¥81,336
Individual acquisition	395	531	107	34,496	862	36,394
Acquisition through business combination	438	1,277	22	—	152	1,890
Depreciation (Note)	(2,557)	(8,963)	—	—	(1,162)	(12,683)
Sale or disposal	(161)	(39)	(879)	(21)	(61)	(1,164)
Reclassification to other account	4,568	8,648	—	(14,354)	1,042	(93)
Exchange differences on translation of foreign operations	(369)	(1,266)	(55)	(63)	(103)	(1,856)
Other	5	(492)	—	15	14	(456)
Balance as of March 31, 2019	¥14,319	¥42,608	¥14,527	¥28,088	¥3,822	¥103,366
Individual acquisition	321	891	—	18,158	715	20,085
Acquisition through business combination	84	28	—	—	7	119
Depreciation (Note)	(1,713)	(9,094)	—	—	(1,399)	(12,207)
Impairment loss	(29)	—	—	—	—	(29)
Sale or disposal	(1,698)	(163)	(1,725)	—	(23)	(3,610)
Reclassification to other account	8,832	28,712	—	(38,840)	1,244	(50)
Exchange differences on translation of foreign operations	(313)	(737)	(176)	(29)	(78)	(1,333)
Other	44	(14)	—	—	(11)	19
Balance as of March 31, 2020	¥19,847	¥62,231	¥12,624	¥7,376	¥4,277	¥106,358

	Thousands of U.S. dollars					
	Buildings and structures	Machinery and vehicles	Land	Construction in progress	Other	Total
Balance as of March 31, 2019	$131,366	$390,899	$133,275	$257,688	$35,064	$948,311
Individual acquisition	2,944	8,174	—	166,587	6,559	184,266
Acquisition through business combination	770	256	—	—	64	1,091
Depreciation (Note)	(15,715)	(83,431)	—	—	(12,834)	(111,990)
Impairment loss	(266)	—	—	—	—	(266)
Sale or disposal	(15,577)	(1,495)	(15,825)	—	(211)	(33,119)
Reclassification to other account	81,027	263,412	—	(356,330)	11,412	(458)
Exchange differences on translation of foreign operations	(2,871)	(6,761)	(1,614)	(266)	(715)	(12,229)
Other	403	(128)	—	—	(100)	174
Balance as of March 31, 2020	$182,082	$570,926	$115,816	$67,669	$39,238	$975,761

Note Depreciation of property, plant and equipment is included in cost of sales and selling, general and administrative expenses in the consolidated statement of profit or loss.

2) Acquisition cost

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Land	Construction in progress	Other	Total
Balance as of April 1, 2018	¥64,119	¥137,498	¥15,823	¥8,015	¥15,389	¥240,847
Balance as of March 31, 2019	¥66,091	¥144,892	¥15,018	¥28,088	¥16,608	¥270,698
Balance as of March 31, 2020	¥48,956	¥171,861	¥13,122	¥7,376	¥17,509	¥258,826

	Thousands of U.S. dollars					
	Buildings and structures	Machinery and vehicles	Land	Construction in progress	Other	Total
Balance as of March 31, 2020	$449,137	$1,576,706	$120,385	$67,669	$160,633	$2,374,550

3) Accumulated depreciation and impairment losses

	Millions of yen					
	Buildings and structures	Machinery and vehicles	Land	Construction in progress	Other	Total
Balance as of April 1, 2018	¥52,119	¥94,586	¥490	¥ —	¥12,314	¥159,510
Balance as of March 31, 2019	¥51,771	¥102,284	¥490	¥ —	¥12,786	¥167,332
Balance as of March 31, 2020	¥29,109	¥109,630	¥497	¥ —	¥13,232	¥152,468

	Thousands of U.S. dollars					
	Buildings and structures	Machinery and vehicles	Land	Construction in progress	Other	Total
Balance as of March 31, 2020	$267,055	$1,005,779	$4,559	$ —	$121,394	$1,398,788

14. Goodwill and intangible assets

(1) Table of changes

Changes in carrying amount, acquisition cost, accumulated amortization and impairment losses of goodwill and intangible fixed assets are as follows:

1) Carrying amount

	Millions of yen				
	Goodwill	Software	Customer-related assets	Other	Total
Balance as of April 1, 2018	¥19,966	¥2,094	¥4,503	¥3,599	¥30,164
Individual acquisition	—	1,229	—	6	1,235
Acquisition through business combination	26,352	5	2,873	239	29,471
Amortization (Note)	—	(770)	(610)	(894)	(2,274)
Impairment loss	(1,171)	—	—	—	(1,171)
Sale or disposal	—	(3)	—	(249)	(252)
Exchange differences on translation of foreign operations	(1,389)	(3)	(199)	(15)	(1,606)
Other changes	—	31	23	495	517
Balance as of March 31, 2019	¥43,758	¥2,582	¥6,591	¥3,181	¥56,113
Individual acquisition	—	1,515	—	18	1,534
Acquisition through business combination	4,739	—	2,167	363	7,269
Amortization (Note)	—	(886)	(940)	(1,059)	(2,882)
Exchange differences on translation of foreign operations	(1,464)	0	(228)	(20)	(1,712)
Other changes	—	96	65	(65)	96
Balance as of March 31, 2020	¥47,033	¥3,307	¥7,655	¥2,418	¥60,415

	Thousands of U.S. dollars				
	Goodwill	Software	Customer-related assets	Other	Total
Balance as of March 31, 2019	$401,449	$23,688	$60,467	$29,183	$514,798
Individual acquisition	—	13,899	—	165	14,073
Acquisition through business combination	43,477	—	19,880	3,330	66,688
Amortization (Note)	—	(8,128)	(8,623)	(9,715)	(26,440)
Exchange differences on translation of foreign operations	(13,431)	0	(2,091)	(183)	(15,706)
Other changes	—	880	596	(596)	880
Balance as of March 31, 2020	$431,495	$30,339	$70,229	$22,183	$554,266

Note Amortization of intangible assets is included in cost of sales and selling, general and administrative expenses in the consolidated statement of profit or loss.

2) Acquisition cost

	Millions of yen				
	Goodwill	Software	Customer-related assets	Other	Total
Balance as of April 1, 2018	¥19,966	¥11,099	¥5,840	¥5,344	¥42,250
Balance as of March 31, 2019	¥44,929	¥12,337	¥8,425	¥5,236	¥70,929
Balance as of March 31, 2020	¥48,204	¥13,694	¥10,308	¥4,686	¥76,894

	Thousands of U.S. dollars				
	Goodwill	Software	Customer-related assets	Other	Total
Balance as of March 31, 2020	$442,238	$125,633	$94,568	$42,990	$705,449

3) Accumulated amortization and impairment losses

	Millions of yen				
	Goodwill	Software	Customer-related assets	Other	Total
Balance as of April 1, 2018	¥ —	¥9,004	¥1,337	¥1,745	¥12,086
Balance as of March 31, 2019	¥1,171	¥9,755	¥1,834	¥2,054	¥14,815
Balance as of March 31, 2020	¥1,171	¥10,387	¥2,652	¥2,268	¥16,479

	Thousands of U.S. dollars				
	Goodwill	Software	Customer-related assets	Other	Total
Balance as of March 31, 2020	$10,743	$95,293	$24,330	$20,807	$151,183

(2) Impairment tests for goodwill

The carrying amount of the goodwill allocated to each cash-generating unit is as follows:

	Millions of yen			Thousands of U.S. dollars
Reportable segments	Transition date (April 1, 2018)	2019	2020	2020
Water Treatment Chemicals	¥19,966	¥35,385	¥38,823	$356,174
Water Treatment Facilities	—	8,373	8,210	75,321
Total	¥19,966	¥43,758	¥47,033	$431,495

Among the aforementioned amounts, significant carrying amounts for the fiscal year ended March 31, 2020 were ¥10,405 million ($95,458 thousand) for Kurita Europe GmbH (Water Treatment Chemicals business), ¥4,322 million ($39,651 thousand) for Hansu Co., Ltd. (Water Treatment Chemicals business), ¥4,324 million ($39,669 thousand) for Avista Technologies, Inc. (Water Treatment Chemicals business), ¥19,409 million ($178,064 thousand) for U.S. Water Services, Inc. (Water Treatment Chemicals business), ¥5,144 million ($47,192 thousand) for U.S. Water Services, Inc. (Water Treatment Facilities business) and ¥3,066 million ($28,128 thousand) for Kurita Fracta Holdings, Inc. (Water Treatment Facilities business).

Impairment tests for major goodwill are performed as follows:

1) Kurita Europe GmbH (Water Treatment Chemicals business)

The recoverable amount is measured at value in use, and is calculated by discounting to the present value the estimated cash flows for five years, based on a business plan that was created reflecting past experience and external information and approved by the management. The pre-tax discount rate used in the calculation is 6.9%, which is based on the weighted average cost of capital for the cash-generating unit. Cash flows for the period not covered by the business plan are estimated based on the long-term average growth rate for the market in which the cash-generating unit is operating. The long-term average growth rate used in the calculation was 1.0%. Since the recoverable amount exceeds the carrying amount, no impairment loss was recognized for the fiscal year ended March 31, 2020.

2) Hansu Co., Ltd. (Water Treatment Chemicals business)

The recoverable amount is measured at value in use, and is calculated by discounting to the present value the estimated cash flows for five years, based on a business plan that was created reflecting past experience and external information and approved by the management. The pre-tax discount rate used in the calculation is 14.6%, which is based on the weighted average cost of capital for the cash-generating unit. Since the recoverable amount exceeds the carrying amount, no impairment loss was recognized for the fiscal year ended March 31, 2020.

3) Avista Technologies, Inc. (Water Treatment Chemicals business)

The recoverable amount is measured at value in use, and is calculated by discounting to the present value the estimated cash flows for three years, based on a business plan that was created reflecting past experience and external information and approved by the management. The pre-tax discount rate used in the calculation is 9.8%, which is based on the weighted average cost of capital for the cash-generating unit. Cash flows for the period not covered by the business plan are estimated based on the long-term average growth rate for the market in which the cash-generating unit is operating. The long-term average growth rate used in the calculation was 2.3%. Since the recoverable amount exceeds the carrying amount, no impairment loss was recognized for the fiscal year ended March 31, 2020.

4) U.S. Water Services, Inc. (Water Treatment Chemicals business and Water Treatment Facilities business)

The recoverable amount is measured at value in use, and is calculated by discounting to the present value the estimated cash flows for three years, based on a business plan that was created reflecting past experience and external information and approved by the management. The pre-tax discount rate used in the calculation is 9.7%, which is based on the weighted average cost of capital for the cash-generating unit. Cash flows for the period not covered by the business plan are estimated based on the long-term average growth rate for the market in which the cash-generating unit is operating. The long-term average growth rate used in the calculation was 2.3%. Since the recoverable amount exceeds the carrying amount, no impairment loss was recognized for the fiscal year ended March 31, 2020.

5) Kurita Fracta Holdings, Inc. (Water Treatment Facilities business)

The recoverable amount is measured at value in use, and is calculated by discounting to the present value the estimated cash flows for five years, based on a business plan that was created reflecting past experience and external information and approved by the management. The pre-tax discount rate used in the calculation is 17.2%, which is based on the weighted average cost of capital for the cash-generating unit. Cash flows for the period not covered by the business plan are estimated based on the long-term average growth rate for the market in which the cash-generating unit is operating. The long-term average growth rate used in the calculation was 2.5%. Since the recoverable amount exceeds the carrying amount, no impairment loss was recognized for the fiscal year ended March 31, 2020.

15. Impairment losses for non-financial assets

Business assets are grouped mainly by segment and idle assets are grouped by individual property.

Fiscal year ended March 31, 2019

To reduce constraints on production associated with tighter regulations on companies that produce hazardous chemicals in densely populated districts in China, the Group has decided to transfer the production function of water treatment chemicals of Kurita Water Industries (Jiangyin) Co., Ltd. to the plant of Kurita Water Industries (Taixing) Co., Ltd., which is scheduled to be constructed. As a result, the entire amount of the goodwill of ¥1,171 million is recorded in other expenses as an impairment loss because recoverability is no longer recognized. The impairment loss is recognized in the Water Treatment Chemicals business.

Fiscal year ended March 31, 2020

This information is omitted due to the absence of material matters.

16. Investments accounted for using equity method

(1) Material associates

Not applicable.

(2) Individually immaterial associates

(i) The carrying amount of investments in individually immaterial associates is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Total carrying amount	¥1,098	¥956	¥7,469	$68,522

(ii) The aggregate amount of the Group's share of profit and comprehensive income of individually immaterial associates is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Share of:			
Profit	¥146	¥60	$550
Other comprehensive income	(153)	(94)	(862)
Comprehensive income	¥(6)	¥(34)	$(311)

17. Income taxes

(1) Deferred tax assets and deferred tax liabilities

Deferred tax assets and deferred tax liabilities, classified by primary cause, are as follows:

Fiscal year ended March 31, 2019

	Millions of yen				
2019	April 1, 2018	Recognized through profit or loss	Recognized in other comprehensive income	Other	March 31, 2019
Deferred tax assets					
Depreciation	¥6,504	¥(145)	¥ —	¥ —	¥6,359
Net defined benefit liability	4,664	48	41	—	4,754
Accrued bonuses to employees	732	(10)	—	—	722
Accrued paid absences	598	8	—	2	609
The carryforward of unused tax losses	498	(214)	—	256	540
Unrealized gain on the sale of fixed assets	505	(13)	—	—	491
Other	1,778	(671)	(28)	263	1,341
Total deferred tax assets	15,282	(998)	12	522	14,818
Deferred tax liabilities					
Financial assets measured at fair value through other comprehensive income	6,593	—	(2,651)	—	3,941
Tax effects related to retained earnings of foreign subsidiaries	1,366	225	—	—	1,591
Other	3,289	(725)	250	813	3,627
Total deferred tax liabilities	11,248	(500)	(2,401)	813	9,160
Net	¥4,033	¥(498)	¥2,414	¥(291)	¥5,658

Fiscal year ended March 31, 2020

	Millions of yen				
2020	April 1, 2019	Recognized through profit or loss	Recognized in other comprehensive income	Other	March 31, 2020
Deferred tax assets					
Depreciation	¥6,359	¥(3,784)	¥ —	¥ —	¥2,575
Net defined benefit liability	4,754	51	(53)	—	4,751
Accrued bonuses to employees	722	21	—	—	743
Accrued paid absences	609	46	—	—	655
The carryforward of unused tax losses	540	221	—	—	762
Unrealized gain on the sale of fixed assets	491	(11)	—	—	479
Other	1,341	290	(14)	1,091	2,707
Total deferred tax assets	14,818	(3,164)	(68)	1,091	12,677
Deferred tax liabilities					
Financial assets measured at fair value through other comprehensive income	3,941	—	42	—	3,984
Tax effects related to retained earnings of foreign subsidiaries	1,591	89	—	—	1,680
Other	3,627	343	(24)	116	4,062
Total deferred tax liabilities	9,160	432	18	116	9,728
Net	¥5,658	¥(3,597)	¥(86)	¥974	¥2,949

2020	Thousands of U.S. dollars				
	April 1, 2019	Recognized through profit or loss	Recognized in other comprehensive income	Other	March 31, 2020
Deferred tax assets					
Depreciation	$58,339	$(34,715)	$ —	$ —	$23,623
Net defined benefit liability	43,614	467	(486)	—	43,587
Accrued bonuses to employees	6,623	192	—	—	6,816
Accrued paid absences	5,587	422	—	—	6,009
The carryforward of unused tax losses	4,954	2,027	—	—	6,990
Unrealized gain on the sale of fixed assets	4,504	(100)	—	—	4,394
Other	12,302	2,660	(128)	10,009	24,834
Total deferred tax assets	135,944	(29,027)	(623)	10,009	116,302
Deferred tax liabilities					
Financial assets measured at fair value through other comprehensive income	36,155	—	385	—	36,550
Tax effects related to retained earnings of foreign subsidiaries	14,596	816	—	—	15,412
Other	33,275	3,146	(220)	1,064	37,266
Total deferred tax liabilities	84,036	3,963	165	1,064	89,247
Net	$51,908	$(33,000)	$(788)	$8,935	$27,055

(2) Unrecognized deferred tax assets

The following are deductible temporary differences, the carryforward of unused tax losses (breakdown by expiration) and unused tax credits (breakdown by expiration) for which no deferred tax assets are recognized in the consolidated statement of financial position. Amounts hereunder are presented on a tax amount basis.

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Deductible temporary differences	¥3,414	¥4,517	¥5,466	$50,146
The carryforward of unused tax losses				
Less than 1 year	¥ —	¥ —	¥3	$27
1 year or more and less than 5 years	—	—	3	27
5 years or more	—	2,141	2,028	18,605
Total	¥ —	¥2,141	¥2,034	$18,660
The carryforward of unused tax credits				
Less than 1 year	¥ —	¥ —	¥ —	$ —
1 year or more and less than 5 years	—	—	—	—
5 years or more	—	—	—	—
Total	¥ —	¥ —	¥ —	$ —

(3) Unrecognized deferred tax liabilities

The total amount of temporary differences related to investments in subsidiaries, etc., that are not recognized as deferred tax liabilities as of the date of transition to IFRS, March 31, 2019 and 2020, are ¥24,408 million, ¥24,666 million and ¥26,003 million ($238,559 thousand), respectively. When the Group is capable of controlling the timing of the reversal of temporary differences and the temporary differences will not reverse within the foreseeable future, no deferred tax liability related to such temporary differences is recognized.

(4) Income taxes recognized through profit or loss

The breakdown of income taxes recognized through profit or loss is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Current income taxes	¥7,472	¥4,724	$43,339
Deferred income taxes	807	3,654	33,522
Total	¥8,279	¥8,378	$76,862

(5) Reconciliation of the effective tax rate

Below is a breakdown of the principal items that caused a difference between the statutory effective tax rate and the average effective tax rate. The Company is primarily subject to corporate tax, inhabitants' tax and enterprise tax. The statutory effective tax rate calculated based on these taxes is 30.6%. Foreign subsidiaries are subject to income taxes, etc., in their respective countries of domicile.

	2019	2020
Domestic statutory effective tax rate	30.6%	30.6%
Items permanently not tax deductible, such as entertainment expenses	1.0%	0.9%
Items permanently not taxable, such as dividend income	(0.1%)	(0.1%)
Increase (decrease) in unrecognized deferred tax assets	12.8%	(0.9%)
Tax credits	(1.7%)	(0.6%)
Difference in tax rates applied to foreign subsidiaries	(2.5%)	(1.5%)
Other	0.7%	3.0%
Average effective tax rate	40.8%	31.4%

18. Trade and other payables

The breakdown of trade and other payables is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Notes and accounts payable - trade	¥28,396	¥26,784	¥24,016	$220,330
Accounts payable - other	9,136	18,606	5,752	52,770
Contract liabilities	2,606	4,586	5,912	54,238
Total	¥40,139	¥49,977	¥35,680	$327,339

Note Trade and other payables are classified as financial liabilities measured at amortized cost.

19. Borrowings and other financial liabilities

(1) Breakdown of borrowings

The breakdown of borrowings is as follows:

	Millions of yen			Thousands of U.S. dollars		
	Transition date (April 1, 2018)	2019	2020	2020	Average interest rate	Due date
Short-term borrowings	¥2,531	¥ —	¥35,001	$321,110	0.3%	
Current portion of long-term borrowings	432	385	370	3,394	3.1%	
Long-term borrowings	2,331	1,717	1,305	11,972	3.5%	2021-2027
Total	¥5,295	¥2,103	¥36,677	$336,486		
Current liabilities	¥2,963	¥385	¥35,371	$324,504		
Non-current liabilities	2,331	1,717	1,305	11,972		
Total	¥5,295	¥2,103	¥36,677	$336,486		

Notes 1. The average interest rate is calculated using interest rates and balances as of March 31, 2020.
2. Borrowings are classified as financial liabilities measured at amortized cost.
3. The borrowings have no financial covenants that have a significant effect on the financial activities of the Group.

(2) Breakdown of other financial liabilities

The breakdown of other financial liabilities is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Long-term guarantee deposits	¥1,122	¥1,145	¥1,164	$10,678
Put options granted to non-controlling shareholders	—	626	1,397	12,816
Other	12	1	219	2,009
Total	¥1,134	¥1,773	¥2,781	$25,513
Current liabilities	¥12	¥1	¥219	$2,009
Non-current liabilities	1,122	1,771	2,562	23,504
Total	¥1,134	¥1,773	¥2,781	$25,513

Notes 1. Long-term guarantee deposits are classified as financial liabilities measured at amortized cost.
2. Put options granted to non-controlling shareholders are classified as financial liabilities measured at fair value through profit or loss.

(3) Bonds

Not applicable.

20. Leases

Lease as lessee

The Group mainly leases buildings and structures, machinery, equipment and vehicles and land. Lease terms mainly range from one year to 30 years, while the average interest rate that is applied to lease liabilities is 1.3%. There are no significant purchase options, escalation clauses, or restrictions imposed under lease agreements (including restrictions on dividends, additional borrowings and additional leases). In domestic businesses in particular, lease agreements for buildings mostly allow the lessee to repeatedly exercise an extension option and also include an early cancellation option only if cancellation is noticed in writing to the counterparty no later than six months in advance. Only those lease payments corresponding to the period during which the exercise of such options was reasonably expected with certainty are included in the measurement of lease liabilities.

1) Right-of-use assets

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Buildings and structures	¥7,519	¥8,449	¥6,175	$56,651
Machinery and vehicles	1,058	1,322	1,584	14,532
Other	2,752	2,502	10,024	91,963
Total	¥11,331	¥12,274	¥17,784	$163,155

Note The increases in right-of-use assets for the fiscal years ended March 31, 2019 and 2020 were ¥3,623 million and ¥11,660 million ($106,972 thousand), respectively. Other consists primarily of land for a new research and development base (new global technology center) in Akishima-shi, Tokyo, and increased by ¥7,065 million ($64,816 thousand) for the fiscal year ended March 31, 2020.

2) Expenses from lease

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Depreciation of right-of-use assets			
Buildings and structures	¥2,058	¥2,287	$20,981
Machinery and vehicles	395	644	5,908
Other	459	678	6,220
Total depreciation of right-of-use assets	2,913	3,609	33,110
Interest expenses on lease liabilities	118	154	1,412
Short-term lease expense	1,621	1,117	10,247
Lease expense of low-value assets	98	44	403
Total expenses	¥4,752	¥4,926	$45,192

3) Maturity analysis of lease liabilities

The maturity analysis of lease liabilities is described in Note 34. “Financial instruments (3) Liquidity risk.”

4) Total cash outflow for leases

The total amount of lease-related cash outflows for the fiscal years ended March 31, 2019 and 2020 was ¥3,651 million and ¥4,900 million ($44,954 thousand), respectively.

21. Employee benefits

(1) Overview of the retirement benefit plan adopted by the Group
The Company and certain consolidated subsidiaries adopt funded and unfunded defined benefit plans and defined contribution plans in order to provide retirement benefits to employees. Nearly all employees are covered by these plans.
While these retirement benefit plans are exposed to risks, including general investment risks, interest rate risks and inflation risks, none are considered to be material.

The funded defined benefit plan is operated by pension funds that are legally separate from the Group. The board of directors of the pension funds and the organization entrusted with management of the pension funds are required by law to act in the best interests of the plan members, while bearing the responsibility for managing plan assets in accordance with given policies.

(2) Defined benefit plan
1) Reconciliation of defined benefit obligations and plan assets

The relationship between defined benefit obligations and plan assets and net defined benefit liability (asset) presented in the consolidated statement of financial position is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Present value of funded defined benefit obligations	¥483	¥506	¥563	$5,165
Fair value of plan assets	(451)	(508)	(508)	(4,660)
Sub-total	31	(2)	54	495
Present value of unfunded defined benefit obligations	16,343	16,582	16,859	154,669
Net defined benefit liability (asset)	¥16,374	¥16,580	¥16,913	$155,165
Amount presented in the consolidated statement of financial position				
Retirement benefit liabilities	¥16,374	¥16,580	¥16,913	$155,165
Net defined benefit liability (asset)	¥16,374	¥16,580	¥16,913	$155,165

2) Reconciliation of the present value of defined benefit obligations

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

	Millions of yen		
	In Japan	Outside Japan	Total
Balance as of April 1, 2018	¥14,297	¥2,529	¥16,826
Current service cost	790	198	989
Interest expense	50	47	97
Benefits paid	(772)	(132)	(904)
Remeasurements			
Actuarial gains and losses arising from changes in demographic assumptions	7	15	23
Actuarial gains and losses arising from changes in financial assumptions	118	(26)	91
Exchange differences on translation of foreign operations	—	(145)	(145)
Other changes	133	(22)	111
Balance as of March 31, 2019	¥14,625	¥2,463	¥17,089
Current service cost	957	222	1,180
Interest expense	38	55	94
Benefits paid	(552)	(202)	(754)
Remeasurements			
Actuarial gains and losses arising from changes in demographic assumptions	29	11	40
Actuarial gains and losses arising from changes in financial assumptions	(172)	43	(128)
Exchange differences on translation of foreign operations	—	(49)	(49)
Other changes	(81)	31	(49)
Balance as of March 31, 2020	¥14,846	¥2,575	¥17,421

	Thousands of U.S. dollars		
	In Japan	Outside Japan	Total
Balance as of March 31, 2019	$134,174	$22,596	$156,779
Current service cost	8,779	2,036	10,825
Interest expense	348	504	862
Benefits paid	(5,064)	(1,853)	(6,917)
Remeasurements			
Actuarial gains and losses arising from changes in demographic assumptions	266	100	366
Actuarial gains and losses arising from changes in financial assumptions	(1,577)	394	(1,174)
Exchange differences on translation of foreign operations	—	(449)	(449)
Other changes	(743)	284	(449)
Balance as of March 31, 2020	$136,201	$23,623	$159,825

The weighted average duration of defined benefit obligations of the Company and principal consolidated subsidiaries was 13 years in Japan and 23 years overseas in the fiscal year ended March 31, 2019, and 12 years in Japan and 23 years overseas in the fiscal year ended March 31, 2020.

3) Reconciliation of the fair value of plan assets

Changes in fair value of plan assets are as follows:

	Millions of yen
	Outside Japan
Balance as of April 1, 2018	¥451
Interest income	12
Benefits paid	(19)
Contributions to the plan by the employer	96
Remeasurements	
Return on plan assets	3
Exchange differences on translation of foreign operations	(35)
Balance as of March 31, 2019	¥508
Interest income	10
Benefits paid	(16)
Contributions to the plan by the employer	61
Remeasurements	
Return on plan assets	3
Exchange differences on translation of foreign operations	(61)
Other changes	1
Balance as of March 31, 2020	¥508

	Thousands of U.S. dollars
	Outside Japan
Balance as of March 31, 2019	$4,660
Interest income	91
Benefits paid	(146)
Contributions to the plan by the employer	559
Remeasurements	
Return on plan assets	27
Exchange differences on translation of foreign operations	(559)
Other changes	9
Balance as of March 31, 2020	$4,660

Information is omitted, as there is nothing applicable in Japan.

For the defined contribution plans, in the fiscal year ending March 31, 2021, the Group is scheduled to contribute ¥1,250 million ($11,467 thousand), which is nearly the same amount as contributed in the fiscal year ended March 31, 2020.

4) Fair values of plan assets by asset category

Fair values of plan assets by principal asset category are as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Cash and cash equivalents	¥392	¥508	¥508	$4,660
Shares	58	—	—	—
Total	¥451	¥508	¥508	$4,660

5) Actuarial assumptions

The significant actuarial assumptions used to calculate the present value of defined benefit obligations of the Company and its main domestic consolidated subsidiaries are as follows:

	Transition date (April 1, 2018)	2019	2020
Discount rate	0.40%	0.30%	0.50%

A sensitivity analysis (effects on defined benefit obligations) of significant actuarial assumptions of the Company and its main domestic consolidated subsidiaries is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Discount rate				
0.5% increase	¥(765)	¥(763)	¥(725)	$(6,651)
0.5% decrease	837	834	790	7,247

(3) Employee benefits expense

The employee benefits expense included in cost of sales and selling, general and administrative expenses in the consolidated statement of profit or loss is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Wages, salaries, bonuses, etc.	¥39,716	¥46,469	$426,321
Retirement benefit expenses	2,250	2,760	25,321
Other employee benefits expenses	7,339	8,820	80,917
Total	¥49,307	¥58,050	$532,568

The amounts recognized as expense for the defined contribution plan were ¥982 million and ¥1,250 million ($11,467 thousand) in the fiscal years ended March 31, 2019 and 2020, respectively.

22. Provisions

An explanation for each provision is as follows:

1) Provision for loss on construction contracts

The Group recognizes a provision for losses that are expected to occur in or after the following fiscal year, with respect to contracted constructions for which a loss is expected to occur and the amount of such loss can be reasonably estimated. Related expenses are expected to be incurred prior to completion of the construction, and additional expenses may arise in the case of an increase in estimated costs.

2) Provision for product warranties

To provide for warranty expenses that are expected to occur during the Company's warranty period for some delivered products or services, the Group recognizes a provision based on the actual amount of warranty expenses paid in past fiscal years, taking into account the prospect of future warranty expenses.

3) Asset retirement obligations

To provide for the Group's obligation to restore rental offices, buildings, etc., held by the Group, the Group recognizes asset retirement obligations. Related expenses are expected to be paid after the usage period has elapsed, and will be affected by future business plans, etc.

4) Provision for environmental measures

To provide for future losses that are likely to be incurred in association with construction work, etc., for the purpose of environmental measures, the Group recognizes a provision at the estimated amount of such losses. While these expenses are expected to be paid in the fiscal year ending March 31, 2021, additional expenses may be incurred if there is an increase in the estimated cost.

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

Fiscal year ended March 31, 2020

	Millions of yen					
	Provision for loss on construction contracts	Provision for product warranties	Asset retirement obligations	Provision for environmental measures	Other	Total
Balance as of March 31, 2019	¥240	¥785	¥491	¥ —	¥312	¥1,829
Increase during the period	160	833	8	368	77	1,448
Decrease during the period						
(due to intended use)	(220)	(620)	—	—	(312)	(1,152)
(reversal)	(1)	(57)	—	—	—	(58)
Exchange differences on translation of foreign operations	(0)	(9)	(0)	—	—	(10)
Balance as of March 31, 2020	¥179	¥932	¥499	¥368	¥77	¥2,055
Current liabilities	¥179	¥932	¥ —	¥368	¥77	¥1,557
Non-current liabilities	—	—	499	—	—	499

	Thousands of U.S. dollars					
	Provision for loss on construction contracts	Provision for product warranties	Asset retirement obligations	Provision for environmental measures	Other	Total
Balance as of March 31, 2019	$2,201	$7,201	$4,504	$ —	$2,862	$16,779
Increase during the period	1,467	7,642	73	3,376	706	13,284
Decrease during the period						
(due to intended use)	(2,018)	(5,688)	—	—	(2,862)	(10,568)
(reversal)	(9)	(522)	—	—	—	(532)
Exchange differences on translation of foreign operations	(0)	(82)	(0)	—	—	(91)
Balance as of March 31, 2020	$1,642	$8,550	$4,577	$3,376	$706	$18,853
Current liabilities	$1,642	$8,550	$ —	$3,376	$706	$14,284
Non-current liabilities	—	—	4,577	—	—	4,577

23. Share capital and other equity items

(1) Share capital and capital surplus

The Japanese Companies Act (hereinafter the "Companies Act") provides that 50% or more of the amount paid or granted for share issue can be incorporated into share capital, while the remaining amount can be incorporated into capital reserves, which is included in capital surplus. The Companies Act also provides that capital reserves can be incorporated into share capital by a resolution of a general meeting of shareholders.

1) Number of authorized shares

The total number of authorized shares as of the date of transition to IFRS, March 31, 2019 and 2020, remained at 531,000 thousand shares of common stock.

2) Number of shares outstanding

	Thousand shares
	Number of common shares
April 1, 2018	116,200
Increase (decrease)	—
March 31, 2019	116,200
Increase (decrease)	—
March 31, 2020	116,200

Note All of the shares issued by the Company are no-par common stock without any limitation on the rights of the shares, and the outstanding shares have been paid in full.

(2) Retained earnings

The Companies Act provides that 10% of the amount to be paid as dividends from surplus shall be accumulated as capital reserves or retained earnings reserves until the total amount of capital reserves and retained earnings reserves reaches 25% of capital stock. The accumulated retained earnings reserves can be used to eliminate losses carried forward. In addition, the retained earnings reserves can be reversed by a resolution of a general meeting of shareholders.

(3) Treasury shares

	Thousand shares	Millions of yen	Thousands of U.S. dollars
	Number of shares outstanding	Amount	
April 1, 2018	3,926	¥10,943	
Increase (decrease)	(5)	(11)	
March 31, 2019	3,921	10,932	$100,293
Increase (decrease)	(16)	(38)	(348)
March 31, 2020	3,904	¥10,893	$99,935

(4) Put options granted to non-controlling shareholders

The Company has granted to non-controlling shareholders put options related to interests in Kurita Fracta Holdings, Inc., a consolidated subsidiary of the Company. Liabilities related to these put options are deducted from capital surplus.
The amount deducted from capital surplus as of March 31, 2019 and 2020 was ¥558 million and ¥1,397 million ($12,816 thousand), respectively.
For further details regarding the put options granted to non-controlling shareholders, please refer to Note 3. "Significant accounting policies (17) Equity."

24. Dividends

(1) Amount of dividends paid

Fiscal year ended March 31, 2019

Resolution	Type of shares	Millions of yen Total amount of dividend	Yen Dividend per share	Record date	Effective date
June 28, 2018 Ordinary General Meeting of Shareholders	Common share	¥2,927	¥26	March 31, 2018	June 29, 2018
November 9, 2018 Board of Directors' meeting	Common share	¥3,040	¥27	September 30, 2018	November 29, 2018

Note The total amount of dividends determined by a resolution of the Ordinary General Meeting of Shareholders held on June 28, 2018 includes dividends of ¥8 million paid for 333 thousand shares of the Company (entrusted for performance-linked stock compensation for Directors) held by the trust account of Japan Trustee Services Bank, Ltd.
The total amount of dividends determined by a resolution of the Board of Directors' meeting held on November 9, 2018 includes dividends of ¥8 million paid for 327 thousand shares of the Company (entrusted for performance-linked stock compensation for Directors) held by the trust account of Japan Trustee Services Bank, Ltd.

Fiscal year ended March 31, 2020

Resolution	Type of shares	Millions of yen Total amount of dividend	Yen Dividend per share	Record date	Effective date
June 27, 2019 Ordinary General Meeting of Shareholders	Common share	¥3,040	¥27	March 31, 2019	June 28, 2019
November 11, 2019 Board of Directors' meeting	Common share	¥3,490	¥31	September 30, 2019	November 29, 2019

Resolution	Type of shares	Thousands of U.S. dollars Total amount of dividend	U.S. dollar Dividend per share	Record date	Effective date
June 27, 2019 Ordinary General Meeting of Shareholders	Common share	$27,889	$0.25	March 31, 2019	June 28, 2019
November 11, 2019 Board of Directors' meeting	Common share	$32,018	$0.28	September 30, 2019	November 29, 2019

Note The total amount of dividends determined by a resolution of the Ordinary General Meeting of Shareholders held on June 27, 2019 includes dividends of ¥8 million ($73 thousand) paid for 327 thousand shares of the Company (entrusted for performance-linked stock compensation for Directors) held by the trust account of Japan Trustee Services Bank, Ltd.
The total amount of dividends determined by a resolution of the Board of Directors meeting held on November 11, 2019 includes dividends of ¥9 million ($82 thousand) paid for 312 thousand shares of the Company (entrusted for performance-linked stock compensation for Directors) held by the trust account of Japan Trustee Services Bank, Ltd.

(2) Dividends whose effective date falls in the fiscal year ending March 31, 2021

Resolution	Type of shares	Millions of yen Total amount of dividend	Yen Dividend per share	Record date	Effective date
June 29, 2020 Ordinary general meeting of shareholders	Common share	¥3,490	¥31	March 31, 2020	June 30, 2020

Resolution	Type of shares	Thousands of U.S. dollars Total amount of dividend	U.S. dollar Dividend per share	Record date	Effective date
June 29, 2020 Ordinary general meeting of shareholders	Common share	$32,018	$0.28	March 31, 2020	June 30, 2020

Note The total amount of dividends determined by a resolution of the Ordinary General Meeting of Shareholders held on June 29, 2020 includes dividends of ¥9 million ($82 thousand) paid for 312,000 shares of the Company (entrusted for performance-linked stock compensation for Directors) held by the trust account of Japan Trustee Services Bank, Ltd.

25. Net sales

(1) Breakdown of net sales recognized from contracts with customers

Fiscal year ended March 31, 2019

	Millions of yen		
	Reportable segments		
2019	Water treatment chemicals	Water treatment chemicals	Consolidated
Japan	¥45,515	¥115,696	¥161,212
Asia	28,134	38,385	66,520
North America	4,469	1,120	5,589
EMEA	21,294	2	21,297
Other	2,711	—	2,711
Total	¥102,126	¥155,204	¥257,331

Notes 1. The above amounts are presented after deduction of inter-segment transactions.
2. Net sales are broken down into countries or regions based on customer location. EMEA refers to the European, Middle Eastern and African regions.

Fiscal year ended March 31, 2020

	Millions of yen		
	Reportable segments		
2020	Water treatment chemicals	Water treatment chemicals	Consolidated
Japan	¥46,024	¥115,675	¥161,699
Asia	26,351	26,158	52,509
North America	19,492	9,334	28,826
EMEA	19,125	6	19,132
Other	2,639	—	2,639
Total	¥113,632	¥151,174	¥264,807

2020	Thousands of U.S. dollars		
	Reportable segments		
	Water treatment chemicals	Water treatment chemicals	Consolidated
Japan	$422,238	$1,061,238	$1,483,477
Asia	241,752	239,981	481,733
North America	178,825	85,633	264,458
EMEA	175,458	55	175,522
Other	24,211	—	24,211
Total	$1,042,495	$1,386,917	$2,429,422

Notes 1. The above amounts are presented after deduction of inter-segment transactions.
2. Net sales are broken down into countries or regions based on customer location. EMEA refers to the European, Middle Eastern and African regions.

(2) Contract balances

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Receivables from contracts with customers	¥64,499	¥69,117	¥69,338	$636,128
Contract assets	24,127	30,153	24,218	222,183
Contract liabilities	2,606	4,586	5,912	54,238

In the consolidated statement of financial position, receivables from contracts with customers and contract assets are included in trade and other receivables, while contract liabilities are included in other current liabilities.
Revenues that were included in the balance of contract liabilities at the beginning of the fiscal years ended March 31, 2019 and 2020 were ¥2,606 million and ¥4,586 million ($42,073 thousand), respectively.
Among the revenue for the fiscal years ended March 31, 2019 and 2020, the amount of revenue from performance obligations satisfied in past fiscal years is immaterial.

(3) Performance obligations

For sales of products, when products have been delivered, the Company determines that performance obligations have been satisfied and recognizes their sales.
For construction contracting, sales are recognized over the period of the construction contract, as performance obligations are satisfied according to the construction's progress. To measure progress, the input method is applied, using the ratio of the incurred cost against the estimated total cost for each contract.

Considerations are received within a reasonable period from the time of satisfaction of performance obligations. For these contracts, the expedient provided for in IFRS 15 "Revenue from Contracts with Customers" is applied, and no adjustments related to financing components are performed.
Sales are measured at the consideration promised in the contract.

There are no significant contracts with customers regarding a return of products.

Furthermore, in connection with construction contracts, etc., the Company provides product warranty, such as the free repair of defects identified within a certain period of time. Such warranty intends to provide customers with a warranty to ensure that the products, etc., of the Company function as intended, in accordance with the specifications agreed upon with the customers. Future expenditures are estimated by taking into account actual product warranty expenses in the past, and are recognized as a provision for product warranties.

Scheduled period for satisfying remaining performance obligations

	Millions of yen	Thousands of U.S. dollars
	2020	2020
Up to 1 year	¥41,171	$377,715
Over 1 year	25,991	238,449
Balance at end of period	¥67,162	$616,165

26. Selling, general and administrative expenses

The breakdown of selling, general and administrative expenses is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Research and development expenses	¥5,490	¥5,693	$52,229
Employee benefits expense	30,150	34,787	319,146
Depreciation and amortization	4,275	5,826	53,449
Other	17,078	19,752	181,211
Total	¥56,994	¥66,060	$606,055

27. Other income

The breakdown of the items and amounts included in other income is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Gain on sale of fixed assets	¥20	¥4,777	$43,825
Rental income	278	300	2,752
Other	726	755	6,926
Total	¥1,024	¥5,832	$53,504

Note ¥4,752 million ($43,596 thousand) of Gain on sale of fixed assets for the fiscal year ended March 31, 2020 is due to the sale of a certain facility in the ultrapure water supply business.

28. Other expenses

The breakdown of the items and amounts included in other expenses is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Loss on sales and retirement of property, plant and equipment	¥729	¥2,413	$22,137
Impairment losses	1,171	29	266
Loss on transfer of business	2,867	—	—
Acquisition-related costs	1,156	734	6,733
Other	908	1,830	16,788
Total	¥6,831	¥5,006	$45,926

Note Loss on transfer of business for the fiscal year ended March 31, 2019 is the cost associated with the transfer of the aluminum compound business of Kurita Europe GmbH.

29. Finance income and Finance costs

(1) Finance income

The breakdown of finance income is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Dividend income			
Dividend income from financial assets held at end of period	¥395	¥409	$3,752
Dividend income from financial assets derecognized during the period	178	0	0
Interest income	165	156	1,431
Foreign exchange gains	10	—	—
Other	31	2	18
Total	¥781	¥569	$5,220

Notes 1. Dividend income relates to financial assets measured at fair value through other comprehensive income.
2. Interest income relates to financial assets measured at amortized cost.

(2) Finance costs

The breakdown of finance costs is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Interest expense	¥355	¥296	$2,715
Loss on valuation and realization of fair value	97	884	8,110
Foreign exchange loss	—	20	183
Other	68	217	1,990
Total	¥521	¥1,417	$13,000

Note Interest expense relates to financial liabilities measured at amortized cost.

30. Other comprehensive income

The amount arising during the period, reclassification adjustments to profit or loss and the impact of tax effects for each item of other comprehensive income are as follows:

Fiscal year ended March 31, 2019

	Millions of yen				
2019	Amount arising during the period	Reclassification adjustments	Before tax effects	Tax effects	Net of tax effects
Items that will not be reclassified to profit or loss					
Net change in fair value of financial assets measured at fair value through other comprehensive income	¥(1,601)	¥ —	¥(1,601)	¥556	¥(1,044)
Remeasurements of defined benefit plans	(111)	—	(111)	39	(72)
Total of items that will not be reclassified to profit or loss	(1,713)	—	(1,713)	596	(1,116)
Items that may be reclassified to profit or loss					
Exchange differences on translation of foreign operations	(4,593)	—	(4,593)	—	(4,593)
Cash flow hedges	357	86	444	(136)	308
Share of other comprehensive income of investments accounted for using equity method	(153)	—	(153)	—	(153)
Total of items that may be reclassified to profit or loss	(4,388)	86	(4,301)	(136)	(4,437)
Total	¥(6,102)	¥86	¥(6,015)	¥460	¥(5,554)

Fiscal year ended March 31, 2020

2020	Millions of yen				
	Amount arising during the period	Reclassification adjustments	Before tax effects	Tax effects	Net of tax effects
Items that will not be reclassified to profit or loss					
Net change in fair value of financial assets measured at fair value through other comprehensive income	¥(673)	¥ —	¥(673)	¥210	¥(462)
Remeasurements of defined benefit plans	91	—	91	(28)	62
Total of items that will not be reclassified to profit or loss	(581)	—	(581)	181	(400)
Items that may be reclassified to profit or loss					
Exchange differences on translation of foreign operations	(4,316)	—	(4,316)	—	(4,316)
Cash flow hedges	95	181	277	(84)	192
Share of other comprehensive income of investments accounted for using equity method	(94)	—	(94)	—	(94)
Total of items that may be reclassified to profit or loss	(4,315)	181	(4,134)	(84)	(4,219)
Total	¥(4,897)	¥181	¥(4,715)	¥96	¥(4,619)

2020	Thousands of U.S. dollars				
	Amount arising during the period	Reclassification adjustments	Before tax effects	Tax effects	Net of tax effects
Items that will not be reclassified to profit or loss					
Net change in fair value of financial assets measured at fair value through other comprehensive income	$(6,174)	$ —	$(6,174)	$1,926	$(4,238)
Remeasurements of defined benefit plans	834	—	834	(256)	568
Total of items that will not be reclassified to profit or loss	(5,330)	—	(5,330)	1,660	(3,669)
Items that may be reclassified to profit or loss					
Exchange differences on translation of foreign operations	(39,596)	—	(39,596)	—	(39,596)
Cash flow hedges	871	1,660	2,541	(770)	1,761
Share of other comprehensive income of investments accounted for using equity method	(862)	—	(862)	—	(862)
Total of items that may be reclassified to profit or loss	(39,587)	1,660	(37,926)	(770)	(38,706)
Total	$(44,926)	$1,660	$(43,256)	$880	$(42,376)

31. Earnings per share

The calculation bases for basic earnings per share are as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Profit attributable to owners of parent	¥12,050	¥18,287	$167,770
Profit not attributable to ordinary shareholders	—	—	—
Profit used for calculation of basic earnings per share	¥12,050	¥18,287	$167,770
Average number of common shares during the period (shares)	112,278,133	112,291,114	112,291,114

Notes 1. Diluted earnings per share are not stated because there are no dilutive shares.

2. The Company's own shares posted as treasury shares remaining in trust are included in the treasury shares that are deducted in the calculation of the average number of shares outstanding for calculation for basic net income per share. The numbers of average shares of the treasury shares that are deducted for the fiscal year ended March 31, 2019 and 2020 are 329 thousand shares and 317 thousand shares, respectively.

32. Cash flow information

(1) Non-cash transactions

The Group conducts the following non-cash investing and financing transactions that are not reflected in the consolidated statement of cash flows.
The amounts of right-of-use assets acquired through lease for the fiscal years ended March 31, 2019 and 2020 are ¥3,623 million and ¥11,660 million ($106,972 thousand), respectively.

(2) Changes in liabilities arising from financing activities

The changes in liabilities arising from financing activities mainly comprise changes in financing cash flows. Significant non-cash changes mainly comprise an increase in lease liabilities following the acquisition of right-of-use assets.

(3) Payments for acquisition of businesses

The relationship between the consideration paid for the acquisition of businesses and the income and expenditure for it is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Consideration paid in cash	¥35,609	¥9,707	$89,055
Cash and cash equivalents included in the assets of the acquiree at the time of acquiring control	(2,235)	(1,204)	(11,045)
Payments for acquisition of businesses	¥33,374	¥8,501	$77,990

33. Share-based payments

(Overview of performance-linked stock compensation program)
The Company has introduced a performance-linked stock compensation program (hereinafter the "Program") that covers Directors (excluding External Directors; hereinafter the same shall apply) and Executive Officers as well as full-time directors of certain domestic subsidiaries and associates, for the purpose of further enhancing their motivation to contribute to sustainable growth and an increase in the corporate value of the Group over the medium to long term.

(1) Overview of the performance-linked stock compensation program for Directors and Executive Officers and certain full-time directors of domestic subsidiaries and associates

1) For Directors

Under the performance-linked stock compensation program for Directors, points are granted to eligible individuals based on their position and performance, and upon their retirement from the post of Director, the Company's shares are delivered at a number equivalent to their accumulated points granted, and money is delivered at an amount equivalent to the conversion amount of the Company's shares into cash. For the introduction of the Program, a stock delivery trust system for officers has been applied, which is established through the monetary contributions of the Company. The Program was resolved at the 80th Ordinary General Meeting of Shareholders held on June 29, 2016 and was introduced accordingly.

2) For Executive Officers and full-time directors of certain domestic subsidiaries and associates

Under the performance-linked stock compensation program for Executive Officers and full-time directors of certain domestic subsidiaries and associates, points are granted to eligible individuals based on their position and performance, and upon their retirement, the Company's shares are delivered at a number equivalent to their accumulated points granted, and money is delivered at an amount equivalent to the conversion amount of the Company's shares into cash, to the Executive Officers and full-time directors of certain domestic subsidiaries and associates who will retire (hereinafter collectively the "Retirees"). The Program employs a system in which the Retirees pay to the Company monetary compensation receivables (contributed properties in kind related to the payment for the Company's common shares) granted by the company from which they retire and the Company delivers the Company's shares to the Retirees through a disposal of treasury shares or issuance of new shares. The program for Executive Officers was resolved at the Board of Directors meeting held on February 27, 2018, and the program for full-time directors of certain domestic subsidiaries and associates was resolved at the Ordinary General Meeting of Shareholders of each company held in and after 2018, both of which were introduced accordingly.

(2) Upper limits of the total number of shares scheduled to be acquired by Directors and the number of shares scheduled to be acquired by Executive Officers and full-time directors of certain domestic subsidiaries and associates.

1) For Directors: 339,800 shares

2) For Executive Officers and full-time directors of certain domestic subsidiaries and associates
In principle, points up to the equivalent of 2,215 shares annually are granted to each person.

(3) Scope of persons entitled to acquire beneficiary and other rights under the Program

Directors and Executive Officers and full-time directors of certain domestic subsidiaries and associates

(Total amount of expenses under the Program)

The part of the Program involving delivery of shares is accounted for as an equity-settled share-based payment transaction, while the part involving payment of cash is accounted for as a cash-settled share-based payment transaction.
For the fiscal years ended March 31, 2019 and 2020, the expenses recorded in connection with this program were ¥211 million and ¥212 million ($1,944 thousand), respectively.

(Liabilities arising from the Program)

Liabilities arising from the part of the Program associated with the cash-settled share-based payment transaction are recognized as liabilities arising from stock compensation, under other non-current liabilities.
The carrying amount of the liabilities arising from this program was ¥259 million and ¥302 million ($2,770 thousand) as of March 31, 2019 and 2020, respectively.

(Fair value of the points granted and the method for estimating such fair value)

As the fair value as of the grant date is deemed to approximate the price of the Company's shares, it is measured using the price of the Company's shares as of the grant date. No adjustments are made in consideration of prospective dividends.

The number of points granted and their weighted average fair value in the fiscal years ended March 31, 2019 and 2020 are as follows:

	Yen		U.S. dollars
	2019	2020	2020
Number of points granted	45,556	78,711	78,711
Weighted average fair value as of the grant dates	¥3,260	¥2,624	$24,073

34. Financial instruments

(1) Capital management

The Group's basic policy is to constantly secure liquidity necessary for business operations and resource of funds.
Short-term working capital is basically supplied by the Group's own funds. Capital investment and other investments in growth fields depend chiefly on the Group's own funds, but the Group considers financing through bank loans as needed.
Temporary surplus funds are invested in highly safe financial assets, while derivatives are used only to avoid the risks described below. In addition, it is our policy not to engage in speculative transactions.

	Transition date (April 1, 2018)	2019	2020
Ratio of equity attributable to owners of parent	71.4%	66.0%	62.5%

(2) Credit risk management
1) Content and management of risk

Notes and accounts receivable-trade, which are trade receivables of the Group, are exposed to customer's credit risk.
Regarding such risk, in accordance with internal regulations, the Group conducts credit investigations of its principal business partners, and manages the due dates and outstanding balances of each business partner. In addition, efforts are made to quickly identify and mitigate any concerns regarding collection that are mainly due to worsening financial positions.
Furthermore, regarding the use of derivatives, the Group deals with only financial institutions with high credit standing, in order to reduce credit risk.
The carrying amount of financial assets presented in the consolidated statement of financial position is the maximum exposure to credit risk of the Group's financial assets.
For trade and other receivables, the Group always measures the allowance for doubtful accounts at the same amount as the lifetime expected credit losses (simplified approach).
For financial assets measured at amortized cost other than the above, in order to recognize and measure the allowance for doubtful accounts, financial assets are categorized into the following stages based on the existence of a significant increase in credit risk and the existence of a credit impairment (general approach).

Stage 1: Financial assets for which credit risk has not increased significantly since initial recognition
Stage 2: Financial assets for which credit risk has increased significantly since initial recognition but no credit impairment has been identified
Stage 3: Credit-impaired financial assets

2) Quantitative and qualitative information on allowance for doubtful accounts and financial assets covered

Changes in the total carrying amount of held financial assets are as follows:

	Millions of yen				
		Financial assets under a general approach			
		Stage 1	Stage 2	Stage 3	
	Financial assets under a simplified approach	Financial assets recognized at the same amount as the 12-month expected credit losses	Financial assets with a significant increase in credit risk since initial recognition	Credit-impaired financial assets	Total
Balance as of April 1, 2018	¥89,844	¥5,171	¥45	¥126	¥95,186
Balance as of March 31, 2019	¥101,066	¥4,409	¥101	¥82	¥105,659
Balance as of March 31, 2020	¥97,464	¥5,701	¥423	¥89	¥103,678

	Thousands of U.S. dollars				
		Financial assets under a general approach			
		Stage 1	Stage 2	Stage 3	
	Financial assets under a simplified approach	Financial assets recognized at the same amount as the 12-month expected credit losses	Financial assets with a significant increase in credit risk since initial recognition	Credit-impaired financial assets	Total
Balance as of March 31, 2020	$894,165	$52,302	$3,880	$816	$951,174

Changes in the allowance for doubtful accounts are as follows:

	Millions of yen				
		Financial assets under a general approach			
		Stage 1	Stage 2	Stage 3	
	Financial assets under a simplified approach	Financial assets recognized at the same amount as the 12-month expected credit losses	Financial assets with a significant increase in credit risk since initial recognition	Credit-impaired financial assets	Total
Balance as of April 1, 2018	¥519	¥1	¥45	¥98	¥663
Increase during the period	144	—	65	3	212
Decrease during the period	(129)	(1)	(8)	(19)	(159)
Balance as of March 31, 2019	¥534	¥ —	¥101	¥82	¥718
Increase during the period	378	—	286	—	665
Decrease during the period	(388)	—	(10)	(1)	(400)
Balance as of March 31, 2020	¥524	¥ —	¥377	¥80	¥982

	Thousands of U.S. dollars				
		Financial assets under a general approach			
		Stage 1	Stage 2	Stage 3	
	Financial assets under a simplified approach	Financial assets recognized at the same amount as the 12-month expected credit losses	Financial assets with a significant increase in credit risk since initial recognition	Credit-impaired financial assets	Total
Balance as of March 31, 2019	$4,899	$ —	$926	$752	$6,587
Increase during the period	3,467	—	2,623	—	6,100
Decrease during the period	(3,559)	—	(91)	(9)	(3,669)
Balance as of March 31, 2020	$4,807	$ —	$3,458	$733	$9,009

Aging analyses for the financial assets as of the date of transition to IFRS, fiscal years ended March 31, 2019 and 2020, are as follows:
The amounts expected to be recovered by insurance coverage and collateral obtained are included.

Date of transition to IFRS (April 1, 2018)

	Millions of yen			
		Past due amount		
Transition date	Total	Up to 2 months (including not past due)	Over 2 months and up to 1 year	Over 1 year
Trade and other receivables	¥89,844	¥86,025	¥2,901	¥918
Other financial assets	5,342	5,049	106	187

Fiscal year ended March 31, 2019

	Millions of yen			
		Past due amount		
2019	Total	Up to 2 months (including not past due)	Over 2 months and up to 1 year	Over 1 year
Trade and other receivables	¥101,066	¥96,297	¥2,952	¥1,816
Other financial assets	4,592	4,412	82	97

Fiscal year ended March 31, 2020

	Millions of yen			
		Past due amount		
2020	Total	Up to 2 months (including not past due)	Over 2 months and up to 1 year	Over 1 year
Trade and other receivables	¥97,464	¥91,635	¥4,207	¥1,622
Other financial assets	6,214	5,619	56	538

	Thousands of U.S. dollars			
		Past due amount		
2020	Total	Up to 2 months (including not past due)	Over 2 months and up to 1 year	Over 1 year
Trade and other receivables	$894,165	$840,688	$38,596	$14,880
Other financial assets	57,009	51,550	513	4,935

(3) Liquidity risk

The Group procures necessary funds mainly through bank loans. Financial liabilities, such as borrowing, are exposed to liquidity risk. Such liquidity risk is primarily managed by having the Finance Division formulate and update a cash flow management plan in a timely manner, based on reports from each department, maintaining liquidity on hand above a certain level of consolidated net sales and taking other measures.

The balance of financial liabilities by due date is as follows:

Transition date (April 1, 2018)

	Millions of yen							
Transition date	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Non-derivative financial liabilities								
Trade and other payables	¥40,139	¥40,139	¥40,139	¥ —	¥ —	¥ —	¥ —	¥ —
Short-term borrowings	2,531	2,531	2,531	—	—	—	—	—
Long-term borrowings	2,763	2,763	432	506	469	226	226	904
Lease liabilities	12,356	12,565	3,148	7,716	348	287	217	845
Total	¥57,791	¥58,000	¥46,251	¥8,223	¥817	¥513	¥443	¥1,749

	Millions of yen							
Transition date	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Derivative liabilities								
Currency-related derivatives	¥142	¥142	¥12	¥ —	¥84	¥46	¥ —	¥ —
Total	¥142	¥142	¥12	¥ —	¥84	¥46	¥ —	¥ —

Fiscal year ended March 31, 2019

	Millions of yen							
2019	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Non-derivative financial liabilities								
Trade and other payables	¥49,977	¥49,977	¥49,977	¥ —	¥ —	¥ —	¥ —	¥ —
Long-term borrowings	2,103	2,103	385	385	221	221	221	665
Lease liabilities	13,446	13,763	3,931	2,650	1,545	1,027	861	3,747
Total	¥65,528	¥65,845	¥54,293	¥3,035	¥1,767	¥1,249	¥1,083	¥4,412

	Millions of yen							
2019	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Derivative liabilities								
Currency-related derivatives	¥36	¥36	¥0	¥14	¥21	¥ —	¥ —	¥ —
Put options on shares in foreign subsidiaries	626	996	155	99	742	—	—	—
Total	¥662	¥1,032	¥155	¥113	¥763	¥ —	¥ —	¥ —

Fiscal year ended March 31, 2020

2020	Millions of yen							
	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Non-derivative financial liabilities								
Trade and other payables	¥35,680	¥35,680	¥35,680	¥ —	¥ —	¥ —	¥ —	¥ —
Short-term borrowings	35,001	35,001	35,001	—	—	—	—	—
Long-term borrowings	1,676	1,676	370	217	217	217	217	435
Lease liabilities	17,936	18,607	4,328	2,500	1,431	1,077	841	8,428
Total	¥90,294	¥90,966	¥75,381	¥2,717	¥1,648	¥1,295	¥1,059	¥8,864

2020	Millions of yen							
	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Derivative liabilities								
Put options on shares in foreign subsidiaries	¥1,397	¥1,845	¥608	¥1,236	¥ —	¥ —	¥ —	¥ —
Total	¥1,397	¥1,845	¥608	¥1,236	¥ —	¥ —	¥ —	¥ —

2020	Thousands of U.S. dollars							
	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Non-derivative financial liabilities								
Trade and other payables	$327,339	$327,339	$327,339	$ —	$ —	$ —	$ —	$ —
Short-term borrowings	321,110	321,110	321,110	—	—	—	—	—
Long-term borrowings	15,376	15,376	3,394	1,990	1,990	1,990	1,990	3,990
Lease liabilities	164,550	170,706	39,706	22,935	13,128	9,880	7,715	77,321
Total	$828,385	$834,550	$691,568	$24,926	$15,119	$11,880	$9,715	$81,321

2020	Thousands of U.S. dollars							
	Book balance	Contractual cash flows	Up to 1 year	Over 1 year and up to 2 years	Over 2 years and up to 3 years	Over 3 years and up to 4 years	Over 4 years and up to 5 years	Over 5 years
Derivative liabilities								
Put options on shares in foreign subsidiaries	$12,816	$16,926	$5,577	$11,339	$ —	$ —	$ —	$ —
Total	$12,816	$16,926	$5,577	$11,339	$ —	$ —	$ —	$ —

The cash flows included in this maturity analysis are not expected to be generated significantly earlier or at significantly different amounts.

The total amount of overdraft and commitment line and the balance of executed loans are as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Total amount of overdraft and commitment line	¥83,521	¥80,844	¥78,406	$719,321
Balance of executed loans	531	—	35,000	321,100
Balance of unexecuted loans	¥82,990	¥80,844	¥43,406	$398,220

(4) Market risk

1) Foreign exchange risk

Since the Group operates its business globally, its transactions denominated in currencies other than the functional currency are exposed to foreign exchange risks. In principle, the Group uses forward foreign exchange contracts to hedge exchange rate fluctuation risks, which are identified by currency and month.

Sensitivity analysis of exchange rate fluctuation risks

With regard to the financial instruments held by the Group at the end of the fiscal year, the effect of the U.S. dollar and the renminbi becoming stronger against the yen by 1 yen, on profit before tax in the consolidated statement of profit or loss is as follows. This analysis assumes that all other variables remain constant.

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
U.S. dollar	¥(22)	¥(49)	$(449)
Renminbi	(108)	(63)	(577)

2) Market price risk

The Group holds equity instruments with quoted market prices for policy investment aims, such as the smooth implementation of business alliances. With regard to equity instruments with quoted market prices, since their market prices are determined based on market principles, the value of such financial instruments may decline depending on trends in the market economy. For such equity instruments with quoted market prices, their quoted market prices, the financial conditions of the issuers (business partner companies) and other relevant factors are regularly monitored, and the holding status of those instruments is also continuously reviewed, taking into account relationships with business partner companies.

Sensitivity analysis of quoted market prices

With regard to the equity instruments with quoted market prices held by the Group at the end of the fiscal year, the effect of a 1% decline in the quoted market prices at the end of the fiscal year on other comprehensive income (before tax effects) in the consolidated statement of comprehensive income is as follows. In this analysis, the amount of the effect is calculated by multiplying the values of the equity instruments at the end of the fiscal year by 1%.

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Other comprehensive income (before tax effects)	¥(207)	¥(202)	$(1,853)

(5) Fair value

1) Fair value of financial instruments

The fair values of financial liabilities measured at amortized cost and their carrying amounts in the consolidated statement of financial position are as follows:
Financial instruments whose carrying amounts are reasonable approximations of fair values and immaterial financial instruments are not included in the table below.

	Millions of yen						Thousands of U.S. dollars	
	Transition date (April 1, 2018)		2019		2020		2020	
	Carrying amount	Fair value	Carrying amount	Fair value	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities								
Long-term borrowings	¥2,763	¥2,757	¥2,103	¥2,093	¥1,676	¥1,664	$15,376	$15,266

2) Fair value measurement method

The fair values of financial assets and financial liabilities are calculated as follows:

(Derivatives)

Derivatives include foreign exchange contracts, currency swaps and put options on shares in foreign subsidiaries.
Foreign exchange contracts and currency swaps, whose fair values are calculated based on forward exchange rate or quoted prices obtained from financial institutions and other available information, are categorized within Level 2.
Put options on shares in foreign subsidiaries, whose fair values are evaluated based on the present value of the amount that may be required to be paid to counterparties, are categorized within Level 3. This valuation model uses unobservable inputs, such as discount rates. The fair values are assumed to fluctuate, depending on the business plan, interest rates, etc., at each point in time.

(Shares, etc.)

Shares, etc., include shares for which an active market exists, investment trusts and unlisted shares. Shares with active markets are evaluated by prices quoted at the stock exchange, and are categorized within Level 1. Investment trusts are evaluated by prices quoted at the stock exchange or prices provided by correspondent financial institutions, etc., and are categorized within Level 1. Unlisted shares, whose fair values are calculated by valuation techniques, such as the comparable peer company multiples method, using unobservable inputs, such as valuation multiples, are categorized within Level 3.

(Borrowings)

Since short-term borrowings are settled in a short period of time, their fair values approximate their carrying amounts.
Long-term borrowings, whose fair values are calculated by discounting the sum of the principal and interest using the interest rate that would be applied if new borrowings were made with similar terms, are categorized within Level 2.
However, since floating rate long-term borrowings reflect market interest rates in a short period of time and credit standings after execution do not vary significantly, their fair values approximate their carrying amounts.

(Financial instruments other than the above mentioned)

Since financial instruments other than above mentioned are mainly settled in a short period of time, their fair values approximate their carrying amounts.

3) Fair value hierarchy

The following is an analysis of financial instruments recorded at fair value by valuation methods. Based on the inputs used to measure fair values, the fair value levels are classified as follows:

Level 1: Fair value measured using (unadjusted) quoted market prices in active markets for identical assets or liabilities.
Level 2: Fair value measured using directly or indirectly observable inputs other than Level 1 inputs.
Level 3: Fair value measured using significant unobservable inputs.

Transfers between levels of the fair value hierarchy are recognized on the date of occurrence of the event or change in circumstances that causes the transfer. No transfer was made between levels for the fiscal years ended March 31, 2019 and 2020.

Financial instruments measured at fair value

Transition date (April 1, 2018)

	Millions of yen			
Transition date	Level 1	Level 2	Level 3	Total
Derivative assets	¥ —	¥236	¥ —	¥236
Financial assets measured at fair value through other comprehensive income:				
Shares, etc.	34,157	—	3,108	37,266
Derivative liabilities	—	142	—	142

Fiscal year ended March 31, 2019

	Millions of yen			
2019	Level 1	Level 2	Level 3	Total
Derivative assets	¥ —	¥571	¥ —	¥571
Financial assets measured at fair value through other comprehensive income:				
Shares, etc.	20,785	—	4,317	25,102
Derivative liabilities	—	36	626	662

Fiscal year ended March 31, 2020

	Millions of yen			
2020	Level 1	Level 2	Level 3	Total
Derivative assets	¥ —	¥812	¥ —	¥812
Financial assets measured at fair value through other comprehensive income:				
Shares, etc.	20,263	—	4,745	25,009
Derivative liabilities	—	—	1,397	1,397

	Thousands of U.S. dollars			
2020	Level 1	Level 2	Level 3	Total
Derivative assets	$ —	$7,449	$ —	$7,449
Financial assets measured at fair value through other comprehensive income:				
Shares, etc.	185,899	—	43,532	229,440
Derivative liabilities	—	—	12,816	12,816

For financial instruments categorized within Level 3, external evaluation specialists or appropriate persons in charge of evaluation conduct an evaluation and analysis of the results in accordance with the evaluation policy and procedures approved by the Manager of the Corporate Planning and Control Division. The evaluation results have been reviewed and approved by the Manager of the Corporate Planning and Control Division.

Among derivative assets and liabilities categorized within Level 3, for put options on shares in foreign subsidiaries, the significant unobservable input for the measurement of their fair value is the discount rate. As discount rates decline (rise), fair values increase (decrease).
Fair values of unlisted shares categorized within Level 3 are measured by the comparable peer company multiples method and net asset-based valuation model, etc. Since this valuation model employs unobservable inputs, such as the price book-value ratio, unlisted shares are categorized within Level 3.

Reconciliation from the beginning balance to the ending balance of financial instruments categorized within Level 3

	Millions of yen				Thousands of U.S. dollars	
	2019		2020		2020	
	Financial assets	Financial liabilities	Financial assets	Financial liabilities	Financial assets	Financial liabilities
Beginning balance	¥3,108	¥ —	¥4,317	¥626	$39,605	$5,743
Total gains and losses	113	68	(1,320)	—	(12,110)	—
Profit or loss	(101)	68	(1,151)	—	(10,559)	—
Other comprehensive income	215	—	(169)	—	(1,550)	—
Purchase	1,129	—	756	—	6,935	—
Issuance	—	558	1,122	—	10,293	—
Sale	(30)	—	(50)	—	(458)	—
Other	(3)	—	(79)	771	(724)	7,073
Ending balance	¥4,317	¥626	¥4,745	¥1,397	$43,532	$12,816
Changes in unrealized gains and losses for the period recognized in profit or loss for assets and liabilities held at the end of the reporting period	¥(97)	¥68	¥(23)	¥ —	$(211)	$ —

The gains and losses included in profit or loss are for financial assets and financial liabilities measured at fair value through profit or loss as of the fiscal year-end. Such profit or loss is included in finance income and finance costs in the consolidated statement of profit or loss.

The gains and losses included in other comprehensive income are for financial assets measured at fair value through other comprehensive income as of the fiscal year-end. Such gains and losses are included in net change in the fair value of financial assets measured at fair value through other comprehensive income in the consolidated statement of comprehensive income.

(6) Derivatives and hedging activities

Derivative transactions consist of forward foreign exchange contracts for the purpose of hedging exchange rate fluctuation risks related to foreign currency-denominated trade receivables and payables and currency swap transactions for the purpose of hedging exchange rate fluctuation risks related to foreign currency-denominated loans.
In applying hedge accounting, in order to ensure that there is an economic relationship in which changes in fair value or cash flows of the hedged item caused by the risk being hedged are offset by changes in fair value or cash flows of the hedging instrument, the existence of such economic relationship between the hedged item and hedging instrument is confirmed. This confirmation is achieved through a qualitative assessment of whether the significant terms and conditions of the hedged item match or closely conform to those of the hedging instrument and through a quantitative assessment of whether changes in the values of the hedged item and hedging instrument offset each other due to the same risk. In addition, an appropriate hedge ratio has been set in light of the economic relationship between the hedged item and hedging instrument and the risk management strategy.

Any hedge ineffectiveness is recognized in profit or loss. The amount recognized in profit or loss for the hedge ineffectiveness and the portion excluded from the assessment of hedge effectiveness in the previous and this fiscal year is immaterial. The amount reclassified from other components of equity in the consolidated statement of financial position to profit or loss in the previous and this fiscal year because forecasted transactions are no longer expected to occur is also immaterial.

The notional principal and average price of main hedging instruments are as follows:

Transition date (April 1, 2018)

Transition date	Notional principal and average price	Millions of yen		
		Up to 1 year	Over 1 year	Total
Cash flow hedges				
Currency swaps	Notional principal	¥1,376	¥8,258	¥9,635
(Receive yen, Pay Euros)	Forward rate (Yen)	¥134.29	¥134.29	—
Currency swaps	Notional principal	833	1,741	2,574
(Receive yen, Pay Korean won)	Forward rate (Yen)	0.0969	0.0967	—
Total		¥2,209	¥9,999	¥12,209

Fiscal year ended March 31, 2019

2019	Notional principal and average price	Millions of yen		
		Up to 1 year	Over 1 year	Total
Cash flow hedges				
Currency swaps	Notional principal	¥1,376	¥6,882	¥8,258
(Receive yen, Pay Euros)	Forward rate (Yen)	¥134.29	¥134.29	—
Currency swaps	Notional principal	833	908	1,741
(Receive yen, Pay Korean won)	Forward rate (Yen)	0.0969	0.0966	—
Forward exchange contract	Notional principal	309	—	309
(Buying: U.S. dollars)	Forward rate (Yen)	109.95	—	—
Total		¥2,519	¥7,790	¥10,309

Fiscal year ended March 31, 2020

2020	Notional principal and average price	Millions of yen		
		Up to 1 year	Over 1 year	Total
Cash flow hedges				
Currency swaps	Notional principal	¥1,376	¥5,505	¥6,882
(Receive yen, Pay Euros)	Forward rate (Yen)	¥134.29	¥134.29	—
Currency swaps	Notional principal	833	74	908
(Receive yen, Pay Korean won)	Forward rate (Yen)	0.0969	0.0935	—
Forward exchange contract	Notional principal	1	—	1
(Buying: Euros)	Forward rate (Yen)	121.98	—	—
Total		¥2,211	¥5,580	¥7,792

2020	Notional principal and average price	Thousands of U.S. dollars		
		Up to 1 year	Over 1 year	Total
Cash flow hedges				
Currency swaps	Notional principal	$12,623	$50,504	$63,137
(Receive yen, Pay Euros)	Forward rate (U.S. dollars)	$1.23	$1.23	—
Currency swaps	Notional principal	7,642	678	8,330
(Receive yen, Pay Korean won)	Forward rate (U.S. dollars)	0.0009	0.0009	—
Forward exchange contract	Notional principal	9	—	9
(Buying: Euros)	Forward rate (U.S. dollars)	1.12	—	—
Total		$20,284	$51,192	$71,486

The carrying amounts of hedging instruments to which hedge accounting is applied by type of hedge are as follows:

	Millions of yen						Thousands of U.S. dollars		Account in consolidated statement of financial position
	Transition date (April 1, 2018)		2019		2020		2020		
	Assets	Liabilities (negative amount)	Assets	Liabilities (negative amount)	Assets	Liabilities (negative amount)	Assets	Liabilities (negative amount)	
Cash flow hedges									
Foreign exchange risk	¥141	¥142	¥488	¥36	¥725	¥ —	$6,651	$ —	Note

Note Other financial assets in current and non-current assets and other financial liabilities in current and non-current liabilities.

The balance of cash flow hedge reserve related to cash flow hedges is as follows:

	Millions of yen			Thousands of U.S. dollars
	Transition date (April 1, 2018)	2019	2020	2020
Cash flow hedges				
Foreign exchange risk	¥2	¥310	¥503	$4,614

The contract amount and the carrying amount of derivatives to which hedge accounting is not applied are as follows:

Transition date (April 1, 2018)

	Millions of yen				Account in consolidated statement of financial position
Transition date	Contract amount, etc.	Over 1 year	Assets	Liabilities (negative amount)	
Currency swaps (to receive yen and pay South Korean won)	¥2,099	¥1,339	¥94	¥ —	Note

Note Other financial assets in current and non-current assets and other financial liabilities in current and non-current liabilities.

Fiscal year ended March 31, 2019

	Millions of yen				Account in consolidated statement of financial position
2019	Contract amount, etc.	Over 1 year	Assets	Liabilities (negative amount)	
Currency swaps (to receive yen and pay South Korean won)	¥1,339	¥632	¥83	¥ —	Note

Note Other financial assets in current and non-current assets and other financial liabilities in current and non-current liabilities.

Fiscal year ended March 31, 2020

	Millions of yen				Account in consolidated statement of financial position
2020	Contract amount, etc.	Over 1 year	Assets	Liabilities (negative amount)	
Currency swaps (to receive yen and pay South Korean won)	¥632	¥138	¥86	¥ —	Note

	Thousands of U.S. dollars				Account in consolidated statement of financial position
2020	Contract amount, etc.	Over 1 year	Assets	Liabilities (negative amount)	
Currency swaps (to receive yen and pay South Korean won)	$5,798	$1,266	$788	$ —	Note

Note Other financial assets in current and non-current assets and other financial liabilities in current and non-current liabilities.

35. Subsidiaries and associates

The Group's consolidated subsidiaries as of March 31, 2020, are as follows:

Company name	Location	Main Business	Ownership ratio of voting rights
Kurita Europe GmbH	Ludwigshafen am Rhein, Germany	Water treatment chemicals	100.0%
Kurita Water Industries (Jiangyin) Co., Ltd.	Jiangsu, China	Water treatment chemicals	100.0%
Hansu Technical Service Ltd.	Gyeonggi-do, Korea	Water treatment facilities	100.0%
Hansu Co., Ltd.	Ansan-si, Korea	Water treatment chemicals	100.0%
Kurita Water Industries (Suzhou) Ltd.	Jiangsu, China,	Water treatment facilities	100.0%
U.S. Water Services, Inc.	Minnesota, U.S.A.	Water treatment chemicals and Water treatment facilities	100.0%
Kuritaz Co., Ltd.	Toshima-ku, Tokyo	Water treatment facilities	100.0%
Kurita Engineering Co., Ltd.	Chuo-ku, Osaka	Water treatment facilities	100.0%
Kuritec Service Co., Ltd.	Chuo-ku, Osaka	Water treatment facilities	100.0%
Kurita Chemical Manufacturing Ltd.	Gokamachi, Sashima-gun, Ibaraki	Water treatment chemicals	100.0%
52 other companies			

The Group's associates accounted for using the equity method as of March 31, 2020, are as follows:

Company name	Location	Main Business	Ownership ratio of voting rights
Pentagon Technologies Group, Inc.	California, U.S.A.	Water treatment facilities	25.0%
5 other companies			

36. Related parties

(1) Transactions with related parties

For the fiscal years ended March 31, 2019 and 2020, information on transactions with related parties has been omitted due to the absence of significant transactions.

(2) Compensation for key management personnel

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Short-term employee benefits	¥419	¥402	$3,688
Share-based payment	233	131	1,201

Note Compensation for key management personnel is compensation for Directors of the Company.

37. Commitments

The total contract amount regarding commitments for asset purchases, etc., is as follows:

	Millions of yen		Thousands of U.S. dollars
	2019	2020	2020
Acquisition of property, plant and equipment	¥8,375	¥21,792	$199,926

Note Commitments as of March 31, 2020 consist primarily of those associated with the establishment of the new global technology center.

38. Subsequent events

Pentagon Technologies Group, Inc. becoming a consolidated subsidiary of the Group

(1) Outline of business combination

Kurita America Holdings Inc. (hereinafter “Kurita America Holdings”), a wholly owned subsidiary of the Company, concluded an agreement to purchase an additional 26% of shares of Pentagon Technologies Group, Inc. (hereinafter “Pentagon Technologies”) on December 26, 2019. Kurita America Holdings already held 25% of shares of Pentagon Technologies as of March 31, 2020. The purchase of the shares under the agreement was completed on April 1, 2020. As a result, Kurita America Holdings owns 51% of shares of Pentagon Technologies, which became a consolidated subsidiary of the Company. An outline of the purchase is described below. IFRS 3 is applied for the business combination. Accounting for the business combination is not completed, and detailed information on the business combination is not stated.

Name of the acquiree	Pentagon Technologies Group, Inc.
Business of the acquiree	Tool cleaning business, the development of surface particle detectors of semiconductor manufacturing equipment and the provision of clean room-related services
Primary reasons for the business combination	The Company will make Pentagon Technologies its subsidiary to have a base for overseas service in the electronics industry, which the Company positions as a key business field, and to further increase its competitiveness in the market. The Company also aims to accelerate its business growth and offer new value by acquiring the cutting-edge tool cleaning technologies and expertise of Pentagon Technologies and creating synergies with the tool cleaning business that the Kurita Group has been developing in Japan.
Acquisition date	April 1, 2020
Description of how the acquirer obtained control of the acquiree	Purchase of shares for cash
Percentage of voting equity interests after the business combination	51.0%

(2) Acquisition cost and breakdown

	Millions of yen	Thousands of U.S. dollars
Consideration for acquisition		
Acquisition-date fair value of the shares of the acquiree held by the acquirer immediately before the acquisition date	¥5,380	$49,357
Fair value of the shares of the acquiree that acquired additionally on the acquisition date	5,595	51,330
Total	¥10,974	$100,678

(3) Acquisition-related cost and its account

They are yet to be determined.

(4) Goodwill, identifiable assets acquired and liabilities assumed

The fair value of the assets acquired and the liabilities assumed as of the acquisition date is being calculated and has not been determined.

(5) Gain on remeasurement relating to business combinations

In the consolidated statement of profit or loss for the fiscal year ending March 31, 2021, gain on remeasurement relating to business combinations will be recorded. The amount of the gain or loss has not been determined.

(6) Becoming a wholly owned subsidiary

Under the share acquisition agreement concluded on December 26, 2019, it has been agreed that Pentagon Technologies will become a wholly owned subsidiary of Kurita America Holdings around June 30, 2022.

39. First-time adoption

The Group prepared its consolidated financial statements in accordance with IFRS from the fiscal year ended March 31, 2020. The most recent consolidated financial statements prepared in accordance with Japanese GAAP are those for the fiscal year ended March 31, 2019. The date of transition to IFRS is April 1, 2018.

(1) Exemptions set out in IFRS 1

In principle, an entity that applies IFRS for the first time (hereinafter “First-time Adopter”) is requested to retrospectively apply IFRS. However, IFRS 1 sets out standards to which exemptions have to be applied mandatorily and standards to which exemptions are applied optionally. The effects of the applied exemptions are adjusted by retained earnings or other components of equity on the date of transition to IFRS. When the Group moved from Japanese GAAP to IFRS, it applied the following exemptions:

1) Business combinations

The First-time Adopter is allowed to choose not to apply IFRS 3 “Business Combinations” (hereinafter “IFRS 3”) retrospectively to business combinations that occurred before the date of transition to IFRS. The Group has applied the exemption and has chosen not to retrospectively apply IFRS 3 to business combinations before the date of transition to IFRS. As a result, goodwill that resulted from business combinations before the date of transition to IFRS is based on the carrying amount as of the date of transition under Japanese GAAP.
The Group tested goodwill for impairment at the date of transition to IFRS irrespective of whether there is any indication of impairment.

2) Deemed cost

IFRS 1 allows an entity to elect to measure an item of property, plant and equipment, investment property and intangible assets at the date of transition to IFRS at its fair value and use that fair value as its deemed cost at that date. The Group uses the fair value of certain property, plant and equipment on the date of transition as deemed cost at that time in accordance with IFRS.

3) Cumulative translation differences for foreign operations

IFRS 1 allows an entity to choose to deem the cumulative translation differences for all foreign operations at the date of transition to IFRS to be zero. The Group has chosen to deem the cumulative translation differences for all foreign operations to be zero at the date of transition to IFRS.

4) Share-based payment

The Group has chosen not to apply IFRS 2 “Share-based Payment” to stock compensation that was vested before the date of transition to IFRS.

5) Leases

IFRS 1 allows the First-time Adopter to assess whether a contract existing at the date of transition to IFRS contains a lease on the basis of facts and circumstances existing at that date.
It also allows the First-time Adopter to measure a lease liability at the present value of the remaining lease payments, discounted using the lessee’s incremental borrowing rate at the date of transition to IFRS, and to measure a right-of-use asset at an amount equal to the liability.
Additionally, the First-time Adopter is allowed to recognize as expenses leases for which the lease term ends within 12 months of the date of transition to IFRS and leases for which the underlying asset is of low value.
The Group applies these exemptions to recognize and measure leases.

(2) Mandatory exceptions to retrospective application set out in IFRS 1

IFRS 1 prohibits retrospective application of IFRS in relation to estimates, derecognition of financial assets and financial liabilities, hedge accounting, non-controlling interests, classification and measurement of financial assets, etc. The Group has been applying IFRS for these items on or after the date of transition to IFRS.

(3) Reconciliation from Japanese GAAP to IFRS

The reconciliations required by IFRS 1 are as follows:
“Reclassification” and “Differences in recognition and measurement and adjustments of change in accounting period” in the table below include items that do not affect retained earnings or comprehensive income and items that affect retained earnings and comprehensive income, respectively.

1) Reconciliation of equity as of the date of transition to IFRS (April 1, 2018)

	Millions of yen					
Account under Japanese GAAP	Japanese GAAP	Reclassification	Difference due to changes in recognition, measurement and accounting period	IFRS	Notes	Account under IFRS
Assets						**Assets**
Current assets						**Current assets**
Cash and time deposits	¥61,086	¥(1,652)	¥1,097	¥60,531	(1)	Cash and cash equivalents
Notes and accounts receivable, trade	86,865	(464)	2,954	89,354	(1), (2)	Trade and other receivables
Allowance for doubtful accounts	(464)	464	—			
		2,769	40	2,809	(1)	Other financial assets
Marketable securities	3	(3)	—			
Inventories	10,390	—	(2,312)	8,078	(1), (2)	Inventories
Other current assets	2,528	(1,116)	1,206	2,619	(1)	Other current assets
Total current assets	160,409	—	2,984	163,393		**Total current assets**
						Non-current assets
Property, plant and equipment, at cost	86,028	(86,028)	—			
		81,603	(266)	81,336	(1), (3)	Property, plant and equipment
		4,455	6,875	11,331	(1), (4)	Right-of-use assets
Intangible assets	31,003	(31,003)				
		20,362	(396)	19,966	(1), (5)	Goodwill
		10,610	(412)	10,197	(1)	Intangible assets
Investments and long-term receivables						
Investment securities	34,535	(34,535)	—			
Investments in unconsolidated subsidiaries and affiliates	1,147	—	(48)	1,098	(1)	Investments accounted for using equity method
		38,630	1,473	40,103	(1), (6)	Other financial assets
Deferred tax assets	4,860	(1,119)	840	4,581	(1), (7)	Deferred tax assets
Other investments	5,238	(5,238)	—			
		967	(690)	277	(1)	Other non-current assets
Allowance for doubtful accounts	(176)	176	—			
Total non-current assets	162,637	(1,119)	7,376	168,893		**Total non-current assets**
Total assets	¥323,046	¥(1,119)	¥10,360	¥332,287		**Total assets**

Account under Japanese GAAP	Millions of yen					Account under IFRS
	Japanese GAAP	Reclassification	Difference due to changes in recognition, measurement and accounting period	IFRS	Notes	
Liabilities and Net assets						**Liabilities and equity**
Current liabilities						**Current liabilities**
Short-term borrowings and current portion of long-term debt	¥1,973	¥(1,973)	¥ —			
Notes and accounts payable, trade	28,875	(28,875)	—			
Accounts payable, other	10,995	(10,995)	—			
		38,575	1,564	¥40,139	(1)	Trade and other payables
		1,337	1,625	2,963	(1)	Borrowings
		635	2,322	2,958	(1), (4)	Lease liabilities
			12	12	(1)	Other financial liabilities
Income taxes payable	4,806	—	(68)	4,737	(1)	Income taxes payable
Advances received	2,065	(2,065)	—			
Accrued employees' bonuses	2,420	(2,420)	—			
Provisions	695	(695)	—			
		549	23	572	(1)	Provisions
Other current liabilities	4,317	5,926	486	10,729	(1), (8), (9)	Other current liabilities
Total current liabilities	56,149	—	5,964	62,113		**Total current liabilities**
Long-term liabilities						**Non-current assets**
Lease obligations	4,038	(4,038)	—			
		2,388	(56)	2,331	(1)	Borrowings
		4,038	5,359	9,397	(1), (4)	Lease liabilities
		1,644	(522)	1,122	(1)	Other financial liabilities
Net defined benefit liability	16,610	—	(235)	16,374	(1), (10)	Retirement benefit liability
Provisions	191	(190)	330	331	(1)	Provisions
Deferred tax liabilities on revaluation of land	1,119	(492)	(79)	547	(1), (7)	Deferred tax liabilities
Other long-term liabilities	4,084	(4,469)	1,146	761	(1)	Other non-current liabilities
Total long-term liabilities	26,044	(1,119)	5,943	30,868		**Total non-current liabilities**
Total liabilities	82,193	(1,119)	11,907	92,981		**Total liabilities**
Net Assets						**Equity**
Shareholders' equity						
Common stock	13,450	—	—	13,450		Share capital
Capital surplus	10,959	—	—	10,959		Capital surplus
Treasury stock, at cost	(10,943)	—	—	(10,943)		Treasury shares
Accumulated other comprehensive income	16,187	—	597	16,785	(1), (12), (13)	Other components of equity
Retained earnings	209,149	—	(2,144)	207,005	(1), (12), (13)	Retained earnings
	238,803	—	(1,546)	237,257		**Equity attributable to owners of parent**
Non-controlling interests	2,049	—	(1)	2,048	(1), (13)	Non-controlling interests
Total net assets	240,853	—	(1,547)	239,305		**Total equity**
Total liabilities and net assets	¥323,046	¥(1,119)	¥10,360	¥332,287		**Total liabilities and equity**

2) Reconciliation of equity as of March 31, 2019

Account under Japanese GAAP	Millions of yen				Notes	Account under IFRS
	Japanese GAAP	Reclassification	Difference due to changes in recognition, measurement and accounting period	IFRS		
Assets						**Assets**
Current assets						**Current assets**
Cash and time deposits	¥35,351	¥196	¥ —	¥35,547		Cash and cash equivalents
Notes and accounts receivable, trade	99,156	204	1,137	100,497	(2)	Trade and other receivables
Allowance for doubtful accounts	(568)	568	—			
		1,599	109	1,709		Other financial assets
Marketable securities	1,235	(1,235)	—			
Inventories	9,400	—	(126)	9,273	(2)	Inventories
Other current assets	4,915	(1,335)	456	4,036		Other current assets
Total current assets	149,490	—	1,575	151,065		**Total current assets**
						Non-current assets
Property, plant and equipment, at cost	109,808	(109,808)	—			
		103,369	(3)	103,366	(3)	Property, plant and equipment
		6,439	5,835	12,274	(4)	Right-of-use assets
Intangible assets	54,711	(54,711)	—			
		42,214	1,544	43,758	(5)	Goodwill
		12,496	(140)	12,355		Intangible assets
Investments and long-term receivables						
Investment securities	21,103	(21,103)	—			
Investments in unconsolidated subsidiaries and affiliates	1,100	—	(144)	956		Investments accounted for using equity method
		26,887	1,742	28,629	(6)	Other financial assets
Deferred tax assets	8,003	(1,119)	(6)	6,877	(7)	Deferred tax assets
Other investments	6,761	(6,761)	—			
		829	(613)	216		Other non-current assets
Allowance for doubtful accounts	(149)	149	—			
Total non-current assets	201,338	(1,119)	8,215	208,434		**Total non-current assets**
Total assets	¥350,828	¥(1,119)	¥9,790	¥359,500		**Total assets**

Account under Japanese GAAP	Millions of yen				Notes	Account under IFRS
	Japanese GAAP	Reclassification	Difference due to changes in recognition, measurement and accounting period	IFRS		
Liabilities and Net assets						**Liabilities and equity**
Current liabilities						**Current liabilities**
Short-term borrowings and current portion of long-term debt	¥1,562	¥(1,562)	¥ —			
Notes and accounts payable, trade	27,145	(27,145)	—			
Accounts payable, other	19,356	(19,356)	—			
		50,536	(558)	¥49,977		Trade and other payables
		385	—	385		Borrowings
		1,176	2,641	3,818	(4)	Lease liabilities
		—	1	1		Other financial liabilities
Income taxes payable	5,890	—	(3)	5,887		Income taxes payable
Advances received	4,757	(4,757)	—			
Accrued employees' bonuses	2,520	(2,520)	—			
Provisions	1,158	(1,158)	—			
		1,338	—	1,338		Provisions
Other current liabilities	6,081	3,065	2,966	12,112		Other current liabilities
Total current liabilities	68,471	—	5,050	73,521	(8), (9)	**Total current liabilities**
Long-term liabilities						**Non-current assets**
Lease obligations	5,250	(5,250)	—			
		1,717	—	1,717		Borrowings
		5,250	4,377	9,628	(4)	Lease liabilities
		1,663	108	1,771	(11)	Other financial liabilities
Net defined benefit liability	16,648	—	(68)	16,580	(10)	Retirement benefit liability
Provisions	359	(358)	490	491		Provisions
Deferred tax liabilities on revaluation of land	1,119	4	95	1,219	(7)	Deferred tax liabilities
Other long-term liabilities	19,326	(4,146)	205	15,385		Other non-current liabilities
Total long-term liabilities	42,704	(1,119)	5,208	46,793		**Total non-current liabilities**
Total liabilities	111,176	(1,119)	10,258	120,315		**Total liabilities**
Net Assets						**Equity**
Shareholders' equity						
Common stock	13,450	—	—	13,450		Share capital
Capital surplus	10,665	—	(400)	10,265	(11)	Capital surplus
Treasury stock, at cost	(10,932)	—	—	(10,932)		Treasury stock
Accumulated other comprehensive income	4,182	—	656	4,838	(12), (13)	Other components of equity
Retained earnings	220,297	—	(637)	219,660	(12), (13)	Retained earnings
	237,662	—	(380)	237,282		**Equity attributable to owners of parent**
Non-controlling interests	1,989	—	(88)	1,902	(13)	Non-controlling interests
Total net assets	239,652	—	(467)	239,184		**Total equity**
Total liabilities and net assets	¥350,828	¥(1,119)	¥9,790	¥359,500		**Total liabilities and equity**

3) Reconciliation of Income in Previous Fiscal Year (from April 1, 2018 to March 31, 2019)

	Millions of yen					
Account under Japanese GAAP	Japanese GAAP	Reclassification	Difference due to changes in recognition, measurement and accounting period	IFRS	Notes	Account under IFRS
Net sales	¥259,409	—	¥(2,078)	¥257,331	(2)	**Net sales**
Cost of sales	176,663	—	(1,993)	174,670	(2), (4), (8)	Cost of sales
Gross profit	82,746	—	(84)	82,661		**Gross profit**
Selling, general and administrative expenses	58,446	—	(1,451)	56,994	(4), (5), (8)	Selling, general and administrative expenses
		1,091	(67)	1,024		Other income
		6,908	(77)	6,831		Other expenses
Operating income	24,300	(5,816)	1,376	19,860		**Operating profit**
Other income (expenses), net	3,206	5,219	(8,425)		(6)	
		776	5	781		Financial income
		316	205	521	(4)	Financial costs
		136	10	146		Share of profit of investments accounted for using equity method
Income before income taxes	27,506	—	(7,238)	20,267		**Profit before tax**
Income taxes	10,207	—	(1,927)	8,279	(6), (7)	Income tax expense
Net income	¥17,299	¥—	¥(5,311)	¥11,987		**Profit**
Net income attributable to owners of parent	¥17,305	¥ —	¥(5,255)	¥12,050		Owners of parent
Net income attributable to non-controlling interests	(6)	—	(57)	(63)		Non-controlling interests

Account under Japanese GAAP	Millions of yen				Notes	Account under IFRS
	Japanese GAAP	Reclassification	Difference due to changes in recognition, measurement and accounting period	IFRS		
Net income	¥17,299	¥—	¥(5,311)	¥11,987		**Profit**
Other comprehensive income						**Other comprehensive income**
Unrealized gains or losses on available-for-sale securities	(7,904)	7,904	—			
Deferred gains or losses on hedges	315	(315)	—			
Foreign currency translation adjustments	(2,214)	2,214	—			
Remeasurements of defined benefit plans	(3)	3	—			
Share of other comprehensive income of entities accounted for using equity method	(46)	46	—			
						Items that will not be reclassified to profit or loss
		(7,904)	6,860	(1,044)	(6)	Net change in the fair value of financial assets measured through other comprehensive income
		(3)	(69)	(72)	(10)	Remeasurements of defined benefit plans
						Items that may be reclassified to profit or loss
		(2,214)	(2,378)	(4,593)		Exchange differences on translation of foreign operations
		315	(6)	308		Cash flow hedges
		(46)	(106)	(153)		Share of other comprehensive income of investments accounted for using equity method
Total other comprehensive income	(9,853)	—	4,298	(5,554)		**Other comprehensive income, net of tax**
Comprehensive income	¥7,445	¥—	¥(1,013)	¥6,432		**Comprehensive income**

4) Notes on Reconciliation

(i) Reclassification

Of the items that were included and presented in Non-operating income, Non-operating expenses, Extraordinary income, and Extraordinary losses under Japanese GAAP, finance-related items are reclassified as Finance income or Finance costs under IFRS, and the other items are reclassified as Other income, Other expenses or Share of profit of investments accounted for using the equity method under IFRS.

(ii) Differences due to changes in recognition, measurement and accounting period

(1) Reconciliation related to the unification of reporting periods

Under Japanese GAAP, if the end of the reporting date of a subsidiary and that of the Company are different, the consolidated financial statements were prepared based on the financial statements of the subsidiary as of the reporting date of the subsidiary.

Under IFRS, the financial statements of subsidiaries are prepared as of the same reporting date as that of the Company unless it is impracticable to do so. The Company made the reporting date of a subsidiary the same as that of the Company or prepares a provisional financial closing as of the same reporting date as that of the Company. This has resulted in a difference in each account.

(2) Reconciliation of revenue recognition

Under Japanese GAAP, if the outcome of the stage of completion of construction work can be estimated reliably, the Group applied the percentage of completion method for the construction work, and the completed-contract method is applied for other construction work. Under IFRS, for transactions where control over goods or services is transferred to the customer over a certain period of time, regardless of the legal form of the contract, revenue is recognized over time.

(3) Reconciliation of property, plant and equipment

For certain property, plant and equipment, the Group applies the optional exemption where the fair value at the date of transition to IFRS is used as a deemed cost.

(4) Reconciliation of leases

Under Japanese GAAP, an operating lease was expensed. Under IFRS 16 “Lease”, the Group recognizes right-of-use assets and lease liabilities for operating leases.

(5) Reconciliation of goodwill

Under Japanese GAAP, goodwill was amortized over a certain period of time. However, under IFRS, goodwill is not amortized. The amortization of goodwill under Japanese GAAP on or after the date of transition to IFRS has been reversed.

(6) Reconciliation of other financial assets (non-current)

Under Japanese GAAP, unlisted shares were measured by the acquisition cost and impairment losses were recorded in accordance with deterioration in the financial position of the issuing company. Under IFRS, unlisted shares are measured at fair value through other comprehensive income.

For an investment in an equity instrument, a gain or loss on sale and impairment loss of it were recognized as profit or loss under Japanese GAAP. Under IFRS, the Group recognizes changes in fair value of an investment in an equity instrument in other comprehensive income, and a gain or loss on sale and impairment loss of it are not recognized as profit or loss.

(7) Reconciliation of deferred tax assets and deferred tax liabilities

Under Japanese GAAP, the deferred method was applied for tax effects associated with the elimination of unrealized intercompany profits. Under IFRS, the asset and liability method is applied for them. The recoverability of deferred tax assets is examined under IFRS. Temporary differences have occurred due to adjustments associated to the transition from Japanese GAAP to IFRS, and the amount of deferred tax assets and deferred tax liabilities has been adjusted accordingly.

(8) Reconciliation of unused paid leave

Under Japanese GAAP, no accounting process was required for unused paid leave. Under IFRS, the Group has recognized unused paid leave as liabilities.

(9) Reconciliation of other current liabilities

Under Japanese GAAP, tax expenses such as fixed assets tax were recognized in a fiscal year when it was paid. Under IFRS, the amount expected to be paid is recognized as liabilities when debts to the government are determined.

(10) Reconciliation of employees' retirement benefits

Under Japanese GAAP, the Group recognized actuarial differences as expenses in a year or two, on a pro-rata basis, from the fiscal year when the differences occurred. Under IFRS, actuarial differences are recognized in other comprehensive income when they occur and are transferred to retained earnings immediately. Prior service cost is recognized as profit or loss at the time of occurrence.

(11) Liabilities related to put option contracts for non-controlling interests

If the Group is required to buy the non-controlling interests of certain subsidiaries under certain conditions at the request of the shareholders of the non-controlling interests, financial liabilities are recognized, and capital surplus is reduced under IFRS.

(12) Reconciliation of other components of equity

The Group has chosen an exemption set out in IFRS 1 and transferred all cumulative translation differences related to foreign subsidiaries to retained earnings at the date of transition to IFRS, April 1, 2018.

(13) Reconciliation of retained earnings

		Millions of yen	
		Transition date (April 1, 2018)	2019
Reconciliation due to the unification of reporting periods	Refer to (1)	¥(123)	¥ —
Reconciliation of property, plant and equipment	Refer to (3)	(380)	(200)
Reconciliation of goodwill	Refer to (5)	—	1,643
Reconciliation of other financial assets	Refer to (6)	(207)	(52)
Reconciliation of unused paid leave	Refer to (8)	(1,875)	(1,908)
Reconciliation of other current liabilities	Refer to (9)	(161)	(154)
Reconciliation of employees' retirement benefits	Refer to (10)	225	104
Reconciliation of other components of equity	Refer to (12)	(193)	(193)
Other		(6)	(462)
Sum of reconciliations		(2,720)	(1,216)
Tax effect related to the adjustments above and increase (decrease) in non-controlling interests		576	579
Reconciliation of retained earnings		¥(2,144)	¥(637)

5) Reconciliation of Cash Flows

There are no material differences between the consolidated statement of cash flows under Japanese GAAP and the consolidated statement of cash flows under IFRS.

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Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of Kurita Water Industries Ltd.

Opinion

We have audited the consolidated financial statements of Kurita Water Industries Ltd. and its consolidated subsidiaries (the Group), which comprise the consolidated statement of financial position as at March 31, 2020, and the consolidated statement of profit or loss and statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the consolidated financial statements, including notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Convenience Translation

The United States dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2020 are presented solely for the convenience. Our audit also included the translation of Japanese yen amounts into United States dollar amounts and, in our opinion, such translation has been made on the basis described in Note 2 to the consolidated financial statements.

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Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter

We draw attention to Note "38. Subsequent events" to the consolidated financial statements, Kurita America Holdings, Inc., a wholly owned subsidiary of the Group, acquired additional shares of Pentagon Technologies Group Inc., which became a consolidated subsidiary of the Group as of April 1, 2020. Our conclusion is not modified in respect of this matter.

Responsibilities of Management and the Audit & Supervisory Board Members and the Audit & Supervisory Board for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, including whether the use of the disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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The Audit & Supervisory Board Members and the Audit & Supervisory Board are responsible for overseeing the Directors' execution of duties relating to the design and operating effectiveness of the controls over the Group's financial reporting process.

Auditor's Responsibilities for the Audit of Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.
As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

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- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate whether the presentation and disclosures of the consolidated financial statements are in accordance with IFRSs, the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit & Supervisory Board Members and the Audit & Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit & Supervisory Board Members and the Audit & Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Grant Thornton

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Tetsuo Shibaya

Tetsuo Shibaya
Designated Engagement Partner
Certified Public Accountant

Makio Wada

Makio Wada
Designated Engagement Partner
Certified Public Accountant

Kenta Nishimura

Kenta Nishimura
Designated Engagement Partner
Certified Public Accountant

Grant Thornton Taiyo LLC
Tokyo, Japan

18, September, 2020

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