

GS Yuasa Report 2020

GS Yuasa Corporation GS Yuasa Report 2020 For the fiscal year ended March 31, 2020



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Introduction Dia 1 annual an

Philosophy		2
Steps Toward Value Creation	-A History of Innovation	3
	–A History of Growth ······	5
Current Business	-By Sector ·····	7
	–By Region	9
Market Outlook		11

Value Creation Initiatives 12

Value C	reation Process	–Overall Image 13
		-Opportunities 15
		-Risks 17
		-Financial Highlights 19
		-Non-Financial Highlights 21
Externa	Evaluation	

Medium- to Long-Term Vision and Strategy 24

Message from the President	25
Overview of and Progress with the Mid-Term Management Plan (Long-Term Vision and the Mid-Term Management Plan)	31
Message from the Director in Charge of Finance	33
Overview of and Progress with the Mid-Term Management Plan (Finance/ESG)	37

Performance in FY2019 38

At a Glance		39
Conditions by Business Sector		41
	-Automotive Batteries (Japan)	43
	-Automotive Batteries (Overseas)	45
	-Industrial Batteries and Power Supplies	47
	-Automotive Lithium-ion Batteries	51
	–Others	55
Research and De	velopment ·····	57

ESG 60

Materiality	61
Environment ·····	62
Social	65
Governance	69
Messages from Outside Directors and an Outside Corporate Auditor	77
Directors and Auditors	79
List of Items on CSR Website	81

Financial Section 82

11-Year Consolidated Financial Highlights	83
Financial Review	85
Risk Information	88
Financial Statements	91
Corporate Information	131
Stock Information	132

Period and content covered

Results for fiscal 2019 (April 1, 2019–March 31, 2020)

Companies covered

This report covers the GS Yuasa Group, comprised of GS Yuasa Corporation, the holding company; GS Yuasa International Ltd., the Group's core operating company; and consolidated subsidiaries. Notes are included for data that fall outside the scope of the companies covered.

Date of issue

October 2020

About importance and comprehensiveness

This report focuses on particularly important information, presented in such a way as to be easy to read and understand. The website discloses comprehensive information in order to meet public demands.



Preparation of this report

This report has been issued to familiarize our stakeholders with the management policies and business strategies of the GS Yuasa Group. In editing the report, we have referred to the Guidance for Integrated Corporate Disclosure and

Environment

価値協創

ガイダンス

Social Governance

Company-Investor Dialogues for Collaborative Value Creation formulated by Japan's Ministry of Economy, Trade and Industry. We have explained the path toward medium- to long-term value creation aimed for by our Group, with reference to business models and opportunities and risks, in the hope that readers can deepen their understanding of this topic.

Disclaimer

This report contains earnings forecasts and other financial information pertaining to future business performance. These contents are based on information available at the time of issue and include an element of latent risk and uncertainty related to economic trends, demand, the forex rate, the tax system, and other factors. Please understand that actual earnings could diverge greatly from those presented here.

Philosophy

We are committed to people, society and the global environment through innovation and growth of our employees and business entities.

Management Vision

We are committed to delivering security and comfort to our customers around the globe through advanced technologies developed in the field of stored energy solutions.

Management Policy

- 2. GS Yuasa considers quality and safety as most important,

Corporate Slogan

Creating the Future of Energy

The commitment instilled in this slogan: We pledge to pioneer new modes of futuristic energy (storage batteries), engineered to address the constantly changing needs of the times.



Innovation and Growth

1. GS Yuasa will become the "first call" company based on our "customer first" policy.

and supplies environmentally conscious products all over the world.

3. GS Yuasa will comply with all laws and operate using clear and fair management.



Accumulation of Socially Useful Innovations

The GS Yuasa Group began from the lead-acid battery business, developing Japan's first automotive lead-acid battery. The Group then released numerous innovative products that were hailed as "Japan firsts" and "world firsts." Our products continue to shine in a wide range of applications and environments, from automobiles to satellites.

Contributing to society through products



Contributing to the steady supply of electric power

1900s Manufacture of large-capacity storage batteries for auxiliary power

new means of mobili 1930s

> Supply of lead-acid batteries for the first electric bus produced in Japan



Contributing to the diffusion of radios in ordinary househol

1920s Supply of storage batteries for radios



The founder of Japan Storage Battery Co., Ltd. was Genzo Shimadzu (1869–1951), who inherited his father's business at the young age of 26. Following the motto "Making practical use of science," which meant capitalizing on scientific knowledge in product development, Shimadzu was quick to spot the potential of storage batteries and contributed to their diffusion and progress. He was a highly creative person who acquired 178 patents in his lifetime. Among his accomplishments were the manufacture of Japan's first lead-acid battery and the invention of the reactive lead oxide production method, which acquired patents in many countries around the world.

ounder o Genzo Shimadzu

Shimadzu was one of those rare inventors who believed that "passion and tenacity are

the mother of invention." This inventive spirit continues to be our Group's driving force.



Genzo Shimadzu manufactures Japan's first lead-acid battery

1

1917 Japan Storage Battery Co., Ltd. established

Contributing

of motorcycles

Marketing of a small

1950s

to the smaller size

and light storage battery for motorcycles

1920 Genzo Shimadzu invents the reactive lead oxide production method

1920

920

Assisting the electri vehicle (EV) boor

Development of a high-performance

and long-life lead-acid batter

1970

1938 Production of alkaline batteries begins



ounder of Yuasa Storage Battery Co., Ltd Shichizaemon Yuasa

The founder of Yuasa Corporation was Shichizaemon Yuasa (1877–1943), the twelfth-generation owner of a business started in 1666. He blew a fresh breeze into the Yuasa family, one of the oldest corporate names in Japan, and modernized the business. Newly launching the storage battery business, he procured a large amount of funds to establish the company in 1918. With foresight, pragmatism, and speed, Yuasa steered the business to success. He was a natural entrepreneur whose principles were steadfastness and coexistence and coprosperity and who preached that "business is people." This corporate philosophy has continued to support our Group to this day.

1895

YUASA

1915

Shichizaemon Yuasa embarks on storage battery manufacture

1918

1900

Yuasa Storage Battery Co., Ltd. established

1941

1940

Production of automotive lead-acid batteries begins

Production of alkaline batteries begins

3 GS YUASA Report 2020





Supporting the evolution of mobile phones

1990s Development of a small prismatic lithium-ion battery

1989

Shinkai 6500, a manned research submersible equipped with GS batteries, makes maiden voyage

1993 Prismatic lithium-ion

batteries developed

1960

1980

Dry and charged batteries go on sale in Japan for the first time

1998 Ultra-thin lithium-ion

polymer secondary batteries marketed



5 GS YUASA Report 2020

*The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Capital investment is currently being examined.

Storage Battery Technology Supporting Transportation and Infrastructure

We develop, manufacture, and supply to the world the batteries that are essential for starting automobiles and batteries that support industrial vehicles, such as electric trains and forklifts, as well as power plants and other social infrastructure facilities. Conditions by business sector and financial performance are available on PP. 39-56.





Automotive and motorcycle lead-acid batteries

We sell new-vehicle lead-acid batteries to automobile and motorcycle

Later, we sell spare lead-acid batteries to a wide-ranging sales network for replacement during vehicle inspections and maintenance and profit is generated continuously until the vehicle is no longer used.

Automotive lead-acid batteries

cond in the world First in Asia Motorcycle lead-acid batteries
 First in the world

Backup lead-acid batteries and power supplies,

We make proposals from the new facility design stage for made-to-order products that are individually designed and manufactured according to the customer's use conditions and installation location, perform subcontracting including construction, and deliver the products. After delivery, periodic inspection and maintenance are necessary, and we generate continuous profits.

Lead-acid batteries for forklifts

We sell new-vehicle lead-acid batteries to forklift makers. Later, we sell spare lead-acid batteries for replacement during vehicle inspections and maintenance and profit is generated continuously until the vehicle is no longer used.

Automotive lithium-ion batteries

We sell new-vehicle lithium-ion batteries to automobile manufacturers. Product life spans are long, so in principle, there is no replacement demand.

Lithium-ion batteries for special applications

These batteries are used under demanding environmental conditions, and as a result, maximum levels of performance and quality are needed. We seek to distinguish our products through high technology levels and sell

We pursue production in the optimal location for sale in the optimal location. GS Yuasa automotive and motorcycle lead-acid batteries boast top-class global market shares. We conduct marketing and proposal activities in global markets tailored to the needs of each region. Head office Manufacturing Manufacturing & Sales Sales Research & Development Region Sales Market characteristics Breakdown of net sales Net sales Main Group companies Automobiles: Gradual decline in overall demand • Electrification is advancing, primarily through HEVs GS Yuasa International Ltd. Japan FY2019 • Supplementary demand for ISS vehicles is gradually increasing GS Yuasa Battery Ltd. • Adoption by Japanese automobile manufacturers of batteries that ¥212,864 GS Yuasa Technology Ltd. comply with the European Norm (EN) is increasing Automotive lead-acid batteries 54% GS Yuasa Energy Co., Ltd. Adoption of new technologies such as autonomous driving Lithium Energy Japan in vehicles is increasing Year-on-year change Motorcycle lead-acid batteries Blue Energy Co., Ltd. Industrial use: Expanding social infrastructure needs Up**1.8**% GS Yuasa Power Fieldings Ltd. • The markets for 5G mobile communications systems and disaster prevention-related equipment are strong Adoption of renewable energy is expanding China Asia FY2019 Automobiles: Steady increase over the long term • Demand for automobiles is growing as income levels rise and ¥103,210 populations increase 26% • Conventional gasoline engines remain the core part of the market Automotive lead-acid batteries (including ISS vehicles) Year-on-year change • Motorcycle ownership rates are high compared to other regions Motorcycle lead-acid batteries Down 7.4% Vietnam GS Battery Vietnam Co., Ltd. Pakistan Atlas Battery Ltd. India USA Automobiles: Stable replacement demand FY2019 • Leading the global tightening of environmental regulations UK ¥54,845million regarding automobiles **Europe and** • Transition to next-generation vehicles is proceeding Italy 14% **United States** Spain Industrial use: Demand in growth fields is increasing Year-on-year change • Rising demand for data centers and renewable energy Down 13.6% • Increasing demand for logistics-related equipment as a result Hungary GS Yuasa Hungary Ltd. of the spread of e-commerce FY2019 Automobiles: Sluggish demand despite continued ¥24,633million Australia economic growth (Australia) Others 6% Interest in Japanese automakers is high Year-on-year change Down 15.0%



Yuasa Battery (Guangdong) Co., Ltd./Yuasa Battery (Shunde) Co., Ltd./ Tianjin Yuasa Batteries Co., Ltd./Tianjin GS Battery Co., Ltd./ GS Battery (China) Co., Ltd./Shanghai GS Toptiger Motive Power Co., Ltd. Taiwan GS Battery Taiwan Co., Ltd./Taiwan Yuasa Battery Co., Ltd. Thailand GS Yuasa Asia Technical Center Ltd./ Yuasa Battery (Thailand) Pub. Co., Ltd./ Siam GS Battery Co., Ltd./Siam GS Sales Co., Ltd./ Yuasa Sales and Distribution Co., Ltd./GS Yuasa Siam Industry Ltd./ GS Yuasa Siam Sales Ltd. Malaysia GS Yuasa Battery Malaysia Sdn. Bhd./

Yuasa Power Systems (Malaysia) Sdn. Bhd.

Indonesia PT. Yuasa Battery Indonesia/ PT. Trimitra Baterai Prakasa/PT. GS Battery Myanmar Siam GS Battery Myanmar Limited

Tata AutoComp GY Batteries Private Limited

GS Yuasa Energy Solutions, Inc./GS Yuasa Lithium Power, Inc./ Yuasa Battery, Inc.

GS Yuasa Battery Manufacturing UK Limited/

GS Yuasa Battery Sales UK Limited

GS Yuasa Battery Italy S.R.L.

GS Yuasa Battery Iberia SA

Germany GS Yuasa Battery Germany GmbH.

France GS Yuasa Battery France SAS

Turkey Inci GS Yuasa Aku Sanayi ve Ticaret Anonim Sirketi

Century Yuasa Batteries Pty Ltd. New Zealand Century Yuasa Batteries (NZ) Ltd.

Responding to Expectations for Energy Devices

In order to continue growing amid environmental changes, which we see as opportunities, our Group has compiled a long-term vision and the Fifth Mid-Term Management Plan envisaging the business environment around 2030. We will continue creating the valuable energy devices required in the future.



Source: Fuji Keizai, Future Outlook for Energy, Large Secondary Batteries, and Materials 2018-Energy Device Edition (partly estimates)

Demand for lithium-ion batteries for large-scale applications to grow significantly toward the 2030s

Demand for lithium-ion batteries for large-scale applications is expected to grow significantly toward the 2030s, especially in the field of next-generation eco-friendly vehicles.

The automotive industry is facing a major once-in-a-century transformation in the form of CASE.* In addition, efforts to tackle society's Sustainable Development Goals (SDGs) are accelerating, and companies in the West are introducing the concept of corporate average fuel efficiency (CAFE) to reduce the environmental load of society as a whole. Automakers are strengthening the development and sale of eco-friendly vehicles to curb CO₂ emissions.

*CASE: An acronym combining Connected, Autonomous, Shared/Service, and Electric

Outline of CAFE regulations



Demand for lead-acid batteries to remain steady

Global demand for lead-acid batteries is expected to increase, albeit only slightly.

Our lead-acid batteries, which have a high level of reliability stemming from our track record over many years and can be produced at low cost, are likely to continue to be the mainstream for starter batteries and auxiliary batteries for automobiles, which are going to increase in number, especially in newly emerging countries. In addition, in the field of industrial applications, demand is expected to increase for forklifts, wireless base stations for telecommunications, uninterruptible power supply devices, and so on.

Examples of lead-acid battery use







Value Creation Initiatives

Value Creation Process	13
Opportunities	15
Risks	17
Financial Highlights	19
Non-Financial Highlights	21
External Evaluation	23



growth as well.

Maximization of returns to shareholders through efficient use of assets

company committed to the constant creation

Innovation supported by enhanced technological

maintaining and expansion

Opportunities

In addition to the US-China trade problem and the economic slowdown in Europe, the sudden outbreak of the novel coronavirus pandemic in 2020 has had a major impact. As a result, the world economy is becoming increasingly opaque. At the same time, however, the risks of climate change, such as the advance of global warming and the increase in the number of large-scale natural disasters, remain as serious as ever, so the trends toward the curbing of CO₂ emissions and the dispersion and stabilization of electricity supply sources look likely to continue in the medium and long term.

Our Group will continue to grow in a sustained manner by accurately grasping social, market, and technological trends, displaying technological development capabilities in our strong fields, and maintaining our competitiveness.



Diffusion of eco-friendly cars

Amid the tightening of environmental controls on the more than 1.3 billion vehicles on the road worldwide, the diffusion of HEVs and EVs is progressing. And even in the case of conventional gasoline vehicles, the standardization of fuel-saving start-stop functions is advancing.

Our Group's products are playing an important role in this shift to eco-friendly vehicles and the electrification of automobiles.



Global market forecast for automobiles



Source: International Energy Agency, Energy Technology Perspectives 2017

Z Expanding renewable energy

Since worldwide energy demand is increasing as a result of burgeoning populations and economic growth, it is necessary to expand the use of renewable energy to replace fossil fuels.

Our Group's products, which are essential for the effective use of energy from photovoltaic or wind power generation, are attracting much attention.



Renewable energy worldwide* (Amount generated)



*Excluding hydroelectric power generation. Source: The Institute of Energy Economics, Japan, *IEEJ Outlook 2019*

Strengthening electric power and information infrastructure

If the supply of electricity were cut off, the activities of modern society would instantly come to a halt. Therefore, batteries and power-source devices for backup power supplies in times of disaster are becoming increasingly important.

Our Group's products are safeguarding society's basic infrastructure and contributing to business continuity in office buildings and plants in the event of a large natural disaster.



Regional distribution of the world's disaster costs



*Total for 1984–2013. Compiled by the Asian Disaster Reduction Center based on materials of the Centre for Research on the Epidemiology of Disasters (CRED). Source: Cabinet Office, *White Paper on Disaster Management in Japan 2015*, Table 3

Risks

Our Group, which supplies products to the growth industries of automobiles and social infrastructure, is constantly vying with competition in the global market and technological development. It is also important for us to keep a close eye on supply-demand balances and price fluctuations caused by the properties of raw materials.

Identifying the various risks associated with our business and their degree of importance, we will continue to conduct sound and positive management from a medium- to long-term perspective.



Raw material restriction

Lead is included as a restricted substance in the European Union's RoHS Directive and ELV (End-of-Life Vehicles) Directive. This tightening of restrictions could have repercussions worldwide. Furthermore, there is concern that the increase of eco-compliant vehicles will lead to a rise in the price and supply shortages of such rare metals as lithium, nickel, cobalt, and manganese.

Since lead and rare metals are the main raw materials for our products, these trends could exert an impact on our Group's production activities.

RoHS directive: 10 restricted substances



Four principal components of lithium-ion batteries Global market scale trends and forecasts





Changes in the market environment

Automobiles, which are the main application of our Group's products, are a growth industry in which technology is evolving all the time.

It is necessary for us to implement strategies that accurately grasp changes in the market, such as the rapid rise of eco-friendly vehicles as a result of the tightening of exhaust-gas emissions; the emergence of alternative, post-lithium-ion batteries; the drift of young people away from cars; and the diffusion of car-sharing services.

Assumed technological shift of EV batteries



Source: New Energy and Industrial Technology Development Organization (NEDO), news release of June 15, 2018

Number of car-sharing vehicles in five regions worldwide



Source: Daiwa Institute of Research Group, Policy Analysis Report, "Rapidly Expanding Car Sharing and the Future Mobility Society (1)"

Supply-chain fluctuations

Lead-acid batteries and automotive lithium-ion batteries, which are the mainstays of our Group, are both products that are easily impacted by the market conditions of raw material suppliers and customers. The cobalt required for lithium-ion batteries is a conflict mineral and also entails the risk of child labor. Proper supply-chain management and the ensuring of stable supply and demand are essential.

Retention of human resources

In Japan, the decline of the working-age population due to aging and the low birthrate is emerging as a common risk for companies. To strengthen our corporate competitiveness by securing talented human resources and enhancing labor productivity, our Group believes it is important to provide employees with workplace environments in which everyone can fully display their abilities, enjoy good physical and mental health, and continue to work zealously, regardless of gender, age, and so on.



Source: Ministry of Health, Labour and Welfare, Annual Health, Labour and Welfare Report 2018

Financial Highlights

Net sales



Net sales were down year-on-year due primarily to lower sales prices in conjunction with lower prices for lead in the automotive battery business as well as effects from yen appreciation.

Operating income before goodwill depreciation/ Operating income ratio before goodwill depreciation



--- Operating income ratio before goodwill depreciation

Operating income before goodwill depreciation was down year-on-year because of the decline in operating income.

Total equity before noncontrolling interests/ Shareholders' equity ratio



Total equity before noncontrolling interests was down year-on-year despite an increase in net income attributable to owners of the parent. The main factors were payment of dividends, acquisition of treasury shares, a decrease in foreign currency translation adjustments due to changes in exchange rates, and a decline in the valuation difference of other securities in conjunction with lower share prices.

Operating income/Operating income ratio



Despite strong sales of stationary lead-acid batteries and power supplies and effects from lower raw materials costs, operating income was down year-on-year due to a deterioration of profitability in the automotive lithium-ion battery business.

Net income attributable to owners of the parent/ Earnings per share



---- Earnings per share

Net income attributable to owners of the parent reached a record high as a result of changes in income taxes and adjustments and other factors.



As a result of efficient operation shareholders' equity and an increase in net income attributable to owners of the parent, ROE, an indicator of management efficiency, was flat from the previous year.

* Since FY2016, ROE has been calculated based on income before goodwill depreciation.

Capital investment/Depreciation expenses



Strategic capital investments were made as planned in Tianjin, China, and Hungary, but capital investment was down year-on-year based on investigation and implementation of investment needed in light of market conditions and other factors.

Interest-bearing debt to cash flow ratio



Despite an increase in cash flows from operating activities, interest-bearing debt increased with the application of IFRS 16 (Leases) to overseas subsidiaries starting in fiscal 2019, and the ratio of interest-bearing debt to cash flows remained at the same level as in the previous year.

Cash flows from operating activities, investing activities, and financing activities





Research and development expense/ Research and development expense ratio

R&D expense was down year-on-year, but we are actively conducting R&D with a focus on the lithium-ion battery business. The ratio of R&D expense to sales was flat from the previous year.



We plan to acquire a total of 1.5 billion yen in treasury shares as a part of shareholders returns. We plan to increase the total amount of shareholder returns compared to the previous year with the effects of the share buyback taken into account.

Cash Flows from Operating Activities

Income taxes and other taxes were paid, but as a result of profit before income taxes, depreciation and amortization, receipt of dividends, receipt of advance payments in conjunction with orders for large projects in the industrial battery and power supply business, and other factors, cash flows from operating activities were up ¥1,626 million from the previous year.

Cash Flows from Investing Activities

Cash flows used in investing activities were down ¥3,120 million from the previous year, primarily as a result of purchase of property, plant, and equipment.

Cash Flows from Financing Activities

Borrowings were repaid, treasury shares were acquired, dividends were received, and other factors affected cash flows, and cash flows used in financing activities were down ¥1,461 million from the previous year.

Non-Financial Highlights

Notes. Scope of application Japan: Subsidiaries in Japan; Overseas: Subsidiaries and affiliates subject to the equity method in countries other than Japan; Global: Japan and overseas, however, not all subject companies are included in some instances.

Percentage of environmentally considered products in total sales of all products (global)



In fiscal 2019, the target was achieved by increasing sales of vehicles with start-stop systems (ISS: idling stop systems), which achieve low fuel consumption, as well as products for power generation systems that utilize renewable energy and other products.

CO2 emissions in production* (global)



The CO₂ emissions reduction target (at least 2% from fiscal 2018) was achieved by implementing energy-saving measures in production processes.

. * We have been expanding the scope of application since fiscal 2018.

Conflict mineral* survey implementation ratio (global)



In fiscal 2019, all matters concerning surveys of conflict minerals based on customer needs were handled by cooperating with suppliers. We start operation of a cobalt survey in fiscal 2020. We also established a Responsible Mineral Procurement Policy that can respond to changes in minerals subject to survey and risks and undertake measures that mitigate various CSR procurement risks in the mineral supply chain.

* Minerals that are extracted in conflict regions and provide financial resources to armed groups. Conflict minerals refers specifically to gold, tantalum, tungsten, and tin products originating in the Democratic Republic of Congo and neighboring countries. Ratio of recycled lead used as lead raw materials in lead-acid batteries (global)



The rate of use of recycled lead by overseas Group companies increased in fiscal 2019, and the amount of recycled lead used in lead-acid batteries greatly exceeded the initial plan.



In the future, we will continuously undertake activities to promote the reuse of water so that we can achieve our water use reduction targets.

* We have been expanding the scope of application since fiscal 2018.

Achievement ratio of supplier CSR issues improvement plan (global)



In fiscal 2019, we performed supplier audits relating to CSR issues identified based on the results of a supplier CSR survey. In the future, we will reduce CSR procurement risks even further by conducting surveys with an expanded scope of application.

Number of serious product incidents (global)



As a result of priority implementation of product safety education for employees, the number of serious products accidents was zero in fiscal 2019. We will continuously improve product safety management.

Annual working hours* (Japan)



The Group is taking measures to manage appropriate working hours and implementing work style reforms. We believe that continuously implementing these activities is essential for maintaining comfortable working environments.

* Notes: Employees do not include personnel on leave or those transferred to workplaces overseas. Period: January to December Annual working hours= Average number of fixed hours worked annually by employees in Japan+ Average number of overtime hours worked by employees in Japan

Achievement ratio of response plan for intellectual property infringement by imitation products (Overseas)



We conducted our second survey in countries subject to monitoring in fiscal 2019 and worked with government officials in Vietnam, Indonesia, and Laos to expose imitation products.





The trend has been downward compared to fiscal 2014. Going forward, we will undertake further quality improvement measures and seek to achieve our quality loss targets.

* The index is shown with the fiscal 2014 quality loss index set at 100. Quality loss rate: The loss ratio occurring during product manufacturing and sales.)

Achievement ratio of training plan to support employee growth (global)



In fiscal 2019, we again implement rank-specific education and quality education in accordance with an annual plan. In addition to enhancing employees' problem-solving capabilities, we also undertake measures to support future career development.

Number of significant compliance violations



In fiscal 2019, the Group did not commit any significant compliance violations.

Inclusion in ESG Investment Constituents

MSCI (Morgan Stanley Capital International) Japan ESG Select Leaders Index^{*1}

The Company's rating: **A** (seven ratings: AAA, AA, A, BBB, BB, B and C) (As of March 2020)

2020 CONSTITUENT MSCI Japan ESG Selct Leaders Index

FTSE4Good Index Series FTSE Blossom Japan Index*² (As of June 2019)



FTSE4Good FTSE Blossom Japan

> DBJ健康格付 2018

健康経営優良法人

CSR Evaluations, etc.

Toyo Keizai CSR Ranking The Company's rating:

AA	AAA	AA	AA
Utilization of human resources	Environment	Corporate governance	Sociability

(Five ratings: AAA, AA, A, B and C) (November 2019)

EcoVadis Business Sustainability Ratings

The Company's CSR certification levels: **Silver rank** (Three ranks: gold, silver and bronze) (February 2020)

DBJ (Development Bank of Japan) Employees' Health Management Rated

The Company's rating: **the highest rank** "particularly excellent in terms of initiatives for employees' health" (2018)

Company with Excellent Health Management (White 500)

Certification of the Company and three Group companies: Company that carries out particularly excellent health management based on initiatives for health improvement promoted by The Nippon Kenko Kaigi

Kurumin Mark (Ministry of Health, Labour and Welfare)

The Company's certification: **Platinum Kurumin "high-level initiatives undertaken to support childcare"** (June 2020)



FY2019 Grand Prize Award (presented by The Energy Conservation Center, Japan) Products/Business Models category Agency for Natural

Resources and Energy Commissioner's Award (Energy Saving Category) LEGA: LAMP-R street light LED lamp



New Energy Award 2019 (presented by the New Energy Foundation)

Agency for Natural Resources and Energy Commissioner's Award

New Energy Award



Oki Hybrid Project Japan's first community-based renewable energy installation/expansion project hamessing cutting-edge technology

*Received jointly with The Chugoku Electric Power Company, Inc., Shimane Prefectural Government, Mitsubishi Electric Corporation, and NGK Insulators, Ltd.

New Energy Foundation Chairman's Award

New Energy Award



Installation of large storage battery system to mitigate short-period output fluctuations

*Received jointly with Obayashi Corporation and Mitsubishi Electric Corporation

IR Evaluations, etc.

Nikkei Annual Report Awards 2019 Award for Excellence GS Yuasa Report 2019 Gomez IR Site Ranking

Outstanding Company: **Bronze Prize** (December 2019)

FY2019 All Japanese Listed Companies' Website Ranking (Nikko Investor Relations Co., Ltd.) **Overall ranking: A Website** (December 2019)

*1 The inclusion of GS Yuasa Corporation in any MSCI Index, and the use of MSCI logos, trademarks, service marks, or index names herein, do not constitute support, endorsement, or promotion of GS Yuasa Corporation by MSCI or any of its affiliates. The MSCI Indexes are the exclusive property of MSCI. The MSCI Index names and logos are trademarks or service marks of MSCI and/or its affiliates.

*2 FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that GS Yuasa Corporation has been independently assessed according to the FTSE4Good and FTSE Blossom Japan criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series and FTSE Blossom Japan Index. Created by the global index provider FTSE Russell, the FTSE4Good Index Series and FTSE Blossom Japan Index. Created by the global index provider FTSE Russell, the FTSE4Good Index Series and FTSE Blossom Japan Index are designed to measure the performance of companies and Japanese companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE4Good and FTSE Blossom Japan indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.



Medium- to Long-Term Vision and Strategy

Message from the President	25
Overview of and Progress with the Mid-Term	
Management Plan (Long-Term Vision and	
the Mid-Term Management Plan)	31
Message from the Director in Charge	
of Finance	33
Overview of and Progress with the Mid-Term	
Management Plan (Finance/ESG)	37

Pursuing the potential of energy devices to continue to create new value



Post-merger trajectory

Since the 2004 corporate merger of Japan Storage Battery (GS) and Yuasa Corporation, the GS Yuasa Group has worked to increase corporate value under a philosophy of "Innovation and Growth." Our results for fiscal 2019 indicate the extent to which our business has grown in scale compared to the time of the merger, with net sales increasing 1.7 times and operating income up 25 times. Meanwhile, current-term net income attributable to owners of the parent reached a record high. On the financial side, our equity ratio grew from 23.8% in fiscal 2004 to 45.8%.

We have also steadily enhanced our product portfolio. Our core automotive and motorcycle lead-acid batteries hold the top share of the Japanese domestic market, and have established a leading market position globally. In addition, in fiscal 2016, the year after I became president, we took over the lead-acid battery business of Panasonic Corporation, further solidifying our business base.

In 2009, with demand also expected to grow in the

lithium-ion battery field, we were first in the world to successfully mass-produce lithium-ion batteries for electric vehicles (EVs). Since then, we have continued to invest in R&D and in facilities, steadily growing net sales. Since fiscal 2016, we have also seen a path emerge for moving operating income into the black.

Our development of the lithium-ion battery business has also generated synergies with other businesses. In the industrial battery and power supply business, for example, our product lineup includes both lead-acid and lithium-ion batteries. Our ability to respond to a wide range of customer needs has ensured us a competitive advantage in the market.

We have also made significant progress in global expansion in the 16 years since the merger. Both the former GS and the former Yuasa were relatively early to move into the Asia region, and since the corporate merger, we have continued to establish locations in other regions around the world. Today, the Group has 37 production and sales sites in 19 countries, and our after-sales service network has expanded worldwide.

In line with our status as a global company, both in name and in fact, beginning in fiscal 2018 we embarked on a reorganization. Our business divisions, which had been

separated along two lines-one by product, including automotive lead-acid batteries, industrial batteries and power supplies, and automotive lithium-ion batteries; and the other by domestic and overseas business—were rearranged and consolidated into a divisional system centered around products. Those product divisions now serve as a vertical axis, with a horizontal axis running through each covering management area such as CSR, health and safety, guality assurance, and the environment, thus optimizing both operations and governance.

After five years as president, I feel once again that the corporate merger has gone well. From the beginning, we moved forward with the integration by focusing on absorbing the best of the other party. As a result, we have cultivated an unique corporate culture at GS Yuasa that incorporates both solidity and a pioneering spirit. I think this can be seen as a successful example of Japanese corporate merger, including in terms of business results.

The challenge of creating new value

I always believe that nothing is more important to a company than continuing to create new value that contributes to society. Companies incapable of creating new value have no chance of sustainable growth. What matters is that we constantly focus on feedback from the market and from users, pick up on a variety of societal changes to innovate ourselves, and take a flexible approach to new challenges. In that sense, one thing I have been acutely aware of since becoming president is the need to build new pillars of business.

As you know, the Group already has one major pillar in the form of lead-acid batteries. Still, to continue growing into the future, we need a follow-up to automotive lead-acid batteries and industrial batteries and power supplies. This is clear if we consider the drastic changes expected in the automotive industry and global issues such as climate change and environmental and energy problems.

One such new pillar is lithium-ion batteries. The Group was quick to focus on the growth potential of this segment, establishing Lithium Energy Japan in 2007 and Blue Energy Co., Ltd. in 2009, the start of more than 10 years of ongoing R&D and investment. That persistent effort is now finally beginning to show results.

In addition, the Group has launched another new challenge: the *Koto Zukuri* (service creation) business set forth in our Fifth Mid-Term Management Plan.

The *Mono Zukuri* (product creation) we have engaged in to date was based on a one-time model in which the sale and delivery of a product such as a storage battery or peripheral device represented a complete transaction. In contrast, a major characteristic of *Koto Zukuri* is that business continues with the customer even after the product has been sold and delivered. One example might be a status detection service for storage batteries. This would involve the use of AI, IoT, and other cutting-edge digital technology to remotely detect, in real time, the condition of facilities and equipment used by customers, service and maintain them, and provide advice about when components should be updated or replaced. A portfolio of paid services also offers the expectation of ongoing revenue even after a product has been sold.

By leveraging our overwhelming market share and customer base to develop and expand a new business model integrating *Mono Zukuri* and *Koto Zukuri* (product and service creation), GS Yuasa hopes to build an even stronger business base.

A future drawn against the great transformation of the century

The automotive industry, the Group's largest customer base, is currently facing a major once-in-a-century transformation in the midst of a swelling trend known as CASE.* The role energy and devices have to play has also grown increasingly important in addressing global-scale social issues such as seen in the Sustainable Development Goals (SDGs).

Given these circumstances, in fiscal 2019 the Group established its long-term vision, laying out a goal for 2030 of becoming an energy device company that continually creates new value. This vision outlines, from a long-term perspective, what kind of value we will offer society as we work toward sustainable growth.

Management held numerous discussions in formulating this long-term vision. For example, regarding the future of automotive lead-acid batteries, we predicted that even as the electrification of automobiles gradually progresses in developed countries, combustion engine vehicles will, for the time being, remain in the mainstream in markets in new and emerging economies. Based on that, we expect demand for lead-acid batteries to hold up even 10 years from now. In automotive lead-acid batteries, we thus established further expansion of global share and the building of an optimal production structure as important issues going forward. In the ASEAN region in particular there remains some duplication of production sites and sales networks, established prior to the corporate merger, and we will be working to build a leaner business structure by addressing those overlaps.

Meanwhile in automotive lithium-ion batteries, selection and concentration is a major issue. To date, the Group has developed this business through an omnidirectional strategy targeting EVs, plug-in hybrid electric vehicles (PHEVs), and hybrid electric vehicles (HEVs). As global competition continues to intensify, however, survival will require establishing clear targets on which to focus corporate resources. While doing so involved some very difficult predictions, in the end we decided on a policy of concentrating resources on HEVs. Seen in terms of cost performance, this assumes that, for the time being, HEVs will lead the shift to automobile electrification. In addition, we made this selection because the HEV high input/output lithium-ion battery field is one in which we can best leverage our technical expertise and existing supply chain.

We are also focusing on 12V lithium-ion batteries used in power supplies for automobile starters, another segment of the automotive lithium-ion battery business. In this field, lithium-ion batteries are forecast to begin replacing lead batteries, primarily in Europe where environmental regulation is progressing. We can also expect that demand will grow for a variety of other applications, including not just starters, but power supplies for various other electrical equipment and as backup power sources for autonomous driving systems. *CASE: An acronym combining Connected, Autonomous, Shared/Service, and Electric.

A stepping stone to the future

Based on the above long-term outlook, we have moved forward with a number of different initiatives in each business under the key phrase *Mono-Koto Zukuri* (product and service creation), as set forth in our Fifth Mid-Term Management Plan begun in fiscal 2019. In the lead-acid battery business, we are working to strengthen profitability in our main regions, and Under the Fifth Mid-Term Management Plan, a variety of initiatives are underway based on the key phrase, *Mono-Koto Zukuri.*

rolling out efforts to expand sales in important regions and sites. In the lithium-ion battery business, we are using facilities investments and strategic deployment of development funds in areas that play off of our strengths, including HEVs, 12V lithium-ion batteries, and industrial applications to establish a foothold for growth during the term of our next Mid-Term Management Plan.

In fiscal 2019, the first year of the current plan, net sales fell 4.2% year on year, to 395.6 billion yen. The primary factors in this decline included, in the automotive battery business, lower sales prices associated with a drop in the price of lead, and the impact of a strong yen. Operating income fell by 4.3% year on year to 21.7 billion yen (or operating income of 23.9 billion yen before amortization of goodwill), in part due to deteriorating profits brought on by upfront investments in the automotive lithium-ion battery business. That said, current-term net income attributable to owners of the parent marked a record high of 13.7 billion yen.

These results deserve a degree of recognition. Additionally, beyond the numbers, the past year has seen a variety of developments on the strategy side.

In the automotive lithium-ion battery business in particular—set out as a strategic issue in establishing a stepping



stone to the future—a major achievement was the addition of Toyota Motor Corporation as a new client for HEVs, alongside Honda Motor Co., Ltd. With this development, Blue Energy, which is responsible for manufacturing lithium-ion batteries for HEVs, has decided to build a second plant to respond to the increase in demand. The plant is expected to begin operation in fiscal 2022, and by fiscal 2023 we will double production capacity. Operations also began at our new plant in Hungary in anticipation of increased demand for 12V lithium-ion batteries in Europe. We look forward to this expansion as an important stepping stone to the future.

In the industrial battery and power supply business, in addition to private sector demand, government demand is strong against the backdrop of the Japanese government's Plan for National Resilience. I also give high marks to the start of our project at a large-scale wind power facility in Hokkaido, based on a new business model that includes a 20-year deal for service and maintenance. This is truly the embodiment of the *Koto Zukuri* business. We will continue to expand proposals centered on the renewable energy field that integrate *Mono Zukuri* and *Koto Zukuri*, as we work to create a new business base.

Sowing and nurturing the seeds

Going into 2020, the novel coronavirus pandemic has had a serious impact on global economic activity. While that impact was limited with regards to the Group's fiscal 2019 results, there is no question that the effects will be felt across the Group going forward.

Given this situation, we will be revising the term of our Fifth Mid-Term Management Plan. While that term was previously scheduled to cover the three years between fiscal 2019 and fiscal 2021, we will now extend it to four years, ending in fiscal 2022 (the fiscal year ending March 31, 2023), with fiscal 2020 excluded from the Fifth Mid-Term Management Plan and set aside under a stand-alone fiscal year plan. Note that the initial plans for fiscal years 2020 and 2021 will now be shifted to fiscal years 2021 and 2022, respectively.

While our results forecast for fiscal 2020 remained undetermined as of the start of the fiscal year, based on information and estimates available as of August 2020, we have forecasted net sales of 370 billion yen, operating income of 14 billion yen (or operating income of 16 billion

yen before amortization of goodwill), and net income attributable to owners of the parent of 6 billion yen. Based on the assumption that production and sales activities at each of the Company's locations will normalize as the economy recovers toward the end of fiscal 2020, we expect net sales to be down about 6% over fiscal 2019, with a drop in operating income of about 35%. While the impact of the novel coronavirus pandemic is unavoidable, the Group is moving forward with efforts to secure both sales and profits based on the business foundations we have built to date.

Beginning in fiscal 2020, I have also decided to place myself in charge of the lithium-ion battery business. The Fifth Mid-Term Management Plan is a very important period for this business in terms of establishing a stepping stone to the future. Over the next several years, particularly in the high-priority areas of lithium-ion batteries for HEVs and 12V lithium-ion batteries, we need to sow as many seeds as possible, including in R&D, customer development, and facility and human resource investments. While we may not see these seeds grow and be ready for harvesting until our Sixth Mid-Term Management Plan and beyond, gaining the fruits of that labor will require that, during this initial sowing phase, we bring to the task even greater speed and decisiveness, and an



agile execution of strategy that unites development, production, and sales. It is for that very reason that, as president, I have placed myself in direct charge of leading the business.

Over the three years of the existing Fifth Mid-Term Management Plan, we plan to put investment about 95 billion yen in facilities, with about half of that deployed in the automotive lithium-ion battery business. We expect that, given this scale of investment, critical decisions will need to be made based on a certain amount of risk. My intention is to share our strategy with the sales divisions, Group companies, the Lithium-ion Battery Technical Center, and others, bringing a sense of unity and speed to the process of sowing and nurturing seeds that can be harvested in the future.

"Creating the Future of Energy"

Through "Innovation and Growth," the GS Yuasa Group has put forth a corporate philosophy of contributing to people, society, and the global environment. The social responsibilities we bear as a company are nothing less than efforts to embody that philosophy. To further clarify this management thinking, in May, 2017 we established the GS Yuasa CSR Policy and Code of Conduct as the President's Policy, and put in place a system for promoting those efforts by also establishing a CSR Committee to oversee CSR across the Group as a whole.

Under the Fifth Mid-Term Management Plan, we have also set forth "establishing business processes that incorporate CSR issues into our business strategy" as a strategic initiative. We have identified CSR issues as global social issues with a particular emphasis on SDGs, which, in a sense, are an expression of future market needs. We intend to use the degree to which we can contribute to solving the social issues set out in the SDGs as one guideline for assembling strategy as we pursue business growth.

The novel coronavirus pandemic and its impact of results

With the spread of the novel coronavirus, the Company established a crisis management headquarters led by its president, and is putting in place measures to prevent the spread of infection with the safety of its employees and others the first consideration. Anticipating an increased demand for capital, in May, 2020 we also raised 5 billion yen in long-term funding. While the impact of the pandemic on fiscal 2019 business results was limited, we are working to build a flexible structure in response to fluctuating demand.

While this overlaps somewhat with our CSR activities, the Group is also working to enhance corporate value from the perspective of ESG (environment, social, and governance issues). In terms of the environment, we are working to develop and sell products and build manufacturing systems that address climate change, energy problems, and other aspects of the global environment. At the same time, we are promoting efforts to reduce CO₂ emissions and water use associated with our business activities. From the social perspective, we give top priority to respecting human rights, and continue to focus on education and activities aimed at our employees and those involved in our supply chain. In governance, we are working to build a sound and highly transparent governance system while also ensuring compliance worldwide; we intend to promote business operations that respond to the demands of stakeholders in each part of the world.

In fiscal 2019, the Group established a new corporate slogan, "Creating the Future of Energy." That slogan incorporates our aspiration to grasp the needs of a constantly changing age, and by exploring a new vision for energy and new ways of using power storage technology, continue to create new value.

As we work to achieve a sustainable society, energy and devices will play an increasingly important role. We will continue to listen seriously to feedback from a variety of stakeholders as we take on the challenge of value creation toward the realization of an enriched society. We hope you will look forward to the future of the GS Yuasa Group.

August 2020

President GS Yuasa Corporation

Related reports:

- →P. 35 Message from the Director in Charge of Finance
- →P. 74 Risk Management
- →P 90 Risk Information

Long-Term Vision and the Mid-Term Management Plan

Long-Term Vision

Become an energy device company that continually creates new value

At present the automotive industry is entering a phase of major innovation called CASE (connected, autonomous, shared, electric). In addition, because of growing awareness of the need to protect the global environment, the role of energy devices is becoming more important.

In these circumstances, the demand for lithium-ion batteries for automotive and industrial applications is expected to grow considerably, especially in major developed countries. The global demand for lead-acid batteries is forecast to remain stable too, so we believe that the chances for GS Yuasa to play a positive role are going to increase more and more. Eveing these changes in the business environment as opportunities, we have compiled a long-term vision and the Fifth Mid-Term Management Plan.

Current issues and future vision

	Current issues in 2018	Vision for 2022 / Mid-term goal	Vision for 2030 / Long-term goal	
Automotive battery business	There are growing overseas markets in which the market share is low	Expanded global share through applying technologies developed for eco-friendly vehicles in Japan	Build optimal global production framework	
Industrial battery and power supply business	For existing businesses in Japan within the social infrastructure field, the core of demand is for replacement	Focus is on the utilization of IoT and renewable energy fields	Overseas expansion of business with local production for local consumption-type business	
Automotive lithium-ion battery business	Excessive capital investment competition	Promoting lithium-ion batteries for HEVs and 12V lithium-ion batteries	Expand industrial applications and utilize post lithium-ion batteries research findings	

Mid-Term Management Policy

Based on the Mono-Koto Zukuri (product and service creation) concept, GS Yuasa will engage in strategic activities that lead to sustainable growth of both the lead-acid battery and lithium-ion battery businesses through creation of new value.



Introduction Value Creation Initiatives Medium- to Long-Term Vision and Strategy Performance in FY2019 ESG Financial Section

Important mid-term strategic tasks

- Step-up our initiatives pertaining to priority CSR tasks identified in our business processes
- Strengthen the management platform through enhanced profitability of the lead-acid battery business and overseas business expansion
- E Lay the foundations for expanding the scale and profits of the lithium-ion battery business from the period covered by the Sixth Mid-Term Management Plan onward

Business tasks by segment

Automotive Batteries

In Japan/Asia, the business's core region, we will further increase profitability through offering high guality, high value-added products and enhancing productivity. We will also deploy sales expansion measures in regions where we have low market share or no presence. To meet demand for environment-friendly technologies and in response to the shift toward electric cars, we will pursue development and expansion of the market for 12V lithium-ion batteries.

Industrial Batteries and Power Supplies

In existing markets, we will work to expand business by further enhancing profitability and expanding overseas through Mono-Koto Zukuri (product and service creation) utilizing AI and IoT. Against the backdrop of demand for replacement of lead-acid batteries and the new and expanding renewable energies fields, we will further promote development and sales of industrial-use lithium-ion batteries

Mid-term management targets (targets for FY2022)

Net sales	460.0	billion yen or more
Operating income	28.0	billion yen or more
ROE (return on equity)	8%	or more
Total payout ratio	30%	or more
Domestic lead price quote	300,000	yen/t
LME	2,100	U.S. dollars/t
Exchange rate	110	yen/U.S. dollars

Note: The above indices are based on income before amortization of goodwill (operating income and net income)

Progress by segment (Fiscal 2019)

Domestically, the automotive battery business saw an increase in replacement batteries shipped for vehicles with start-stop systems (ISS: idling stop systems). Overseas, we offered high value-added products, primarily in the ASEAN region, and the operating income ratio at Siam GS Battery Co., Ltd. improved by 3.6 points.

In industrial battery and power supply business, we are expanding our Koto Zukuri services, and have launched DATAWINDOW-S. which utilizes IoT to offer replacements for products which have reached their lifespan.

Automotive Lithium-ion Batteries

We will gain a unique market position by leveraging our strengths and deploy measures for stable growth and enhancement of profitability. In particular, we position increased business expansion for HEV applications and development and mass production of 12V lithium-ion batteries as business growth drivers and will therefore pursue these. We will apply the knowhow gained in batteries for EV/PHEV applications and will seek to expand sales of batteries for industrial applications.



In automotive lithium-ion battery business, in addition to starting operation of a 12-volt battery plant in Hungary, we decided to build a second plant for Blue Energy Co., Ltd. For industrial use, we also began production of batteries for the energy storage system (ESS) market

In other businesses, production of and orders for lithium-ion batteries for submarines proceeded as planned.

See PP. 41-56, "Conditions by Business Sector," for fiscal 2020 initiatives

Aiming for sustainable growth by improving capital efficiency while maintaining financial soundness



Toshiyuki Nakagawa, Chief Financial Officer/Senior Managing Director and Representative Director, GS Yuasa Corporation

Looking at reality calmly to achieve a dream

In my role as chief financial officer (CFO), there is something I think about constantly. If the company were an automobile, the chief executive officer (CEO) would be the accelerator and I, as CFO, would be the brake. The CEO's mission is to set out an expansive dream, and to lead the company's employees while taking a certain amount of risk in working to achieve that dream. Meanwhile, in order to make the dream a reality, the CFO is required to look at reality calmly, identify risks, and take accurate steps to minimize them. In corporate management, I think it is important to move forward while maintaining a balance between these two functions.

Naturally, acting as the brake does not mean overriding everything. It is clear that slowing down more than necessary is a negative in terms of corporate growth. I often tell our departments that, "I'll give you money to live, but not money to die." I would like to see the Group share in the major objective of sustainable growth, while advancing a balanced approach to investment and financial strategy.

What counts as "money to live"? And when to hit the brakes? What matters in making those decisions is a rigorous examination of the merits and demerits of each case, and their risks and opportunities. We need to judge when and how much to apply the brakes after first visualizing everything that could possibly occur. Even then, things will happen that we did not anticipate, but I believe it is still crucial that we take that approach to assessing the validity of each deal. This does not, of course, mean pushing through my own individual decisions; the process involves numerous discussions with the relevant departments based on information collection and analysis. At GS Yuasa, we also hold monthly meetings of our Facility Investment Committee, where capital investments of 30 million yen or more undergo rigorous debate by executive-class committee members based on their respective areas of expertise, ensuring the appropriateness of each proposal

Internalizing ROIC management to boost earning power

Improving capital efficiency to prepare for medium- to long-term growth is one financial policy set out under the Fifth Mid-Term Management Plan we have advanced since fiscal 2019. Our goal is to increase earning power by introducing return on invested capital (ROIC) as a key performance indicator (KPI), and by strengthening management of revenue and efficiency at the individual business level.

Our rough guide for ROIC is a number around double our operating income ratio. We calculated our target for operating income ratio under the Fifth Mid-term Management Plan at about 6%. Therefore in fiscal 2022, the final year of the plan, that guide calls for ROIC of about 12%. I think that is a reasonable standard considering the current state of our weighted average cost of capital (WACC). The Fifth Mid-term Management Plan also lays out a goal for return on equity (ROE) of 8% in the final year of the Plan, and with an ROIC of 12%, we expect that goal can, for the most part, be cleared.

We have made considerable progress in raising awareness of ROIC management at the management level. Even during business plan reviews, we are seeing more vigorous discussion taking capital efficiency into consideration. Going forward, we intend to work at further internalizing the concept through in-house training and education. We then hope to establish ROIC management throughout the organization by, for example, incorporating the approach in making day-to-day improvements and through other practical steps.

As CFO, I also emphasize the need to ensure the soundness of our financial base. That said, my approach is not simply to raise shareholders' equity ratio to achieve debt-free management. The business environment in which the Company operates includes growth areas in which we wish to invest, so we believe a shareholders' equity ratio in the range of 40% to 50% is fine. As of the end of fiscal 2019, that ratio stood at 45.8%. If we can maintain that level, our corporate rating will stabilize, making it easier to raise funds and make bold investments in areas of growth. Another indicator of the soundness of our financial base is the ratio of interest-bearing debt to cash flow. Our target under the Fifth Mid-Term Management Plan calls for keeping the total amount of interest-bearing debt, including lease obligations, at no more than three times each fiscal year's operating cash flow, a target we have cleared with interest-bearing debt in the near term at 2.2 times operating cash flow. Personally, if possible I would like to see this happen within two years.

Continuing large-scale investments for the future, funded basically by operating cash flow

Announcement of our fiscal 2020 results forecast has been significantly delayed by the impact of the novel coronavirus pandemic. That said, we wish to present investors and analysts with at least some material on which to base their decisions, and during the announcement of our financial results on May 12, offered guidance indicating that we expect a year-on-year decline in net sales of about 10%, and a drop in operating income of about one-third. Upon subsequent examination, we announced our official forecast on August 4.

There are three major facility investment projects scheduled for fiscal 2020, and including these, capital investments are expected to total about 22 billion yen. The first is to boost production capacity in the strategic field of lithium-ion batteries for HEVs; the second is the final round of investment in the automotive lead-acid battery plant we have constructed in the Tianjin area of China; and the third is



for a facilities upgrade at our head office in Kyoto. There are many aging facilities on the grounds of the head office, and over the next ten years or so we plan to renovate and relocate them. Funds for these facility investments will basically come from operating cash flow.

Note that in terms of short-term funding, we currently have a credit facility totaling nearly 100 billion yen, including the committed credit line of 30 billion yen we have maintained for contingencies. As of July, 2020, this credit facility remains largely untouched, and we believe it will be sufficient to address the novel coronavirus pandemic. A more urgent issue, in fact, is ensuring long-term funding for growth investments. From that perspective, in May of this year we worked with our two main banks to secure long-term loans totaling 5 billion yen for a term of four years.

Working to minimize the diverse risks brought on by the novel coronavirus

While we have taken all possible steps to address the novel coronavirus pandemic in terms of funding, we need to continue monitoring the global spread of infections. The impact of this pandemic on the worldwide economy is being compared to that of the recession brought on by the collapse of Lehman Brothers in 2008. More than that, I think we need to be prepared for a corresponding economic recovery to take at least around three years. As CFO, my mission is to minimize risk, and to ensure our countermeasures do not fall behind, I am more determined than ever to make swift decisions and take quick action.

Our mainstay storage battery products are important in supporting social infrastructure, and the risk of a market contraction is low. Still, that is all the more reason we must watch out for market incursions by powerful rivals. Also, while we have experienced no major problems on the production side, going forward we do need to reevaluate our production front lines, where close contact is unavoidable. We should consider investing in automation, labor-saving measures and remote work. In the supply chain, we have taken steps to address earthquakes, floods, and other natural disasters, but because infections are fundamentally different from these kinds of temporary, geographically limited disasters, I also feel the need to look at new business continuity planning (BCP) measures.

While discussions of the novel coronavirus tend to emphasize the more negative elements, major changes in our times will undoubtably also generate new opportunities. We will move forward with a positive attitude, turning risk into chance.

Targeting a total payout ratio of 30% or more based on shareholder dividends

Shareholder returns are one of the most important issues for management. Our policy is to target a total payout ratio of 30% or more combining shareholder dividends and treasury stock acquisitions. In consideration of shareholder interests, this total payout ratio is based on net profit before amortization of goodwill.

In fiscal 2019, we instituted a dividend totaling 50 yen per share (15 yen interim, 35 yen at year-end). In addition, since May, 2020, we have begun acquiring treasury stock equivalent to about 1.5 billion yen, the addition of which brings our total payout ratio to 34.9%.

A year-end shareholder dividend of 35 yen per share is planned for fiscal 2020, for a full-year dividend of 35 yen. Based on comprehensive consideration of consolidated results, internal reserves, and our financial status—in accordance with our existing rules—we believe that the additional impact of the novel coronavirus pandemic will force us to reduce the dividend for fiscal 2020.

Shifting CSR activities from a defensive to an offensive phase

CSR is positioned at the very root of the GS Yuasa Group's corporate management. Since fiscal 2016, we have been working in stages to strengthen the CSR promotion framework I set up as the executive in charge. Looking back at those efforts, I feel we have made some progress.

One of my initial thoughts is that CSR involves both defensive and offensive aspects. Our efforts to strengthen our CSR framework were triggered when we received some harsh feedback from a customer in Europe. In that sense, we began from a defensive position, but since then we have established a dedicated CSR department and formulated a CSR Policy and Code of Conduct, which in turn led to steady implementation of other steps, including clarification of materiality (key CSR issues) and our signing on to the United Nations Global Compact. Appropriate disclosure of information regarding those efforts has enabled us to gain a certain level of regard from our customers and assessment organizations.

Based on those results, I regard the Group's CSR efforts as having moved into the offensive phase. Under the Fifth Mid-Term Management Plan we set forth a goal of "establishing business processes that incorporate CSR issues into our business strategy." Our aim is for sustainable growth through business development that places particular emphasis on contributing to Sustainable Development Goals (SDGs).

Aiming to further improve corporate value from an ESG perspective

Environmental, social and governance (ESG) perspectives are also important to sustainable corporate growth. This involves not only the Group, but partner companies and others responsible for our supply chains. We are working to explore the issues, including human rights, safety, the environment, and risk management, from a multi-dimensional perspective as we advance these efforts. In fiscal 2019, we expressed our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Prior to that, we also conducted a survey targeting some of our sites in and outside Japan regarding climate change risks, reaffirming the need to reduce CO₂ emissions. Going forward, we will conduct further internal discussions and ensure our goals are aligned before presenting our objectives as a Group.

Institutional investors taking a long-term stance have also often pointed out that, compared to our environmental and social initiatives, they find it difficult to see what we are doing in the area of governance. Based on this feedback, in fiscal 2019 we established the Nomination and Compensation Committee. In fiscal 2020, our first female outside director was appointed, and we also changed our accounting auditors. In addition, we have prepared governance training for all executives.

As of the June, 2020 general meeting of shareholders, I have left my position in charge of CSR at GS Yuasa International. Still, CSR activities are, in a sense, corporate management itself. As CFO, I will continue to engage in management from a perspective that integrates both the financial and the non-financial, conveying to our stakeholders in a timely, honest manner information about the Group's activities and issues. At the same time, I will work to further enhance corporate value through dialogue with all of you.

August 2020

Chief Financial Officer/Senior Managing Director and Representative Director GS Yuasa Corporation

Finance / ESG

Financial policy

- Emphasis on ROE (target: 8% or more) as a management index, pursue enhanced invested capital efficiency
- Achieve total payout ratio (before amortization of goodwill) of 30% or more (achieve stable dividend payments to shareholders and enhance capital efficiency)

*1 Interest-bearing debts (including lease obligations)/Operating cash flow *2 The total payout ratio is before amortization of goodwill

FY2022 targets (Apr. 2022–Mar. 2023)		
Interest-bearing debt to cash flow ratio*1	Less than 3 years	
Total payout ratio*2	30% or more	
Equity ratio	Maintain at 45% or more	

ESG targets and progress

	Tasks for sustainable growth	Activities and targets	FY2019 status
Environment: Contribute to sustainability of the global environmer			t as an energy device company
E	 Development and global sales of environmentally considered products Reduction of environmental burden of business activities 	 Ratio of environmentally considered products to overall sales: 35% (2021) Group-wide CO₂ emission reduction target: 6%/3 years Group-wide water use reduction target: 8%/3 years 	 Improvement in ratio of environmentally considered products through active capturing of demand for ISS batteries, where overall demand is growing Reductions in power use at some overseas production sites through deployment of photovoltaic power systems (reduction in CO₂ emissions) Recycling of water used at charging facilities (reduction in water use)
	Social: Respect for human rights	and contribution to society	
S	 Respect for human rights Enhancement of productivity and motivation through human resources development Enhancement of work environments and occupational health and safety Products and information sharing that is reassuring to consumers Contribution to the addressing of societal issues with CSR procurement and reduction of procurement risks 	 Enhance human rights education and risk management Nurture autonomous-minded human resources and establish groundwork for utilizing diverse human resources Promote measures to improve work-life balance Achieve group-wide quality improvement 	 Meetings regarding respect for human rights held at all workplaces Stratified training and quality education conducted based on annual plans Compulsory requirement to take at least 10 days of annual paid leave expanded to include those in management and fixed-term employees Systematic activities based on an emphasis on quality as a management fundamental
	Governance: Promotion of fair, transparent, and swift group-wide governance		
G	 Respect for international norms and compliance with laws of respective countries Protection of intellectual property Thorough management of confidential information Swift and appropriate management decision-making 	 Promote compliance education, preparation of legal information Contribute to elimination of counterfeit goods and bolster patent infringement prevention activities Management that is mindful of the corporate governance code 	 Used compliance awareness information to familiarize employees with legal information Won trademark infringement litigation in China Final ruling in favor of lawsuit calling for cancellation of a similar trade name in Hong Kong Appointment of a female outside director Outside directors exceed one-third Ensures diversity

Refer to the ESG section starting on P. 60 for information on ESG initiatives and progress.

Review of FY2019 (fiscal year ended March 31, 2020)

The first year of the Fifth Mid-Term Management Plan proceeded largely according to plan. In Tianjin, China, final stage investments were completed for a new plant to produce automotive lead-acid batteries; investment also went to boosting production of lithium-ion batteries for HEVs. We also moved forward with construction of a new plant in Hungary to produce 12V lithium-ion batteries, and continued purchases of treasury stock. Note that given the impact of the novel coronavirus pandemic, fiscal 2020 will be excluded from inclusion in the current Mid-Term Management Plan, the final year of which will now be fiscal 2022; target numbers will not change.

Performance in FY2019

At a Glance	39
Conditions by Business Sector	
Automotive Batteries	41
Automotive Batteries (Japan)	43
Automotive Batteries (Overseas)	45
Industrial Batteries and Power Supplies	47
Automotive Lithium-ion Batteries	51
Others	55
Research and Development	57



"industrial batteries and power supplies." Net sales and operating income for fiscal 2017 are indicated for the reporting segments after the change. 3. In fiscal 2019, some consolidated subsidiaries in the "automotive batteries (overseas)" segment were shifted to the "industrial batteries and power supplies" segment. Accordingly, the figures for fiscal 2018 have been reclassified to reflect the revised segment categories.









(Millions of yen)



6. Research and development expenses in the "automotive batteries (Japan)" and "automotive batteries (overseas)" segments have been totaled since fiscal 2017.

Automotive Batteries



Capturing changes in the market, we are ready to handle growing demand

GS Yuasa maintains a high market share both in Japan and globally in lead-acid batteries for starting automobiles and motorcycles. Our technological capabilities are in high demand, with customers increasingly asking for EN (European Norm) compliant batteries and batteries for vehicles with start-stop systems (ISS: idling stop systems). Global demand for automotive batteries will probably peak around 2029, but is expected to still be higher than the current level even by about 2035. In Japan, the demand for batteries for both new and replacement applications in cars is expected to gradually decline, but the demand for high value-added batteries is expected to grow in the replacement market, especially for ISS vehicles that have become popular in recent years.

In fiscal 2019, GS Yuasa domestically executed carefully targeted sales efforts that generated steady results in both the new vehicle and aftermarket sectors, including heavy-duty vehicles. On the overseas stage, as a strategy for high market share regions, we aggressively promoted value-added batteries in the ASEAN region to improve profit margins. In addition, as a strategy for as yet untapped regions, we launched measures to target Latin American markets to expand sales.

To achieve the goals of the Fifth Mid-Term Management Plan, we will restructure our marketing strategy in response to changes in the market, and

optimize our production systems. In the Japanese domestic market for example, battery replacement at car dealers is on the rise. In response to this trend, we are leveraging our strengths to build a business model that will ensure that we capture demand for the replacement needs of storage batteries that were delivered with new vehicles. With regard to the optimization of our production system, we will of course aim to strengthen our competitiveness and reduce costs, but we will also reconfigure our business continuity planning (BCP) in order to fulfill our supply responsibilities in a world where natural disasters and infectious diseases are becoming more commonplace.

Masahiro Shibutani Director Business Unit Manager of Automotive Batteries

GS Yuasa International Ltd.

Long-term strategy (Vision for 2030)

Long-term vision

- Gain market share in the global market, where demand is expected to expand, by leveraging the technology used in eco-friendly vehicles cultivated in Japan
- Rebuild optimal global production system

Recognition of issues and the future image

Current issues There are growing overseas markets in which the market share is low

Vision for 2022 Expanded global share through applying technologies developed for eco-friendly vehicles in Japan

SWOT

Strengths Technological capabilities cultivated through R&D for Japanese automobile manufacturers Overwhelming brand power in Asia

Weaknesses

- Price competitiveness against Asian competitors (South Korea, China)
- Low market share in Europe, U.S., and China, where the demand is high

Net sales composition and major business activities in recent years



*The composition ratio including industrial applications



Future image of the company Build optimal global production framework

Opportunities

- Stable lead-acid battery demand in ASEAN and expanding demand in emerging markets
- Increase in demand for eco-friendly vehicles using lead-acid batteries

Threats

- Growth restricted by tightening of environmental regulations in each country
- Demand levelling off due to slowing global economy and expansion of sharing businesses

Jan. 2018 New company established in Myanmar

Nov. 2018 New plant starts operations in China (Tianjin)

Mar. 2019 New plant in Turkey with state-of-the-art technology starts operations

Automotive Batteries

Japan

Mid-Term Business Policy (Fifth Mid-Term Management Plan)

Business policy

Aim to shift to a more robust and streamlined business structure through optimal earnings mix

Strategy and important tasks

- Work to optimize market share and earnings by advancing selection and concentration with emphasis on profits
- E Fully demonstrate the strengths of the GS Yuasa brand and increase the weighting of high value-added products
- Productivity enhancement, cost reduction
- Develop high performance, high quality products
- Create synergies from transfer of Panasonic Corporation's lead-acid battery business

Performance plan

The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Performance by business sector in fiscal 2022 is currently being examined.



Review of operations

Fiscal 2019 (fiscal year ended March 31, 2020)

Net sales generated by the domestic automotive battery business in fiscal 2019 totaled 88,059 million yen (down 3,401 million yen year on year), and operating income was 6,976 million yen (down 789 million yen year on year).

The sales volume of new automotive batteries, especially EN batteries, increased (Data 1), but sales prices fell in line with the decline in lead prices (Data 3). In the replacement sector, sales of lead-acid batteries for ISS vehicles rose. In the overall replacement market, the ratio of high value-added lead-acid batteries for such vehicles became 25% (Data 2) which points to an improvement in the product mix.



Fiscal 2020 (fiscal year ending March 31, 2021)

Our business forecast for fiscal 2020 is as follows: net sales of 82 billion yen (down 6.9% year on year), operating income of 6 billion yen (down 14.0% year on year).

On the sales side, we will promote the expansion of high value-added products, and on the production side, we will plan measures to build an optimal production system and improve productivity through the use of AI and IoT.

Financial performance



Introduction Value Creation Initiatives Medium- to Long-Term Vision and Strategy Performance in FY2019 ESG Financial Section

Data



2 Ratio of shipped replacement batteries



3 Raw material prices



4 Capital investment







(Year/Month)



Demand for repair generated after a certain period of time from sales. Following the lead-acid batteries for ISS vehicles, there is an emerging demand for replacement of EN batteries. We aim to expand our share in the replacement market by incorporating such demand for replacements.

About 90% of the lead demand in Japan arises from the manufacture of storage batteries. Lead is an international market commodity, and its indicators are the London Metal Exchange (LME) price and the domestic lead price quote published by Mitsubishi Materials Corporation. Price fluctuations affect the selling price and profits of our storage batteries.



Our capital investment in fiscal 2019 was 2,151 million yen. This consisted mainly of update and renewal costs for existing facilities. We currently have four main manufacturing bases in Japan (Kyoto, Osadano, Gunma, and Shizuoka), and we are introducing automated equipment to streamline labor operations and improve quality.

Automotive Batteries

Mid-Term Business Policy (Fifth Mid-Term Management Plan)

Business policy

Aim to secure profits through selection and concentration of production and sales

Strategy and important tasks

- Work to enhance profit ratio by introducing new products and building an optimal production structure, while maintaining our share in regions with high market shares
- In regions with low market share, ensure sales expansion through enhancement of product line-up by building a sales and service framework
- Expand into each untapped region strategically, leveraging existing production sites

Performance plan

The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Performance by business sector in fiscal 2022 is currently being examined.



Review of operations

Fiscal 2019 (fiscal year ended March 31, 2020)

Overseas net sales generated by the automotive battery business in fiscal 2019 totaled 162,138 million yen (down 14,913 million yen year on year), and operating income was 9,187 million yen (down 739 million yen year on year).

Despite the impact that the novel coronavirus pandemic had in China at the end of the fiscal year, the sales volume of batteries both for automobiles and motorcycles increased year on year in line with the market growth in the ASEAN region (Data 1). Orders for high value-added products were particularly strong, and our Thai subsidiary improved its operating income ratio by 3.6 points year on year. On the other hand, the segment as a whole was affected by lower sales prices due to lower lead prices and foreign exchange rates due to the strong yen.

Fiscal 2020 (fiscal year ending March 31, 2021)

Our business forecast for fiscal 2020 is as follows: net sales of 153 billion yen (down 5.6% year on year), operating income of 7 billion yen (down 23.8% year on year).

In addition to developing new products and building a production system that meets the needs of customers in the respective markets, we plan to expand our business in strategically important locations such as Turkey (Data 3) and India.

Financial performance



Note: In fiscal 2019, some consolidated subsidiaries in the "automotive batteries (overseas)" segment were shifted to the "industrial batteries and power supplies" segment. Accordingly, the figures for fiscal 2018 have been reclassified to reflect the revised segment categorie





4 Capital investment







2030 (FY)

Both new car sales and car ownership numbers are showing an upward trend. To prepare for increased costs associated with exchange rate fluctuations and higher interest rates, we will expand sales, mainly to Turkey and to untapped markets in the Middle East, Africa, and Eastern Europe. We will also be preparing a business continuity planning that takes into account possible disruptions of the supply chain caused by geopolitical risks and their impact on factory operations.



Our capital investment in fiscal 2019 was 5,488 million yen. This represents an investment in a new automotive lead-acid battery plant in China (Tianjin). By introducing state-of-the-art labor-saving equipment, we are getting ready to meet increasing demand created by ISS vehicles and fuel-efficient vehicles in response to China's stricter emission regulations.

In the medium- to long-term, both new car sales and car ownership numbers are expected to increase, while new motorcycle sales are also expected to remain steady. While competition with local storage battery manufacturers is expected to intensify, maintaining market share and maintaining sales prices are challenges. We will be aiming to develop products that meet market needs, expand our sales in the replacement market, and expand sales in the Mekong Economic Zone.

In the medium- to long-term, car ownership numbers are expected to increase. For the future, the US-China trade dispute is expected to have a dampening effect on the growth of the new car market, while also leading to more severe competition in the replacement market. However, with a view toward the expected increase of ISS vehicles due to tightened emission regulations, we will be expanding sales of high value-added batteries for such vehicles.

Industrial Batteries and Power Supplies



Accelerating expansion strategies for key markets

Although some businesses have been affected by the novel coronavirus pandemic since April 2020, demand for communications infrastructure and data centers has continued to grow, driven by disaster prevention and 5G mobile communications system.

There are also some new results. We have independently developed a system that utilizes the IoT as a tool for proposing replacements for products that have exceeded their lifespan. This is a manifestation of the *Koto Zukuri* (service creation) concept promoted in the Fifth Mid-Term Management Plan. In the field of renewable energy, we have made a full-scale entry into the home energy storage device market.

I believe that acceleration is the key to realizing the aims of the Fifth Mid-Term Management Plan. In particular, it is important to increase the speed of execution of our expansion strategy into the renewable energy market and the Asian, European, and American markets. Of course, this requires close collaboration with other business units, but we will also seek to maximize results with a view to external alliances.

In fiscal 2020, we will begin delivering lithium-ion batteries for a large-scale wind power generation installation in Hokkaido. Relying on the strength of our full-fledged service framework, we will differentiate ourselves from competitors and enhance the Group's position in the electricity storage system market. Meanwhile, in the global market, we will identify target areas for

expansion, centered on the Group's existing overseas offices, and promote the development of an infrastructure for developing local production / local consumption businesses.

The future is of course difficult to predict, but we will pursue our expansion strategy based on rational risk-taking, aiming to achieve the plan as soon as possible.

Masaru Sawada Managing Director Business Unit Manager of Industrial Batteries and Power Supplies GS Yuasa International Ltd.

Long-term strategy (Vision for 2030)

Long-term vision

- Improve profitability by expanding sales of high value-added products and services utilizing IoT
- Expand sales of lithium-ion batteries in green technology and energy field such as renewable energy applications
- Expand overseas business by expanding local production for local consumption-type business

Recognition of issues and the future image



Vision for 2022 Focus is on the utilization of IoT and renewable energy fields

SWOT



In Focus

Share transfer agreement regarding acquisition of Infrastructure Business from Sanken Electric Signed

GS Yuasa International Ltd., a main operating company, signed a share transfer agreement with Sanken Electric Co., Ltd. in August 2020 regarding acquisition of Sanken Electric's infrastructure business. The share transfer is scheduled to be completed on April 1, 2021. Sanken Electric will spin off the infrastructure business from its power systems business and transfer it to subsidiary Sanken Densetsu Co., Ltd. through an absorption-type company split, and subsequently, GS Yuasa will acquire all outstanding shares of Sanken Densetsu.

Market conditions

New construction and expansion of data centers

> Expansion of demand of emergency power supplies

Intensification of competition due to market entry by competitors

Future image of the company **Overseas expansion of business** with local production for local consumption-type business

Opportunities

- Expansion of renewable energy
- Advance of disaster mitigation and BCP measures
- Strengthening of environmental and emission regulations
- Expansion of utilization of AI and IoT technologies

Threats

- Advances in replacement of lead-acid batteries
- with lithium-ion batteries
- Intensifying market competition due to entry by companies in
- other industries and manufacturers from China and South Korea
- Raw materials and distribution cost rises



Industrial Batteries and Power Supplies

Mid-Term Business Policy (Fifth Mid-Term Management Plan)

Business policy

Lay the groundwork for transition to a global energy solutions company that contributes to societal and environmental safety and security

Strategy and important tasks

- Introduce high value-added products and services to ensure survival in existing fields to be focused on
- Secure market position by making a strategic shift to new businesses in the environment and energy fields
- Leverage the ability, cultivated in the domestic market, to propose products, technologies, and services, in order to develop and nurture businesses in overseas markets that are optimized for each region

Performance plan

The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Performance by business sector in fiscal 2022 is currently being examined.



Review of operations

Fiscal 2019 (fiscal year ended March 31, 2020)

Net sales in the industrial battery and power supply business in fiscal 2019 totaled 84,566 million yen (up 4,523 million year on year), and operating income was 9,157 million yen (up 1,329 million yen year on year).

Sales of industrial batteries and power supplies (Data 1), our mainstay products, were strong, particularly in social infrastructure applications such as data centers and power plants. In addition, we released the DATAWINDOW-S storage battery monitoring system as an expansion of our IoT-based Koto Zukuri services. Sales of industrial lithium-ion batteries also expanded. Although the market for forklift lead-acid batteries is growing in the long term (Data 2), sales in this area decreased temporarily in fiscal 2019, mainly due to the suspension of operations at supplier plants due to typhoon damage and other factors.

Fiscal 2020 (fiscal year ending March 31, 2021)

Our business forecast for fiscal 2020 is as follows: net sales of 84 billion yen (down 0.7% year on year), operating income of 6 billion yen (down 34.5% year on year).

Focusing on industrial lithium-ion batteries, we will strive to capture new demand for non-emergency applications, while also improving profitability. We will be actively devising Koto Zukuri services for emergency applications making use of AI and IoT, and pursue an expansion strategy aimed at overseas markets where our presence and share are relatively low. The creation of operation bases for as yet unexplored areas is also part of the agenda.

Financial performance



Note: In fiscal 2019, some consolidated subsidiaries in the "automotive batteries (overseas)" segment were shifted to the "industrial batteries and power supplies" segment. Accordingly, the figures for fiscal 2018 have been reclassified to reflect the revised segment categorie



2 Production numbers of battery-driven forklifts in Japan



3 Ratio of renewable energy in Japan's annual power generation



Source: Institute for Sustainable Energy Policies, Ratio of Domestic Renewable Electricity in 2019 (Preliminary Report) Agency for Natural Resources and Energy, Measures for Realizing the "2030 Energy Mix" Policy

4 Capital investment











In Japan, the use of renewable energy such as solar power and wind power is necessary from the viewpoint of reducing CO₂ emissions and improving the energy self-sufficiency rate. The government is promoting a goal of 22% to 24% renewable energy in the domestic power supply composition in 2030.

In fiscal 2019, industrial batteries and power

supplies with good income margin started to

areas such as the private sector, government

agencies, and electric power showed growth.

Sales of lead-acid batteries for data centers and

power supply systems for power plants are on

deliveries of batteries and power supplies for

government agencies in keeping with the Plan

Compared to engine-powered forklifts that use

gasoline or diesel fuel, battery-powered forklifts,

which are driven by electric motors, help to reduce

battery-powered forklifts is increasing year by year.

CO₂ emissions. The production volume of

the rise. We are also seeing an increase in

for National Resilience.

perform very well. In terms of demand sources,



Our capital investment in fiscal 2019 was 1,703 million yen. This was for updating and renewal of existing facilities. We also made capital investments in facilities for utilizing AI and IoT in accordance with the Fifth Mid-Term Management Plan.

Automotive Lithium-ion Batteries



Devoting management resources to business expansion

Against the backdrop of tighter corporate average fuel economy (CAFE) and CO₂ emissions regulations, we increasingly receive inquiries from Japanese automakers about lithium-ion batteries for hybrid electric vehicles (HEVs). On the other hand, there are only a limited number of suppliers, and there is healthy competition on the market. In light of these trends, we will focus on investing in lithium-ion batteries for HEVs and swiftly implement various measures to take advantage of business chances.

In fiscal 2019, the automotive lithium-ion battery business as a whole recorded an operating loss due to upfront investment, but business results are steadily improving. We increased orders from existing customers for lithium-ion batteries for HEVs and added a major Japanese company to our roster of customers. Our Blue Energy subsidiary, a manufacturer of lithium-ion batteries for HEVs, achieved cumulative loss elimination in fiscal 2019. As a result of these achievements, we forecast that sales and profit will increase in the medium to long term after fiscal 2021. In order to secure the necessary production capacity, it was decided to build a second Blue Energy plant, which is expected to be completed in fiscal 2022.

Fiscal 2019 also saw the completion of our plant in Hungary to produce 12V lithium-ion batteries which started operations in October. While firming

up our mass production framework,

we are also working to improve profitability.

Recent predictions expect that new car sales will decrease due to the influence of the novel coronavirus pandemic. The business environment for automotive lithium-ion batteries, which are functional components of eco-friendly vehicles, is expected to be difficult, but we will strengthen our business foundation by making capital investments and improving our earnings structure to achieve the goals of the Fifth Mid-Term Management Plan and subsequent growth.

Kenji Kohno Executive Officer Business Unit Manager of Lithium-ion Batteries GS Yuasa International Ltd

Long-term strategy (Vision for 2030)

Long-term vision

- Establish our position and improve profits through enhancement and evolution of alliances with reliable partners
- Promotion of hybrid electric vehicles (HEVs) and 12V lithium-ion batteries
- Expand on successes in development of high capacity batteries for plug-in hybrid electric vehicles (PHEVs) and other electric vehicles (EVs) into industrial applications

Recognition of issues and the future image

Current issues **Excessive capital** investment competition

Vision for 2022 Promoting lithium-ion batteries for HEVs and 12V lithium-ion batteries

SWOT

Strengths Stable supply of lithium-ion batteries for HEVs Advance expansion into 12V lithium-ion battery market Extensive track record of supplying to Japanese and European manufacturers Weaknesses Stable material procurement capability

- Ensuring management resources that reflect the growth of lithium-ion battery market
- Competitiveness against rival manufacturers of high capacity lithium-ion battery

In Focus

grow to 7.85 million units by fiscal 2035.

Since first delivering HEV batteries to Honda Motor Co., Ltd. in fiscal 2011, we have steadily expanded our production capacity and began supplying HEV batteries to Toyota Motor Co., Ltd. in fiscal 2020. In fiscal 2019, the decision was taken to build a second Blue Energy plant in order to meet the further expansion of demand. We plan to double our production capacity by 2023.





(all-solid-state batteries)

Automotive Lithium-ion Batteries

Mid-Term Business Policy (Fifth Mid-Term Management Plan)

Business policy

Build the foundation for a differentiation strategy with a view to future business expansion by grasping changes in the business environment in advance

Strategy and important tasks

- Focus on lithium-ion batteries for HEVs primarily for Japanese manufacturers, 12V lithium-ion batteries for European manufacturers, and industrial-use lithium-ion batteries
- Strengthen coordination with existing customers for long-term dealings involving lithium-ion batteries for PHEVs and other EVs
- Promote development of future technologies that will differentiate us from competitors

Performance plan

The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Performance by business sector in fiscal 2022 is currently being examined.



Review of operations

Fiscal 2019 (fiscal year ended March 31, 2020)

Net sales in the automotive lithium-ion battery business in fiscal 2019 totaled 42,264 million yen (down 3,320 million year on year), and operating loss was 1,708 million yen (deteriorated 2,009 million yen year on year).

Global demand on the HEV market (Data 1) is growing worldwide, and our sales volume increased in fiscal 2019 when we started supplying lithium-ion batteries for new HEV models. On the other hand, overall segment sales declined due to a drop in sales of lithium-ion batteries for PHEVs to overseas automobile manufacturers. In terms of profit and loss, the increase in costs associated with the start of operations at the Hungary plant had an impact.

Fiscal 2020 (fiscal year ending March 31, 2021)

Our business forecast for fiscal 2020 is as follows: net sales of 33 billion yen (down 21.9% year on year), operating loss of 2 billion yen (deteriorated 292 million yen year on year).

In addition to expanding sales of lithium-ion batteries for HEVs and enhancing our production capacity, we will launch and steadily pursue mass production of 12V lithium-ion batteries at our plant in Hungary. We will also strive to provide a stable supply of lithium-ion batteries for the power storage system market, which we entered in fiscal 2019.

Financial performance







Source: Fuji Keizai, 2020 Edition In-depth Analysis Survey of HEV- and EV-related Markets *Outlook for 2020, forecast for 2021 and beyond

3 Ratio of next-generation vehicles* in new vehicle sales (passenger cars) in Japan



2008 Source: Website of Japan Automobile Manufacturers Association, Inc. *HEVs, PHEVs, EVs, FCVs, clean diesel vehicles





the novel coronavirus pandemic and other factors, demand for HEV-use lithium-ion batteries will temporarily decline as well in 2020, but because of the strong HEV focus of Japanese automakers in particular, demand is expected to keep growing in the medium and long term.

The ratio of next-generation vehicles such as HEVs and PHEVs in new vehicle sales in Japan is increasing year by year. Globally, the demand for HEVs, which do not require recharging and have high environmental performance, is growing, especially in Europe and the United States.





Our capital investment in fiscal 2019 was 5,030 million yen. This was primarily due to the initial investment for mass production at Blue Energy and the initial costs associated with the start-up of the Hungary plant.

Others



Mid-Term Business Policy (Fifth Mid-Term Management Plan)

Business policy

Contribute to the building of new societal infrastructure through batteries with the highest level of performance and quality

Strategy and important tasks

- Work to provide stable supply of lithium-ion batteries for submarines and enhance their quality
- Expand sales of lithium-ion batteries for aircraft and satellites by improving reliability and durability

Extreme environments from deep sea to outer space

Pursue further improvements to technological capabilities by providing storage batteries able to continue supplying power even under harsh conditions

Performance plan

The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Performance by business sector in fiscal 2022 is currently being examined.



Review of operations

Fiscal 2019 (fiscal year ended March 31, 2020)

Net sales generated by other business in fiscal 2019 totaled 18,525 million yen (down 422 million yen year on year), and operating income was 322 million yen (improved 1,077 million yen year on year).

Production of lithium-ion batteries for submarines proceeded steadily. Sales of lithium-ion batteries for aircraft also expanded. However, sales of lithium-ion batteries for satellites contracted. Profitability improved over the previous year as a result of cost reductions in administration and research and development.

In Focus

Supplying lithium-ion batteries for the International Space Station

Lithium-ion battery manufactured by the GS Yuasa Group for the International Space Station (ISS) were loaded onto the H-II Transfer Vehicle (HTV) Kounotori 9, which was successfully launched by the H-IIB Launch Vehicle Rocket No. 9 in May 2020. Following on from 2016, 2018, and 2019, this is the fourth time that such a transfer was successfully achieved. The batteries transported to the ISS will be installed by the astronauts in the course of their extravehicular activities (EVA) to replace earlier units, starting with the older nickel-metal hydride batteries.

The HTVs transporting supplies to the ISS have been using lithium-ion batteries manufactured by our Group since the first vehicle, and they have also been selected for use in the new H-II Transfer Vehicle (HTV-X), which is scheduled for launch in 2021 and beyond. In this way, the Group will continue to support ISS operation in the future as well, contributing to the progress of society by developing and delivering batteries for use in space.

Fiscal 2020 (fiscal year ending March 31, 2021)

Our business forecast for fiscal 2020 is as follows: net sales of 18 billion yen (down 2.8% year on year), operating loss of 1 billion yen (deteriorated 1,322 million yen year on year).

We will continue to provide a stable supply of lithium-ion batteries for submarines, and we will expand this technology to other applications as well. We will also focus on expanding sales of lithium-ion batteries for use in aircraft and satellites.





Actively Investing in New Technology and New Product Development

Corporate structure

The GS Yuasa Group carried out proactive research and development covering basic research through to the development of products and manufacturing technologies for every business segment: Automotive Batteries, Industrial Batteries and Power Supplies, Automotive Lithium-ion Batteries and other businesses.

In Japan, research and development of automotive batteries is conducted mainly by the GS Yuasa's Technology Development Department, Automotive Battery Technology Department, and GS Yuasa Energy's Technology Development Department. Overseas, the main actors are the technology development departments of overseas production bases, GS Yuasa's Technology Development Department, Automotive Battery Technology Department, and GS Yuasa Asia Technical Center Ltd. Research and development of industrial batteries and power supplies is carried out by GS Yuasa's Technology Development Department, the Engineering Department of the Industrial Battery Production Division, the Development Department of the Power Supply Systems Production Division, the Production Department of the Lighting Division, and the Technical Production Department of Yuasa Membrane Systems. Research and development of automotive lithium-ion batteries is being conducted by GS Yuasa's Research and Technology Development Department, Lithium Energy Japan's Technology Department, and Blue Energy's Technology Development Department. Research and

development in other sectors is carried out by GS Yuasa's Research and Technology Development Department and the GS Yuasa Technology's Technology Department, respectively.

Research and development costs



Note: The costs in the automotive battery business for Japan and overseas have been totaled since fiscal 2017.

Outline of R&D framework

	Automotive Batteries
GS Yuasa	Japan • GS Yuasa: Automotive Battery Technology Department
	 GS Yuasa Energy: Technology Development Department, etc.
	Overseas • Technology development departments of overseas production bases
D&D Conton	 GS Yuasa: Automotive Battery Technology Department
R&D Center	 GS Yuasa Asia Technical Center Ltd., etc.
Research and development of next-generation lithium-ion batteries and post lithium-ion batteries	
batteries and post infiniti-rion batteries	Industrial Batteries and Power Supplies
	GS Yuasa: Engineering Department of Industrial Battery Production Division,
LIB Technical Center	Development Department of Power Supply Systems Production Division, Production Department of Lighting Division
	• Yuasa Membrane Systems: Technical Production Department, etc.
Research and development of lithium-ion battery peripheral components, production technology, and	
existing products	Automotive Lithium-ion Batteries
	 Lithium Energy Japan: Technology Department
Global Technology	 Blue Energy: Technology Development Department, etc.
Management Center	
Basic research and development of new materials for lead-acid batteries, development of new technologies and	Others
products for automotive and industrial lead-acid batteries	 GS Yuasa Technology: Technology Department, etc.

R&D conditions by business sector

Automotive battery business (Japan)

In the automotive lead-acid battery field in Japan, adoption of our EN (European Norm) batteries for European vehicles manufactured by Japanese manufacturers is increasing, and so far, we have successfully expanded to a wide-ranging lineup of the ECO.R ENJ series compliant with those standards including six varieties for general use (LNO-LN5), and three varieties for ISS vehicles (LN2-IS, LN3-IS, and LN5-IS) . In addition, in response to an increase in demand for replacement of EN batteries for vehicles made by Japanese manufacturers overseas, in fiscal 2019, we expanded the same variety overseas. Further, we have updated the environmentally-friendly ECO.R by actively using recycled materials. We have enhanced durability against deterioration from low-level electrical discharge, which is increasing as a result of changes in riding formats such as vehicles used primarily for short trips, as well as changes in vehicle control. We also improved durability against high temperatures in engine compartments, which is of concern as a result of increased temperatures due to climate change and higher-power engines.

In the area of lead-acid batteries for Japanese-market motorcycles, we are engaged in developing new technologies for leisure bikes, general commuter bikes, and others. In the motorbike sector also, interest in eco-friendly vehicles, such as ISS vehicles and HEVs, is rising. The high durability and excellent charge acceptance performance of our batteries make them preferred choices for such applications as well. Additionally, we are developing lead-acid batteries exclusively for motorcycles that are the eco-friendly vehicles.

Automotive battery business (Overseas)

In the field of automotive lead-acid batteries for overseas markets, we are developing products and manufacturing technologies for charge control vehicles and ISS vehicles produced and used overseas. At Turkey's Inci GS Yuasa Aku Sanayi ve Ticaret Annimim Sirketi which was incorporated in 2015, we developed the LN2, LN3, and LN5 of the "YBX5000" series of lead-acid batteries for high performance start-up and are also developing lead-acid batteries for ISS vehicles in the European market. We are also developing auxiliary batteries for HEVs and EVs produced and used overseas and will roll them out to markets in stages.

For the overseas motorcycle market, we developed medium-capacity class valve-regulated lead-acid batteries for medium-sized motorcycles, responding to the expanding production of such motorcycles for export in Southeast Asia, and are conducting phased market deployment. We also developed valve-regulated lead-acid batteries for commuter motorcycles and ISS motorcycles in the Indian market, which is expected to grow substantially. This has boosted our product lineup and has resulted in orders for use in new bikes.

Additionally, we have developed valve-regulated lead-acid batteries with special exhaust structures, while utilizing motorcycle battery technologies for use in European luxury car system startup and as backup batteries. We have introduced them to the European repair market and are working on expanding the types of batteries for such purposes.

Industrial battery and power supply business In the industrial lead-acid battery field, we are developing valve-regulated lead-acid batteries with greatly improved high-rate / short-time backup performance for use in data centers and 5G base stations, for which demand is expected to grow in North America and other overseas markets. Currently, we are steadily proceeding with advanced trial production on a mass production line, and plan to expand the product lineup in the future. Earlier, we developed an industrial lead-acid battery at our Vietnam plant and started production in fiscal 2017. In order to meet the strong demand of the communication market in Southeast Asia and further expanding the lineup, we launched mass production of four 2V type products and a new 12V front terminal type product in fiscal 2019. In Japan, the SNS-TN series, which combines Japan's highest level of discharge durability with long life in standby use, was launched in fiscal 2019 for applications with relatively frequent discharges, such as in railway ground equipment.

In response to expanding overseas demand for lead-acid batteries to be used in battery-powered forklifts, we launched new products in China (5 DIN type products), Thailand (2 DIN type products), and Pakistan (3 EB battery type products).

In the power supply market sector, we developed

the general-purpose UPS "Acrostar THA2-1000" (1 kVA) with a constant inverter power supply system. Power consumption has been reduced by 20% compared to the previous model, a significant reduction further enhanced by the adoption of the Smart Eco Mode system. Thanks to an extension of the standard design life of the UPS itself to eight years, running costs can also be reduced. In addition, we have developed the V2X bidirectional charger "VOXSTAR" that enables charging / discharging of EVs and PHEVs.

Most V2H equipment is designed for home use, and single-phase equipment with a maximum power consumption of 6 kW is the norm, but for public use, we have successfully realized the industry's first V2H-certified equipment with a 3-phase design and a capacity of 10 kW. Configuring a V2X system in combination with a stationary storage battery type PCS makes it possible to actively use vehicle storage batteries in a system that not only is suitable for business continuity planning (BCP) applications but also offers energy management system (EMS) compliant regulating force.

In the field of industrial lithium-ion batteries, we launched the "LIM50EL series" of lithium-ion battery modules. While being compatible with the conventional "LIM50EN series," we have succeeded in reducing the capacity degradation during cyclic operation to about 50% and the capacity degradation during float operation for backup applications to less than 50%. As a result, the new products can support extended use with frequent charge / discharge cycles which makes them suitable not only for disaster mitigation infrastructure facilities but also for playing an active role in the power demand adjustment market. We also developed the large-scale battery storage system module "LEPS-1-16." By adopting a newly developed cell with improved energy capacity and increasing the number of cells mounted per module from 12 to 16, we were able to increase volumetric energy density by a factor of 1.73 as compared to the earlier "LIM50EN-12." The modules will be installed in the world's largest storage battery system with an output of 240 MW and a capacity of 720 MWh, to be built in the town of Toyotomi, Hokkaido, to mitigate fluctuations in wind power output.

In the lighting sector, we worked on expanding our palette of HID replacement LED lamps and other lineups, and our LEGA Lamp R was honored with the 2019 Energy Conservation Grand Prize.

In the field of environment-related equipment, we harnessed the graft polymerization technology applied to battery separators to embark on developing electrolytic diaphragms for hypochlorous acid generators. We are also developing membranes with less clogging for membrane bioreactors (MBR) and are working on expanding sales to large customers.

Automotive lithium-ion battery business

The basic research on lithium-ion batteries included studies aimed at increasing the reliability, safety, and energy density of medium and large-sized batteries. To improve the performance of lithium-ion batteries, we explored materials for next-generation positive and negative electrodes and improved their capabilities. We also conducted research on post lithium-ion batteries.

With regard to automotive lithium-ion batteries, we are engaged in enhancing mass production capabilities of products for EVs, PHEVs, and HEVs. We are widening our product palette with a focus on even better reliability and higher safety. We are also developing automotive 12V lithium-ion batteries.

Other businesses

Our other business activities include research and development of lithium-ion batteries for aircraft and spacecraft applications and research on post lithium-ion batteries.

In the aviation sector, we have supplied lithium-ion batteries used in the Boeing 787 aircraft. In the space exploration sector, our lithium-ion batteries for rocket applications have been adopted for the liquid fuel rockets H-II A, H-II B, and Epsilon.

In December 2016, the H-II Transfer Vehicle Kounotori 6 began transportation of lithium-ion batteries to be used for supplying power to the International Space Station, and transportation of all batteries was completed by the H-II Transfer Vehicle Kounotori 9 launched on May 21, 2020.

ESG

Materiality	61
Environment	62
Social	65
Governance	69
Messages from Outside Directors andan Outside Corporate Auditor	77
Directors and Auditors	79
List of Items on CSR Website	81

Materiality

Incorporating materiality (key CSR issues) into Group business strategy

To reflect CSR issues in our business strategy, the GS Yuasa Group analyzes and assesses the impact on business and the impact of our business on society and then clarifies the Group's materiality for items that need to be addressed. Regarding the specified materiality, as necessary we have set targets relating to our business strategy and, to achieve those targets we have formulated concrete activity plans, "the materiality response plans," and key performance indicators (KPIs) to gauge progress in achieving the goals.

Materiality is periodically revised by the GS Yuasa Group CSR Committee in accordance with stakeholder needs/expectations and social issues. When incorporating materiality into business strategy, the CSR Committee formulates plans that will lead to enhanced stakeholder satisfaction through the strengthening of our corporate infrastructure and enhancement of corporate value.

The GS Yuasa Group aims for enhanced management

of financial and non-financial operations, as well as for sustainable corporate and social growth through execution of business processes that incorporate materiality in the Mid-Term Management Plan.

Overview of CSR promotion process



About the ESG bulletin in this report

The GS Yuasa Group has incorporated the materiality response plans in its business strategy and set the following ESG targets in its Fifth Mid-Term Management Plan. This report presents an overview of materiality items that are closely related to the mid-term management plan. Information about relevant details and other activities will be disclosed on the company's website.

ESG Targets Incorporated into the Fifth Mid-Term Management Plan and the Progress Status



Environment

Developing and popularizing environmentally considered products

Materiality

- Market expansion for our products contained in environmentally conscious products (for use in low-emission vehicles, etc.)
- Development of products enhancing environmental performance

Popularizing environmentally considered products

Percentage of environmentally considered products in total sales of all products	

The GS Yuasa Group defines environmentally considered products as those products that help mitigate global warming, and we are actively working to develop and popularize such products.

In fiscal 2019 we started incorporating into the Group's Mid-Term Management Plan sales targets for environmentally considered products, making it part of our business strategy to work on climate change through the products we provide to customers.

The sales ratio of environmentally considered products in fiscal 2019 was 34%. We have achieved our annual target (28% or more) by increasing sales of vehicles with start-stop systems (ISS: idling stop systems) with that achieve low fuel consumption and products for power generation systems that utilize renewable energy. Going forward, we will continue to promote activities to provide customers with products that meet market needs related to global warming.

Examples of environmentally considered products Item Description

Storage battery systemA system to effectively utilize renewable energy (power conditioners, lithium-ion battery, etc.)Automotive lithium-ion batteriesHybrid vehicle (HEV) batteries and electric vehicle (EV) batteries that contribute significantly to reducing greenhouse gases	Batteries for ISS vehicles	Batteries for ISS vehicles for improving gas mileage by allowing the engine to stop instead of idling to reduce fuel consumption
Automotive lithium-ion batteries and electric vehicle (EV) batteries that contribute significantly to	Storage battery system	renewable energy (power conditioners,
		and electric vehicle (EV) batteries that contribute significantly to

Promoting environmental protection

Materiality

- Promotion of effective use of water resources
- Contribution to realization of low-carbon society
- Prevention of environmental pollution
- (thorough environmental risk management)
 Improvement in ratio of use of recycled materials in products provided to markets

Reduction of CO₂ emissions

Indicator

Target (FY2021)

CO₂ emissions

6% reduction compared to fiscal 2018

The Group is working to reduce CO_2 emissions in production activities worldwide. From fiscal 2019, we have incorporated global reduction targets into our Mid-Term Management Plan.

With the reduction rate of CO_2 emissions being 2% in fiscal 2019, we have achieved our target for the year (2% or more). We believe energy saving activities in production processes such as storage battery charging processes and the parts manufacturing processes contributed to the achievement of the targets.

In the future as well, we are committed to continued efforts to reduce greenhouse gas emissions through activities that enhance operational efficiency.



Changes in the CO₂ emissions for the Group* (t_{-CO_2})

* We have been expanding the scope of application since fiscal 2018.

Environment

Reduction of water consumption



The Group is working to reduce water consumption in production activities worldwide. From fiscal 2019, we have incorporated global reduction targets into our Mid-Term Management Plan.

With the water consumption reduction rate in fiscal 2019 being 2%, the annual target (3% or above) could not be achieved. This was due to some problems including issues with the water circulation facilities at our domestic business sites, but we are committed to continue conducting activities to promote recycling of water.

Changes in the water consumption for the Group*



Appropriate environmental information disclosure

The Group conducts information disclosure in response to the CDP. The CDP requires companies to disclose information of environmental strategies based on the needs of institutional investors and customers.

For the volume of greenhouse gas emissions, we disclose information for which the authenticity of data has been secured though third-party verification.* We are also promoting disclosure of information on performance and countermeasures with regards to water risks.

In the future as well, we are committed to working on disclosure of appropriate environmental information in response to the needs of various stakeholders.

* We have received third-party verification from SGS Japan Inc.

Increasing ratio of recycled lead used in products



The GS Yuasa Group is working to increase the usage ratio of recycled lead–the primary material used in lead-acid batteries, one of our core products.

In fiscal 2019 we started taking action to work toward a recycling-oriented society as part of our business strategy by incorporating targets for the usage ratio of recycled lead into the Mid-Term Management Plan.

The GS Yuasa Group has been taking action to recycle our post-use products by building and operating a recycling system based on extended producer responsibility (EPR). Going forward, we also plan to strengthen our efforts to promote the use of recycled materials in our products.

With the ratio of recycled lead used being 42% for fiscal 2019, we have achieved the annual target (31% or more). We believe that this can be attributed to the speedy improvement in the usage rate of recycled lead at overseas Group companies that led to a significantly higher use of recycled lead for lead-acid batteries than initially estimated. We are committed to continued efforts to maintain and improve this level.

Initiatives for the Task Force on Climaterelated Financial Disclosures (TCFD)^{*1}

In the recommendations published by the TCFD in June 2017, in order to stabilize financial markets through a smooth transition to a low-carbon society, companies are being called on to disclose information on medium- to long-term climate-related risks and opportunities and their financial impact.

In December 2019, the GS Yuasa Group expressed its support for the TCFD recommendations and affirmed its participation in the TCFD Consortium.

The GS Yuasa Group recognizes that climate-related issues that may have a significant long-term impact on corporate management are important management issues, and believes that it is necessary to promote strategies for responding to such issues. For this, the Group initiated the work of examining risks and opportunities based on climate change scenarios in fiscal 2019 that took into account the information disclosure scheme proposed by the TCFD. We are promoting analysis of risks and opportunities in respective scenarios taking as basis the $2^{\circ}C$ scenario, which assumes that a low-carbon society has

Risks and opportunities being examined as potential candidates

Classification Area Value Chain Stage Content

Oppor	Products and Services	Sales	With the spread of renewable er large-scale storage batteries for p expected to increase through the market needs.
Opportunities	Products and Services	Sales	The below 2°C and the 2°C scena and HEVs and EVs will become p the right time, we expect to see
Transition Risks	Regulations	Procurement	The 2°C scenario suggests that catargets and costs of procurement conservation and use of renewals
on Risks	Markets	Sales	Considering the implications of b including for gasoline vehicles in in the long term. It is necessary t
Physical Risks	Short-term Risks	Direct Operations, Procurement	There are concerns about suspen due to flood damage caused by damage at our company plants h
l Risks	Long-term Risks	Direct Operations	Some overseas affiliated compan necessary to adopt measures incl ensure sufficient water for busine

been realized through the achievement of the goal^{*2} related to the increasing global average temperature, and the $4^{\circ}C$ scenario, which assumes that this goal has not been achieved and global warming has progressed.

The following table lists the risks and opportunities being currently examined as potential candidates. In particular, trends in the automotive market affecting the automotive battery business, which is our main product, are considered important in terms of both risks and opportunities. In addition, the spread of renewable energy on a global scale is being seen as a major opportunity to expand sales of storage battery systems.

In the future, we are committed to promoting identification of risks and opportunities using the TCFD and to the development of business strategies, as well as to making concerted efforts for appropriate disclosure of information related to climate change.



- *1 An organization established by the Financial Stability Board at the request of G20 for examining climate-related information disclosure and ways in which financial institutions can respond
- *2 The goal of keeping the global average temperature increase well below 2°C compared to the pre-Industrial Revolution levels

nergy, it is expected that there will be an increase in the demand for power storage facilities necessary for power supply stabilization. Sales are the development of power storage systems and product development that meet

arios suggest that the market for gasoline cars will expand in the medium term popular in the long term. By launching products that meet the market needs at an increase in market share.

carbon taxes will be increased to meet each country's CO₂ emission reduction nt of energy from fossil fuels will increase. Additional initiatives for energy able energy will become important.

below 2°C and 2°C scenarios, as well as regulatory planning conditions n Europe, it is expected that the gasoline vehicle market will shrink significantly to transform business models to respond to market changes.

nsion of operations at our company plants and disruption of the supply chain abnormal weather. A survey to analyze and evaluate losses caused by flood has been conducted from fiscal 2019.

nies have concerns about the future risk of drought in a 4 \degree scenario. It is cluding reduction in the amount of water used and promoting water reuse to ness activities.

Social

Respect for human rights

Materiality

- Promotion of compliance training and thorough dissemination of hotline report system
- Comprehensive human rights risk management

Promoting human rights education

The GS Yuasa Group promotes fair employee selection, evaluation and training based on ability and performance. We prohibit discrimination in recruitment, personnel assessment and other employee circumstances. Also, we respect diversity irrespective of race, gender, sexuality, nationality, place of birth, disability, religion or political opinion.

The GS Yuasa Group has established and enforces the basic rules on forced labor and child labor. We build a system to take immediate corrective action upon discovering forced labor or child labor by a supplier.

Related CSR Code of Conduct

• Prohibition of forced labor and child labor

We will neither force labor, nor employ children under the legal working age. Furthermore, we will not tolerate forced labor or child labor in any way. • Avoidance of complicity in human rights abuse Directly or indirectly, we will not be complicit in human rights abuse.

The GS Yuasa Group conducts employee education to implement business activities with respect for human rights.

The following enlightenment and education initiatives help employees grasp various human rights issues and the importance of business activities keyed to human rights. When necessary, personnel participate in human rights management training sessions, nurturing and expanding knowledge vital in properly recognizing and evaluating human rights risks and their negative effects.

Human rights respect education

- Worksite training (meetings, discussions) in respect for human rights and avoiding harassment
- Distribution of booklets and internal e-mail newsletters designed to increase respect for human rights
- Distribution of our Group CSR policy manuals
- Human rights risk explanatory meetings targeting overseas site managers

In fiscal 2019, we conducted worksite trainings in the form of meetings on the theme of respect for human rights. Based on results of the analysis of educational effects, we assessed that employees' awareness of human rights has improved. In addition, in order to conduct training in human rights risk for employees transferred overseas, we have created training materials that take into account the harassment regulations in each country.

Respect for diversity

Materiality

• Promotion of development of the skills of women

Promoting women's roles

The GS Yuasa Group believes that providing the environment and opportunity for women's roles will enable every woman to shine, which in turn will help us achieve the "innovation and growth" stated in our philosophy. In an effort to do so, the Group is taking steps to promote women's roles with the aim of enabling them to maximize their potential in whatever they do. By raising the motivation for self-growth and increasing the number of active roles for female employees through the synergistic effects of the three L's, (Link: Strengthen links among our people; Life: Warmly embrace the different life events; Lead: Lead women toward opportunities for autonomy and growth), we aim to be a company where every female employee can shine in her own unique way.

Of the 56 recent graduates hired for career-track positions in fiscal 2019, 11 were women. The target of 30% or more has not been achieved. We are committed to continued efforts to achieve our target.

Action plan promoting women's roles (April 1, 2019 to March 31, 2022)

- **Objective 1** Raise ratio of women among new graduates recruited for career-track positions every year to over 30%
- **Objective 2** Raise understanding of childcare support systems to encourage male employees to participate in childcare
- **Objective 3** Raise the maximum limit on use of half-day paid leave

Human resource development

Materiality

 Promotion of human resource development programs

Human resources development and appropriate ability assessment

At the GS Yuasa Group, front-line workplaces are the engine that generates corporate value, and the lead players in those workplaces are our employees. We believe the best training is on-the-job training, so with a strong focus on management by objective we implement training to nurture autonomous-minded human resources.

In off-the-job training, employees take part in communications training and voluntary training for career development and the improvement of management skills. With respect to career development, we promote career management in which all employees take the initiative in setting goals and thinking about their vision of work by implementing annual reviews relating to career formation.

In fiscal 2019, we conducted stratified training programs and quality management education based on our annual plan to improve our employees' problem-solving skills. In the future as well, we plan to promote activities to support the career development of employees.

Average annual human resources development training hours per employee (FY2019, GS Yuasa International Ltd.)

em Classification		Average training hours	
Gender	Male	7.2	
Gender	Female	11.3	
Types of	Indefinite-term employment	8.2	
employees	Fixed-term employment	0.1	

Enhancement of work environments and occupational health and safety

Materiality

- Promotion of the thorough management of employees' working hours and prevention of the recurrence of long working hours
- Promotion of labor safety and health risk management

Provision of comfortable working environment

The GS Yuasa Group believes that it is important for everyone to fully demonstrate their capabilities and to continue working zealously in good physical and mental health, and promotes initiatives that emphasize ease of work and job satisfaction. We also strive to establish friendly work environments that facilitate communication.

To progressively raise employee satisfaction, the Group moves to secure outstanding personnel, boost labor productivity and otherwise enhance its corporate competitiveness.

Top-management-promoted health and safety measures

The GS Yuasa Group promotes company-wide endeavors to build a corporate culture of safety.

The Health and Safety Declaration by the president of our company states our commitment to our employees of our utmost efforts to protect them from illness and injury. In addition, we also ensure that employees are informed about our Health and Safety Policy which presents the fundamental approach to health and safety.

In order to promote health and safety throughout the company, our Occupational Safety and Health Division oversees the strengthening of health and safety management for the entire Group. In addition, we established organizational structures and carry out safety and health measures centered on safety and health committees established in individual business divisions and companies.

Our Health and Safety Policy is available on our website: https://www.gs-yuasa.com/en/csr/working_env.php

Social

Board of Directors President Management Meeting Officer in Charge of Safety & Health Occupational Safety & Health Division Domestic business sites Overseas Group companies

Health and safety organizational structure overview

Reducing occupational accident risk

At all worksites of plants at domestic business sites, we identify potential hazard sources by conducting general inspections and take mitigation measures according to the scale of the risk. Similar measures are also taken concerning indications made by periodic on-site safety patrol activities conducted under the leadership of the safety and health officer. We also periodically take work environment measurements and conduct specialized health exams to monitor the effects of hazardous substances on employees and based on the results, make improvements to work environments.

We continuously reassess occupational accident risks and indicate sources of risk at the production plants of overseas Group companies based on the results of safety and health audits conducted by CSR promotion members. When improvements concerning indications are made, information on domestic management criteria and operational processes is shared, leading to lower risk throughout the Group.

In fiscal 2019, there were no major occupational accidents for the Group. In the future as well, we will continue to promote education to raise employees' awareness about safety and are committed to improvements in measures to prevent occupational accidents.

Provision of high-quality products

Materiality

- Promotion of quality improvement and strengthening of quality communication (utilization of quality management system)
- Strengthening of maintenance service setup
- Promotion of product safety education

Ensuring quality and safety through company-wide quality management

The GS Yuasa Group is promoting initiatives aiming to improve the quality of the products and services offered to our customers on a group-wide basis, based on the GS Yuasa Quality Policy. To remain a manufacturer trusted by customers at all times, the GS Yuasa Group approaches manufacturing activities from the customer's perspective and works relentlessly to improve the quality of products and services.

To maintain this trust, we formulated, under the leadership of top management, the GS Yuasa Quality Management System based on the ISO 9001 standard and are promoting a quality management system that crosses business divisions. The quality of our products and services is discussed company-wide every month by the Quality Management Committee, which is chaired by a director (the executive officer in charge of quality), to enable us to enhance quality by responding swiftly to any change.

As part of our initiatives to pursue manufacturing, we are making utmost efforts to bolster the awareness of quality among employees and to boost their understanding and skills related to quality management through quality-related education courses to all employees and improvement team activities company-wide, thereby enhancing the quality of our products and services.

In fiscal 2019, the achievement rate for quality targets pertaining to the occurrence of complaints and in-process defects was 95%. We will continue to strive to achieve our goals regarding quality loss through quality improvement activities.

Our Quality Policy is available on our website: https://www.gs-yuasa.com/en/csr/quality_management.php

Quality management organization



Initiatives for product safety and swift dissemination of information

Ensuring product safety of GS Yuasa Group's products has been positioned as a critical challenge because our products store, control, and convert electrical energy.

We created a companywide organization centered on the Product Safety Management Committee to undertake measures for ensuring product safety. We promote developments in business divisions after assessing conformity with product safety standards as well as the safety of products as they are used, age and deteriorate. For this reason, we are strengthening our product realization procedures using know-how gained from case studies of failures, failure mode and effect analysis (FMEA), design review based on failure mode (DRBFM), and fault tree analysis (FTA). In addition, we gather information on issues with product safety and provide this to top management without delay as part of a system that we have established and are operating to ensure a swift response.

In fiscal 2019, we implemented education for engineers on product safety risk assessment. We also conduct workshops for managers on product safety overview. We are committed to continued strengthening of product safety management through the achievement of the voluntary action plans for product safety management formulated by each department.

In fiscal 2019, there were no major safety accidents for the Group.

CSR procurement promotion

Materiality

Responses to responsible mineral procurement
 Management of supplier CSR risks

CSR procurement initiatives

Given that forced labor, child labor, and environmental destruction are becoming international social issues, it is vital to base procurement in CSR championing human rights, working conditions, and the global environment along with quality, pricing, delivery deadlines, and other conventional supply demands.

In fiscal 2018, the GS Yuasa Group published the CSR Procurement Guidelines and issued it to suppliers to better clarify the practices of responsible procurement. The Guidelines is designed to improve mutual performance and reduce business risks by contributing to a sustainable society through partnerships with suppliers. Briefings targeting tier one suppliers are held to promote understanding and raise awareness of the spirit and key points in the Guidelines throughout the supply chain. Further, in the case of new transactions, we select suppliers that conform to the Guidelines.

We also conduct questionnaire surveys of suppliers to assess conformity with the Guidelines. In cases where issues are identified based on the survey results, we confirm the status of responses with suppliers and conduct audits as necessary. Audits are conducted by confirming documents and making on-site observations based on the Guidelines, and operational improvements are made in cooperation with suppliers.

In fiscal 2018, we surveyed a total of 367 companies, including 125 in Japan and 242 overseas. In fiscal 2019, we conducted supplier audits for issues identified in the survey results, and implemented necessary improvements (including measures that do not restrict employee migration).

Governance

Corporate governance

Approach and governance system

To drive sustainable growth and enhance corporate value over the medium and long terms, the GS Yuasa Group is committed to establishing an organization and systems that enable fast, efficient responses to a changing business environment. At the same time, our basic policy on corporate governance is to make every effort to thoroughly implement and strengthen compliance and improve the soundness and transparency of management.

A new governance structure began in fiscal 2017 based on this philosophy. GS Yuasa Corporation, the holding company, is responsible for formulating management strategies for all of the Group's businesses, as well as management for the entire Group and oversight of the Group's business execution. GS Yuasa International Ltd., the Group's core operating company, is the key decision-making body for business execution, consolidating and strengthening business execution and making swift business-related decisions. The Board of Directors makes quick and effective decisions related to the Group's management by prioritizing strategic decision making and supervisory functions for management policy. In addition, monitoring has been reinforced by appointing multiple independent outside directors.

Evaluating the effectiveness of the Board of Directors

The effectiveness of the Board of Directors has been evaluated once a year since fiscal 2016. In fiscal 2019 as well, all directors and corporate auditors completed a questionnaire on the structure, management, agenda, and duties of the board.

As a result of analysis and evaluation of the questionnaire replies, it was deemed that the Board of Directors is operating effectively. However, constructive opinions and suggestions were made from the perspective of further strengthening Group governance, and we will continue to address these issues.

Evaluation and improvement measures in the most recent two years are shown on the right.

Evaluating the effectiveness of the Board of Directors

Evaluation items	FY2019 (evaluation of FY2018)
Composition of the Board of Directors	There were opinions relating to increasing the number directors and appointing female directors. We newly es the Nomination and Compensation Committee, which two outside directors, and endeavored to enhance the and transparency of the selection process for candidate
Management of the Board of Directors	While most evaluations were affirmative, there was also request to ensure more discussion time. We therefore r the time setting for meetings of the Board of Directors important meetings and made improvements so as to p ensure discussion time.
Agenda of the Board of Directors	A request was made regarding the follow-up of import matters resolved. We made changes so that designated important matters are reported regularly to the Board of Directors.
Duties of the Board of Directors	To further improve the supply of information to outside of among other things, we shared summaries of discussions meetings prior to the Board of Directors with them and of inspections of important overseas sites by outside directo

Efforts to strengthen corporate governance

	20)15	2016	2
Strengthening internal control	2005: Esta	olishment of th ablishment of t : Start of emp	he GS Yuas	a Gro
Enhancing the objectivity of managerial decisions		 Appointm 	• Start	
Enhancing the diversity of the Board of Directors				
Clarification of management responsibility (nomination and remuneration of directors)	• 20	13: Term of di	rectors short	ened

Governance structure (FY2020)



FY2020 (evaluation of FY2019)

er of outside established h included e objectivity te directors.	Similar opinions to the previous fiscal year were made. In the light of the results of discussions in the Nomination and Compensation Committee, we appointed a female outside director and increased the number of independent directors more than one-third of the board. As a result, composition of the board has come to further reflect our diversity.	to
so a e revised s and other properly	Improvements made in the previous fiscal year were positive appraised. Overall evaluations were affirmative, but opinions were also given relating to further improvements so that effi reports could be made. We therefore carried out a review of report time and eligible topics.	cient
ortant ed of	An opinion was given regarding the discussion of matters pr to their referral to the Board of Directors. We therefore carrie out a review of the Group's decision-making process.	
e directors, ns in I conducted tors.	Interest was shown in the fostering of next-generation managers. We therefore confirmed the implementation of n training sessions, etc. for personnel, including corporate offic and officers.	
2017	2018 2019 2020	
	 Change of independe auditor 	
	er of outside directors increased to two Number of outside dir increased to three	ectors
	Appointme of female director	ent
to one year		
 Introduce 	ction of performance-linked stock remuneration sch	eme

• Establishment of Nomination

and Compensation Committee
Governance

Establishment of Nomination and Compensation Committee

In February 2019 we established the discretionary Nomination and Compensation Committee, chaired by an independent outside director, as an advisory body to the Board of Directors with the aim of strengthening the independence, objectivity, and accountability of Board of Directors functions, such as director nominations and remuneration.

The nomination committee discusses proposals for nominating new directors and for selecting a new corporate president, as well as plans for successors (including human resource development) and other matters, and reports to the Board of Directors.

The compensation committee discusses policy for determining director remuneration, the remuneration of individual directors, and other matters and reports to the Board of Directors.

Nomination and Compensation Committee structure

Chairperson	Outside Director	Ikuo Otani
Committee member	Outside Director	Takayoshi Matsunaga
	Outside Director	Yoshiko Nonogaki
	President	Osamu Murao
	Senior Managing Director	Toshiyuki Nakagawa

Distribution of skills of directors and auditors (FY2020)

Policy on the appointment of directors

To enable the Board of Directors to effectively fulfill its duties as the Board of Directors of the holding company, we select, in a well-balanced manner, persons with knowledge, experience, skills, and so on relating to the business of our Group as a whole and persons who can make statements and act from an objective standpoint and a long-term, wide-ranging perspective. In addition, we strive to achieve a size and composition that can reflect diverse opinions, including gender and international viewpoints.

*Reasons for the selection of individual internal directors and independent outside directors are available on our website: https://www.gs-yuasa.com/en/ir/pdf/GYC016ST_e.pdf

Policy on the independence of outside directors

We appoint several outside directors as persons with ample experience and knowledge who can make statements from an objective standpoint and contribute to the medium- to long-term enhancement of our corporate value without being restricted by corporate officers. When making such appointments, we also give consideration to their external independence, such as by ensuring that any company to which a candidate, or that candidate's close relative, belongs or belonged has no business ties, or just minor business ties, with our Group. We report all outside directors as independent directors

to the Tokyo Stock Exchange.



Record of attendance by outside directors at Board of Directors and Auditor Meetings

The record of attendance by outside directors at meetings of the Board of Directors and auditors in fiscal 2019 is shown below.

Record of attendance by Outside Directors at Board of Director and Auditor Meetings (FY2019)

	Board of Directors	Auditor Meeting
Names	No. of attendances/ No. of meetings	No. of attendances/ No. of meetings
Ikuo Otani Outside Director	18 / 18 times	-
Takayoshi Matsunaga Outside Director	18 / 18	-
Katsuya Ohara Outside Corporate Auditor (Full-time)	18 / 18	15 / 15 times
Tsukasa Fujii Outside Corporate Auditor (Full-time)	18 / 18	15 / 15

Remuneration of directors

Remuneration paid to directors and auditors in fiscal 2019 is shown below.

Total amount of remuneration, etc. by category and by type, and number of applicable persons

by category and by type,	and namber of app	ficable persons		
Category	Total amount of remuneration, etc. (million yen)	Number of applicable persons		
Directors (excluding outside directors)	242	5		
Auditors (excluding outside auditors)	43	2		
Outside directors/auditors	57	5		

Note: The above figures are the total amount of remuneration, etc. paid to directors by GS Yuasa and our subsidiaries.

Composition of GS Yuasa Corporation's director remuneration



Internal control system

To strengthen the management foundation, the GS Yuasa Group has improved the system and relevant rules to ensure the maintenance of ethical business practices based on the Companies Act. This system includes mechanisms to ensure effective auditing, information management, and risk management throughout the Group.

To comply with the internal control reporting system required under the Financial Instruments and Exchange Act, we are maintaining an internal control system and financial reporting mechanisms to meet all requirements. Our international subsidiaries and other consolidated Group companies evaluate the status of the improvement and implementation of internal controls. Following external audits, reports on these internal controls are publicly disclosed.

Change of independent auditor

The term of Deloitte Touche Tohmatsu LLC as our independent auditor expired at the end of GS Yuasa's 16th Annual General Meeting of Shareholders on June 26, 2020. Since Deloitte Touche Tohmatsu had audited our accounts continuously for many years, we decided it was necessary to freshly evaluate and review our independent auditor. Prior to the expiration of Deloitte Touche Tohmatsu's term, therefore, we conducted a comparison of several auditing firms, including Deloitte Touche Tohmatsu, in accordance with GS Yuasa's independent auditor evaluation and selection criteria. As a result, we chose KPMG AZSA LLC as our new independent auditor. As well as this firm having the expertise, independence, and suitability required of an independent auditor, and also the capacity to audit the GS Yuasa Group's global business activities in a uniform manner, we judged that by changing the independent auditor, we could look forward to audits being carried out from a fresh perspective using different methods than in the past.

	Medium- to long-term performance-linked remuneration
nuneration	Short-term performance-linked remuneration
Basic remuneration	
Basic remuneration	

Governance

Risk management

Basic approach

Risk management is essential for the lasting growth of a company. The GS Yuasa Group thinks that the following two points are important so that crises stemming from the escalation of risks do not exert a serious impact on the Group or on society.

First, by predicting and understanding risks and adopting appropriate preliminary measures, the escalation of risks (outbreak of crises) can be prevented. Second, effective measures can be taken beforehand so that even if a crisis does occur, the loss is kept to a minimum. Based on this approach, our Group has formulated risk management rules that stipulate the responsibilities of employees and our risk management promotion setup.

The structure and functions of risk management



The Group Risk Management Committee, headed by the president and consisting of the chairs of departmental Risk Management Committees among others, holds semiannual meetings to promote group-wide risk management and to encourage the sharing of key information related to risk management. In addition to making decisions on measures to promote risk management, the Risk Management Committee confirms that the appropriate risk management measures have been implemented, and the committee chairs report on progress in this area. We also actively exchange opinions and share information on the different styles of risk management.

Risk management sheets

In accordance with the risk management rules, each department uses a risk management sheet. The methods of usage are as follows.

The departments and employees first fill in the measures



they are taking as a basic response to mitigate the risks they have identified and to avoid any critical events, as well as the policies to minimize loss if a critical event does occur. Each department confirms the status of implementation of these measures and related policies each month. The department also fills in the details of relevant events that occurred, as well as a summary of the response and the investigation into the cause, and measures to prevent a reoccurrence. Management is strengthened through the reflection of these preventive measures in the measures described in the "basic response" and by checking the status of their implementation each month.

The risk management sheets produced by the departments are compiled at the divisional level and the directors in charge of the divisions verify and assess the status of response through the Risk Management Committee. The deliberations by the committees are summarized and then fed back to each department and employee as required, to enhance the effectiveness of risk management.

System for dealing with crises

To prepare for the possibility that a risk materializes, we have established a system that includes an emergency contact network to swiftly implement crisis management. If a serious crisis occurs, members from the Group Risk Management Committee will be appointed to organize a crisis management headquarters, under the president, to minimize corporate losses, and an effective response will be implemented swiftly and with appropriate care.

Response to the COVID-19 pandemic

In order to prevent the spread of the novel coronavirus infection, our Group has implemented the following initiatives giving top priority to the safety of our customers, local residents, concerned parties, and employees.

- Implementation of telecommuting and staggered office hours in workplaces where this can be implemented and not just in areas considered to be under declaration of a state of emergency
- Cancellation or postponement of meetings and events that are not urgent, along with Web and telephone conferencing alternatives
- Suspension of domestic and overseas business trips, in principle, along with Web and telephone conferencing alternatives
- Strict enforcement of health management including hand washing, gargling, alcohol disinfection, and wearing a mask
- Voluntarily refraining from going to work in case of poor health such as in the case of a fever
- Note: Depending on the spread of the infection, this includes prevention measures that have been relaxed or partially lifted.

Compliance

Basic approach

By training our personnel according to our philosophy of innovation and growth while manifesting our commitment to society and preserving the global environment, we are ensuring that all employees are guided in their behavior focusing on compliance with laws, company regulations and ethical standards.

The Compliance Declaration made by the president states that success must never be achieved through legal and moral infringements and that "establishing rules and structure" and "developing a strong sense of commitment to realize compliance" are essential to becoming a corporate leader in compliance. Based on these guidelines, multifaceted compliance promotion activities are developed at every employee level, and each employee is encouraged to incorporate self-directed and proactive actions to yield an effective improvement in compliance awareness.

Permeation of compliance awareness

The CSR Manual which delineates rules for adherence by every corporate Group member is distributed to all employees to facilitate permeation of compliance awareness.

This manual clarifies the Group's CSR policy. It outlines the behavioral standards that each employee must follow during business activities.

Furthermore, to enable employees to act as per the behavioral criteria, the manual delineates concrete examples of compliance and risk actualization and provides a diagnostic checklist to help employees assess their own adherence to corporate behavioral standards. In addition, the manual details how to use the internal whistleblower system and introduces an emergency contact system for use in a crisis to realize quick responses to compliance infringements.

Governance

Workplace meetings on CSR

Workplace meetings on compliance were initiated in fiscal 2012 as a means of allowing compliance awareness to permeate to each and every employee, and have been conducted for eight consecutive years through till 2019.

Transitioning into "workplace meetings on CSR" from fiscal 2018, these meetings introduced various topics aligned with CSR policy and are now being expanded to 22 Group companies within Japan in addition to the 364 GS Yuasa workplaces.

The educational materials used in the meetings have been made by the division in charge for each topic and include content related to the circumstances of the Group. Vigorous debates have been conducted and 97% of the workplaces rate these as meaningful. We intend to continue running these meetings while constantly upgrading the content.

Sexual/power harassment

Management of

working hours

Product safety

CSR activities

and safety

Occupational health

Waste managementPromotion of supply chain

Examples of themes of CSR workplace meetings

- Defining CSR
 Preventing intentional wrongdoing
- Handling confidential information
- Subcontracting laws
- Personal information
- protectionSecurity trade controls
- Intellectual property
- Respect for human rights

GS Yuasa Group corporate ethics hotline

We established GS Yuasa Group corporate ethics hotline regulations and set up a corporate ethics hotline. Accessible both internally and externally, the hotline enables employees, temporary workers, business partners and others to provide information anonymously if they become aware of behavior by a Group employee that violates the law or company regulations or is unethical or otherwise inappropriate or any matter that is at risk of becoming a violation.

In fiscal 2019, there were 7 reports relating to harassment and other matters (10 received in fiscal 2018). We conduct inquiries and take appropriate action on these matters, while remaining committed to protecting whistleblowers.

Elimination of antisocial forces

The GS Yuasa Group clearly disavows contact "with personnel or organizations of organized crime," in its CSR Policy while its CSR Code of Conduct similarly stipulates "separation from organized crime," stating a specific policy that, "we will not provide any form of benefit in excess of the normal shareholder's right to any person or company associated with organized crime" and "we will cut off business or any other relationships with individuals and organizations having an indication of support for organized crime." This policy and the Code of Conduct have been shared with all Group employees.

Information security

Our Group places importance on efforts to ensure information security. Through the regular monitoring of communications by an outside security service, the introduction of an illegal connection detection system and other measures, we endeavor to prevent illegal access to our in-house network and forestall damage.

We promote awareness-raising activities so that our employees follow our procedures for the management of information system usage. To prevent the outflow of confidential information, we conduct the encryption of personal computer data taken outside the company, the distribution of an information security handbook, the implementation of e-learning, and so on.

Furthermore, based on global security standards, we conduct surveys of security measures in overseas Group companies and give guidance to address vulnerabilities.

Intellectual property

We see intellectual property, the result of technological development, as one of our important assets. Every year we file about 200 to 300 patent applications in Japan and about 100 to 150 overseas. Our basic policy is to protect our Group's outstanding technology through aggressive patent applications and to maintain the trust of our customers by eliminating imitation products.

Since fiscal 2019, we have been promoting efforts geared toward patent analysis and Al/IoT patents to supplement our ongoing slate of activities. We are also focusing on intellectual property risk aversion activities in our overseas Group companies and are affording intellectual property support to business promotion in our forefront and overseas divisions. We are also pursuing ongoing countermeasures including exposing and litigating against injurious overseas counterfeit products, to ensure the reliability of available products for our customers.

CSR management

Basic approach

"Innovation and Growth," our corporate philosophy, is the basis of the GS Yuasa Group's CSR. By developing new technologies and reforming our business processes without being bound by convention, we aim to generate innovation and, as a result, drive sustainable growth by expanding earnings and contributing to people, society and the global environment. This is the basis of our CSR. Furthermore, by responding swiftly through our business to global social issues and the needs and expectations of interested parties, we aim to become a company in which society places long-term trust and hopes for us to remain a presence into the future.

CSR Policy and Code of Conduct

The GS YUASA CSR Policy and Code of Conduct, formulated in May 2017 as the President's Policy, are the foundation of the Group's CSR activities. In the GS Yuasa Group, all employees understand that CSR activities are business activities, and all participate based on our CSR Policy and Code of Conduct in order to ensure the sustainable development of society and business.

CSR Policy

Besides legal compliance, we respect international norms, guidelines, and initiatives related to social responsibility, work on sustainable development of our business through developing energy storage technologies, and contribute to people, society, and the global environment.

Our CSR Policy and Code of Conduct are available on our website: https://www.gs-yuasa.com/en/csr/policy.php

CSR promotion process

The GS Yuasa Group has established a process based on our CSR promotion plan and is committed to implementing CSR through business activities. The goal of this process is to enhance corporate value and stakeholder satisfaction by incorporating our corporate philosophy into the process.

We have formulated management and CSR policies to serve as evaluation criteria for decision-making to facilitate realization of our corporate philosophy. Regarding the major areas of CSR policy, we have compiled the CSR Code of Conduct and individual policies that clarify specific directions and concrete behavioral standards.

Furthermore, in order to incorporate our CSR policy in our business strategy process and put it into practice, we have formulated a corporate plan that takes into account stakeholder needs and expectations while addressing social issues. We are committed to achieving our plan through the application of multiple management systems based on existing business processes. Performance of operational processes is evaluated by the CSR Committee, chaired by the officer in charge of CSR, ensuring continuous improvements.

Phase Period		Target
First stage	FY2016-17	Create processes to deal with the CSR issues in relation to our business strategy (Fourth Mid-Term Management Plan)
Second stage	FY2018	Analyze and evaluate our performance using these processes and then make improvements
Third stage	FY2019	Establish business processes that incorporate CSR issues into our business strategy (Fifth Mid-Term Management Plan)
Fourth stage	FY2019 onward	Implement CSR activities in all of our business processes to ensure sustainable social and corporate growth

CSR promotion initiatives

CSR promotion framework



Messages from Outside Directors and an Outside Corporate Auditor

Proper management based on risk analysis

Ikuo Otani Outside Director

Following discussions in the Nomination and Compensation Committee, which was newly established in fiscal 2019, it was decided to increase the number of outside directors. From fiscal 2020, therefore, outside directors have come to account for more than one-third of all directors. Furthermore, following a suggestion regarding governance in the Group's core operating company, a swift response was made. For example, GS Yuasa's management term has been changed from the end of June to April with the aim of clarifying responsibilities for fiscal year results. Since opportunities have increased not only in the Board of Directors but also through meetings with the president and internal directors and auditors, inspections of business sites, and so on, questions and comments from outside directors that are useful for understanding business have become lively. I sense that the president and other directors are sincerely confronting issues toward the strengthening of governance.

One thing that I feel is an ongoing issue is risk management. Regarding overseas Group companies, GS Yuasa's control on the business management side is not thorough enough, and I wonder whether problems are arising in terms of business development. In addition, automotive lithium-ion batteries are an important domain for future business growth, but I wonder whether in-depth discussions are being conducted regarding market changes and outlook. I think it is necessary to assess the impact on business performance by clarifying anticipated risks, as well as business targets, as far as possible and to deepen discussions. GS Yuasa needs to endeavor to strengthen monitoring functions by, for example, creating opportunities for individual interviews with important subsidiaries. I believe that properly instilling rotation of the PDCA (plan-do-check-act) cycle throughout the entire Group will polish the Group's strengths and lead to enhanced competitiveness.

Example of improvement in response to comment made in FY2019 message Comment Improvement

Cases can be seen in which confirmation in the Board of Directors of a project's position in medium- to long-term business strategy and discussions of coordination with future medium- to long-term strategy are inadequate.

Improvement can be seen in the content of materials and reports submitted at meetings of the Board of Directors, such as progress made by each business unit in the medium-term management plan and future responses.

Support for strengthening constitution toward further business development



I hope to utilize my diverse experience of business management and other matters, acquired as president of the High Performance Plastics Company, Sekisui Chemical Co., Ltd., to fulfill my role in supporting the enhancement of GS Yuasa's corporate value.

GS Yuasa is engaged in global business development centering on the automotive and industrial uses of two core pillars-lead-acid batteries, which have a 100-year history, and lithium-ion batteries, a state-of-the-art field. Further business development requires the strengthening of GS Yuasa's corporate constitution in various ways, including the enhancement of business management through the fortification of governance,

strengthening of the competitiveness of projects and products, and the development of human resources capable of being active internationally. To this end, reforms and steady improvements are necessary. I think one means of moving forward is to formulate a roadmap in the medium-term management plan and rotate the PDCA cycle in fiscal year plans and term plans.

In addition, it is desirable to verify the viability of some projects, especially those overseas, and to raise the accuracy of project plans, including procedures. To accelerate the speed of decision making and enable swift responses, we should promote the delegation of authority and a slimmer organizational structure.

Monthly business performance management, information disclosure, and the speeding up of investor relations are necessary for globalization, and they are important for stakeholders as well. The early understanding of actual conditions and the building of a management system embracing our overseas operations are going to be issues from now on too. As an outside director, I will be focusing my attention on progress made from these perspectives.

Contributing to the enhancement of GS Yuasa's corporate value

from the perspectives of globalism and marketing



Yoshiko Nonogaki Outside Director

At Sony Corporation I oversaw the electronics business from a wide range of angles, including overseas site management and global marketing from the head office in Japan. Going out into the market together with engineers and earnestly confronting the needs of customers head-on, I endeavored to expand business scale and create profits.

In the process, in my younger years, I was appointed as head of an affiliate in Poland that had been newly established as a step toward tapping the East European market. My experience there in building a setup for management and business operations from scratch and significantly raising our presence in the market proved to be a precious asset for me.

Proper and flexible governance to raise corporate value

Tsukasa Fujii Outside Corporate Auditor (Part-time)

On the basis of my many years of experience as a lawyer, in addition to checking whether there are any violations of laws, ordinances, and articles of incorporation, I audit the execution of duties by directors, taking care that management decisions are not blatantly improper. At the same time, though, I am aware that at times when risks must be actively taken, auditors should not interfere too much in the substance of corporate management. Adopting this basic stance, I endeavor to ensure that discussions in the Board of Directors take place on the basis of appropriate facts by checking that materials and so on providing that factual basis are adequate. I myself make

GS Yuasa is engaged in global business development, and there are a wide range of business companies within the Group. To get a proper understanding of the whole picture, I feel that high-level monitoring functions are necessary. Capitalizing on my own experience of managing an overseas site, I hope I can contribute to the solution of these issues. And I also hope I can offer some useful advice toward the optimization of GS Yuasa's medium-term business portfolio.

The diversity of directors is an effective approach to enlivening the Board of Directors through frank questions and discussions from a variety of perspectives. I look forward to fulfilling a positive role in this capacity too. In addition, utilizing my own experience, I hope to foster a corporate climate that enables young employees and women also to actively challenge responsible work.

By promoting in-depth discussions on such issues as whether we are falling into in-house logic and whether prospects are based on rational grounds, I will help enhance corporate value so that GS Yuasa is evaluated highly by customers, society, employees, and shareholders and other stakeholders.

statements when necessary. I think it is important that an outside corporate auditor does not simply go along with the crowd.

GS Yuasa's governance has already passed the stage of simply formal compliance with the Corporate Governance Code and has, I believe, reached a certain higher level. From now on, I think it is necessary to further strengthen governance as a Group. Regarding the management of overseas related companies in particular, clarification of responsible persons and the chain of command in the Group is desirable.

In an age in which the speed of change is extremely fast, another major issue is the formulation of a scenario for the medium- to long-term improvement of value. As a result of the novel coronavirus pandemic, it has become increasingly difficult to forecast social change. The need to verify the degree of achievement of the medium-term management plan cannot be denied, but I think it is also important to respond flexibly to the everchanging conditions, without adhering strictly to initial scenarios.

Directors and Auditors (As of June 26, 2020)



Directors

Osamu Murao, President and Representative Director

Apr. 1982 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.) Apr. 2010 General Manager, Industrial Battery Production Division.

Industrial Batteries & Power Sources Business Unit GS Yuasa International Ltd Jun. 2011 Officer, GS Yuasa International Ltd. Jun. 2012 Director of the Company

Director of GS Yuasa International Ltd. Jun. 2015 President of the Company (current position) President, GS Yuasa International Ltd. (current position)

2 Toshiyuki Nakagawa, Senior Managing Director and Representative Director

- Apr. 1981 Joined Japan Storage Battery Co., Ltd.
- (currently GS Yuasa International Ltd.) Jan. 2006 General Manager,
- Finance and Accounting Division of the Company Jul. 2007 Corporate Officer, GS Yuasa Power Supply, Ltd.

(currently GS Yuasa International Ltd.) Jun. 2009 Corporate Officer of the Company

Apr. 2010 General Manager, Corporate Office of the Company Mar. 1976 Joined Wacoal Corp. Corporate Officer, GS Yuasa International Ltd.

Jun. 2010 Director of the Company Head of the Corporate Office of the Company (current position)

Director, GS Yuasa International Ltd.

Jun. 2012 President, GS Yuasa Accounting Service Ltd. Jun. 2014 Managing Director of the Company Managing Director, GS Yuasa International Ltd.

Jun. 2018 Senior Managing Director of the Company (current position)

3 Akio Furukawa, Director

Apr. 1981 Joined Yuasa Battery Co., Ltd.

(currently GS Yuasa International Ltd.) Aug. 2003 General Manager, International Sales Department, Company Sales Unit, Power Supply System Sales Division, Yuasa Corporation (currently GS Yuasa International Ltd.) Apr. 2010 General Manager, Industrial Battery Business

Promotion Division, International Business Unit, GS Yuasa International Ltd.

Auditors

8 Katsuya Ohara, **Outside Corporate Auditor (Full-time)**

Apr. 1981 Joined the Bank of Tokyo, Ltd. (currently MUFG Bank, Ltd.) Apr. 1996 Deputy Manager of Paris Branch, Bank of Tokyo-Mitsubishi, Itd. (currently MUFG Bank, Ltd.) Sep. 2000 Deputy Manager, Treasury Trading Group, Currency Exchange and Capital Division Bank of Tokyo-Mitsubishi UFJ, Ltd. (currently MUFG Bank, Ltd.) Jan. 2003 Head of the Currency Exchange and Capital ASEAN Office, Currency Exchange and Capital Division, Bank of Tokyo-Mitsubishi UFJ, Ltd. (currently MUFG Bank, 1td.) Jan. 2006 General Manager of Milano Branch the Bank of Tokyo-Mitsubishi UFJ, Ltd. (currently MUFG Bank, 1td.) May 2008 President, Managing Director & General Manager o Bank of Tokyo-Mitsubishi UFJ (Holland) N.V. (currently MUFG Bank (Europe) N.V.) Jun. 2011 Managing Executive Officer Deputy General Manager of Global Business Unit, and General Manager of International Business Consulting Office, Mitsubishi UFJ Research and Consulting Co., Ltd. Jun. 2013 Managing Executive Officer, General Manager International Department, Consulting and Global Business Unit, Mitsubishi UFJ Research and Consulting Co., Ltd. Jun. 2016 Full-time Corporate Auditor of the Company (current position) Full-time Corporate Auditor of GS Yuasa International Ltd. (current position)

9 Hideaki Yamada, Corporate Auditor (Full-

Apr. 1980 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.) Sep. 2005 Head of Auditing Office of the Company Apr. 2008 General Manager, General Affairs Division of the Company

(currently GS Yuasa International Ltd.) Jun. 2010 General Manager in charge of Corporate Strategy Corporate Office of the Company

GS Yuasa International Ltd. Jun. 2014 Executive Officer of GS Yuasa International Ltd. Jun. 2017 Full-time Corporate Auditor of the Company (current position) Full-time Corporate Auditor of GS Yuasa

International Ltd. (current position Masayuki Murakami, Corporate Auditor (Full-time)

Apr. 1982 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.) Apr. 2012 General Manager of Original Equipment Sales Department of Automotive Battery Business Unit of GS Yuasa International Ltd. Oct. 2012 Division Manager of Production Division of Automotive Battery Business Unit Jun. 2013 Corporate Officer Deputy Business Unit Manager of Automotive Battery Business Unit

lun 2011 Officer GS Yuasa International Ltd Apr. 2012 Deputy General Manager, International Business Unit GS Yuasa International Ltd. Jun. 2014 Corporate Officer, GS Yuasa International Ltd Jun. 2017 Executive Officer of the Company Jun. 2018 Director of the Company (current position) Director, GS Yuasa International Ltd. (current position)

4 Kazuhiro Fukuoka, Director

Apr. 1982 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.)

Apr. 2004 General Manager,

(current position)

Corporate Strategic Planning Office (Information Systems) of the Company Oct. 2005 Director, GS Yuasa Business Support, Ltd. (currently GS Yuasa International Ltd.) Aug. 2008 Executive Vice President, Siam GS Battery Co., Ltd. Jun. 2015 Officer, GS Yuasa International Ltd. Jun. 2017 General Manager, Human Resources Division GS Yuasa International Ltd. (current position) Jun. 2019 Senior Officer, GS Yuasa International Ltd. Apr. 2020 Director, GS Yuasa International Ltd.

Jun. 2020 Director of the Company (current position)

5 Ikuo Otani, Outside Director

- (currently Wacoal Holdings Corporation) Jun. 2004 Corporate Officer and General Manager of Corporate Management Division, Wacoal Corp. Jun. 2006 Director and Corporate Officer in charge of Corporate Management, Wacoal Corp.
- Apr. 2008 Director, Corporate Officer and General Manager of General Planning Division, Wacoal Corp.
- Apr. 2010 Director and Corporate Officer in charge of
 - Accounting, Wacoal Corp.;
 - General Manager of Corporate Planning Division,
- Wacoal Holdings Corporation Jun. 2010 Director and General Manager of Corporate Planning Division, Wacoal Holdings Corporation
- Jun. 2011 Managing Director, Wacoal Holdings Corporation
- Jun. 2012 Senior Managing Director, Wacoal Holdings Corporation

Jun. 2017 Director of the Company (current position)

- Jun. 2009 Corporate Officer, GS Yuasa Power Supply, Ltd.

 - Head of Corporate Strategic Planning Office of

6 Takayoshi Matsunaga, **Outside Director**

Apr. 1975 Joined Sekisui Chemical Co., Ltd. Jun. 2002 Director and Senior Vice President of High Performance Plastics Company,
Sekisui Chemical Co., Ltd. Apr. 2004 Director responsible for IT-Related Business Unit, High Performance Plastics Company, Sekisui Chemical Co., Ltd.
Jun. 2004 Managing Director responsible for IT Business Unit, High Performance Plastics Company, Sekisui Chemical Co., Ltd.
Apr. 2005 Senior Managing Director and President of High Performance Plastics Company, Sekisui Chemical Co., Ltd.
Apr. 2008 Senior Managing Director, Senior Managing Officer, and President of High Performance Plastics Company Sekisui Chemical Co., Ltd.
Jun. 2008 Director, Senior Managing Officer and President of High Performance Plastics Company, Sekisui Chemical Co., Ltd.
Mar. 2014 Director responsible for matters designated by
the president, Sekisui Chemical Co., Ltd.
Jun. 2014 Audit & Supervisory Board Member, Sekisui Chemical Co., Ltd.
Outside Audit & Supervisory Board Member,
Sekisui Jushi Corporation Jun. 2018 Director of the Company (current position)
7 Yoshiko Nonogaki, Outside Director
Apr. 1980 Joined Sony Corporation Sep. 1992 President and Representative Director, Sony Poland Jul. 1994 General Manager of Sales and Marketing Departmen Recording Media and Energy Company, Sony Corporation

- Apr.1999 General Manager of Planning and Marketing Department, Personal IT Network Company, Sony Corporation
- Apr. 2006 General Manager of Business Planning Department, Business and Professional Solution Group, Sony Corporation
- Apr. 2009 Senior General Manager of Planning and Marketing Division, Business and Professional Solution Group, Sony Corporation
- Apr. 2013 Director of Global Diversity, Personnel HQ,
- Sony Corporation Jun. 2015 Outside Director, Jolly-Pasta Co., Ltd.
- Jun. 2019 Outside Director, Nifco Inc. (current position)
- Jun. 2020 Outside Director of the Company
- Jan. 2014 General Manager of Lithium-ion Battery Business
- Development Department of Automotive Battery **Business Unit** Jun. 2015 Director, person in charge of Automotive Battery Business and Environmental Management of the Company Director of GS Yuasa International Ltd., Business Unit Manager of Automotive Battery Business Unit Jul. 2015 Division Manager of Sales Division of Automotive Battery Business Unit
- Apr. 2017 Deputy Business Unit Manager o
- Automotive Battery Business Unit Jun. 2019 Full-time Corporate Auditor of the Company (current position) Full-time Corporate Auditor of
 - GS Yuasa International Ltd. (current position)

Tsukasa Fujii, Outside Corporate Auditor (Part-time)

- Apr. 1986 Registered as an attorney at law; Joined Keiichi Uehara Law Office Apr. 1991 Established Tatsuno, Ozaki & Fujii Law Office,
- Partner of the office (current position) Apr. 2007 Part-time lecturer of Kwansei Gakuin University Law School (current position) Sep. 2014 Chairman of Hirakata City Building Examination Committee (current position
- Jan. 2017 Member of Committee of Experts of Osaka District Court (related to non-contentious landlord-tenant matters: current position) Jun. 2017 Corporate Auditor of the Company
- (current position) Apr. 2020 Director, Osaka Bar Association
 - (current position)

List of Items on CSR Website

Details of the Group's CSR initiatives are available on our website.

CSR Promotion

- President's Message
- CSR Policy and Code of Conduct
- CSR Promotion Framework
- Materiality

Developing Fair, Transparent, and Sound Business, and Anti-corruption

- Compliance with Laws, etc.
- Information Security
- Intellectual Property
- Transparent of Information Disclosure
- Risk Management

Respect for Human Rights

- Prohibition of Discrimination and Respect for Diversity
- Respect for Labor Rights
- Prohibition of Forced labor and Child Labor
- Raise Employee Awareness toward Respect for Human Rights

Conservation and Improvement of Adequate Working Environment

- Provision of Comfortable Working Environment
- Conservation and Improvement of Safety and Health in Working Environments
- Ensuring Appropriate Working Hours
- Mid to Long-term Human Resources Development and Appropriate Ability Assessment
- Respect for Individual Work-Life Balance



Information on "CSR Activities" can be found here. https://www.gs-yuasa.com/en/csr/index.php

Fulfillment of Our Responsibilities to Provide Safe and Secure Products and Services • Focus on Safety and Quality

Global Environmental Conservation

- Fundamental Environmental Policy and
- Environmental Mid-term Plans
- Environmental Management Systems
- Environmental Performance and Environmental Accounting
- Activity to Decrease Environmental Burdens

Building Better Relationships with Local Communities

- Contributions to Society
- Contributions to the Environment
- Contributions to Human Resource Development

Ensuring Social Responsibility within Our Supply Chain

Collaboration with Business Partners

Other

- External Evaluation
- GRI Content Index
- Editorial Policy
- CSR Report

Financial Section

11-Year Consolidated Financial Highlights	83
Financial Review	85
Risk Information	88
Financial Statements	91
Corporate Information1	31
Stock Information1	32

11-Year Consolidated Financial Highlights Years ended March 31

Notes: 1. Lighting net sales and operating income were included in the "other" category in the fiscal years ended March 31, 2011 to 2014, and in "industrial batteries and power supplies" in the fiscal year ended March 31, 2015 and beyond.
2. Automotive lithium-ion batteries net sales and operating income were included in the "other" category up to the fiscal year ended March 31, 2011.
3. Operating income ratio, ROE and payout ratio refer to income before amortization of goodwill (operating income and net income) after fiscal 2016.
4. The Company implemented a five-to-one consolidation of ordinary shares on October 1, 2018, and consequently, per-share indicators from prior to the consolidation have been calculated as if the share consolidation were implemented.
5. The "automotive batteries (overseas)" segment previously included a portion of transaction amounts for industrial batteries handled overseas, but as of fiscal 2018, the category was characteria in "industrial batteries overseas, but as of fiscal 2018, the category was characteria in "industrial batteries conserver unplice".

Changed to "industrial batteries and power supplies." Net sales and operating income for fiscal 2017 are indicated for the reporting segments after the change.
 Some consolidated subsidiaries in the automotive batteries (overseas) business were transferred to the industrial batteries and power supplies in fiscal 2019. In conjunction with this change, figures for fiscal 2018 were restated according to the modified segments.

-	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
For the year (millions of yen)											
Net sales	¥ 247,224	¥ 272,514	¥ 285,434	¥ 274,509	¥ 347,995	¥ 369,760	¥ 365,610	¥ 359,605	¥ 410,951	¥ 413,089	¥ 395,553
Automotive batteries (Japan)	56,713	58,887	58,784	55,648	56,905	51,747	50,986	67,598	89,240	91,460	88,059
Automotive batteries (Overseas)	104,706	118,197	120,906	119,885	164,252	183,759	191,402	170,613	185,574	177,052	162,138
Industrial batteries and power supplies	59,031	65,944	68,464	72,427	79,242	79,822	74,804	72,765	74,237	80,042	84,566
Automotive lithium-ion batteries	-	-	20,974	10,597	32,501	45,181	38,312	39,305	44,784	45,585	42,264
Lighting	7,037	-	_	_	_	_	_	_	_	_	_
Others	19,736	29,485	16,303	15,951	15,094	9,248	10,104	9,323	17,113	18,947	18,525
Operating income	11,521	17,589	16,030	9,775	18,197	20,914	21,909	23,106	21,920	22,654	21,676
Operating income before amortization of goodwill	-	_	-	-	_	-	-	24,185	24,076	25,066	23,935
Automotive batteries (Japan)	1,753	4,837	4,266	3,931	3,310	2,397	3,291	5,676	6,143	7,766	6,976
Automotive batteries (Overseas)	6,904	8,593	6,006	6,380	8,996	10,786	11,358	10,460	8,960	9,926	9,187
Industrial batteries and power supplies	6,889	8,436	9,640	10,813	12,199	8,657	8,061	8,701	7,364	7,827	9,157
Automotive lithium-ion batteries			(3,265)	(11,249)	(7,243)	(2,626)	(565)	45	1,320	300	(1,708)
Lighting	(1,001)	_	_	_	_	_	_	_	_	_	_
Others	(1,295)	(4,278)	(617)	(100)	936	1,698	(235)	(699)	287	(754)	322
Elimination and/or corporate	(1,730)	_	_	_	_		_	_	_	_	_
Net income attributable to owners of the parent	6,487	11,722	11,733	5,767	9,982	10,043	9,030	12,229	11,449	13,524	13,674
Income attributable to owners of the parent before amortization of good		, _	_	_	-		_	13,699	13,894	15,974	15,925
Capital investment	16,911	20,005	38,849	33,159	18,570	11,008	12,955	19,909	15,223	21,461	18,220
Depreciation/amortization	8,863	10,167	11,228	13,264	12,939	15,715	15,309	15,241	16,506	16,115	15,979
Research and development expenses	4,442	5,854	6,250	6,227	6,495	6,725	6,996	9,533	11,170	9,868	9,517
Cash flows from operating activities	22,827	25,478	8,287	19,069	19,704	19,729	30,215	34,846	21,934	31,493	33,119
Cash flows from investing activities	(13,066)	(25,444)	(28,660)	(29,249)	(9,786)	(14,519)	(17,311)	(32,912)	(20,810)	(17,570)	(20,690)
Free cash flow	9,761	34	(20,373)	(10,180)	9,918	5,210	12,904	1,934	1,124	13,923	12,429
Cash flows from investing activities	284	8	13,152	3,839	589	(5,798)	(9,685)	(3,715)	(6,702)	(11,706)	(10,245)
At year-end (millions of yen)							(-,)	(-) -)		(,	(
Total assets	¥ 236,804	¥ 247,446	¥ 278,426	¥ 290,368	¥ 340,462	¥ 359,522	¥ 346,523	¥ 370,508	¥ 389,216	¥ 384,243	¥ 385,416
Cash and cash equivalents	24,722	24,030	16,476	11,210	23,392	25,708	27,788	24,673	19,776	23,408	24,748
Total equity	111,860	122,310	136,221	141,189	154,702	182,187	177,790	188,155	205,638	207,708	205,318
Total debt	55,304	48,289	56,124	71,674	80,134	82,166	73,608	74,257	75,153	66,940	64,548
Total equity before noncontrolling interests	101,648	108,360	115,126	125,352	139,454	161,386	153,723	161,722	175,775	178,320	176,336
Number of employees	12,235	12,394	12,265	12,599	13,609	14,506	14,415	14,710	14,585	14,217	13,542
Per share data (yen)			/	,		,	,	,	,	,	
Basic net income	¥ 81.58	¥ 141.97	¥ 142.10	¥ 69.85	¥ 120.91	¥ 121.66	¥ 109.39	¥ 148.14	¥ 138.90	¥ 164.74	¥ 168.23
Net assets	1,230.98	1,312.38	1,394.36	1,518.25	1,689.12	1,954.89	1,862.16	1,959.14	2,138.45	2,179.03	2,173.37
Cash dividends applicable to the year	30	40	40	30	40	50	50	50	50	50	50
Financial indices (%)											
Operating income ratio	4.7	6.5	5.6	3.6	5.2	5.7	6.0	6.7	5.9	6.1	6.1
ROE (Return On Equity)	8.0	11.2	10.2	4.8	7.5	6.7	5.7	8.7	8.2	9.0	9.0
Shareholders' equity ratio	42.9	43.8	41.3	43.2	41.0	44.9	44.4	43.6	45.2	46.4	45.8
Ratio of interest-bearing debt to cash flow (years)	2.4	1.9	8.0	4.0	4.2	4.3	2.5	2.2	3.5	2.2	2.2
Treasury stock purchase amount (purchase amount for next fiscal year) (100 million yen)	-	-		-		-		10.0	9.2	13.8	15.0
Dividend payout ratio	36.8	28.2	28.1	42.9	33.1	41.1	45.7	37.4	36.3	34.3	34.9
Overseas sales ratio	43.1	44.0	43.4	44.4	48.5	52.4	55.5	51.1	49.9	49.4	46.2
	40.1	44.0	40.4	++.+	-0.5	JZ.4		J I . I	49.9	-7.4	40.2

Financial Review

Results of Operations

In the fiscal year ended March 31, 2020, the global economy entered a slowdown. While the employment environment in the United States remained favorable, the Chinese economy slowed under the weight of US-China trade frictions and the European economy remained clouded by uncertainties related to Brexit. In addition, the spread of the novel coronavirus across the globe since the start of 2020 has caused a global economic slowdown. The Japanese economy meanwhile remained firm during the first half of the fiscal year, with domestic demand supported by improved employment and income environments. In the second half, however, a string of natural disasters and the consumption tax hike led to the start of a slowdown that has been exacerbated by the impact of the novel coronavirus.

In this economic environment, the GS Yuasa Group's consolidated net sales for the fiscal year totaled ¥395,553 million, ¥17,535 million or 4.2% less than in the previous fiscal year. The main reasons for the decline in Group sales were the automotive batteries business's lowering of product prices to reflect the fall in the price of lead and the negative impact from yen appreciation. Operating income came to ¥21,676 million (¥23,935 million before goodwill amortization), a decrease of ¥977 million, or 4.3% from the previous fiscal year's result. Despite solid sales of stationary lead-acid batteries and power supply systems as well lower prices for lead, operating income declined owing to profit deterioration in the automotive lithium-ion batteries business. Ordinary income also declined, falling ¥1,618 million year on year, or 6.5%, to ¥23,109 million, reflecting the decrease in operating income and a decline in equity in earnings of equity-method

affiliates. Despite the declines in operating and ordinary income, profit attributable to owners of parent increased to ¥13,674 million (¥15,925 million before goodwill amortization), a year-on-year gain of ¥149 million, or 1.1%, primarily due to a change to income tax adjustments.

Business reportable segments changed in the fiscal year under review. The year-on-year comparisons below are made by restating the previous year's results according to the new segments for comparison.

Automotive Batteries

Net sales in Japan for the fiscal year ended March 31, 2020, totaled ¥88,059 million, a year-on-year decline of ¥3,401 million, or 3.7%. Shipments of batteries for new automobiles were solid, but sales fell as product selling prices were lowered to reflect the fall in the price of lead. Segment income (before goodwill amortization) decreased ¥789 million year on year, or 10.2%, to ¥6,976 million, reflecting the aforementioned change in sales composition and an increase in expenses.

Overseas net sales totaled ¥162,138 million, ¥14,913 million or 8.4% less than in the previous fiscal year. Shipments of automotive and motorcycle batteries remained solid, but sales fell due to the impact of yen appreciation, the lowering of product selling prices to reflect the fall in the price of lead, and the impact of the novel coronavirus from the start of 2020. Overseas segment income totaled ¥9,187 million, down ¥739 million or 7.5% year on year, owing to a fall in gross profit caused by lower sales as noted above, higher expenses, and other factors.

As a result of the above factors, the automotive batteries segment's combined net sales in Japan and overseas for

the fiscal year totaled ¥250,198 million, ¥18,315 million or 6.8% less than in the previous fiscal year. Overall automotive batteries segment income (before goodwill amortization) came to ¥16,164 million, ¥1,529 million or 8.6% less than in the previous fiscal year.

Industrial Batteries and Power Supplies

Net sales in the industrial batteries and power supplies segment totaled ¥84,566 million, a year-on-year increase of ¥4,523 million or 5.7%, driven by strong sales of stationary lead-acid batteries and power supply systems. Segment income expanded to ¥9,157 million, a year-on-year increase of ¥1,329 million, or 17.0%. The profit growth mainly reflects the segment's increased sales and the positive impact on profit from the fall in the price of lead.

Automotive Lithium-ion Batteries

Net sales in the automotive lithium-ion batteries segment totaled ¥42,264 million, ¥3,320 million or 7.3% less than in the previous fiscal year. The decline reflects lower sales of lithium-ion batteries supplied by subsidiary Lithium Energy Japan for use in plug-in hybrid vehicles (PHVs). The segment posted an operating loss of ¥1,708 million, a year-on-year deterioration of ¥2,009 million, primarily owing to an increase in costs accompanying the startup of the 12V lithium-ion battery business.

Others

Net sales in the other segment totaled ¥18,525 million, a year-on-year decline of ¥422 million, or 2.2%, primarily due to a decrease in sales of large batteries for special



Net sales



Operating income





applications. Segment income after adjustments for corporate expenses, etc., came to ¥322 million, a ¥1,077 million improvement from the loss posted in the previous year, as cost cuts outweighed the decline in sales.

Financial Condition

Total assets as of March 31, 2020, amounted to ¥385.416 million, an increase of ¥1,173 million from the end of the previous fiscal year on March 31, 2019. The asset growth mainly reflects the increase in right-of-use assets on the balance sheet resulting from overseas subsidiaries' application of the IFRS accounting standard for leases, IFRS 16 "Leases", which more than offset declines in the market valuation of owned shares and the value of assets at overseas subsidies caused by yen appreciation.

Liabilities came to ¥180,098 million, up ¥3,562 million from the end of the previous fiscal year. A decrease in trade accounts payable and other liabilities was mainly offset by increases in lease obligations owing to the application of IFRS 16 "Leases" by overseas subsidiaries and advance payments received by the Industrial Batteries and Power Supplies segment on a large order.

Net assets totaled ¥205,318 million, a decrease of ¥2,389 million from the end of the previous fiscal year. The positive effect on net assets from the posting of profit attributable to owners of parent was offset by dividends paid, the purchase of treasury shares, a decrease in foreign currency translation adjustments due to forex rate fluctuations, and a decrease in the net unrealized gain on available-for-sale securities caused by the fall in equity share prices.



Shareholders' equity ratio



Financial Review

Status of Cash Flows

Cash and cash equivalents as of March 31, 2020, amounted to ¥24,748 million, an increase of ¥1,340 million, or 5.7%, from the end of the previous fiscal year. The main factors affecting cash flows are described below.

Cash Flows from Operating Activities

Net cash provided by operating activities in the fiscal year ended March 31, 2020, amounted to ¥33,119 million, compared with net cash provided of ¥31,493 million in the previous fiscal year. There were contributions from profit before income taxes, depreciation and amortization, dividend income, and advance payments received by the Industrial Batteries and Power Supplies segment on a large order. The main cash outflow was the payment of income taxes.

Cash Flows from Investing Activities

Net cash used in investing activities totaled ¥20,690 million, compared with net cash used of ¥17,570 million in the previous fiscal year, mainly due to the purchase of property, plant, and equipment.

Cash Flows from Financing Activities

Net cash used in financing activities amounted to ¥10,245 million, compared with net cash used of ¥11,706 million in the previous fiscal year. The main cash outflows were for the repayment of borrowings, the purchase of treasury stock, and dividends paid.

Basic Policy on Profit Distribution and Dividends

GS Yuasa considers the return of profits to shareholders to be a priority management issue. As a general policy, GS Yuasa decides the level of dividends based on a comprehensive analysis of consolidated earnings results, the financial condition, and the dividend payout ratio. Internal reserves are used to improve future earnings by maintaining and enhancing investments and competitiveness. Based on these initiatives, GS Yuasa aims to continue its growth into the future and secure long-term stable returns to shareholders.

Regarding the year-end dividend for the fiscal year ended March 31, 2020, considering that the initial target for profit attributable to owners of parent was achieved, GS Yuasa plans to pay a fiscal year-end dividend of ¥35, adding to the ¥15 midterm distribution for a full-year dividend per share of ¥50. The consolidated payout ratio will therefore be 29.7%.

Additionally, the Company plans to conduct share buybacks worth ¥1.5 billion as a way to further return profits to shareholders (¥1,378 million worth of share buybacks were conducted in the previous fiscal year). Including the share buyback, the total shareholder payout ratio for the fiscal year ended March 31, 2020, will be 34.9% (based on profit attributable to owners of parent before goodwill amortization).

Dividend per share/Payout ratio

2015 2016 2017 2018 2019

(%)

100

80

1. Intensification of Price Competition

Risk Information

Details of effects on operating results, etc. in the event that risks occur

The GS Yuasa Group is exposed to intense price competition in each of the markets where it conducts business, and setting prices at advantageous levels has become difficult. We not only face the same competitors as in Japan, but also must deal with low-cost products supplied by overseas companies, which make competition more intense. It may not be easy to maintain and expand market share and secure profitability in the future. If business profitability declines as a result, there may be an impact on the Group's earnings and financial standing including the risk of impairment of fixed assets.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that these risks could occur in the next fiscal term. To address these risks, the GS Yuasa Group is cutting costs and implementing measures to strengthen marketing power.

2. Risks Related to Raw Material Markets Fluctuations

Details of effects on operating results, etc. in the event that risks occur

Lead is a key material used in lead-acid batteries, the GS Yuasa Group's main product. However, changes in the market price of lead cannot be reflected immediately in our product prices, so the Group's earnings and financial standing could be affected.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that these risks could occur in the next fiscal term. The GS Yuasa Group is optimizing production systems and working to reduce costs while building an optimum supply structure.



2018

2019

(FY)

Cash flows from operating activities, investing activities, and financing activities

2015

2016

2017

3. Foreign Exchange Rate Fluctuations

Details of effects on operating results, etc. in the event that risks occur

The GS Yuasa Group conducts business in Japan, the rest of Asia, North America, Europe, and other regions. Financial statement items that are denominated in local currencies outside of Japan, such as sales, expenses, and assets, are converted into yen for consolidated financial statements. The yen value of these amounts can change depending on the exchange rate, even if the amounts have not changed in local currencies.

When local currencies appreciate in areas where the Group carries out overseas production, manufacturing and procurement costs can rise in these areas, and medium- to long-term currency fluctuations may impede the Group's ability to procure, manufacture, distribute, and sell goods according to plan. Therefore, it is possible for foreign exchange rate fluctuations to influence the Group's earnings and financial standing.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that these risks could occur in the next fiscal term. The GS Yuasa Group conducts forex-hedged transactions in an effort to hold the adverse effects of short-term foreign exchange rate fluctuations to a minimum.

4. Risks Related to International Activities and Overseas Expansion

Details of effects on operating results, etc. in the event that risks occur

The GS Yuasa Group manufactures and markets products in Japan, the rest of Asia, North America, Europe, and elsewhere. The following risks are intrinsic to these markets, and they could affect the Group's earnings and financial standing.

- a) Unforeseen changes to laws or regulations
- b) Difficulty in hiring and keeping human resources
- c) The possibility that inadequate technology infrastructure will affect the Group's manufacturing and other activities, or lower the reputation of GS Yuasa products among customers
- d) Social disturbances caused by terrorism or war

Risk Information

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that there is some possibility that these risks could occur in the next fiscal term. The GS Yuasa Group is strengthening communications between headquarters and our various sites to build a framework capable of rapidly supplying products and services that meet needs in each region of the world.

5. Environmental Regulations

Details of effects on operating results, etc. in the event that risks occur

In China, the central government shows signs of strengthening environmental regulations on lead-acid battery manufacturers and lead smelters. Some manufacturing activities at GS Yuasa Group companies could be affected.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that these risks could occur in the next fiscal term. The GS Yuasa Group has established this Fundamental Environmental Policy to outline our basic Group-wide approach to environmental efforts. The policy aims to clarify our social responsibility toward the environment and guide our contributions to the emergence of a sustainable society. We are also developing and using environmental management systems that will help to reduce environmental impacts and prevent any accidents that could cause environmental pollution.

6. Risks Related to M&A

Details of effects on operating results, etc. in the event that risks occur

The GS Yuasa Group considers M&A to be a useful and effective tool for business expansion. When the Group carries out M&A, the transaction is considered from a range of viewpoints, including the target company's financial standing and potential synergy with the Group's businesses. Due to drastic changes in the business environment or other factors, however, an acquired business might not perform as planned. If invested funds cannot be recovered or a loss on goodwill is recorded, the GS Yuasa Group's earnings and financial standing could be affected.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

It is necessary to be aware of the likelihood of occurrence of these risks. The GS Yuasa Group monitors its results on a monthly basis.

7. Climate Change

Details of effects on operating results, etc. in the event that risks occur

Climate change is a problem that can have major impacts on countries and regions, and is a social issue that needs to be addressed by the entire world. For example, cool summers and warm winters result in a narrower temperature range, which is favorable for maintaining battery performance, so replacement demand would decline under these conditions. As a result, the sales volume of automotive batteries (replacement), the GS Yuasa Group's main product, would fall below normal levels, and this could have an impact on the Group's earnings and financial standing.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that there is some possibility that these risks could occur in the next fiscal term. Factors caused by climate change cannot be accurately forecast, making it difficult to take adequate countermeasures in advance, but the GS Yuasa Group will fully demonstrate the strengths of its brand and increase the weighting of high value-added products. In addition, we will deliver highly satisfying products to customers by continuously developing high performance, high quality products.

8. Disasters and Accidents

Details of effects on operating results, etc. in the event that risks occur

If a natural disaster such as an earthquake, storm or flood damage, or major snowstorm or if an accident such as a fire, explosion, or damage were to occur at a Group business site, there is a risk of unforeseen events occurring.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that these risks could occur in the next fiscal term. To address these risks, the GS Yuasa Group creates earthquake, flood, and snowstorm response manuals and is working to enhance fire-prevention management and disaster preparedness.

9. Interest Rate Fluctuations

Details of effects on operating results, etc. in the event that risks occur

The GS Yuasa Group's interest-bearing debt burden includes some debt with variable interest rates. Therefore, if interest rates rise, the Group's cost for procuring funds could increase.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that there is some possibility that these risks could occur in the next fiscal term. During the Fifth Mid-Term Management Plan, we expect Group interest-bearing debts to increase somewhat in order to activate growth investment, but we will strive to keep the debt redemption period within three years and to achieve both growth and financial discipline.

10. Lawsuits and Other Legal Proceedings

Details of effects on operating results, etc. in the event that risks occur

In carrying out business, the GS Yuasa Group may be sued by suppliers or third parties, and there is a risk that regulatory authorities could take legal action against the Group.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that there is some possibility that these risks could occur in the next fiscal term. The GS Yuasa Group continuously surveys the rights, patents, and other intellectual property of other companies and is working to minimize the risks by reinforcing internal information sharing.

11. Economic Conditions

Details of effects on operating results, etc. in the event that risks occur

Demand for the GS Yuasa Group's products is influenced by economic conditions in the markets where products are sold. Therefore, in the Group's main markets, which include Japan, the rest of Asia, North America, and Europe, economic setbacks and accompanying demand contractions, could adversely affect the Group's earnings and financial standing.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that there is some possibility that these risks could occur in the next fiscal term. The GS Yuasa Group provides reassurance and confidence to customers through business operations based on a fundamental stance that emphasizes quality, and we are working to enhance corporate value and build corporate infrastructure for sustainable growth in the future in accordance with our corporate philosophy of innovation and growth.

12. COVID-19 Pandemic

Details of effects on operating results, etc. in the event that risks occur

If the spread of the novel coronavirus interferes with the Group's production or other business activities, there may be an impact on the Group's earnings and financial standing.

Degree of the likelihood and timing of occurrence of risks and the Group's countermeasures

We are aware that these risks could occur in the next fiscal term. To address the spread of the novel coronavirus, the GS Yuasa Group established a crisis management headquarters chaired by the president, has been gathering and analyzing crisis information, and implemented safety measures including encouraging employees to work from home. We have also taken finance-related measures including securing ¥ 5.0 billion in long-term financing in May 2020 to prepare for increased capital demand.

Consolidated Balance Sheet

GS Yuasa Corporation and Consolidated Subsidiaries March 31, 2020

-	Millions of Yen		Thousands of U.S. Dollars (Note 1)	
	2020	2019	2020	
SSETS				
URRENT ASSETS:				
Cash and cash equivalents (Notes 7 and 13)	¥ 24,749	¥ 23,409	\$ 227,055	
Time deposits (Notes 7 and 13)	478	210	4,385	
Receivables (Notes 7 and 13):				
Trade notes	11,700	8,621	107,339	
Trade accounts	63,939	65,773	586,596	
Other	5,183	4,867	47,552	
Allowance for doubtful receivables	(349)	(316)	(3,202)	
Inventories (Notes 3 and 7)	64,293	67,828	589,844	
Prepaid expenses and other current assets (Notes 2.o and 7)	5,722	5,599	52,495	
Total current assets	175,715	175,991	1,612,064	
ROPERTY, PLANT AND EQUIPMENT (Notes 6 and 7):				
Land (Notes 2.h and 2.j)	22,139	22,406	203,110	
Buildings and structures	106,634	106,759	978,294	
Machinery and equipment	165,059	161,298	1,514,303	
Furniture and fixtures	31,914	31,340	292,789	
Leased assets	6,030	6,021	55,321	
Right-of-use assets (Note 2.0)	5,365		49,220	
Construction in progress	11,408	8,450	104,661	
Other	871	742	7,991	
Total	349,420	337,016	3,205,689	
Accumulated depreciation	(221,568)	(212,815)	(2,032,734)	
Net property, plant and equipment	127,852	124,201	1,172,955	
NVESTMENTS AND OTHER ASSETS:				
Investment securities (Notes 4 and 13)	22,778	26,870	208,972	
Investments in unconsolidated subsidiaries and associated				
companies (Notes 5 and 13)	32,307	30,106	296,394	
Goodwill	1,995	3,348	18,303	
Asset for retirement benefits (Note 8)	12,945	11,669	118,761	
Deferred tax assets (Note 10)	2,977	2,502	27,312	
Other assets (Notes 2.0 and 7)	8,848	9,556	81,175	
Total investments and other assets	81,850	84,051	750,917	
OTAL	¥ 385,417	¥ 384,243	\$ 3,535,936	

* Shares have been restated, as appropriate, to reflect a one-for-five reverse stock split effected October 1, 2018.

See notes to consolidated financial statements.

CURRENT LIABILITIES:	
Short-term bank loans (Notes 7 and 13)	
Commercial papers (Notes 7 and 13)	
Current portion of long-term debt (Notes 2.o, 7, and 13)	
Payables (Note 13):	
Trade notes	
Trade accounts	
Other	
Income taxes payable (Note 13)	
Accrued expenses	
Other current liabilities	
Total current liabilities	
LONG-TERM LIABILITIES:	
Long-term debt (Notes 2.o, 7, and 13)	
Liability for retirement benefits (Note 8)	
Long-term deposits received	
Deferred tax liabilities (Note 10)	
Deferred tax liabilities on land revaluation (Note 2.j)	
Other	
Total long-term liabilities	
COMMITMENTS AND CONTINGENT LIABILITIES	
(Notes 12, 14, and 15)	
EQUITY (Notes 9 and 18):	
Common stock, authorized, 280,000,000 shares;	
issued 82,714,942 shares in 2020 and 2019*	
Capital surplus	
Retained earnings	
Treasury stock – at cost: 1,579,708 shares in 2020 and	
880,229 shares in 2019 (Note 2.m)*	
Accumulated other comprehensive income:	
Unrealized gain on available-for-sale securities	
Deferred loss on derivatives under hedge accounting	
Land revaluation surplus (Note 2.j)	
Foreign currency translation adjustments	
Defined retirement benefit plans (Note 8)	
Total	
Noncontrolling interests	
Total equity	

Millions	Thousands of U.S. Dollars (Note 1)		
2020	2019	2020	
¥ 8,542	¥ 8,192	\$ 78,367	
÷ 0,J42	3,000	\$ 76,307	
7,774	2,348	71,321	
7,774	2,340	71,521	
17,041	20,597	156,339	
28,630	31,679	262,661	
12,354	11,859	113,339	
2,923	3,248	26,817	
9,956	10,007	91,339	
14,796	5,809	135,744	
102,016	96,739	935,927	
55,219	55,274	506,596	
4,094	4,274	37,560	
5,453	5,460	50,028	
10,627	12,067	97,495	
928	928	8,514	
1,761	1,793	16,155	
78,082	79,796	716,348	
22.024	22.024	202.045	
33,021	33,021	302,945	
55,302	55,313	507,358	
87,181	77,665	799,826	
(3,681)	(2,315)	(33,771)	
(5,001)	(2,515)	(33,771)	
11,934	14,879	109,486	
(245)	(82)	(2,248)	
2,137	2,137	19,606	
(6,265)	(489)	(57,477)	
(3,047)	(1,810)	(27,954)	
176,337	178,319	1,617,771	
28,982	29,389	265,890	
205,319	207,708	1,883,661	
¥ 385,417	¥ 384,243	\$ 3,535,936	

Thousands of U.S. Dollars

Consolidated Statement of Income

GS Yuasa Corporation and Consolidated Subsidiaries Year Ended March 31, 2020

	Millions o	Thousands of U.S. Dollars (Note 1)		
	2020	2019	2020	
NET SALES	¥ 395,554	¥ 413,089	\$ 3,628,936	
COST OF SALES (Note 11)	302,640	318,097	2,776,514	
Gross profit	92,914	94,992	852,422	
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (Note 11)	71,238	72,338	653,560	
Operating income	21,676	22,654	198,862	
OTHER INCOME (EXPENSES):				
Interest and dividend income	793	705	7,275	
Interest expense	(816)	(645)	(7,486)	
Gain on sales of property, plant and equipment	2,217	3,249	20,339	
Loss on disposal of property, plant and equipment	(689)	(474)	(6,321)	
Foreign exchange loss	(730)	(606)	(6,697)	
Equity in earnings of unconsolidated subsidiaries and				
associated companies	2,210	2,744	20,275	
Gain on sales of investment securities	75	64	688	
Loss on impairment of long-lived assets (Note 6)	(125)	(275)	(1,147)	
Loss on liquidation of subsidiary (Note 6)	(900)	(1,800)	(8,257)	
Other – net	(399)	(392)	(3,659)	
Other income – net	1,636	2,570	15,010	
INCOME BEFORE INCOME TAXES	23,312	25,224	213,872	
INCOME TAXES (Note 10):				
Current	6,933	6,138	63,606	
Deferred	(328)	1,990	(3,009)	
Total income taxes	6,605	8,128	60,597	
NET INCOME	16,707	17,096	153,275	
NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS	(3,033)	(3,572)	(27,825)	
NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT	¥ 13,674	¥ 13,524	\$ 125,450	

	Ye	Yen		
	2020	2019	2020	
PER SHARE OF COMMON STOCK (Note 17)*:				
Basic net income	¥ 168.23	¥ 164.74	\$ 1.54	
Diluted net income		154.08		
Cash dividends applicable to the year	50.00	50.00	0.46	

* Per share figures have been restated, as appropriate, to reflect a one-for-five reverse stock split effected October 1, 2018.

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

GS Yuasa Corporation and Consolidated Subsidiaries Year Ended March 31, 2020

	Millions o	Thousands of U.S. Dollars (Note 1)	
	2020	2019	2020
NET INCOME	¥ 16,707	¥ 17,096	\$ 153,275
OTHER COMPREHENSIVE INCOME (LOSS) (Note 16):			
Unrealized gain on available-for-sale securities	(2,919)	202	(26,780)
Deferred (loss) gain on derivatives under hedge accounting	(257)	1	(2,358)
Foreign currency translation adjustments	(5,444)	(682)	(49,945)
Defined retirement benefit plans	(1,238)	(1,425)	(11,358)
Share of other comprehensive loss in associates	(1,976)	(2,271)	(18,128)
Total other comprehensive loss	(11,834)	(4,175)	(108,569)
COMPREHENSIVE INCOME (Note 16)	¥ 4,873	¥ 12,921	\$ 44,706
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:			
Owners of the parent	¥ 3,552	¥ 9,314	\$ 32,587
Noncontrolling interests	1,321	3,607	12,119

Consolidated Statement of Changes in Equity

GS Yuasa Corporation and Consolidated Subsidiaries Year Ended March 31, 2020

		Millions of Yen					Millions of Yen						
	Number of Shares of Common Stock						Accumulate	d Other Comprehen	sive Income				
	Outstanding*	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock	Unrealized Gain on Available-for-Sale Securities	Deferred Loss on Derivatives under Hedge Accounting	Land Revaluation Surplus	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans	Total	Noncontrolling Interests	Total Equity
BALANCE, APRIL 1, 2018	82,197,585	¥ 33,021	¥ 55,313	¥ 66,823	¥ (1,387)	¥ 14,713	¥ (1)	¥ 2,398	¥ 5,279	¥ (384)	¥ 175,775	¥ 29,862	¥ 205,637
Net income attributable to owners of the parent				13,524							13,524		13,524
Cash dividends, ¥50.00 per share*				(4,112)							(4,112)		(4,112)
Purchase of treasury stock	(362,872)				(932)						(932)		(932)
Disposal of treasury stock			(0)		4						4		4
Retirement of treasury stock			(0)		0								
Reversal of land revaluation surplus				261							261		261
Change of financial year of subsidiaries				1,084							1,084		1,084
Change in scope of consolidation				85							85		85
Net change in the year						166	(81)	(261)	(5,768)	(1,426)	(7,370)	(473)	(7,843)
BALANCE, MARCH 31, 2019	81,834,713	33,021	55,313	77,665	(2,315)	14,879	(82)	2,137	(489)	(1,810)	178,319	29,389	207,708
Net income attributable to owners of the parent				13,674							13,674		13,674
Cash dividends, ¥50.00 per share				(4,083)							(4,083)		(4,083)
Purchase of treasury stock	(701,179)				(1,381)						(1,381)		(1,381)
Disposal of treasury stock	1,700		(11)		15						4		4
Change in scope of equity method				(45)							(45)		(45)
Change in scope of consolidation				(30)							(30)		(30)
Net change in the year				(00)		(2,945)	(163)		(5,776)	(1,237)	(10,121)	(407)	(10,528)
BALANCE, MARCH 31, 2020	81,135,234	¥ 33,021	¥ 55,302	¥ 87,181	¥ (3,681)	¥ 11,934	¥ (245)	¥ 2,137	¥ (6,265)	¥ (3,047)	¥ 176,337	¥ 28,982	¥ 205,319

		Thousands of U.S. Dollars (Note 1)			Thousands of U.S. Dollars (Note 1)							
						Accumulate	d Other Comprehens	sive Income				
	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock	ailable-for-Sale	Deferred Loss on Derivatives under Hedge Accounting	Land Revaluation Surplus	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans	Total	Noncontrolling Interests	Total Equity
BALANCE, MARCH 31, 2019	\$ 302,945	\$ 507,459	\$ 712,523	\$ (21,239)	\$ 136,505	\$ (752)	\$ 19,606	\$ (4,486)	\$ (16,606)	\$ 1,635,955	\$ 269,624	\$ 1,905,579
Net income attributable to owners of the parent										125,450		125,450
Cash dividends, \$0.46 per share			125,450							(37,459)		(37,459)
Purchase of treasury stock			(37,459)	(12,670)						(12,670)		(12,670)
Disposal of treasury stock		(101)		138						37		37
Change in scope of equity method			(413)							(413)		(413)
Change in scope of consolidation			(275)							(275)		(275)
Net change in the year					(27,019)	(1,496)		(52,991)	(11,348)	(92,854)	(3,734)	(96,588)
BALANCE, MARCH 31, 2020	\$ 302,945	\$ 507,358	\$ 799,826	\$ (33,771)	\$ 109,486	\$ (2,248)	\$ 19,606	\$ (57,477)	\$ (27,954)	\$ 1,617,771	\$ 265,890	\$ 1,883,661

* Shares and per share figures have been restated, as appropriate, to reflect a one-for-five reverse stock split effected October 1, 2018.

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

GS Yuasa Corporation and Consolidated Subsidiaries Year Ended March 31, 2020

	Millions	Millions of Yen		
	2020	2019	2020	
OPERATING ACTIVITIES:				
Income before income taxes	¥ 23,312	¥ 25,224	\$ 213,872	
Adjustments for:				
Income taxes–paid	(6,728)	(7,248)	(61,725)	
Depreciation and amortization	17,659	17,821	162,009	
Gain on sales of investment securities	(66)	(64)	(606)	
Gain on sales of property, plant and equipment	(2,217)	(3,249)	(20,339)	
Loss on disposal of property, plant and equipment	689	474	6,321	
Loss on impairment of long-lived assets	125	275	1,147	
Equity in earnings of unconsolidated subsidiaries				
and associated companies	(2,210)	(2,744)	(20,275)	
Loss on liquidation of subsidiary	900	1,800	8,257	
Changes in assets and liabilities:				
(Increase) decrease in trade receivables	(3,899)	4,123	(35,771)	
Increase (decrease) in advance receivables	5,675	(1,546)	52,064	
Decrease (increase) in inventories	673	(1,671)	6,174	
Decrease in interest and dividend receivables	289	611	2,651	
Decrease in trade payables	(2,021)	(1,639)	(18,541)	
Decrease in liability for retirement benefits	(3,026)	(3,699)	(27,761)	
Other – net	3,965	3,026	36,376	
Net cash provided by operating activities	33,120	31,494	303,853	
NVESTING ACTIVITIES:				
Proceeds from sales of property, plant and equipment	2,538	4,846	23,284	
Purchases of property, plant and equipment	(19,931)	(19,853)	(182,853)	
Proceeds from sales of investment securities	128	745	1,174	
Purchase of shares of affiliated companies	(2,500)		(22,936)	
Purchase of funds from affiliated companies	(583)		(5,349)	
Purchase of shares of subsidiaries		(2,812)		
Other – net	(341)	(496)	(3,147)	
Net cash used in investing activities	¥ (20,689)	¥ (17,570)	\$ (189,807)	

=	Millions of Yen		Thousands of U.S. Dollar (Note 1)	
	2020	2019	2020	
FINANCING ACTIVITIES:				
(Decrease) increase in short-term bank loans – net	¥ (2,218)	¥ 801	\$ (20,349)	
Proceeds from long-term bank loans	2,275	12,696	20,872	
Repayments of long-term bank loans	(1,591)	(4,058)	(14,596)	
Proceeds from issuance of bonds		10,000		
Repayments for redemption of convertible bond		(25,000)		
Purchase of treasury stock	(1,381)	(932)	(12,670)	
Proceeds from disposal of treasury shares	4	4	37	
Dividends paid	(4,083)	(4,112)	(37,459)	
Dividends paid to noncontrolling interests	(1,743)	(1,316)	(15,991)	
Other – net	(1,507)	210	(13,826)	
Net cash used in financing activities	(10,244)	(11,707)	(93,982)	
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	2,187	2,217	20,064	
FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS	(1,059)	297	(9,715)	
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	23,409	19,777	214,761	
NET INCREASE IN CASH AND CASH EQUIVALENTS DUE TO CHANGE OF FINANCIAL YEAR OF SUBSIDIARIES		1,093		
INCREASE IN CASH AND CASH EQUIVALENTS DUE TO NEWLY CONSOLIDATED SUBSIDIARIES	212	24	1,945	
CASH AND CASH EQUIVALENTS, END OF YEAR	¥ 24,749	¥ 23,408	\$ 227,055	

GS Yuasa Corporation and Consolidated Subsidiaries Year Ended March 31, 2020

1. BASIS OF PRESENTATION OF CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements of GS Yuasa Corporation (the "Company") have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in accordance with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards.

In preparing these consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically in Japan in order to present them in a form which is more familiar to readers outside Japan. In addition, certain reclassifications have been made in the 2019 consolidated financial statements to conform to the classifications used in 2020.

The consolidated financial statements are stated in Japanese yen and, solely for the convenience of readers outside Japan, have been translated into U.S. dollars at the rate of ¥109 to \$1, the approximate exchange rate at March 31, 2020. The translations should not be construed as representations that the Japanese yen amounts have been, could have been, or could in the future be, converted into U.S. dollars at that or any other rate.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Consolidation – The consolidated financial statements as of March 31, 2020, include the accounts of the Company and its 54 (54 in 2019) significant subsidiaries (collectively, the "Group").

Under the control and influence concepts, those companies over whose operations the Company, directly or indirectly, is able to exercise control are fully consolidated, and those associated companies over which the Group has the ability to exercise significant influence are accounted for by the equity method.

Investments in 19 (20 in 2019) associated companies are accounted for by the equity method.

Investments in the remaining unconsolidated subsidiaries and associated companies are stated at cost. Consolidating or accounting for those companies by the equity method would not have a significant effect on the consolidated financial statements.

The excess of cost of acquisition over the fair value of the net assets of acquired subsidiaries at the date of acquisition is amortized principally over a period of five years.

All significant intercompany balances and transactions are eliminated in consolidation. All material unrealized profit included in assets resulting from transactions within the Group is also eliminated.

Siam GS Battery Myanmar Limited has been included in the scope of consolidation due to an increase in materiality from the fiscal year ended March 31, 2020.

PG Holdings Co. Ltd. was included in the scope of

equity method accounting following an additional acquisition of its shares. Yuasa M&B CO., LTD. was excluded from the scope of consolidation subsidiaries as the Company sold some of its shares from the fiscal year ended March 31, 2020.

b. Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements - Under Accounting Standards Board of Japan ("ASBJ") Practical Issues Task Force ("PITF") No. 18, "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements," the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances should in principle be unified for the preparation of the consolidated financial statements. However, financial statements prepared by foreign subsidiaries in accordance with either International Financial Reporting Standards ("IFRS") or generally accepted accounting principles in the United States of America (Financial Accounting Standards Board Accounting Standards Codification) tentatively may be used for the consolidation process, except for the following items that should be adjusted in the consolidation process so that net income is accounted for in accordance with Japanese GAAP, unless they are not material: (a) amortization of goodwill; (b) scheduled amortization of actuarial gain or loss of pensions that has been recorded in equity through other

comprehensive income; (c) expensing capitalized development costs of R&D; (d) cancellation of the fair value model of accounting for property, plant and equipment and investment properties and incorporation of the cost model of accounting; and (e) recording a gain or loss through profit or loss on the sale of an investment in an equity instrument for the difference between the acquisition cost and selling price, and recording impairment loss through profit or loss for other-than-temporary declines in the fair value of an investment in an equity instrument, where a foreign subsidiary elects to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument.

c. Unification of Accounting Policies Applied to Foreign Associated Companies for the Equity Method – ASBJ Statement No. 16, "Accounting Standard for Equity Method of Accounting for Investments," requires adjustments to be made to conform the associate's accounting policies for similar transactions and events under similar circumstances to those of the parent company when the associate's financial statements are used in applying the equity method, unless it is impracticable to determine such adjustments. In addition, financial statements prepared by foreign associated companies in accordance with either IFRS or generally accepted accounting principles in the United States of America tentatively may be used in applying the equity method if the following items are adjusted so that net income is accounted for in accordance with Japanese GAAP, unless they are not material[.]

(a) amortization of goodwill; (b) scheduled amortization of actuarial gain or loss of pensions that has been recorded in equity through other comprehensive income; (c) expensing capitalized development costs of R&D; (d) cancellation of the fair value model of accounting for property, plant and equipment and investment properties and incorporation of the cost model of accounting; and (e) recording a gain or loss through profit or loss on the sale of an investment in an equity instrument for the difference between the acquisition cost and selling price, and recording impairment loss through profit or loss for other-than-temporary declines in the fair value of an investment in an equity instrument, where a foreign associate elects to present in other comprehensive income subsequent changes in the fair value of an

investment in an equity instrument.

- **d.** Business Combinations Business combinations are accounted for using the purchase method. Acquisition-related costs, such as advisory fees or professional fees, are accounted for as expenses in the periods in which the costs are incurred. If the initial accounting for a business combination is incomplete by the end of the reporting period in which the business combination occurs, an acquirer shall report in its financial statements provisional amounts for the items for which the accounting is incomplete. During the measurement period, which shall not exceed one year from the acquisition, the acquirer shall retrospectively adjust the provisional amounts recognized at the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date and that would have affected the measurement of the amounts recognized as of that date. Such adjustments shall be recognized as if the accounting for the business combination had been completed at the acquisition date. A parent's ownership interest in a subsidiary might change if the parent purchases or sells ownership interests in its subsidiary. The carrying amount of noncontrolling interest is adjusted to reflect the change in the parent's ownership interest in its subsidiary while the parent retains its controlling interest in its subsidiary. Any difference between the fair value of the consideration received or paid and the amount by which the noncontrolling interest is adjusted is accounted for as capital surplus as long as the parent retains control over its subsidiary.
- *e. Cash Equivalents* Cash equivalents are short-term investments that are readily convertible into cash and exposed to insignificant risk of changes in value.

Cash equivalents include time deposits and government bonds that represent short-term investments, all of which mature or become due within three months of the date of acquisition.

- f. Inventories Inventories are principally stated at the lower of cost, determined by the average method, or net selling value.
- *g. Investment Securities* All of the Group's marketable securities are classified as available-for-sale securities and are reported at fair value, with unrealized gains and losses, net of applicable taxes, reported as a separate

component of equity. The cost of securities sold is determined based on the moving-average method.

Nonmarketable available-for-sale securities are stated at cost determined by the moving-average method. For other-than-temporary declines in fair value, investment securities are reduced to net realizable value by a charge to income.

h. Property, Plant and Equipment – Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment of the Group is mainly computed by the straight-line method based on the estimated useful lives of the assets. The range of useful lives is from 7 to 50 years for buildings and structures and from 4 to 17 years for machinery and equipment.

Leased assets related to financial leases that do not transfer ownership rights and right-of-use assets are depreciated under the straight-line method based on the lease term as the useful life and assuming no residual value.

Under certain conditions such as exchanges of fixed assets of similar kinds and sales and purchases resulting from expropriation, Japanese tax laws permit companies to defer the profit arising from such transactions by reducing the cost of the assets acquired. Certain subsidiaries acquired property, plant and equipment, including buildings and structures, machinery and equipment, and funded construction in progress, through government grants. As of March 31, 2020 and 2019, the accumulated deducted cost of the assets acquired were ¥11,270 million (\$103,395 thousand) and ¥11,270 million, respectively.

- *i.* Long-Lived Assets The Group reviews its long-lived assets for impairment whenever events or changes in circumstance indicate the carrying amount of an asset or asset group may not be recoverable. An impairment loss is recognized if the carrying amount of an asset or asset group exceeds the sum of the undiscounted future cash flows expected to result from the continued use and eventual disposition of the asset or asset group. The impairment loss would be measured as the amount by which the carrying amount of the asset exceeds its recoverable amount, which is the higher of the discounted cash flows from the continued use and eventual disposition of the asset or the net selling price at disposition.
- *j. Land Revaluation* Under the "Law of Land

Revaluation, " certain domestic subsidiaries elected a one-time revaluation of own-use land to a value based on a price which was published by the national tax office as of March 31, 2002. The resulting land revaluation excess represents unrealized appreciation of land and is stated, net of income taxes, as a component of equity. There was no effect on the consolidated statement of income. Continuous readjustment is not permitted unless the land value subsequently declines significantly such that the amount of the decline in value should be removed from the land revaluation excess account and related deferred tax liabilities. As of March 31, 2020, the carrying amount of the land after the above one-time revaluation exceeded the market value by ¥1,331 million (\$12,221 thousand).

k. Retirement Benefits – Certain consolidated subsidiaries have contributory and non-contributory funded defined benefit pension plans, defined contribution pension plans, and unfunded retirement benefit plans for employees.

The Group accounted for the liability for retirement benefits based on projected benefit obligations and plan assets at the balance sheet date. The projected benefit obligations are attributed to periods on a straight-line basis. Actual gains and losses are amortized on a straight-line basis over 10 to 14 years, within the average remaining service period. Past service costs are amortized on a straight-line basis over 14 years, within the average remaining service period.

Retirement benefits to directors, Audit & Supervisory Board members, and executive officers of certain domestic subsidiaries are provided at the amount which would be required if all such persons retired at the balance sheet date.

I. Asset Retirement Obligations – An asset retirement obligation is recorded for a legal obligation imposed either by law or contract that results from the acquisition, construction, development, and normal operation of a tangible fixed asset and is associated with the retirement of such tangible fixed asset. The asset retirement obligation is recognized as the sum of the discounted cash flows required for the future asset retirement and is recorded in the period in which the obligation is incurred if a reasonable estimate can be made. If a reasonable estimate of the asset retirement obligation is incurred, the liability should be recognized when a reasonable estimate of the asset retirement obligation can be made. Upon initial recognition of a liability for an asset retirement obligation, an asset retirement cost is capitalized by increasing the carrying amount of the related fixed asset by the amount of the liability. The asset retirement cost is subsequently allocated to expense through depreciation over the remaining useful life of the asset. Over time, the liability is accreted to its present value each period. Any subsequent revisions to the timing or the amount of the original estimate of undiscounted cash flows are reflected as an adjustment to the carrying amount of the liability and the capitalized amount of the related asset retirement cost.

m. Directors' Stockownership Plan – In accordance with PITF No. 30, "Practical Solution on Transactions of Delivering the Company's Own Stock to Employees etc. through Trusts," upon transfer of treasury stock to the directors' stockownership trust (the "Trust") by the entity, any difference between the book value and fair value of the treasury stock is recorded in capital surplus. At year-end, the Company records (1) the Company stock held by the Trust as treasury stock in equity, (2) all other assets and liabilities of the Trust on a line-by-line basis, and (3) a liability/asset for the net of (i) any gain or loss on delivery of the stock by the Trust to the directors, (ii) dividends received from the entity for the stock held by the Trust, and (iii) any expenses relating to the Trust.

The Company introduced the directors' stockownership plan in order to increase corporate value and the business performance of directors in the medium and long term.

(1) Overview of transaction

The Trust, established by the Company, acquires Company shares using the cash contributed by the Company. The Company shares are transferred through the Trust to the directors, corresponding to points granted in conformity with the stock transfer policy established by the Board of Directors.

The Company shares shall be transferred upon the directors' retirement.

(2) Treasury stock remaining in the Trust

Shares of the Company remaining in the Trust are recorded as treasury stock under equity based on the book value (excluding incidental costs) in the Trust. The book value of the treasury stock and the number of shares at the end of the current fiscal year were ¥194 million (\$1,780 thousand) and 82,900 shares, respectively.

- n. Research and Development Costs Research and development costs are charged to income as incurred.
- *c. Leases* Finance lease transactions are capitalized by recognizing lease assets and lease obligations in the balance sheet.

From the fiscal year ended March 31, 2020, oversea consolidated subsidiaries that apply IFRS have adopted IFRS 16, "Leases." In conjunction with this adoption, right-of-use assets and lease obligations were recognized for lessee lease transactions. For lessor lease transactions (sublease), the lease is classified as a finance lease, then the underlying asset is derecognized and the net investment in the lease is recorded as lease receivables.

As a result, in the consolidated balance sheets for the current fiscal year, "prepaid expenses and other current assets" under current assets increased ¥228 million (\$2,092 thousand), "right-of-use assets" under property, plant and equipment increased ¥4,555 million (\$41,789 thousand), "other assets" under investments and other assets increased ¥2,266 million (\$20,789 thousand), "current portion of long-term debt" under current liabilities increased ¥943 million (\$8,651 thousand), and "long-term debt" under long-term liabilities increased ¥4,478 million (\$41,083 thousand).

The effect change by this adoption on the consolidated profit and loss for the current fiscal year is immaterial.

- **p. Construction Contracts** Construction revenue and construction costs are recognized by the percentage-of-completion method if the outcome of a construction contract can be estimated reliably. When total construction revenue, total construction costs, and the stage of completion of the contract at the balance sheet date can be reliably measured, the outcome of a construction contract is deemed to be estimated reliably. If the outcome of a construction contract cannot be reliably estimated, the completed-contract method should be applied. When it is probable that the total construction costs will exceed total construction revenue, an estimated loss on the contract should be immediately recognized by providing for a loss on such construction contracts.
- q. Income Taxes The provision for income taxes is

computed based on the pretax income included in the consolidated statement of income. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred taxes are measured by applying currently enacted income tax rates to the temporary differences.

- *r. Foreign Currency Transactions* All short-term and long-term monetary receivables and payables denominated in foreign currencies are translated into Japanese yen at the exchange rates at the balance sheet date. The foreign exchange gains and losses from translation are recognized in the consolidated statement of income to the extent that they are not hedged by forward exchange contracts.
- s. Foreign Currency Financial Statements The balance sheet accounts of the consolidated foreign subsidiaries are translated into Japanese yen at the exchange rate as of the balance sheet date except for equity, which is translated at the historical exchange rate. Differences arising from such translation are shown as "Foreign currency translation adjustments" under accumulated other comprehensive income in a separate component of equity. Revenue and expense accounts of the consolidated foreign subsidiaries are translated into Japanese yen at the annual average rates.
- t. Derivatives and Hedging Activities The Group uses foreign exchange forward contracts, foreign currency swaps, interest rate swaps, and commodity price swaps to manage its exposures to fluctuations in foreign exchange rates, interest rates, and material prices. The Group does not enter into derivatives for trading or speculative purposes.

All derivatives are recognized as either assets or liabilities and measured at fair value, and gains or losses on derivative transactions are recognized in the consolidated statement of income, and for derivatives used for hedging purposes, if such derivatives qualify for hedge accounting because of high correlation and effectiveness between the hedging instruments and the hedged items, gains or losses on those derivatives are deferred until maturity of the hedged transactions.

Interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not remeasured at market value but the differential paid or received under the swap agreements is recognized and included in interest expense.

u. Per Share Information – Basic net income per share is computed by dividing net income attributable to common shareholders by the weighted-average number of common shares outstanding for the period, retroactively adjusted for stock splits.

Diluted net income per share reflects the potential dilution that could occur if stock acquisition rights incorporated in convertible bonds were exercised or converted into common stock. Diluted net income per share of common stock assumes full conversion of the outstanding convertible bonds at the beginning of the year (or at the time of issuance) with an applicable adjustment for related interest expense, net of tax, and full exercise of outstanding stock acquisition rights.

Cash dividends per share presented in the accompanying consolidated statement of income are the amounts applicable to the respective fiscal years including dividends to be paid after the end of the fiscal year.

v. Bond Issue Costs – Bond issue costs are amortized by the straight-line method over the bond term in accordance with ASBJ PITF No. 19, "Tentative Solution on Accounting for Deferred Assets," which was issued by the ASBJ in August 2006.

w.New Accounting Pronouncements Accounting standard for revenue recognition – On March 31, 2020, ASBJ issued ASBJ Statement No. 29, "Accounting Standard for Revenue Recognition," ASBJ Guidance No. 30, "Implementation Guidance on Accounting Standard for Revenue Recognition," and ASBJ Guidance No. 19, "Implementation Guidance on Disclosures about Fair Value of Financial Instruments." (1) Overview

The International Accounting Standards Board ("IASB") and the Financial Accounting Standards Board ("FASB") have jointly developed and issued a new comprehensive revenue standard, "Revenue from Contracts with Customers" (IFRS 15 issued by IASB and Topic 606 issued by FASB), in May 2014.

As the basic policy, the ASBJ has developed the comprehensive accounting standards for revenue recognition in response to the fact that entities are required to apply IFRS 15 for annual periods beginning on or after January 1, 2018 and Topic 606 for annual periods beginning on or after December

15, 2017.

ASBJ has established the new accounting standard for revenue recognition based on the basic principles of IFRS 15, focusing on ensuring financial statement comparability. Also, the accounting convention for revenue recognition can take priority over the new accounting standard developed by ASBJ, within an acceptable range to ensure financial statement comparability.

(2) Schedule

The Company expects to adopt the implementation guidance from the beginning of the fiscal year ending March 31, 2022.

(3) Impact of the adoption of the implementation guidance

The Company is in the process of measuring the effect of applying the revised implementation guidance in future applicable periods.

Accounting standard for fair value measurement - On

July 4, 2019, ASBJ issued ASBJ Statement No. 30, "Accounting Standard for fair value measurement," ASBJ Statement No. 9, "Accounting Standard for Measurement of Inventories," ASBJ Statement No. 10, "Accounting Standard for Financial Instruments," ASBJ Guidance No. 31, "Implementation Guidance on Accounting Standard for Fair Value Measurement" and on March 31, 2020, ASBJ Guidance No. 19, "Implementation Guidance on Disclosures about Fair Value of Financial Instruments."

(1) Overview

The IASB and the FASB have established almost same detailed guidance on fair value measurement. The IASB has established IFRS 13, "Fair Value Measurement," and the FASB has established Topic 820, "Fair Value Measurement."

As a basic policy, the ASBJ has developed comprehensive accounting standards for fair value measurement. From the viewpoint of improving comparability of financial statements between domestic and overseas companies by adopting a unified calculation method, all the provisions of IFRS 13 are subjected to be adopted. Also, the accounting convention for fair value measurement can take priority over the new accounting standard developed by ASBJ, as reasonable to ensure financial statement comparability.

(2) Schedule

The Company expects to adopt the accounting

standards and guidance from the beginning of the fiscal year ending March 31, 2022.

(3) Impact of the adoption of the implementation guidance

The Company is currently evaluating the effect that the adoption of this guidance will have on its consolidated financial statements.

Accounting standard for disclosure of accounting

estimates – On March 31, 2020, ASBJ issued ASBJ Statement No. 31, "Accounting Standard for Disclosure of Accounting Estimates."

(1) Overview

The International Accounting Standards Board ("IASB") have established International Accounting Standards (IAS) No. 1, "Presentation of Financial Statements" ("IAS No. 1") in 2003. It requires to disclose "Sources of estimation uncertainty" in paragraph 125.

As a basic policy, the ASBJ has developed comprehensive accounting standards for Disclosure of Accounting Estimates which provides basic principles (purpose of disclosure). Each specific contents of disclosure should be determined by management considering the purpose of disclosure. ASBJ refers to the provisions of IAS No. 1, paragraph 125 in developing this standard.

(2) Schedule

The Company will adopt the accounting standard from the beginning of the fiscal year ending March 31, 2021.

Accounting standard for accounting policy disclosures, accounting changes and error corrections – On

March 31, 2020, ASBJ issued ASBJ Statement No. 24, "Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections."

(1) Overview

The ASBJ issued ASBJ Statement No. 24 (revised 2020), "Accounting Standard for Accounting Changes and Error Corrections" in response to a proposal to enhance note information on accounting principles and procedures adopted in cases where the provisions of relevant accounting standards are not clear.

(2) Date of adoption

The Company will adopt the accounting standard from the beginning of the fiscal year ending March 31, 2021.

3. INVENTORIES

Inventories at March 31, 2020 and 2019, consisted of the following:

	Million	Millions of Yen		
	2020	2019	2020	
Finished products	¥ 35,918	¥ 37,069	\$ 329,523	
Work in process	14,719	16,870	135,037	
Raw materials and supplies	13,656	13,889	125,284	
Total	¥ 64,293	¥ 67,828	\$ 589,844	

4. INVESTMENT SECURITIES

Investment securities as of March 31, 2020 and 2019, consisted of the following:

	Million	Thousands of U.S. Dollars	
	2020	2019	2020
Non-current:			
Equity securities	¥ 22,749	¥ 26,841	\$ 208,706
Debt securities	29	29	266
Total	¥ 22,778	¥ 26,870	\$ 208,972

The costs and aggregate fair values of investment securities at March 31, 2020 and 2019, were as follows:

		Million	s of Yen				
	2020						
	Cost	Unrealized Gains	Unrealized Losses	Fair Value			
Securities classified as: Available-for-sale: Equity securities	¥ 5,116	¥ 17,164	¥ (124)	¥ 22,156			
				-			
	Millions of Yen						
	2019						
	Cost	Unrealized Gains	Unrealized Losses	Fair Value			
Securities classified as: Available-for-sale: Equity securities	¥ 5,170	¥ 21,180	¥ (96)	¥ 26,254			
		Thousands o	f U.S. Dollars				
			20				
	Cost	Unrealized Gains	Unrealized Losses	Fair Value			
Securities classified as: Available-for-sale:	cost	Grifedilzed Galits	Officalized E033e3	i un value			
Equity securities	\$ 46,936	\$ 157,468	\$ (1,138)	\$ 203,266			

Available-for-sale securities whose fair value cannot be reliably determined at March 31, 2020 and 2019, were as follows:

	Million	Thousands of U.S. Dollars	
	2020	2019	2020
Non-current:			
Equity securities	¥ 592	¥ 587	\$ 5,431
Debt securities	29	29	266
Total	¥ 621	¥ 616	\$ 5,697

The proceeds, realized gains and realized losses of the available-for-sale securities which were sold during the years ended March 31, 2020 and 2019, were as follows:

		Millions of Yen	
March 31, 2020	Proceeds	Realized Gains	Realized Losses
Available-for-sale: Equity securities	¥ 132	¥ 75	
Total	¥ 132	¥ 75	
March 31, 2019			
Available-for-sale: Equity securities	¥ 158	¥ 64	
Total	¥ 158	¥ 64	

		rs	
March 31, 2020	Proceeds	Realized Gains	Realized Losses
Available-for-sale: Equity securities	\$ 1,211	\$ 688	
Total	\$ 1,211	\$ 688	

5. INVESTMENTS IN UNCONSOLIDATED SUBSIDIARIES AND ASSOCIATED COMPANIES

Investments in unconsolidated subsidiaries and associated companies at March 31, 2020 and 2019, consisted of the following:

	Million	Millions of Yen	
	2020	2019	2020
Investments at cost	¥ 12,532	¥ 8,890	\$ 114,972
Equity in undistributed earnings	19,775	21,216	181,422
Total	¥ 32,307	¥ 30,106	\$ 296,394

6. LONG-LIVED ASSETS

The Group reviewed its long-lived assets for impairment as of March 31, 2020. As a result, the Group recognized an impairment loss of ¥125 million (\$1,147 thousand) in total for certain assets used for business.

The Group reviewed its long-lived assets for impairment as of March 31, 2019. As a result, the Group recognized an impairment loss of ¥275 million in total for certain assets used for business. The Group recognized ¥742 million as loss on impairment of long-lived assets and including loss on liquidation of affiliated company as other expenses. Due to a downturn in profitability of that business, the carrying amount of the assets was written down to the recoverable amount. The recoverable amount of the assets was measured at the net selling price estimated by its disposal price.

7. SHORT-TERM BANK LOANS AND LONG-TERM DEBT

As is customary in Japan, the Group obtains financing by discounting trade notes receivable with banks. Such discounted notes and the related contingent liabilities are not included in the consolidated balance sheet, but are disclosed as contingent liabilities (see Note 15). At March 31, 2020, short-term bank loans of ¥289 million (\$2,651 thousand) were collateralized. The weighted-average interest rates for the Group's short-term bank loans were 1.68% and 2.22% at March 31, 2020 and 2019, respectively.

Long-term debt at March 31, 2020 and 2019, consisted of the following:

	Million	Millions of Yen	
	2020	2019	2020
Unsecured corporate bond due in September 2027	¥ 10,000	¥ 10,000	\$ 91,743
Unsecured corporate bond due in December 2023	10,000	10,000	91,743
Unsecured bank loans, maturing serially through 2020			
with interest rates ranging from 0.0% to 0.7% (2020)			
and from 0.0% to 1.3% (2019)	36,008	35,548	422,091
Collateralized		200	
Obligations under finance leases	6,985	1,874	64,083
Total	62,993	57,622	577,917
Less current portion	7,774	2,348	71,321
Long-term debt	¥ 55,219	¥ 55,274	\$ 506,596

Annual maturities of long-term debt at March 31, 2020, were as follows:

Year Ending March 31	Millions of Yen	Thousands of U.S. Dollars
2021	¥ 7,774	\$ 71,321
2022	7,885	72,339
2023	2,339	21,459
2024	18,973	174,064
2025	3,613	33,147
2026 and thereafter	22,409	205,587
Total	¥ 62,993	\$ 577,917

The carrying amounts of assets pledged as collateral for short-term borrowings and long-term debt at March 31, 2020, were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Cash and cash equivalents	¥ 260	\$ 2,385
Trade accounts	371	3,404
Inventories	518	4,752
Building and structures	360	3,303
Machinery and equipment	12	110
Land	1,275	11,697
Other	107	982
Total	¥ 2,903	\$ 26,633

8. RETIREMENT BENEFITS

Certain consolidated subsidiaries have retirement benefit plans for employees. Under most circumstances, employees terminating their employment are entitled to benefit payments determined by reference to their rate of pay at the time of termination, years of service, and certain other factors. If the termination is involuntary or caused by death, the employee is usually entitled to greater payments than in the case of voluntary

(1) Changes in defined benefit obligation for the years ended March 31, 2020 and 2019, were as follows:

	Million	Millions of Yen	
	2020	2019	2020
Balance at beginning of year (as restated)	¥ 48,408	¥ 50,218	\$ 444,110
Current service cost	1,423	1,731	13,055
Interest cost	88	93	807
Actuarial gains	(73)	(535)	(670)
Benefits paid	(2,396)	(2,767)	(21,982)
Others	49	(332)	451
Balance at end of year	¥ 47,499	¥ 48,408	\$ 435,771

(2) Changes in plan assets for the years ended March 31, 2020 and 2019 were as follows:

	Millic	Millions of Yen	
	2020	2019	2020
Balance at beginning of year	¥ 55,802	¥ 55,964	\$ 511,945
Expected return on plan assets	877	855	8,046
Actuarial losses	(2,117)	(2,494)	(19,422)
Contributions from the employer	3,899	4,037	35,771
Benefits paid	(2,145)	(2,323)	(19,679)
Others	34	(237)	311
Balance at end of year	¥ 56,350	¥ 55,802	\$ 516,972

termination. Such retirement benefits are made in the form of a lump-sum severance payment from the Group and annuity payments from a trustee.

The portions of the liability for retirement benefits attributable to directors, Audit & Supervisory Board members, and executive officers at March 31, 2020 and 2019, were ¥60 million (\$550 thousand) and ¥52 million, respectively.

(3) A reconciliation between the liability recorded in the consolidated balance sheet and the balances of defined benefit obligation and plan assets is as follows:

	Million	Millions of Yen	
	2020	2019	2020
Defined benefit obligation	¥ 44,139	¥ 44,946	\$ 404,945
Plan assets	(56,350)	(55,802)	(516,972)
Total	(12,211)	(10,856)	(112,027)
Unfunded defined benefit obligation	3,360	3,461	30,826
Net assets arising from defined benefit obligation	¥ (8,851)	¥ (7,395)	\$ (81,201)

	Million	Millions of Yen	
	2020	2019	2020
Liability for retirement benefits	¥ 4,094	¥ 4,274	\$ 37,560
Assets for retirement benefits	(12,945)	(11,669)	(118,761)
Net assets arising from defined benefit obligation	¥ (8,851)	¥ (7,395)	\$ (81,201)

(4) The components of net periodic benefit costs for the years ended March 31, 2020 and 2019, were as follows:

	Milli	Millions of Yen	
	2020	2019	2020
Service cost	¥ 1,423	¥ 1,731	\$ 13,055
Interest cost	88	93	807
Expected return on plan assets	(877)	(855)	(8,046)
Amortization of prior service cost	(114)	(105)	(1,046)
Recognized actuarial gains	357	(93)	3,276
Net periodic benefit costs	¥ 877	¥ 771	\$ 3,505

(5) Amounts recognized in other comprehensive income (before income tax effect) in respect of defined retirement benefit plans for the years ended March 31, 2020 and 2019, were as follows:

	Million	Millions of Yen	
	2020	2019	2020
Prior service cost	¥ (114)	¥ (16)	\$ (1,046)
Actuarial losses	(1,688)	2,059	(15,486)
Total	¥ (1,802)	¥ 2,043	\$ (16,532)

(6) Amounts recognized in accumulated other comprehensive income (before income tax effect) in respect of defined retirement benefit plans as of March 31, 2020 and 2019, were as follows:

	Million	s of Yen	Thousands of U.S. Dollars
	2020	2019	2020
Unrecognized prior service cost	¥ 582	¥ 674	\$ 5,340
Unrecognized actuarial losses	(4,954)	(3,264)	(45,450)
Total	¥ (4,372)	¥ (2,590)	\$ (40,110)

(7) Plan assets

a. Components of plan assets

Plan assets as of March 31, 2020 and 2019, consisted of the following:

	2020	2019
Equity investments	37%	43%
General accounts	29	27
Debt investments	14	13
Investment trusts	9	9
Short-term assets	1	1
Others	10	7
Total	100%	100%

b. Method of determining the expected rate of return on plan assets

The expected rate of return on plan assets is determined considering the long-term rates of return which are expected currently and in the future from the various components of the plan assets.

(8) Assumptions used for the years ended March 31, 2020 and 2019, were set forth as follows:

Discount rate	
Expected rate of return on plan assets	

The Group mainly uses a salary increase index determined in accordance with human resources and the wage policy as of the balance sheet date for expected future salary increase.

2020	2019
0.1%	0.1%
2.0%	2.0%

9. EQUITY

Japanese companies are subject to the Companies Act of Japan (the "Companies Act"). The significant provisions in the Companies Act that affect financial and accounting matters are summarized below:

a. Dividends

Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon resolution at the shareholders' meeting. Additionally, for companies that meet certain criteria including (1) having a Board of Directors, (2) having independent auditors, (3) having an Audit & Supervisory Board, and (4) the term of service of the directors being prescribed as one year rather than the normal two-year term by its articles of incorporation, the Board of Directors may declare dividends (except for dividend-in-kind) at any time during the fiscal year if the company has prescribed so in its articles of incorporation. The Company meets all the above criteria and, accordingly, the Board of Directors may declare dividends (except for dividends-in-kind) at any time during the fiscal year.

Semiannual interim dividends may also be paid once a year upon resolution by the Board of Directors if the articles of incorporation of the company so stipulate. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury stock. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million.

b. Increases/Decreases and Transfer of Common Stock, Reserve, and Surplus

The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus) depending on the equity account charged upon the payment of such dividends until the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus, and retained earnings can be transferred among the accounts within equity under certain conditions upon resolution of the shareholders.

c. Treasury Stock and Treasury Stock Acquisition Rights

The Companies Act also provides for companies to purchase treasury stock and dispose of such treasury stock by resolution of the Board of Directors. The amount of treasury stock purchased cannot exceed the amount available for distribution to the shareholders, which is determined by a specific formula.

Under the Companies Act, stock acquisition rights are presented as a separate component of equity.

The Companies Act also provides that companies can purchase both treasury stock acquisition rights and treasury stock. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

10. INCOME TAXES

The Company and its domestic subsidiaries are subject to Japanese national and local income taxes which, in the aggregate, resulted in a normal effective statutory tax rate

of approximately 30.5% for each of the years ended March 31, 2020 and 2019.

The tax effects of significant temporary differences and loss carryforwards which resulted in deferred tax assets and liabilities at March 31, 2020 and 2019, were as follows:

	Million	Millions of Yen		
	2020	2019	2020	
Deferred tax assets:				
Accrued bonuses	¥ 1,408	¥ 1,389	\$ 12,917	
Liability for retirement benefits	1,105	1,261	10,138	
Write-down of investment securities	277	291	2,541	
Unrealized profit	317	291	2,908	
Tax loss carryforwards	12,517	12,781	114,835	
Other	4,756	4,369	43,634	
Subtotal	20,380	20,382	186,973	
Less valuation allowance for tax loss carryforwards	(11,462)	(11,965)	(105,156)	
Less valuation allowance for temporary differences	(1,966)	(2,240)	(18,037)	
Total valuation allowance	(13,428)	(14,205)	(123,193)	
Deferred tax assets	6,952	6,177	63,780	
Deferred tax liabilities:				
Valuation excess of property	972	1,270	8,917	
Unrealized gain on available-for-sale securities	5,114	6,235	46,917	
Undistributed earnings of foreign subsidiaries	5,762	5,864	52,862	
Other	2,754	2,373	25,258	
Deferred tax liabilities	14,602	15,742	133,963	
Net deferred tax liabilities	¥ (7,650)	¥ (9,565)	\$ (70,183)	

Reconciliation between the normal effective statutory tax rates and the actual effective tax rates reflected in the accompanying consolidated statement of income for the years ended March 31, 2020 and 2019, were as follows:

Normal effective statutory tax rate
Expenses not deductible for income tax purposes
Per capita levy
Net change in valuation allowance
Lower income tax rates applicable to income in certain foreign
Dividends of foreign subsidiaries and associated companies
Equity in earnings of unconsolidated subsidiaries and associated
Non-taxable dividend income
Unrecognized tax effects on eliminated intercompany unrealize
Foreign tax credit
Goodwill depreciation
Other – net
Actual effective tax rate

	2020	2019
	30.5%	30.5%
	0.5	0.9
	0.3	0.3
	(3.5)	0.4
countries	(0.5)	(2.9)
	(0.4)	1.2
d companies	(2.9)	(3.3)
	1.5	1.1
ed profit	(0.2)	(0.1)
	0.7	0.8
	1.8	1.8
	0.5	1.5
	28.3%	32.2%

At March 31, 2020, certain subsidiaries had tax loss carryforwards aggregating approximately ¥40,667 million (\$373,092 thousand) which are available to be offset against taxable income of such subsidiaries in future years. These tax loss carryforwards, if not utilized, will expire as follows:

	Millions of Yen						
March 31, 2020	1 Year or Less	After 1 Year through 2 Years	After 2 Years through 3 Years	After 3 Years through 4 Years	After 4 Years through 5 Years	After 5 Years	Total
Deferred tax assets relating to tax loss carryforwards	¥ 850	¥ 3,548	¥ 4,066	¥ 2,285	¥ 844	¥ 925	¥ 12,518
Less valuation allowances for tax loss carryforwards	(850)	(3,476)	(3,754)	(2,285)	(736)	(361)	(11,462)
Net deferred tax assets relating to tax loss carryforwards		72	312		108	564	1,056

	Thousands of U.S. Dollars						
March 31, 2020	1 Year or Less	After 1 Year through 2 Years	After 2 Years through 3 Years	After 3 Years through 4 Years	After 4 Years through 5 Years	After 5 Years	Total
Deferred tax assets relating to tax loss carryforwards	\$ 7,798	\$ 32,550	\$ 37,303	\$ 20,963	\$ 7,743	\$ 8,487	\$ 114,844
Less valuation allowances for tax loss carryforwards	(7,798)	(31,890)	(34,440)	(20,963)	(6,752)	(3,313)	(105,156)
Net deferred tax assets relating to tax loss carryforwards		660	2,863		991	5,174	9,688

11. RESEARCH AND DEVELOPMENT COSTS

Research and development costs charged to income were ¥9,517 million (\$87,312 thousand) and ¥9,868 million for the years ended March 31, 2020 and 2019, respectively.

12. LEASES

The Group leases certain machinery, computer equipment, and other assets.

Total lease payments for the years ended March 31, 2020 and 2019, were ¥1,635 million (\$15,000 thousand) and ¥1,600 million, respectively.

The minimum rental commitments under noncancelable operating leases at March 31, 2020, were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Due within one year	¥ 33	\$ 303
Due after one year	152	1,394
Total	¥ 185	\$ 1,697

(Note) Lease transactions recorded on consolidated balance sheet under IFRS 16 are not included in above information

13. FINANCIAL INSTRUMENTS AND RELATED DISCLOSURES

(1) Group Policy for Financial Instruments

The Group uses financial instruments, mainly bank loans, based on its capital financing plan. Derivatives are not used for speculative purposes, but to manage exposure to financial risks as described in (2) below.

(2) Nature and Extent of Risks Arising from Financial Instruments

Receivables such as trade notes and trade accounts are exposed to customer credit risk.

Marketable and investment securities, mainly equity instruments of customers and suppliers of the Group, are exposed to the risk of market price fluctuations.

Payment terms of payables, such as trade notes and trade accounts, are less than five months.

Maturities of bank loans, principally used for the purpose of funding investments and short-term working capital, are less than eight years from the balance sheet date. A part of such bank loans is exposed to market risks from changes in variable interest rates.

The purchase price of lead, which is a raw material used in production, is exposed to the risk of market price fluctuations. This risk is mitigated by using commodity price swaps.

Derivatives mainly include forward foreign currency contracts, foreign currency swaps, interest rate swaps, and commodity price swaps, which are used to manage exposure to market risks from changes in foreign currency exchange rates, interest rates, and material prices. Please see Note 14 for more details on derivatives.

(3) Risk Management for Financial Instruments

Credit risk is the risk of economic loss arising from a counterparty's failure to repay or service debt according to the contractual terms. The Group manages its credit risk from receivables based on internal guidelines, which

include monitoring of payment terms and balances of major customers by each business administration department to identify the default risk of customers at an early stage. With respect to investment securities, the Group manages its exposure to market risk by monitoring market values and financial positions of issuers on a regular basis.

Liquidity risk comprises the risk that the Group cannot meet its contractual obligations in full on their maturity dates. The Group manages its liquidity risk by the monthly management of cash positions by the corporate finance division.

Foreign currency trade receivables and payables are exposed to market risk resulting from fluctuations in foreign currency exchange rates. Such foreign currency exchange rate risk is hedged principally by forward foreign currency contracts.

Interest rate swaps are used to manage exposure to market risks from changes in interest rates of loan payables.

Commodity price swaps are used to manage exposure to market risk from changes in prices of materials.

Derivative transactions are entered into and managed by the finance division based on internal guidelines, and the Business Auditing Office monitors observance of internal guidelines. The Company monitors the derivative transactions entered into by subsidiaries on a regular basis.

(4) Fair Values of Financial Instruments

Fair values of financial instruments are based on quoted prices in active markets. If the quoted price is not available, other rational valuation techniques are used instead. Also, please see Note 14 for the details of fair value for derivatives.

(a) Fair value of financial instruments

		Millions of Yen	
March 31, 2020	Carrying Amount	Fair Value	Unrealized Gain (Loss)
Cash and cash equivalents	¥ 24,749	¥ 24,749	
Time deposits	478	478	
Receivables:			
Trade notes	11,700	11,700	
Trade accounts	63,939	63,939	
Investment securities	22,156	22,156	
Investments in unconsolidated subsidiaries and associated companies	15,768	5,441	¥ (10,326)
Total	¥ 138,790	¥ 128,463	¥ (10,326)
Short-term bank loans	¥ 14,786	¥ 14,786	
Commercial papers			
Payables:			
Trade notes	17,401	17,401	
Trade accounts	28,630	28,630	
Income taxes payable	2,923	2,923	
Long-term debt:			
Corporate bonds	20,000	20,095	¥ 95
Bank loans	29,761	29,525	(236)
Lease obligations	5,457	5,480	23
Total	¥ 118,958	¥ 118,840	¥ (118)

Carrying Amount ¥ 23,409 210	Fair Value ¥ 23,409	Unrealized Gain (Loss)
-		
210		
	210	
8,621	8,621	
65,773	65,773	
26,475	26,475	
15,261	10,142	¥ (5,119)
¥ 139,749	¥ 134,630	¥ (5,119)
3,000	3,000	
20,597	20,597	
31,679	31,679	
3,248	3,248	
20,000	20,183	¥ (183)
34,034	33,779	255
1,240	1,240	
¥ 123,704	¥ 123,632	¥ 72
	8,621 65,773 26,475 15,261 ¥ 139,749 ¥ 9,906 3,000 20,597 31,679 3,248 20,000 34,034 1,240	8,621 8,621 65,773 65,773 26,475 26,475 15,261 10,142 ¥ 139,749 ¥ 134,630 ¥ 9,906 3,000 3,000 20,597 20,597 31,679 31,679 3,248 3,248 20,000 20,183 34,034 33,779 1,240 1,240

	Thousands of U.S. Dollars				
March 31, 2020	Carrying Amount	Fair Value	Unrealized Gain (Loss)		
Cash and cash equivalents	\$ 227,055	\$ 227,055			
Time deposits	4,385	4,385			
Receivables:					
Trade notes	107,339	107,339			
Trade accounts	586,596	586,596			
Investment securities	205,211	205,211			
Investments in unconsolidated subsidiaries and associated companies	142,716	47,661	\$ (95,055)		
Total	\$ 1,273,302	\$ 1,178,247	\$ (95,055)		
Short-term bank loans	\$ 135,651	\$ 135,651			
Commercial papers					
Payables:					
Trade notes	159,642	159,642			
Trade accounts	262,661	262,661			
Income taxes payable	26,817	26,817			
Long-term debt:					
Corporate bonds	183,486	184,358	\$ 872		
Bank loans	273,037	270,872	(2,165)		
Lease obligations	50,064	50,275	211		
Total	\$ 1,091,358	\$ 1,090,276	\$ (1,082)		

<u>Cash and cash equivalents, Time deposits, and Receivables</u> The carrying values of cash and cash equivalents, time deposits, and receivables approximate fair value because of their short maturities.

Investment securities

The fair values of investment securities are measured at the quoted market price of the stock exchange for the equity instruments, and at the quoted price obtained from the financial institution for certain debt instruments. Fair value information for investment securities by classification is included in Note 4.

<u>Short-term bank loans, Payables, and Income taxes payable</u> The carrying values of short-term bank loans, payables, and income taxes payable approximate fair value because of their short maturities.

Convertible bonds and Long-term debt

The fair values of convertible bonds are measured at the quoted price obtained from the financial institution for certain debt instruments.

The fair values of bank loans and lease obligations are determined by discounting the future cash flows at the Group's assumed corporate borrowing rate.

Lease obligations

The fair value of lease obligations is based on the present value of the total of principal and interest discounted by the interest rate to be applied if a new lease contract under the same conditions for the same residual period was entered into.

Thousands of U.S. Dollars

Derivatives

Fair value information for derivatives is included in Note 14.

(b) Carrying amount of financial instruments whose fair value cannot be reliably determined

	Million	Thousands of U.S. Dollars	
	2020	2019	2020
Investments in equity instruments that do not have a quoted market price in an active market	¥ 16,980	¥ 15,061	\$ 155,780

(5) Maturity Analysis for Financial Assets and Securities with Contractual Maturities

	Millions of Yen			
	2	020	2019	
	Due in Due after 1 Year 1 Year or Less 5 Years		Due in 1 Year or Less	Due after 5 Years through 10 Years
Cash and cash equivalents	¥ 24,749		¥ 23,409	
Time deposits	478		210	
Receivables	75,639		74,394	
Investment securities:				
Available-for-sale securities with contractual maturities		¥ 29		¥ 29
Total	¥ 100,866	¥ 29	¥ 98,013	¥ 29

	Thousands of U.S. Dollars		
	20)20	
	Due in 1 Year or Less	Due after 1 Year through 5 Years	
Cash and cash equivalents	\$ 227,055		
Time deposits	4,385		
Receivables	693		
Investment securities:			
Available-for-sale securities with contractual maturities		\$ 266	
Total	\$ 925,375	\$ 266	

Please see Note 8 for annual maturities of long-term debt.

14. DERIVATIVES

The Group enters into foreign exchange forward contracts and foreign currency swaps to hedge foreign currency exchange rate risk associated with certain assets and liabilities denominated in foreign currencies. The Group also enters into interest rate swap contracts to manage interest rate exposures on certain liabilities and it enters into commodity price swap contracts to reduce the impact of price fluctuations of lead inventories.

All derivative transactions are entered into to hedge interest, foreign currency, and commodity price exposures incorporated within the Group's business. Accordingly,

Derivative Transactions to Which Hedge Accounting Is Not Applied

	Millions of Yen				
At March 31, 2020	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Selling EUR and GBP	¥ 1,905		¥ 14	¥ 14	
AUD	383		(131)	(131)	
NZD	59		(4)	(4)	
	Millions of Yen				
At March 31, 2019	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Buying THB	¥ 1				
Selling EUR and GBP	1,998		¥ 18	¥ 18	
THB	131				
AUD	536		(4)	(4)	
NZD	211		(2)	(2)	
		Thousands of L	J.S. Dollars		
At March 31, 2020	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Selling EUR and GBP	\$ 17,477		\$ 128	\$ 128	
AUD	3,514		(1,202)	(1,202)	
NZD	541		(37)	(37)	

	Millions of Yen				
At March 31, 2020	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Selling EUR and GBP	¥ 1,905		¥ 14	¥ 14	
AUD	383		(131)	(131)	
NZD	59		(4)	(4)	
		Millions o	f Yen		
At March 31, 2019	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Buying THB	¥ 1				
Selling EUR and GBP	1,998		¥ 18	¥ 18	
THB	131				
AUD	536		(4)	(4)	
NZD	211		(2)	(2)	
		Thousands of L	J.S. Dollars		
At March 31, 2020	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Selling EUR and GBP	\$ 17,477		\$ 128	\$ 128	
AUD	3,514		(1,202)	(1,202)	
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	Millions of Yen				
At March 31, 2020	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
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AUD	383		(131)	(131)	
NZD	59		(4)	(4)	
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At March 31, 2019	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Buying THB	¥ 1				
Selling EUR and GBP	1,998		¥ 18	¥ 18	
THB	131				
AUD	536		(4)	(4)	
NZD	211		(2)	(2)	
		Thousands of U	J.S. Dollars		
At March 31, 2020	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain(Loss)	
Foreign currency forward contracts:					
Selling EUR and GBP	\$ 17,477		\$ 128	\$ 128	
AUD	3,514		(1,202)	(1,202)	
NZD	541		(37)	(37)	

market risk in these derivatives is generally offset by opposite movements in the value of the hedged assets or liabilities. The Group does not hold or issue derivatives for trading purposes.

Derivatives are subject to market risk. Market risk is the exposure created by potential fluctuations in market conditions, including interest or foreign currency exchange rates.

Derivative transactions entered into by the Group have been made in accordance with internal policies which regulate the authorization of such transactions.

Derivative Transactions to Which Hedge Accounting Is Applied

	Millions of Yen			
At March 31, 2020	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value
Interest rate swaps: (fixed rate payment, floating rate receipt)	Long-term debt interest	¥ 1,852	¥ 1,852	
Foreign currency forward contracts: (Buying USD)	Account receivables	64		¥ (1)
Commodity swaps: (fixed material price payment floating material price receipt)	Cost	876	382	(259)

	Millions of Yen			
At March 31, 2019	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value
Interest rate swaps: (fixed rate payment, floating rate receipt)	Long-term debt interest	¥ 1,852	¥ 1,852	
Foreign currency forward contracts: (Buying USD)	Account receivables	110		¥ (0)

	Thousands of U.S. Dollars				
At March 31, 2020	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value	
Interest rate swaps: (fixed rate payment, floating rate receipt)	Long-term debt interest	\$ 16,991	\$ 16,991		
Foreign currency forward contracts: (Buying USD)	Account receivables	587		\$ (9)	
Commodity swaps: (fixed material price payment floating material price receipt)	Cost	8,037	3,505	(2,376)	

The above interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not remeasured at market value, but the differential paid or received under the swap agreements is recognized and included in interest expense or income. In addition, the fair value of such interest rate swaps in Note 14 is included in that of the hedged items (i.e., long-term debt).

The fair value of derivatives is measured at the quoted prices obtained from financial institutions.

The contract or notional amounts of derivatives which are shown in the preceding table do not represent the amounts exchanged by the parties and do not measure the Group's exposure to credit or market risk.

15. CONTINGENT LIABILITIES

At March 31, 2020, the Group had the following contingent liabilities:

Endorsed notes
Guarantees of bank loans of certain associated companies

16. OTHER COMPREHENSIVE INCOME (LOSS)

The components of other comprehensive income (loss) for the years ended March 31, 2020 and 2019, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2020	2019	2020
Unrealized gain on available-for-sale securities:			
Gains arising during the year	¥ (3,964)	¥ 375	\$ (36,367)
Reclassification adjustments to profit or loss	(75)	(64)	(688)
Amount before income tax effect	(4,039)	311	(37,055)
Income tax effect	1,120	(109)	10,275
Total	¥ (2,919)	¥ 202	\$ (26,780)
Deferred gain (loss) on derivatives under hedge accounting:			
(Losses) gains arising during the year	¥ (257)	¥ (142)	\$ (2,358)
Reclassification adjustments to profit or loss	0	143	0
Amount before income tax effect	(257)	1	(2,358)
Income tax effect	0	(0)	0
Total	¥ (257)	¥ 1	\$ (2,358)
Foreign currency translation adjustments:			
Adjustments arising during the year	¥ (5,444)	¥ (511)	\$ (49,945)
Reclassification adjustments to profit or loss		(171)	
Amount before income tax effect	(5,444)	(682)	(49,945)
Total	¥ (5,444)	¥ (682)	\$ (49,945)
Defined retirement benefit plans:			
Adjustments arising during the year	¥ (2,044)	¥ (1,839)	\$ (18,752)
Reclassification adjustments to profit or loss	242	(204)	2,220
Amount before income tax effect	(1,802)	(2,043)	(16,532)
Income tax effect	564	618	5,174
Total	¥ (1,238)	¥ (1,425)	\$ (11,358)
Share of other comprehensive (loss) income in associates: (Losses) gains arising during the year	¥ (1,976)	¥ (2,271)	\$ (18,128)
Total other comprehensive (loss) income	¥ (11,834)	¥ (4,175)	\$ (108,569)

Millions of Yen	Thousands of U.S. Dollars
¥ 912	\$ 8,367
714	6,550

17. NET INCOME PER SHARE

A reconciliation of the differences between basic and diluted net income per share ("EPS") for the years ended March 31, 2020 and 2019, is as follows:

	Millions of Yen	Thousands of Shares	Yen	U.S. Dollars
Year Ended March 31, 2020	Net Income Attributable to Owners of the Parent	Weighted- Average Shares	I	EPS
Basic EPS – Net income attributable to common shareholders	¥ 13,674	81,282	¥ 168.23	\$ 1.54

Year Ended March 31, 2019				
Basic EPS	¥ 13.524	82.094	¥ 164.74	
 Net income attributable to common shareholders 		02,000		
Effect of dilutive securities:				
Convertible bonds	(17)	5,569		
Diluted EPS – Net income for computation	¥ 13,507	87,663	¥ 154.08	

Diluted profit per share for the year ended March 31, 2020 is not provided here, as there are no residual securities.

As noted in Note 2.m, the Company applied PITF No. 30, "Practical Solution on Transactions of Delivering the Company's Own Stock to Employees etc. through Trusts." In calculating the number of weighted-average shares above, the number of shares that are held by the Trust (82,900 shares in 2020) is reflected.

Shares and per share figures have been restated, as appropriate, to reflect a one-for-five reverse stock split effected October 1, 2018.

18. SUBSEQUENT EVENTS

Appropriation of Retained Earnings

The following appropriation of retained earnings at March 31, 2020, was approved at the Company's shareholders' meeting held on June 26, 2020:

	Millions of Yen	Thousands of U.S. Dollars
Year-end cash dividends, ¥35 (\$0.32) per share	¥ 2,843	\$ 26,083

19. SEGMENT INFORMATION

Under the ASBJ Statement No. 17, "Accounting Standard for Segment Information Disclosures" and ASBJ Guidance No. 20, "Guidance on Accounting Standard for Segment Information Disclosures," an entity is required to report financial and descriptive information about its reportable segments. Reportable segments are operating segments or aggregations of operating segments that meet specified criteria. Operating segments are components of an entity about which separate financial information is available and such information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Generally, segment information is required to be reported on the same basis as is used internally for evaluating operating segment performance and deciding how to allocate resources to operating segments.

(1) Description of Reportable Segments

The Group's reportable segments are those for which separate financial information is available and regular evaluation by the Company's management is being performed in order to decide how resources are allocated among the Group. As such, the Group's reportable segments are as follows:

"Automotive Batteries (Japan)," consisting of manufacturing and marketing of lead-acid batteries for automobiles.

"Automotive Batteries (Overseas), " consisting of manufacturing and marketing of batteries overseas.

"Industrial Batteries and Power Supplies," consisting of manufacturing and marketing of industrial batteries and power supplies.

"Automotive Lithium-ion Batteries," consisting of manufacturing and marketing of lithium-ion batteries for vehicles.

(2) Methods of Measurement for the Amounts of Sales, Profit (Loss), Assets, and Other Items for Each Reportable Segment

The accounting policies of each reportable segment are consistent with those disclosed in Note 2, "Summary of Significant Accounting Policies."

The profit (loss) of each reportable segment is an operating profit (loss) before amortization of goodwill. The prices of the goods traded among the segments are mainly determined considering market prices or manufacturing costs.

(3) Matters Regarding Changes in Reportable Segments

The Company has implemented one of the important projects of its fourth mid-term business plan, which is called "Reorganization of organizational structure to focus on markets and customers," in order to respond to changes in the economic environment. Also, the Company has consolidated the Domestic Automotive Batteries department and the Overseas Operations department into the Automotive Batteries department. As a result, reportable segments are identified as "Automotive Batteries (Japan)," "Automotive Batteries (Overseas)," "Industrial Batteries and Power Supplies," and

"Automotive Lithium-ion Batteries" in its financial statement.

Some overseas subsidiaries that were presented as "Automotive Batteries (Overseas)" in the previous fiscal year, had been reclassified as "Industrial Batteries and Power Supplies" in the year ended March 31, 2020. Reportable segments in the previous fiscal year have been recast to conform to the revised presentation.

(4) Information about Sales, Profit (Loss), Assets, and Other Items

				Millions of Yen				
				2020				
				Reportable Segments				
		Automotive Batteries		Industrial Batteries	Automotive		Other	Consolidated
	Japan	Overseas	Total	and Power Supplies	Lithium-ion Batteries	Total	Other	consolidated
Sales:								
Sales to external customers	¥ 88,059	¥ 162,139	¥ 250,198	¥ 84,566	¥ 42,264	¥ 377,028	¥ 18,526	¥ 395,554
Intersegment sales of transfers	1,381	3,937	5,318	12,033	720	18,071	(18,071)	
Total	¥ 89,440	¥ 166,076	¥ 255,516	¥ 96,599	¥ 42,984	¥ 395,099	¥ 455	¥ 395,554
Segment profit	¥ 6,977	¥ 9,187	¥ 16,164	¥ 9,158	¥ (1,709)	¥ 23,613	¥ 322	¥ 23,935
Segment assets	58,141	148,179	206,230	57,211	49,322	312,853	72,562	385,415
Other:								
Depreciation	2,228	4,414	6,642	1,655	3,258	11,555	6,104	17,659
Investment in equity method	1,141	29,017	30,158	275		30,433	2,405	32,839
Increase in property, plant and								
equipment and intangible assets	2,335	5,518	7,853	1,883	4,709	14,445	5,526	19,971
Amortization of goodwill	1,319	33	1,352			1,352		1,352
Goodwill – net	1,978	16	1,994			1,994		1,994

				Millions of Yen				
				2019				
				Reportable Segments				
		Automotive Batteries		Industrial Batteries	Automotive		Other	Consolidated
	Japan	Overseas	Total	and Power Supplies	Lithium-ion Batteries	Total	o their	consonauted
Sales:								
Sales to external customers	¥ 91,461	¥ 187,111	¥ 278,572	¥ 69,985	¥ 45,585	¥ 394,142	¥ 18,947	¥ 413,089
Intersegment sales of transfers	1,370	4,065	5,435	14,583	682	20,700	(20,700)	
Total	¥ 92,831	¥ 191,176	¥ 284,007	¥ 84,568	¥ 46,267	¥ 414,842	¥ (1,753)	¥ 413,089
Segment profit	¥ 7,766	¥ 10,559	¥ 18,325	¥ 7,317	¥ 301	¥ 25,943	¥ (876)	¥ 25,067
Segment assets	57,865	155,903	213,768	43,409	47,923	305,100	79,144	384,244
Other:								
Depreciation	1,774	4,353	6,127	1,266	4,388	11,781	6,040	17,821
Investment in equity method	1,085	28,929	30,014	111		30,125		30,125
Increase in property, plant and								
equipment and intangible assets	3,541	7,430	10,971	1,689	5,021	17,681	2,363	20,044
Impairment losses of assets		1,017	1,017			1,017		1,017
Amortization of goodwill	1,473	33	1,506			1,506		1,506
Goodwill – net	3,298	50	3,348			3,348		3,348

				Thousands of U.S. Dollars				
				2020				
				Reportable Segments				
	Japan	Automotive Batteries Overseas	Total	_ Industrial Batteries and Power Supplies	Automotive Lithium-ion Batteries	Total	Other	Consolidated
Sales:								
Sales to external customers	\$ 807,880	\$ 1,487,514	\$ 2,295,394	\$ 775,835	\$ 387,743	\$ 3,458,972	\$ 169,964	\$ 3,628,936
Intersegment sales of transfers	12,670	36,119	48,789	110,394	6,606	165,789	(165,789)	
Total	\$ 820,550	\$ 1,523,633	\$ 2,344,183	\$ 886,229	\$ 394,349	\$ 3,624,761	\$ 4,175	\$ 3,628,936
Segment profit	\$ 64,009	\$ 84,284	\$ 148,293	\$ 84,019	\$ (15,679)	\$ 216,633	\$ 2,954	\$ 219,587
Segment assets	533,404	1,359,440	1,892,844	524,872	452,495	2,870,211	665,706	3,535,917
Other:								
Depreciation	20,440	40,496	60,936	15,183	29,890	106,009	56,000	162,009
Investment in equity method	10,468	266,211	276,679	2,523		279,202	22,064	301,266
Increase in property, plant and								
equipment and intangible assets	21,422	50,624	72,046	17,275	43,202	132,523	50,697	183,220
Amortization of goodwill	12,101	303	12,404			12,404		12,404
Goodwill – net	18,147	147	18,294			18,294		18,294

Notes:

- 1. "Other" consists of business activities, such as special batteries that are not included as a reportable segment, or adjustments of segment profit (loss).
- 2. The main details of adjustments were as follows:
- (1) Adjustments of segment profit for the years ended March 31, 2020 and 2019, were ¥2,152 million (\$19,743 thousand) and ¥2,356 million, respectively. The details of the adjustments are as follows:

	Million	is of Yen	Thousands of U.S. Dollars
	2020	2019	2020
Elimination of intersegment transactions	¥ 1,198	¥ 1,361	\$ 10,991
Company-wide expenses	954	995	8,752
Total	¥ 2,152	¥ 2,356	\$ 19,743

Company-wide expenses mainly consist of general administrative expenses not attributable to any reportable segments.

(2) Adjustments of segment assets for the years ended March 31, 2020 and 2019, were ¥61,115 million (\$560,688 thousand) and ¥64,443 million, respectively. The details of the adjustments are as follows:

	Million	s of Yen	Thousands of U.S. Dollars
	2020	2019	2020
Elimination of intersegment transactions	¥ (94,930)	¥ (97,633)	\$ (870,917)
Company-wide assets	156,045	162,076	1,431,606
Total	¥ 61,115	¥ 64,443	\$ 560,689

Company-wide assets mainly consist of managing cash surplus, assets of administrative departments, and certain equipment of the research institute.

- (3) Adjustments of depreciation for the years ended March 31, 2020 and 2019, were ¥4,723 million (\$43,330 thousand) and ¥4,631 million, respectively. The adjustments consisted of depreciation of Company-wide assets.
- (4) Adjustments to "Increase in property, plant and equipment and intangible assets" for the years ended March 31, 2020 and 2019, were ¥5,102 million (\$46,807 thousand) and ¥1,960 million, respectively. The adjustments consisted of the purchase amount of property, plant and equipment and intangible assets classified as Company-wide assets.
- 3. The difference between the segment profit listed above and operating income in the consolidated statement of income, ¥23,935 million (\$219,587 thousand) and ¥21,676 million (\$198,862 thousand), respectively, resulted from the amortization of goodwill and other intangible assets of ¥2,259 million (\$20,725 thousand). The goodwill and other intangible assets include identifiable assets acquired on the effective date of the business combination. At March 31, 2019, the Group recognized an impairment loss of ¥1,017 million in total as loss on impairment of long-lived assets.

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(5) Information about Geographical Areas

(a) Sales

		Millions of Yen		
		2020		
Japan	Asia	Europe and North America	Other	Total
¥ 212,864	¥ 103,210	¥ 54,846	¥ 24,634	¥ 395,554
		Millions of Yen		
		2019		
Japan	Asia	Europe and North America	Other	Total
¥ 209,119	¥ 111,513	¥ 63,483	¥ 28,974	¥ 413,089

		Thousands of U.S. Dollars		
		2020		
Japan	Asia	Europe and North America	Other	Total
\$ 1,952,881	\$ 946,881	\$ 503,174	\$ 226,000	\$ 3,628,936

Note: Sales are classified by country or region based on the location of customers.

(b) Property, plant and equipment

		Millior	ns of Yen		
		2	020		
Japan	China	Asia	Europe and North America	Other	Total
¥ 86,024	¥ 13,578	¥ 18,678	¥ 6,424	¥ 3,148	¥ 127,852
		Million	ns of Yen		
		2	019		
Japan	China	Asia	Europe and North America	Other	Total
¥ 87,956	¥ 11,670	¥ 18,544	¥ 4,180	¥ 1,851	¥ 124,201

Thousands of U.S. Dollars

		20)20		
Japan	China	Asia	Europe and North America	Other	Total
\$ 789,211	\$124,569	\$ 171,358	\$ 58,936	\$ 28,881	\$ 1,172,955

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of GS Yuasa Corporation:

Opinion

We have audited the consolidated financial statements of GS Yuasa Corporation and its consolidated subsidiaries (the "Group"), which comprise the consolidated balance sheet as of March 31, 2020, and the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies, all expressed in Japanese yen.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of March 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Convenience Translation

Our audit also comprehended the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made in accordance with the basis stated in Note 1 to the consolidated financial statements. Such U.S. dollar amounts are presented solely for the convenience of readers outside Japan.

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 provisions of the Code of Professional Ethics in Japan, and we have fulfilled our other ethical responsibilities as auditors. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and 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 accounting principles generally accepted in Japan, 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, disclosing, as applicable, matters related to going concern in accordance with accounting principles generally accepted in Japan 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.

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.

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Member of Deloitte Touche Tohmatsu Limited

Auditor's Responsibilities for the Audit of the 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. The procedures selected depend on the auditor's judgement. In addition, we 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, when performing risk assessment procedures, 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.
- · 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 consolidated 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 overall presentation and disclosures of the consolidated financial statements are in accordance with accounting principles generally accepted in Japan, as well as 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 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 Audit & Supervisory Board members and the Audit & Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

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.

Deloitte Touche Tohmatan LLC

June 26, 2020

Corporate Information

Corporate Name	GS Yuasa Corporation
	Head Office 1, Inobanba-cho, Nishinosho, Kisshoin, Minami-ku, Kyoto 601-8520, Japan Tel: +81-75-312-1211
	Tokyo Office 1-7-13, Shiba-koen, Minato-ku, Tokyo 105-0011, Japan Tel: +81-3-5402-5800
Business	Formulating management plans and strategies for the GS Yuasa Group and administering Group companies to enhance the total value of the Group
Establishment	April 1, 2004
Capital Stock	¥33.0 billion
Number of Employees	Consolidated: 13,542

Group Companies

Japan

GS Yuasa International Ltd. GS Yuasa Battery Ltd. GS Yuasa Technology Ltd. GS Yuasa Accounting Service Ltd. GS Yuasa Energy Co., Ltd. Lithium Energy Japan Blue Energy Co., Ltd. GS Yuasa Power Fieldings Ltd. Hokkaido GS Yuasa Service Ltd. GS Yuasa Innovation Co., Ltd.

Overseas

USA

GS Yuasa Energy Solutions, Inc. GS Yuasa Lithium Power, Inc. Yuasa Battery, Inc.

UK

GS Yuasa Battery Europe Ltd.

HUNGARY

GS Yuasa Hungary Ltd.

TURKEY

Inci GS Yuasa Aku Sanayi ve Ticaret Anonim Sirketi

CHINA

Yuasa Battery (Guangdong) Co., Ltd. Yuasa Battery (Shunde) Co., Ltd. Tianjin Yuasa Batteries Co., Ltd. Tianjin GS Battery Co., Ltd. Tianjin Toho Lead Recycling Co., Ltd. GS Battery (China) Co., Ltd. Shanghai GS Toptiger Motive Power Co., Ltd.

TAIWAN

Taiwan Yuasa Battery Co., Ltd. GS Battery Taiwan Co., Ltd.

GS Yuasa Lighting Service Co., Ltd. GS Yuasa Socie Co., Ltd. GS KASEI KOGYO Co., Ltd. GS Ibaraki Works, Ltd. GS Environmental Science Laboratories Co., Ltd. Yuasa Membrane Systems Co., Ltd. lwaki Yuasa Ltd. Yuasa Chemical Co., Ltd. YUASA ELECTRIC CO., LTD.

THAILAND

GS Yuasa Asia Technical Center Ltd. Yuasa Battery (Thailand) Pub. Co., Ltd. Siam GS Battery Co., Ltd. GS Yuasa Siam Industry Ltd. GS Yuasa Siam Sales Ltd.

MALAYSIA

GS Yuasa Battery Malaysia Sdn. Bhd.

VIETNAM GS Battery Vietnam Co., Ltd.

INDONESIA

PT. Yuasa Battery Indonesia PT. GS Battery PT. Trimitra Baterai Prakasa

PAKISTAN

Atlas Battery Ltd.

INDIA Tata AutoComp GY Batteries Private Limited

AUSTRALIA Century Yuasa Batteries Pty Ltd.

Stock Information

Fiscal Year-End	March 31	
Number of Shares Authorized	280,000,000	
Number of Shares Issued	82,714,942	
Shares per Trading Unit	100	
Number of Shareholders	34,808	
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited	
Listed Securities Exchange	First Section of the Tokyo Stock Exchange	
Method of Public Notice	Notification is given electronically on the Company's website. However, if a public announcement cannot be made electronically, it will be placed in the Nihon Keizai Shimbun newspaper.	

Principal Shareholders

Name	Number of Shares Held (thousands)	As a Proportion of Shares Issued (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	8,379	10.32
Japan Trustee Services Bank, Ltd. (Trust Account)	4,835	5.95
Meiji Yasuda Life Insurance Company	2,800	3.45
Toyota Motor Corporation	2,236	2.75
MUFG Bank, Ltd.	1,865	2.30
Nippon Life Insurance Company	1,789	2.20
The Bank of Kyoto, Ltd.	1,548	1.91
Sumitomo Mitsui Trust Bank, Limited	1,470	1.81
JPMorgan Chase Bank 385151	1,439	1.77
Sumitomo Mitsui Banking Corporation	1,421	1.75

Stock Price and Trading Volume







Shareholdings by Type of Shareholder