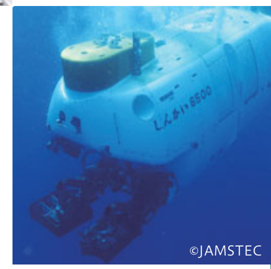
GS Yuasa Corporation

GS Yuasa Report 2018

For the fiscal year ended March 31, 2018



GS Yuasa Corporation

Head Office
1, Inobanba-cho, Nishinosho, Kisshoin, Minami-ku,
Kyoto 601-8520, Japan
English website: www.gs-yuasa.com/en

Through our business we are contributing to achievement of the Sustainable Development Goals.

Mobility

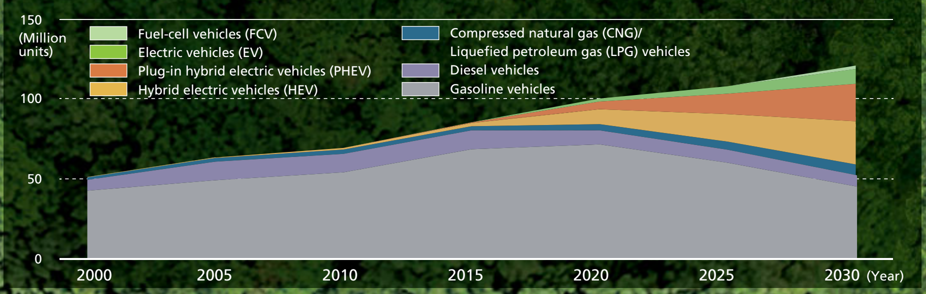
Supplying the necessary key components for the diffusion of eco-vehicles

Since emissions of carbon dioxide (CO_2) from the more than 1.3 billion vehicles on roads around the world are having an impact on global warming, regulations on CO_2 emissions and fuel consumption are becoming increasingly stringent in various regions. For this reason, the diffusion of eco-friendly vehicles, such as hybrid electric (HEVs), plug-in hybrid electric (PHEVs), and electric vehicles (EVs), is advancing. And even in the case of conventional gasoline vehicles, the standardization of start-stop functions designed to contribute to the improvement of fuel consumption is progressing.

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

For example, to increase the traveling distance of EVs and PHEVs, for which demand is increasing, it is necessary to vastly improve storage battery performance. We are tackling the challenge of making lithium-ion batteries better performing, cheaper, and longer-lasting.

Global Market Forecast for Automobiles



Source: International Energy Agency, *Energy Technology Perspectives 2015*

Automotive lead-acid batteries

- We have secured the second largest share of the global market for these products.
- Our product development strength has enabled quick responses to new demand, such as our lead-acid batteries for vehicles with start-stop systems.

Automotive lithium-ion batteries

- We established a mass production system ahead of competitors.
- These batteries have been widely adopted by automakers worldwide.
- Numerous market hits

Through our business we are contributing to achievement of the Sustainable Development Goals.

7 AFFORDABLE AND CLEAN ENERGY
13 CLIMATE ACTION

Renewable Energies

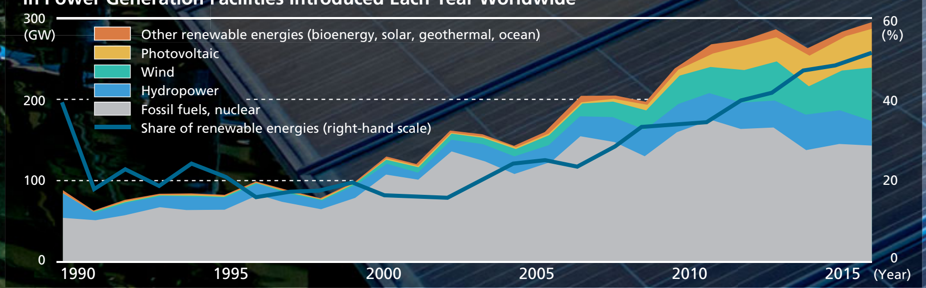
Contributing to the increased use of power source systems and storage battery technology using renewable energies

Since worldwide energy demand is increasing as a result of burgeoning populations and economic growth, it is necessary to expand the use of renewable energies to replace the limited fossil fuels, such as oil and coal. The introduction of power source systems and storage batteries to stabilize output fluctuations is essential for the effective use of energy from photovoltaic or wind power generation.

Our Group's products are attracting much attention as indispensable items for the diffusion of photovoltaic and wind power generation.

In order to utilize energy generated from solar power without waste, we are improving the conversion efficiency of power conditioners and pursuing technology. Furthermore, in Japan we are engaged in the design and building of entire photovoltaic power generation systems.

Trends in the Share of Renewable Energies in Power Generation Facilities Introduced Each Year Worldwide



Source: International Energy Agency, *World Energy Outlook 2016*

Storage battery system

- This system contributes to the effective use of energy through higher electricity conversion efficiency and little loss.

Power conditioners for photovoltaic power plants

- With a product lineup from 4.5 to 250 kilowatts, these power conditioners are used in plants of all sizes, including small-scale facilities and mega solar plants.
- By combining solar panels and storage batteries, plant operators can build storage systems for on-site power use.

Through our business we are contributing to achievement of the Sustainable Development Goals.

Infrastructure

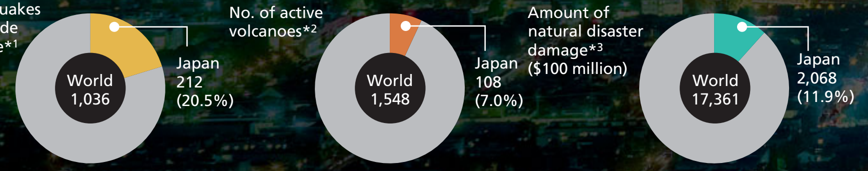
Contributing to power stabilization in social infrastructure with power backup equipment

In an age when electricity is needed for all kinds of things, the activities of society would come to a halt if the supply of electricity were cut off. Therefore, backup power sources assuming the stoppage of power supplies at times of natural disaster, such as flooding or earthquakes, are becoming increasingly important.

With their outstanding quality and reliability, our Group's products are safeguarding society's basic infrastructure. In addition, we are contributing to the continuity of business in office buildings and plants in the event of a large natural disaster.

Japan is a country prone to such natural disasters as typhoons, earthquakes, and volcanic eruptions. To fulfill our responsibility vis-à-vis some social infrastructure, we have organized a setup providing total support from product development to installation and maintenance.

Japan's Share of the World's Natural Disasters



*1: Total for 2000–9. Compiled by the Japanese Cabinet Office based on hypocenter materials of the Japan Meteorological Agency for Japan and the United States Geological Survey for the rest of the world.
*2: Active volcanoes are volcanoes, etc. that have erupted in the last 10,000 years or so. Compiled by the Japanese Cabinet Office based on volcano materials of the Japan Meteorological Agency for Japan and the Smithsonian's National Museum of Natural History in the United States for the rest of the world.
*3: Total for 1979–2008. Compiled by the Japanese Cabinet Office based on materials of the Centre for Research on the Epidemiology of Disasters (CRED).

Source: Japanese Cabinet Office, *White Paper on Disaster Management 2010*, Diagram 1-1-1

DC power supply

AC uninterruptible power supply

- Ranging from general purpose to specialized power supplies, our product lineup meets all kinds of demand from customers.
- GS Yuasa's network of over 100 service centers across Japan provides unmatched customer support.

Industrial lithium-ion batteries

- Customers can choose from among high-capacity types or fast-charging and more powerful types to suit their needs.
- We have created a highly competitive product lineup by utilizing automotive lithium-ion batteries.

Considering the Resolution of Social Issues as an Opportunity for Growth

Social issues

Issues to be tackled by society as a whole

Promulgation of Sustainable Development Goals (SDGs)
Promote initiatives to achieve 17 goals, focusing on resources, climate change, and health, among others.

Issues concerning our Group

Climate change and global warming
Carbon dioxide (CO_2) emissions from over 1.3 billion automobiles worldwide are having a serious impact on global warming.

Depletion of natural resources
Increased use of renewable energy is needed as a replacement for limited fossil fuels, such as oil and coal.

Intensifying disaster
Since the supply of electricity is often interrupted during disasters, such as floods or earthquakes, the importance of backup power supplies is growing.

Operational processes

Underpinnings of value creation

- A stable financial foundation bolstered by the Group's mainstay lead-acid battery business
- Solid strengths for developing technologies and cultivating markets built on an outstanding track record and customer trust
- Advanced technological capabilities bolstering the lithium-ion batteries business
- Strong competitiveness and brand power supported by business partnerships
- A workforce that maintains and passes down technologies with an understanding of the Company's corporate philosophy
- CSR-conscious business activities

Business activities

Automotive Batteries (Japan/Overseas)
Manufacturing and marketing lead-acid batteries for cars, motorbikes, and industrial applications in Japan and 17 countries around the world.
▶P.33–

Automotive Lithium-ion Batteries
Manufacturing and marketing lithium-ion batteries for electric vehicles (EVs), plug-in hybrid electric vehicles (PHEVs), hybrid vehicles, and similar.
▶P.39–

Industrial Batteries and Power Supplies
Supplying various kinds of batteries for industrial applications, as well as power supply systems, lighting equipment, membrane systems, etc.
▶P.37–

Others
Manufacturing and marketing lithium-ion batteries for manned submersible research vessels, satellites, rockets, and other applications.
▶P.41–

Value creation strategy

Mid-term management plan
GS Yuasa pursues a management strategy aimed at reinventing ourselves as an energy device company with solid long-term sustainable growth.
▶P.16–

CSR Activities
Addressing global social issues in a timely manner while keeping the needs and expectations of all stakeholders in mind.
▶P.45–

Governance
We are intensifying and strengthening compliance management and enhancing initiatives aimed at improving management soundness and transparency.
▶P.50–

Materiality
Identifying critical Materiality (Key CSR Challenges) to be reflected in our business strategy.
▶P.47–

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

Growth driven by solving social issues

Values provided to society

- Promoting expanded use of eco-friendly vehicles
- Promoting expanded use of renewable energy
- Efficient use of electricity
- More dependable social infrastructure

Products that contribute to solving social issues

● Automotive batteries
- Better mileage for automobiles
- Longer range for EVs and PHEVs

● Industrial batteries/ Power supply systems
- Stable use of renewable energy
- Secure power supply for social infrastructure, buildings, factories, etc.

Sustainable growth

- Maximization of profits
- Maximization of returns to shareholders through efficient use of assets
- Enhanced technological capabilities
- Stable or growing number of employees
- Stronger relations with suppliers

Aiming for sustainable growth through value creation

We believe that the GS Yuasa Group's products and business activities will contribute to the solution of various social issues, including achievement of the Sustainable Development Goals (SDGs), and that, by bringing value to society, the Group will enhance its own corporate value as well.

Furthermore, in order to avoid the risk of damage to corporate value, we believe it is important to minimize any negative impact of business activities on society.

On the basis of our corporate philosophy, by continuing our pursuit of cutting-edge and trailblazing technologies, the GS Yuasa Group aims to create value that contributes to the realization of a sustainable society. Through such efforts, we believe that we can achieve our Group's own sustainable growth as well.

Promoting the Sustainable Development Goals (SDGs)

In September 2015, the UN adopted a platform called Sustainable Development Goals (SDGs) for addressing issues facing the global society.

The GS Yuasa Group has joined this effort by establishing clear links between our materiality and the SDGs. For a table showing the relationship between the two concepts, please refer to page 47.

Contents / Scope of This Report

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Scope of this report

Period and content covered

Results for fiscal 2017 (April 1, 2017 – March 31, 2018)

Companies covered

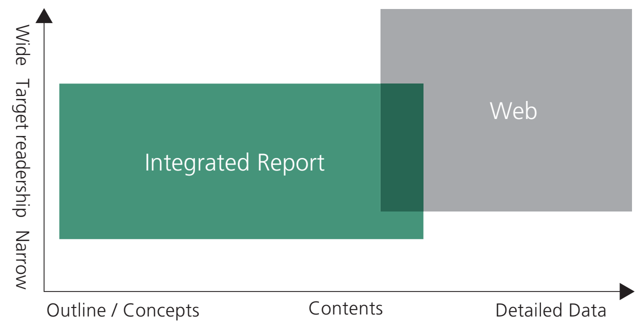
This report covers the GS Yuasa Group, comprised of GS Yuasa Corporation and its consolidated subsidiaries. Notes are included for data that fall outside the scope of the companies covered.

Disclaimer

This report contains earnings forecasts and other financial information pertaining to future business performance. These items are judgments made by the managers of GS Yuasa Corporation based on currently available information and they include an element of latent risk and uncertainty related to economic trends, demand, the forex rate, the tax system, and other systems. For this reason, actual earnings could diverge greatly from those presented here. GS Yuasa does not take responsibility for the accuracy of information on financial or business forecasts presented in this report.

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 web site discloses comprehensive information in order to meet public demands.



Overview

GS Yuasa Corporation has evolved from two companies that acted as trailblazers in the development and manufacture of storage batteries in Japan. Japan Storage Battery was founded in 1917, followed a year later by Yuasa Storage Battery. Since then, the two companies drove the evolution of batteries by working hard in a competitive spirit. Aiming for further progress, the companies merged their management and formed GS Yuasa in 2004. In 2017, the year of the 100th anniversary, the GS Yuasa Group employs some 15,000 people working at 37 sites in 17 countries around the world.

Nowadays, the conservation of energy and the reduction of environmental impact have become major social issues. This means that the storage batteries and power supply products of the GS Yuasa Group have an ever more important role to play. We will be further honing the technical expertise gained over the course of a century. Inspired by the company philosophy of "Innovation and Growth" we shall face difficult challenges head on in order to contribute to the realization of a prosperous and confident global community.

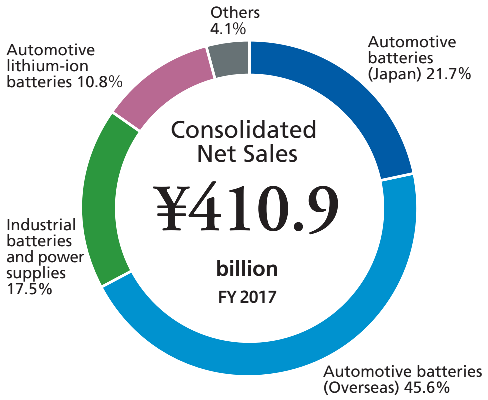
Supplying State-of-the-Art Energy Technology

[Products]

Nurtured in Batteries to the World

[Business Development Areas]

Breakdown of Net Sales by Business



Automotive batteries (Japan)

We manufacture and market domestic automotive and motorcycle lead-acid batteries. Technology to reduce fuel consumption has made great strides in start-stop systems and hybrid electric vehicles (HEVs). We are developing high-performance, high-quality storage batteries for such eco-friendly vehicles and launching them in the market.

Automotive batteries (Overseas)

GS Yuasa has 37 overseas sites in 17 countries around the world, with an especially large presence in China and Southeast Asia (mainly in Thailand and Indonesia). We use these sites to manufacture and market automotive, motorcycle, and industrial lead-acid batteries.

Industrial batteries and power supplies

In addition to lead-acid batteries for electric-powered vehicles, this business segment manufactures and markets backup industrial batteries and power supplies for social infrastructure, such as mobile phone base stations, office buildings, water and sewer systems, and power plants; power conditioners for photovoltaic power generation; lighting equipment; membrane systems and other products.

Automotive lithium-ion batteries

We manufacture and market automotive lithium-ion batteries for eco-friendly vehicles, such as electric vehicles, plug-in hybrid electric vehicles, and HEVs.

Others

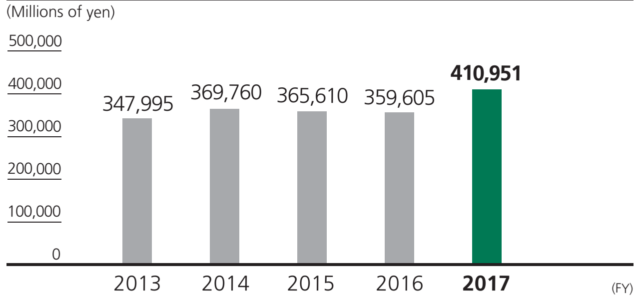
We manufacture and market lithium-ion batteries for a wide range of applications, from the deep sea (manned research submersibles) to outer space (satellites and rockets). This segment also includes the development, production, and distribution of batteries and power supplies for other specialized uses.

We Seek to Improve Corporate Value Through Pursuit of Sustainable Growth.

Financial Highlights

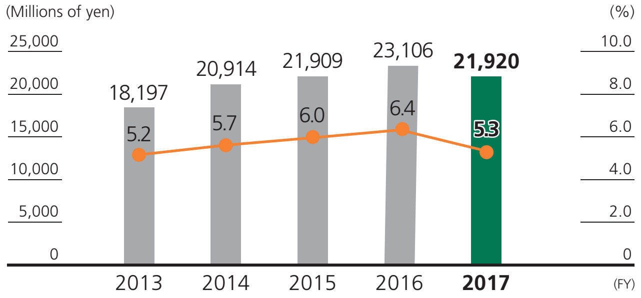
Net sales

410,951 million yen



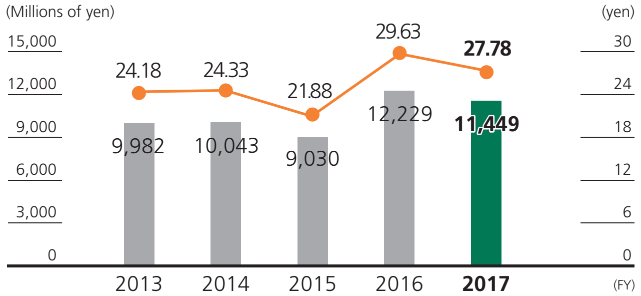
Operating income/Operating income ratio

Operating income 21,920 million yen
Operating income ratio 5.3%



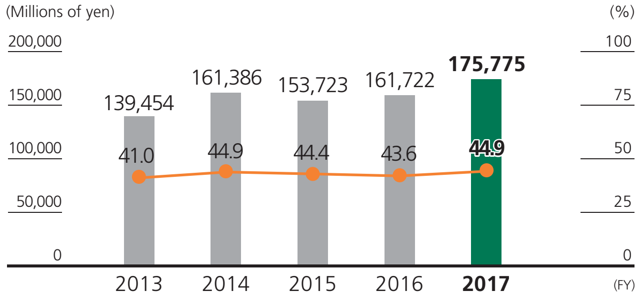
Net income attributable to owners of the parent/Earnings per share

Net income attributable to owners of the parent 11,449 million yen
Earnings per share 27.78 yen



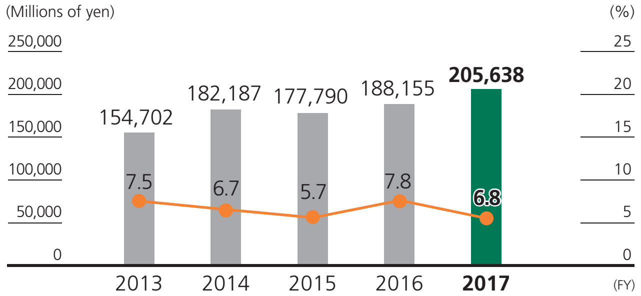
Total equity before noncontrolling interests/Shareholders' equity ratio

Total equity before noncontrolling interests 175,775 million yen
Shareholders' equity ratio 44.9%



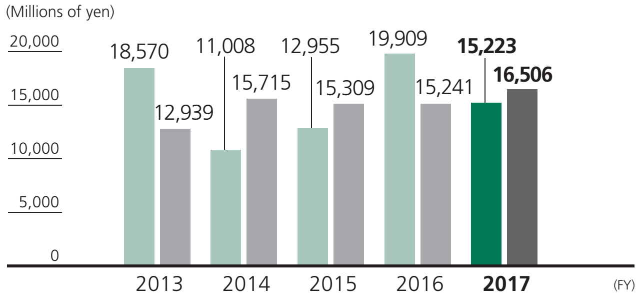
Total equity/ROE

Total equity 205,638 million yen
ROE 6.8%



Capital investment/Depreciation expense

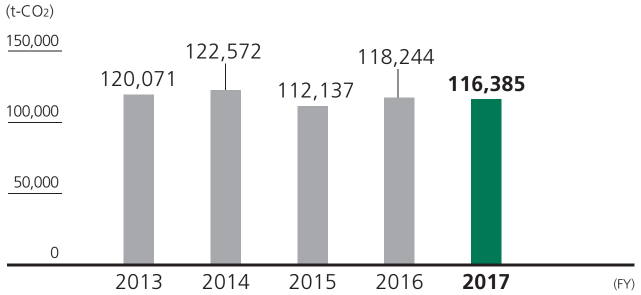
Capital investment 15,223 million yen
Depreciation expense 16,506 million yen



Non-Financial Highlights

CO_2 emissions from production plants in Japan

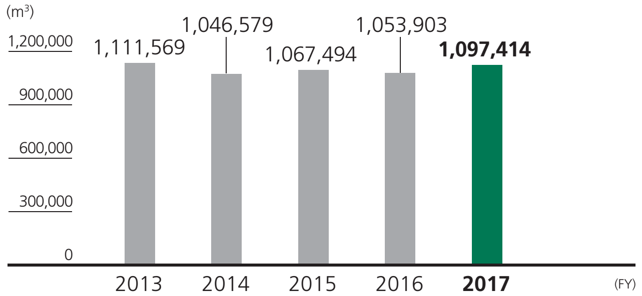
116,385 t-CO_2



Notes: Actual performance of GS Yuasa's four domestic business sites (Kyoto, Osadano, Gunma, Odawara). Data on CO_2 emissions per unit was published by the Federation of Electric Power Companies of Japan and used in the formula for converting the equivalent amount of CO_2 emissions from electricity consumption.

Water usage

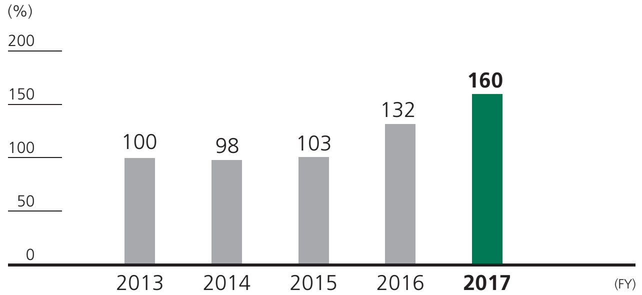
1,097,414 m³



Note: Actual performance of GS Yuasa's four domestic business sites (Kyoto, Osadano, Gunma, Odawara)

Sales index of lead-acid batteries for low-pollution vehicles with start-stop systems (compared to FY 2013)

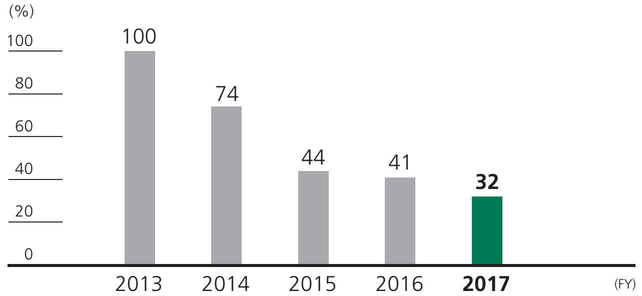
160%



Note: Sales volume for FY 2013 taken as 100

Quality loss rate index of domestic business (compared to FY 2013)

32%

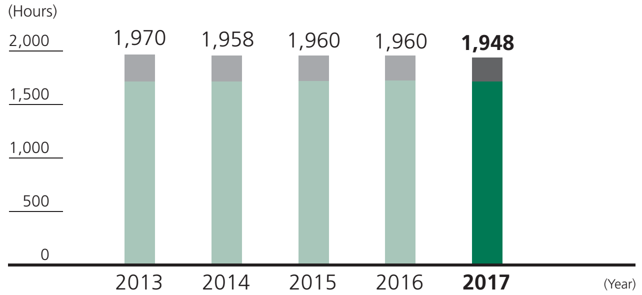


Note: Quality loss rate for FY 2013 taken as 100. The quality loss rate is the rate of losses that occurred during the manufacture and sale of products.

Average number of fixed hours worked annually by employees in Japan/Average number of overtime hours worked by employees in Japan

Average number of fixed hours worked annually by employees in Japan
Average number of overtime hours worked by employees in Japan

1,948 hours



Notes: Employees do not include personnel on leave or those transferred to workplaces outside Japan.
Annual total actual working hours was calculated as average number of fixed hours worked annually by employees minus annual hours absent from work due to days off, arriving late to work or leaving work early, etc.
Period: January to December

Compliance training attendance rate*1

100%

Achievement rate of human rights education plan*1

100%

Environmental Management System approval rate of overseas and domestic production sites*2

94%

Notes: *1: Applies to all employees of GS Yuasa Group (18 companies in Japan)
*2: Applies to production sites of GS Yuasa Group (12 in Japan, 21 overseas)
ISO 14001 certification acquisition rate: 85%

GS Yuasa's Predecessors and Their History

GS (Japan Storage Battery) founded in 1895

1895 Genzo Shimadzu manufactures Japan's first lead-acid storage battery

1908 First use of the GS trademark

1912 Storage battery plant built (Shin-machi, Imadegawa)

1917 Japan Storage Battery Co., Ltd. established

1919 Production of automotive lead-acid batteries begins

1933 Production of glass mercury rectifiers begins

1938 Production of alkaline batteries begins

1940 Ultra-high-pressure mercury lamps developed

1966 Siam GS Battery Co., Ltd. established in Thailand

1991 Tianjin Tong Yee Industrial Co., Ltd. (currently Tianjin GS Battery Co., Ltd.) established

1993 Prismatic lithium-ion batteries developed

YUASA founded in 1913

1913 Shichizaemon Yuasa begins research into metal electrolysis

1915 Yuasa Battery Manufacturing established within the Yuasa Iron Works in Sakai City, Osaka Prefecture; production starts on storage batteries

1918 Yuasa Storage Battery Co., Ltd. established

1920 Production starts on automotive lead-acid batteries; Tudor plating for stationary batteries completed

1935 Production of glass mercury rectifiers begins

1941 New storage battery plant in Odawara City completed; production of alkaline batteries begins

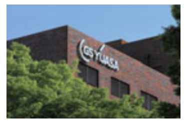
1963 Yuasa Battery (Thailand) Pub. Co., Ltd. established

1966 Dry and charged batteries go on sale in Japan for the first time

1993 Tianjin Yuasa Batteries Co., Ltd. established

2004 GS Yuasa Corporation established

2004 GS Yuasa Corporation established



2005 Tata AutoComp GY Batteries Ltd. established as the first overseas site of GS Yuasa in India (currently Tata AutoComp GY Batteries Pvt. Ltd.)

2006 GS Yuasa Lithium Power Inc. established as GS Yuasa's first overseas site for the manufacture of lithium-ion batteries

2007 Lithium Energy Japan established jointly with Mitsubishi Corporation and Mitsubishi Motors Corporation

2009 Blue Energy Co., Ltd. established jointly with Honda Motor Co., Ltd.

2013 Lithium Energy and Power GmbH & Co. KG (Germany) established jointly with Robert Bosch GmbH and Mitsubishi Corporation

2014 GS Yuasa Asia Technical Center Ltd. (Thailand) established

2015 Inci Holding A.S. and Inci GS Yuasa Aku Sanayi ve Ticaret Anonim Sirketi established in Turkey

2016 Completed the transfer of Panasonic Corporation's lead-acid battery business, which is renamed GS Yuasa Energy Co., Ltd.

Vision and Strategy for Value Creation

Our Group's management policy in the Fourth Mid-Term Management Plan is to "solidify long-term and sustained growth with the aim of regenerating GS Yuasa as an energy device company."

In the top message, the president looks back on our Group's track record and his own personal history and reports on market trends and strategies and company policy in our main business fields.

In addition, the director responsible for financial affairs and CSR explains efforts to tackle important strategic issues relating to the Mid-Term Management Plan, such as the improvement of revenue strength and important matters in CSR.

Looking ahead toward the next hundred years, we will realize sustainable growth by delivering products and services that are of true value to society.

Osamu Murao
President
GS Yuasa Corporation

Toward long-term growth

The mission: contributing to society through business operations

GS Yuasa Corporation has evolved from two companies engaged in the development and manufacture of storage batteries in Japan: Japan Storage Battery Co., Ltd. and Yuasa Storage Battery Co., Ltd. (later Yuasa Corporation) established in 1917 and 1918 respectively. Ever since their beginnings, these two companies continuously honed their skills and played a major role in the advancement of battery technology over the years. Aiming for further progress, the two companies merged their management in 2004.

Looking back upon this history, many milestones come to mind. Our batteries served to power the telecommunications equipment that supported the development of wireless communications in the early 20th century. In the starting days of industrialization, when power generation equipment in Japan was still rudimentary, auxiliary batteries were an important product category, and lead-acid batteries for automobiles helped to accelerate the postwar motorization. The founders of both companies placed great emphasis on innovative thinking and a spirit of challenge, which became the driving force for creating products that helped to resolve social issues of the time.

This kind of thinking still forms the DNA of the GS Yuasa Group today. As a case in point, our batteries provide stable performance even under extremely challenging conditions such as in deep sea and space exploration. The manned research submersible Shinkai 6500 which can dive to a depth of 6,500 meters contributes significantly to the study of the deep ocean, both through Japanese and international missions. One of these is the observation and measurement of plate movements that can be useful indicators for the prediction of major earthquakes. The meteorological satellite Himawari orbiting the earth at an altitude of over 36,000 kilometers provides information necessary for weather forecasting not only for Japan but also for other countries in the Asia-Pacific region. While usually remaining unseen, many of our group's products are fulfilling important social infrastructure related tasks in industry and daily life, such as in automobiles, railway equipment, mobile communication base stations, power backup installations, storage for renewable energy sources and much more.

Today, as the conservation of power and the reduction of the environmental burden have emerged as foremost goals on the global scale, the Group's products with the function of storing energy have ever more important roles to play. I believe that our group was able to evolve and grow over the course of a century because we were willing to listen to the voice of the world and have endeavored to flexibly respond to changes in the environment by creating new value. I strongly believe that this is the course to take also in future. By doing so, the Group can continue to grow over the next 100 years as well, working for society and for people all over the world.

Philosophy

Innovation and Growth

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

1. GS Yuasa will become the "first call" company based on our "customer first" policy.
2. GS Yuasa considers quality and safety as most important, and supplies environmentally conscious products all over the world.
3. GS Yuasa will comply with all laws and operate using clear and fair management.

Quality is the absolute requirement Improving quality through communication-based *monozukuri*

As a manufacturer, our first and foremost concern is quality in all its aspects, to gain the trust of customers and retain it through continued stable growth. Ever since I became president, I have been promoting "management with quality as the core." Since I joined the company I have always been engaged in manufacturing and production technology. The *monozukuri* style of dedicated Japanese craftsmanship has taught me many things, one of which is called the "three Gen (five Gen) principle." This refers to the Japanese kanji character meaning "actual" which is found in the expressions for closely considering an actual object, on site, and with a realistic point of view. It further is found in the expressions for assessing something in accordance with principles and taking appropriate measures. I believe that this is the iron rule of *monozukuri* manufacturing. To realize this, our group holds monthly Quality Management Meetings called by the Quality Assurance Divisions, as well as two global Quality Improvement Cases Presentation Meetings per year, intended to widely share experience and know-how gained on site and further build on the obtained results. We also collect examples of failures and present these in the context of Important Quality Issues Case Studies. In order to prevent the occurrence of defects, there is no better opportunity than learning as much as possible from actual on-site failures.

The *monozukuri* concept also encompasses the transmission and utilization of information. I call this the "Transfer of Information." The opinions of the market must be accurately conveyed from marketing to the development, design, and manufacturing sections. Only this makes it possible to create products that are truly needed and useful for the world at large. A key aspect in this regard is communication. The various management levels of a company need to listen closely to the opinions and concerns of personnel at the forefront of manufacturing, in other words, they need to have a field-oriented attitude.

As a result of this approach, the percentage of defective products has been decreasing year by year. But on the other hand, customer demands are becoming ever more sophisticated, and the conditions in the field are in constant flux. We understand that there is no end point to the quality improvement, and we shall therefore further intensify our activities in this regard.

Expanding the production of lithium-ion batteries and lead-acid batteries in response to growing demand for eco-friendly vehicles

As environmental regulations are being tightened around the globe, electric vehicles (EVs) are increasingly garnering attention. The GS Yuasa Group is also working on future-oriented projects, but with regard to the Japanese market, hybrid electric vehicles (HEVs) and plug-in hybrids electric vehicles (PHEVs) that use a combination of internal combustion engines and electric motors are expected to remain mainstream for a considerable time. Our group therefore is actively engaged in the development and manufacture of lithium-ion batteries for drive assist applications. In Europe where environmental concerns tend to play a major role, engine starter batteries are increasingly being switched from lead-acid to lithium-ion. To meet demand in this area, we intend to expand the automotive lithium-ion battery sector, destined to become a second major pillar of our operations next to the regular lead-acid batteries business. By utilizing our mass production technology and manufacturing lines for automotive lithium-ion batteries, we will be offering highly cost-competitive products also for industrial applications.

Meanwhile, sales of lead-acid batteries, which are the main products of our group, are also rising globally due to an increase in the number of cars sold mainly in emerging countries. In advanced economies, vehicle with start-stop systems ("idling stop system": ISS) are becoming very common, leading to more demand for high-performance lead-acid batteries suitable for this systems. In order to capture new demand, we aim to expand sales channels in as yet undeveloped markets for our group, including Eastern Europe, the Middle East, Africa and South America, and to demonstrate our strengths in products for eco-friendly vehicles, aiming to expand our business.

Twelve V batteries for automobiles which are a forte of the GS Yuasa Group are well suited for supplying power to the various electric functions of cars, such as engine starting, powering the navigation system and the like. Such batteries are therefore installed also in vehicles that have evolved to forms such as HEVs, PHEVs, and EVs. Whether the type is lead-acid or lithium-ion, 12 V automotive batteries will always be a strength of our group.

Focusing on sustainable growth through resolving social issues

In April 2018, we signed the United Nations Global Compact (UNGC), which matches our group's corporate philosophy and values. In its global business activities, the GS Yuasa Group will promote the ten principles in four categories that the UNGC stipulates for businesses. In this way, we will aim for sustainable growth while fulfilling our Corporate Social Responsibility.

As a first step, we identified high-priority initiatives as Materiality (Key CSR Challenges) with reference to the United Nations Sustainable Development Goals (SDGs).

The SDGs are a set of common humanitarian goals to be achieved together by developed and developing countries. The GS Yuasa Group aims to resolve these issues as business opportunities which will enable us to grow on a sustainable basis by helping society. There are many areas where we can make useful contributions. This includes for example supporting the spread of eco-friendly vehicles with low CO_2 emissions, facilitating the increased utilization of renewable energy such as solar and wind power, and the development of batteries and equipment for industrial backup power installations to strengthen the social infrastructure in case of emergencies.

We will continue to innovate through our business activities, aiming for sustainable growth by contributing to solving global social issues and protecting the global environment.

We became a signatory to the United Nations Global Compact (UNGC) in April 2018.
We will contribute to achieving the Sustainable Development Goals (SDGs) through business activities.

The Sustainable Development Goals or SDGs for short are a platform of initiatives adopted by the General Assembly of the United Nations in September 2015. Aimed at solving issues of global importance such as hunger and poverty, climate change, etc., the platform is meant to be implemented by all member nations. These ideals fully match our corporate principles and we will participate to the best of our abilities.

Results of FY 2017 (fiscal year ended March 2018)

Highest net sales since the company's inauguration

Net sales for fiscal 2017 amounted to 410.9 billion yen, an increase of 51,345 million yen (14.3%) over fiscal 2016. This represents our best result ever. Main drivers of this development were increased demand for new cars in Japan and the impact of incorporating Panasonic's domestic lead-acid battery business into our consolidation scope from the beginning of the year, which resulted in higher figures for the automotive battery business.

On the other hand, operating income declined by 1.1 billion yen to 21.9 billion yen, due to a rise in the price of lead, which is the principal raw material in the automotive battery sector and the industrial battery and power supply sector.

When seen by segment, the automotive battery business did well on the domestic level due to an increase in the number of automobile production units, while sales for new vehicles also increased drastically owing to favorable sales of EN (European Norm) compliant batteries. In addition, lead-acid batteries for vehicles with start-stop systems did well for new cars and for repair, resulting to an increase in both sales and profits. Overseas, sales increased in Southeast Asia and sales figures benefitted from the higher yen exchange rate, but profits declined due to the rise in the price of lead. In the industrial battery and power supply sector, sales and profits declined due to slower sales of industrial lithium-ion batteries and industrial lead-acid batteries, as well as higher raw material prices. In the area of automotive lithium-ion batteries, sales increased for both HEVs and PHEVs, also resulting in higher profits, and we achieved a surplus for the second consecutive term. In other businesses, the production of lithium-ion batteries for submarines is progressing steadily, and income has increased.

Overview of the Fourth Mid-Term Management Plan covering April 2016 to March 2019

Mid-Term Management Policies

With the aim of becoming the "new GS Yuasa," an energy device company, we will ensure long-term, sustainable growth.

New businesses
Ensure profit in new business (lithium-ion batteries) and firmly put this business on a stable growth track

Growth businesses
Further expand the business domain of growth business (overseas operations) and raise its profitability

Established businesses
Expand and stabilize the cash flow from existing businesses (automotive batteries business and industrial batteries and power supplies business) and make investments for future growth

Key Mid-Term Strategic Tasks

Stabilize and expand new business by enhancing the management foundation and earnings power of existing and growth businesses and grow it into the second pillar of the corporate foundation following the lead-acid batteries business.

- Ensure the achievement of the fourth quality improvement plan over the next three years, based on the GS YUASA Basic Quality Policy
- Reorganize the business structure in response to markets and customers

Basic Management Objectives and Areas of Focus in Fiscal 2018

Basic Management Objectives

1. Realize sustainable development of the GS Yuasa Group and improve corporate value through CSR activities
2. Maximize profit and cash flow in the automotive battery and industrial battery and power supply sectors and further accelerate global expansion
3. Strengthen profitability in the automotive lithium-ion battery sector to link to the next growth strategy

Areas of Management Focus

1. **CSR activities**
   Include the CSR policy and Code of Conduct in all business activities and improve corporate value.
2. **Ensure compliance**
   Comply with social norms and internal rules and realize highly transparent and fair business management.
3. **Human resource development and allocation**
   Boost motivation to grow self and enhance management ability to promote development innovative and independent human resources and demonstration of their abilities, ultimately to improve corporate competitiveness.
4. **Information management**
   Promote development of robust information management system and improve information ethics.

Outlook for FY 2018 (fiscal year ending March 2019)

Further accelerated growth aimed at another record result

Currently, the GS Yuasa Group is in the process of reorganizing its business structure with a strong market and customer focus, one of the Key Mid-Term Strategic Tasks. Following the integration of the domestic and overseas divisions for automotive battery business conducted in fiscal 2017, we will integrate some of the domestic and overseas divisions of the industrial battery sector in fiscal 2018. In the R&D sector, we launched a new LIB Technical Center in April 2018. This new facility will be responsible for applied research and technology development, consolidating existing research and development capacities und unifying the process up to the commercialization stage. The R&D Center on the other hand will focus on projects with a view to the "post lithium-ion batteries" such as all solid-state batteries and lithium air batteries.

Fiscal 2018 will be the final year of the Fourth Mid-Term Management Plan. We will conduct activities in keeping with the three Basic Management Objectives and four Areas of Management Focus as listed at left. Looking at each segment, we will promote expanded sales for new cars and repairs in Japan in the automotive battery business. Overseas, we will expand sales of lead-acid batteries for ISS vehicles, especially in Asia. We have already established an expanded production system in Southeast Asia, and new factories under construction in Tianjin, China and Turkey will also start operation in fiscal 2018. In the industrial battery and power supply sector, we will strive to improve profitability by streamlining and further developing markets for industrial lithium-ion batteries related products, targeting areas such as power storage systems, construction machinery, railways and automatic guided vehicles. In the automotive lithium-ion battery business, while continuing to give top priority to quality, we intend to promote profitability by improving efficiency.

Based on the above, the aim for fiscal 2018 will be to increase sales and profits, targeting net sales of 450 billion yen, with an operating income of 22 billion yen (24.5 billion yen in operating income before goodwill amortization). A net income of 13 billion yen is projected to be attributable to parent company shareholders (15.5 billion yen in net income attributable to owners of the parent before the amortization of goodwill).

Unfortunately the final goal of the Fourth Mid-Term Management Plan will likely not be reached. However, while expecting price increases in lead and other major raw materials, we still believe that we can build a structure that will enable record profits. Building on the business base that we have cultivated so far, we will accelerate the speed of growth and promote product creation focused on solving global social issues.

On behalf of all of us, I would like to express my appreciation to the Group's stakeholders for their unwavering support and understanding over so many years.

President
GS Yuasa Corporation

Message from Director in Charge of Finance and CSR

Improving profitability and quality of management are the two pillars for enhancing the corporate value of our group.

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

Improving revenue while maintaining a stable financial base

Our Fourth Mid-Term Management Plan lists three key financial measures: "Priority of ROE as management indicator," "Promoting efficiency of capital investments," and "Reduction of interest-bearing debt."

In order to increase return on equity (ROE), it is vital to improve profitability. Since the management integration that occurred in fiscal 2004 we have made considerable progress in this area, but the operating income ratio of about 6% in recent years lags behind the target of 8% set forth in the Fourth Mid-Term Management Plan. However, there is still room for improvement, and I believe that in future we can aim for 10% and higher. In addition, return on invested capital (ROIC) is used as a management index for each business unit, thereby improving capital efficiency. Although ROIC management was only begun recently, we expect that investment efficiency and balance sheet awareness will increase in each business division from now on. In addition, in the performance-based stock compensation plans that were introduced in fiscal 2017, operating income ratio and ROIC are included in the evaluation index, which is intended to strengthen the incentives for the Board of Directors for improving profitability.

For interest-bearing debt, in order to realize the moderate borrowing needed in order to significantly grow a company, one of the guidelines is that interest-bearing liabilities should be kept within the amount of two years of operating cash flow. As of the end of March 2018, the ratio of interest-bearing debt to cash flow is 3.5 years. We therefore need to focus further on improving cash acquisition capacity in the future.

To achieve this, investment is necessary to maintain and improve competitiveness in existing fields that are major earners. Subsequently we will redirect the cash gained from existing fields to new fields such as lithium-ion batteries and the growing overseas business. The facility investment committee, of which I am chairman, was established to ensure the appropriateness of these investment decisions. The standing committee which comprises members of the Board of Directors and Executive Officers in the Development and Manufacturing Divisions of the core company GS Yuasa meets in principle once a month, and all capital investment projects within the Group amounting to 30 million yen or more proposed by business divisions are reviewed. The appropriateness of each planned investment including necessity and cost are thoroughly discussed before making a decision. The discussion here also includes whether to invest in overseas group companies.

We aim to ensure the financial sustainability of the Group by improving profitability while remaining conscious of capital efficiency and maintaining financial soundness.

Expanding shareholder return with stable dividends and treasury stock acquisition

We recognize that providing returns to our shareholders is one of the most important duties of management. In the current Mid-Term Management Plan, we have set a payout ratio of 30% or more as a target. In fiscal 2016, we acquired the domestic lead-acid battery business from Panasonic Corporation. In the short term, this acquisition reduces profit through amortizing goodwill by more than 2 billion yen a year, but over the medium to long term it will contribute to the growth of the company. Therefore, by setting the payout ratio to 30% or more based on profit before amortization of goodwill, we take care to prevent investments for growth from becoming disadvantageous to shareholders.

Regarding the dividend for the fiscal 2017, we declared 10 yen per share (the interim dividend of 3 yen was paid out at the end of the second quarter, so the year-end dividend is 7 yen). Regarding the dividend for the fiscal 2018, we plan to make it the same level as the previous year on the premise of achieving the expected profit.

In addition, in November 2017, we purchased 1.738 million shares of treasury stock for about 1 billion yen in order to raise the shareholder value per share and enhance the profit return to shareholders. We plan to acquire treasury stock up to 1 billion yen in fiscal 2018 as well.

Identify important CSR issues from the point of view of risks and opportunities

In our current corporate management, we recognize that besides business results and profit expansion, the quality of management will be judged also by the corporate stance and by the depth of involvement in

Message from Director in Charge of Finance and CSR

CSR. Having long been aware of this fact, the GS Yuasa Group has traditionally carried out business activities rooted in CSR and oriented toward sustainable growth. However, as globalization is set to further accelerate in the years to come, it is important for all employees to reevaluate and share their understanding so as to further raise their level of CSR awareness.

In response to this, when I was appointed CSR officer in September 2016, I established a CSR promotion department to identify key issues related to CSR and to formulate and promote Group strategy. In addition, in May 2017, we established the GS YUASA CSR Policy that is positioned to reinforce the Group's management policy and the CSR Code of Conduct which is a standard for actions to be practiced by our employees. Subsequently we identified "risks" that impede the achievement of solutions and "opportunities" to promote their achievement for each important issue of the Mid-Term Management Plan. At that time, we also considered international guidelines related to CSR and the United Nations Sustainable Development Goals (SDGs) that came into effect in January 2016.

In order to implement PDCA for these CSR activities, we have formulated action plans and key performance indicators (KPIs) for important issues with clearly defined scope indication, i.e. domestic, overseas, or global. We have put initiatives in place to reduce risks when promoting business activities. For supply chain management in particular, we are conducting surveys with gradually expanded scope, starting with domestic suppliers and

moving on to the overseas sites of our group and then to overseas suppliers in general. In this way, we will thoroughly implement CSR throughout the entire supply chain.

On the other hand, the expansion of opportunities also is an important consideration. The products of our Group, starting with storage batteries, are playing an important role in facilitating the acceptance of eco-friendly vehicles and renewable energy. Through our business activities we can contribute to address major concerns such as climate change and energy issues. By honing our technological know-how and devising innovative solutions that enable us to manufacture and deliver outstanding products, we not only contribute to society but also enable the GS Yuasa Group to grow. We also believe in the importance of publicly releasing information about our initiatives. External evaluation from the perspective of CSR and ESG is also steadily improving, and we feel that our efforts in this regard are producing results.

In April 2018, we became a signatory to the United Nations Global Compact (UNGC) which promotes ten principles in the four categories of Human Rights, Labor, Environment, and Anti-Corruption. As we further expand our global business activities, we will strictly observe laws and international norms and endeavor to maintain utmost transparency, integrity, and ethical behavior throughout the entire supply chain. Based on the dual pillars of improving profitability and quality of management, we will be enhancing the corporate value of our group.

T. Nakagawa

Chief Financial Officer and Senior Managing Director
GS Yuasa Corporation

GS YUASA 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 global environment.

1. Developing fair, transparent, and sound business, and anti-corruption
2. Respect for human rights
3. Conservation and improvement of adequate working environment
4. Fulfillment of our responsibilities to provide safe and secure products and services
5. Global environmental conservation
6. Building better relationships with local communities
7. Ensuring social responsibility within our supply chain

Performance in FY 2017

The GS Yuasa Group's operating structure comprises four business divisions—Automotive Batteries (Japan), Automotive Batteries (Overseas), Industrial Batteries and Power Supplies, and Automotive Lithium-ion Batteries—as well as other businesses not included in these segments. Focusing on lead-acid batteries, lithium-ion batteries and various power supply devices, we develop and manufacture products that meet social needs.

We present an overview of conditions in fiscal 2017 through pages featuring important topics in that fiscal year and pages showing market trends and results for each business sector. We also report on the characteristics of each business and the results of activities.

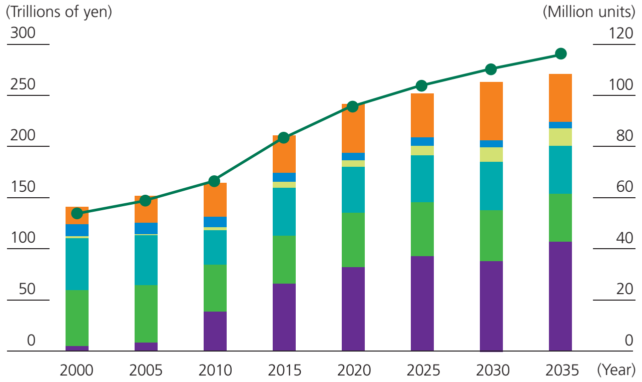
In fiscal 2017, in order to embed CSR issues in our corporate strategy, we identified Materiality (Key CSR Challenges). The CSR page shows a list of these challenges, along with the specific processes.

Automotive lead-acid battery

Expanding overseas production capacity

The demand for eco-friendly vehicles is increasing not only in Japan and but overseas as well.
The GS Yuasa Group is therefore strengthening its overseas production framework, enabling us to deliver high-performance, high-quality lead-acid batteries to customers around the globe.

Trends in car sales volume and value in major countries and areas



Source: Material published by the Japanese Ministry of Economy, Trade and Industry

China
Tianjin GS Battery

Production capacity
6 million **units/year**

This new plant for automotive lead-acid batteries for eco-friendly cars is intended to meet growing demand in China. Covering 180,000 square meters, it will be our Group's largest facility.

Through our business we are contributing to achievement of the Sustainable Development Goals.

Myanmar
SGSM Limited

Strengthening our foundations in the Mekong economic zone

This plant is destined to handle import, charging and wholesale operations of lead-acidbatteries for automotive and domestic power supply applications.

Turkey
IGYA

Production capacity
6 million **units/year**

This plant is scheduled to be constructed for the production of lead-acid batteries for automotive start-stop systems, demand for which is expected to grow in the future.

Background

Tightening of environmental regulations causes changes in automotive market

Against the backdrop of global warming and other factors, environmental regulations are being tightened not only in Japan, the United States and Europe but also in China and emerging countries. For this reason, more and more hybrid electric vehicles and other eco-friendly vehicles are being put on the market, and vehicles with start-stop systems ("idling stop system": ISS) are rapidly spreading all over the world.

Such systems turn the engine off when the car is stopped and restart it without any intervention by the driver. As the additional cost for the system is small compared to other types of eco-friendly cars, the function has been increasingly added to combustion engine automobiles since around 2012. ISS cars draw more power from the lead-acid batteries to compensate for electric loads while the engine is stopped. Therefore, lead-acid batteries for ISS cars are required to have higher durability than conventional products.

The GS Yuasa Group manufactures lead-acid batteries with excellent durability for new ISS cars and repairs and boasts a high market share in Japan.

Initiatives

Building the group's largest new production plant in China

The Chinese auto market continues to grow rapidly, and a major increase in demand for ISS vehicles and fuel-efficient vehicles due to stricter exhaust gas regulations is expected. The GS Yuasa Group is therefore building a production plant for automotive lead-acid batteries in Tianjin, China, which will become our largest such facility. The plant is scheduled to begin operation in the summer of 2018, and it is planned to relocate and integrate the operations of our existing facility, Tianjin GS Battery Co., Ltd., into the new plant as well. By emphasizing efficiency and rationalization of production, we are aiming at an annual production capacity of up to 6 million units in 2021.

Establishing new companies and plants in various locations in response to growing demand for lead-acid batteries

We are building a new production plant in Turkey with our equity method affiliate Inci GS Yuasa Aku Sanayi ve Ticaret Anonim Sirketi (IGYA). In order to meet expected demand for ISS vehicle applications, we plan to boost yearly production capacity of lead-acid batteries from 4 million units to 6 million units by 2021. We will also progressively open representative offices in order to promote sales to neighboring countries of Turkey.

Our subsidiary Siam GS Battery Co., Ltd. in Thailand has established a new company in Myanmar called Siam GS Battery Myanmar Limited (SGSM Limited), which will provide charging, sales and distribution services for automotive and domestic power supply lead-acid batteries and is scheduled to begin operation from January 2019. Within the Mekong economic zone, where the advancement of motorization is expected, we are first building up battery supply capacity to the Myanmar market where demand expansion is particularly strong.

As a general storage battery manufacturer, our Group will continue to respond to market developments and changes in order to meet demand on a worldwide basis.

Special Feature 2

Industrial lithium-ion batteries

Supporting the future of railways as a key component of social infrastructure

Expectations are increasing in the potential of railways as an environment-friendly means of transport. Products of the GS Yuasa Group are playing an important role in supporting advanced railway functions.

Daily average passenger numbers at major Japanese railway stations

Rank	Station	Number of passengers entering/exiting trains	Rank	Station	Number of passengers entering/exiting trains
1	Shinjuku	769,307	6	Shinagawa	371,787
2	Ikebukuro	559,920	7	Shibuya	371,336
3	Tokyo	439,554	8	Shimbashi	271,028
4	Osaka Umeda	431,543	9	Omiya	252,769
5	Yokohama	414,683	10	Akihabara	246,623

Source: Data released in FY 2016 by railway companies

Background

Whether for commuting, travel, or freight transport, railways are an integral part of Japanese life

In fiscal 2017, over 24.5 billion people used domestic railways in Japan, and the yearly numbers of people passing through the major stations in urban areas are at the top of worldwide statistics. Without a doubt, railways are an indispensable part of social infrastructure. Moreover, CO_2 emissions per transported unit are approximately nine times lower than with automobiles, making railways the means of transport with the lowest environmental impact. Daily life without railways can hardly be imagined. As with other forms of mobility, however, further improvements in terms of energy efficiency and reduction of the environmental burden are required, as well as business sustainability as an important social infrastructure of the nation.

Initiatives

Supplying regenerative power storage devices using industrial lithium-ion batteries to JR West Japan

In March 2018, we delivered regenerative power storage devices to West Japan Railway Company (JR West Japan). Previously the energy generated by a decelerating train was not effectively utilized if there was no accelerating train nearby. The power storage devices delivered by us can temporarily retain energy by charging a storage battery and discharging it when electric power is necessary, resulting in more efficient use of energy. The device also contributes to stabilizing the catenary voltage, helping to ensure stable train operation with electric trains.

Expanded use of industrial lithium-ion batteries by railway companies

A storage battery system of the GS Yuasa Group was adopted for the new ACCUM model in the EV-E301 series developed by East Japan Railway Company. This storage battery system utilizes the industrial lithium-ion battery module LIM 30H-8A, which has an excellent track record with many satisfied customers.

ACCUM allows traveling in non-electrified sections where there is no overhead wire by using accumulated energy from the battery, which then is charged again while traveling in an electrified section. Furthermore, in both sections, it is possible to accumulate electricity generated by regenerative braking in the storage battery and make effective use of it.

The Tokyo Metropolitan Bureau of Transportation for the first time adopted our industrial lithium-ion batteries in backup power-supply devices for railway communication equipment. Compared to conventional lead-acid batteries, this brought various advantages, such as superior cycle life and space savings. Having a long-term power backup for railway communication equipment in emergency situations is vital for enhancing the stable train operation.

Our Group will continue to promote the expanded use of industrial lithium-ion batteries for railways and other important social infrastructure.

At a Glance

In fiscal 2017, we worked on developing new products and new technologies, boosting production capacity and actively expanding sales efforts to respond to market environment changes and the expansion of demand.

Business operation	Market trends	Outline of fiscal 2017

Automotive Batteries (Japan)

21.7%

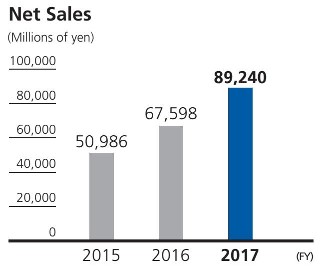
Net Sales
¥89,240 million

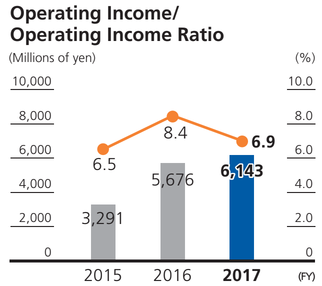
Market trends

Total demand increased by approximately 3% over the previous fiscal year, mainly due to an increase in new car production volume.
Reflecting the global procurement policies of automobile manufacturers, adoption of EN (European Norm) compliant batteries has become widespread, particularly in new Toyota cars. In the parts sector, demand for replacement batteries in cars with factory-installed start-stop systems has increased, and this is about to form a new market.

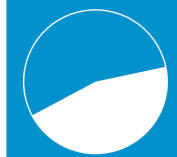
Outline of fiscal 2017

In April 2017, the organization of the GS Yuasa Group underwent a transformation. Domestic and overseas divisions were unified to create a one-stop framework for supporting the business activities of customers active on the global stage. We introduced automotive lead-acid starter batteries harnessing advanced technology that fully brings out the mileage advantages of cars with the latest idling stop systems while improving battery life at the same time. We also expanded our lineup of EN batteries purpose-designed for Japanese car models.





Automotive Batteries (Overseas)



45.6%

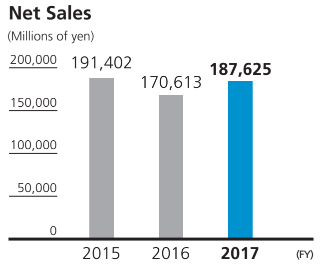
Net Sales
¥187,625 million

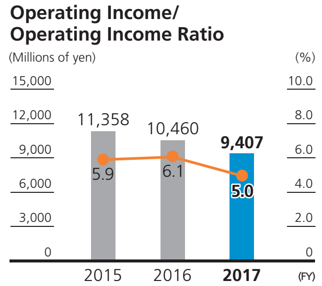
Market trends

The market of lead-acid batteries for automobiles and motorcycles in North America, Europe and Asia is served not only by global manufacturers but also by many medium- and small-scale local firms. Competition is therefore intensifying in various aspects such as price, quality, performance and service.
Automobile production in China continues to grow, and the demand in Southeast Asia is also still on the rise.

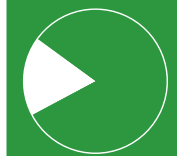
Outline of fiscal 2017

In the field of lead-acid batteries for automobiles and motorcycles, we expanded sales by introducing new products to meet specific demand in each country or region. We also strove to increase production capacity through measures such as establishing a production system in response to rapid demand expansion in India. In the field of industrial lead-acid batteries, we focused on improving our production framework for Southeast Asia and developing lead-acid batteries for battery-powered forklifts where demand is growing.





Industrial Batteries and Power Supplies



17.5%

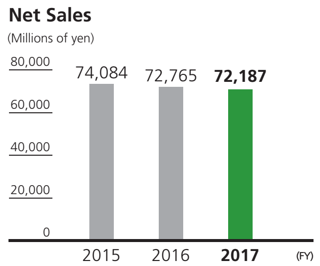
Net Sales
¥72,187 million

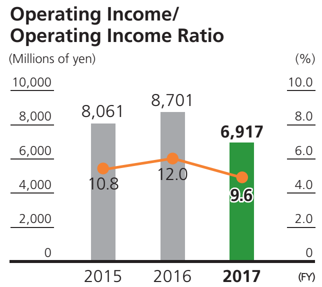
Market trends

Price competition in the area of storage batteries and power supply systems for handling power backup tasks in social infrastructure applications is heating up, but demand remains solid. A notable increase in demand occurred in power supply devices for mobile communication base stations. In the new energy sector, the feed-in tariff system has changed, prompting a gradual move to the self-consumption pattern in the solar power generation market.

Outline of fiscal 2017

Efforts by the manufacturing and sales divisions to shorten lead times and enable a more flexible shipment response have helped us to capture demand with fast delivery times. Also, while moving to a feed-in tariff system, we focused on aggressively developing environment-related markets by expanding our lineup of power conditioners for self-consumption type solar power generation equipment.

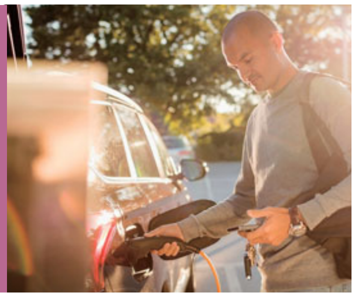




Automotive Lithium-ion Batteries

10.8%

Net Sales
¥44,784 million

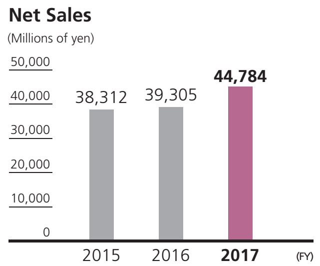


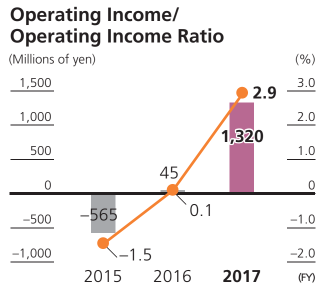
Market trends

The tightening of various environmental regulations for example in Europe, the U.S. and China has made technological innovation in the auto industry aimed at powertrain electrification a foremost concern.
We are at a kind of turning point in the market that is said to come only once every 100 years, and this of course requires change by suppliers as well.

Outline of fiscal 2017

We are actively engaged in expanding sales of lithium-ion batteries for plug-in hybrid electric vehicles in Europe, and we have obtained new orders for lithium-ion batteries for engine starter, which are expected to become another growth item. With a view toward the next term, we continued to develop products for all types of eco-friendly vehicles as well as engaging in efforts to cut back on production costs.





Others

4.1%

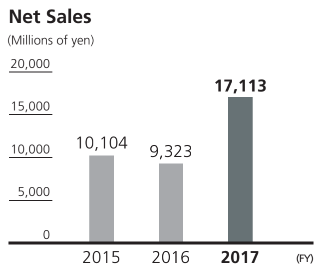
Net Sales
¥17,113 million

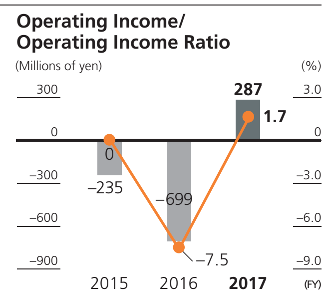
Market trends

Defense-related spending is growing, and our Group also has secured stable demand.
In addition, various types of data collection and communication by satellite are attracting attention as a new social infrastructure, and further development is expected in the future for applications such as resource exploration, environmental investigation, national security and automobile driving.

Outline of fiscal 2017

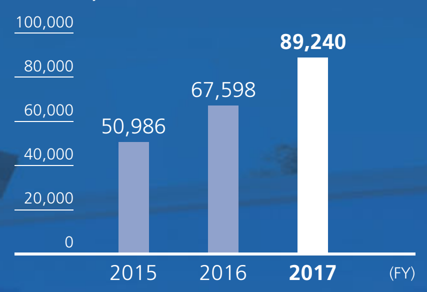
We have established a framework and started mass production of lithium-ion batteries for submarines, and we have responded to increasing demand for replacement aircraft batteries. We also delivered batteries for deep sea rescue vessels. Furthermore, our sales promotion activities aimed at the aerospace and defense markets have begun to show results, with the Group's lithium-ion batteries for use in space being adopted for the quasi-zenith satellites system Michibiki 2, 3 and 4.





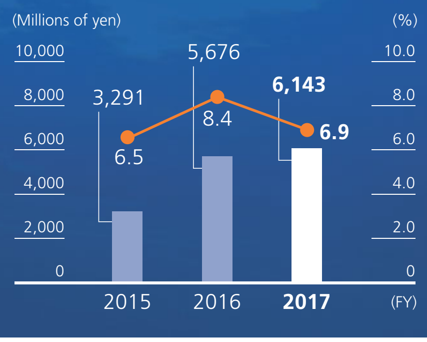
Automotive Batteries (Japan)

Net Sales
89,240 million



Operating Income
6,143 million

Operating Income Ratio
6.9%



Fiscal 2017 (fiscal year ended March 31, 2018)

Sales expand in keeping with rising demand for EN batteries* and storage batteries for use in cars with start-stop systems

In fiscal 2017, total domestic demand in the automotive battery market increased by about 3% over the previous year, mainly due to strong new car production figures. In this environment, domestic net sales of our automotive battery business were 89,240 million yen (up 21,642 million yen year on year), and operating income was 6,143 million yen (up 466 million yen year on year).

Major factors in the increase were a sales boost due to our acquisition of Panasonic's domestic lead-acid battery business, the fact that sales of EN batteries for new cars continued to be strong following on from the previous year, and an increase in sales of replacement lead-acid batteries for cars with start-stop systems. Profits increased despite the rise in the price of lead, our major raw material, due to the impact of the Panasonic acquisition.

One of the major initiatives in fiscal 2017 on the organizational side was the reorganization of the Group in April with the integration of domestic and overseas divisions, in order to establish a framework that provides a one-stop response to customers who operate on a global scale. With regard to development and sales, we released the new ECO.R Revolution product as part of our core model ECO.R series, in response to increasing demand for replacement batteries in cars with start-stop systems. In December we also restructured the ECO.RENJ series with EN batteries for Japanese car models, in view of the fact that car manufacturers with global procurement tended to equip more of their Japanese cars with batteries that correspond to the European Norm (EN) standards. We expanded our lineup to meet the demand for EN batteries that is expected to grow significantly in scale.

Fiscal 2018 (fiscal year ending March 31, 2019)

Responding to domestic demand with new products and new technologies also contributes to growth of overseas business

We expect the total demand in the automotive battery market in Japan to remain at about the same level as in the previous year. It is likely that the ratio of EN batteries for new cars and replacement batteries for cars with start-stop systems will further increase.

Under these circumstances, we will work to further strengthen our customer response that was enhanced through the unification of domestic and overseas divisions. In addition to continuing to promote sales of EN batteries to car manufacturers, we will also keep focusing on strengthening response to the rising demand for replacement batteries in cars with start-stop systems. Meanwhile, we will respond properly to fluctuations in the lead market.

We will also intensify collaboration with GS Yuasa Energy Co., Ltd. established after the acquisition of Panasonic Corporation's lead-acid battery business and we are looking into ways of optimizing its production system.

As a result of these initiatives, we are forecasting net sales of 94.0 billion yen (up 4,760 million year on year) and operating income of 6.2 billion yen (up 57 million yen year on year) for fiscal 2018.

* EN battery
A unified standard battery for 30 European countries belonging to the CEN (European Committee for Standardization), CENELEC (European Committee for Electrotechnical Standardization) and ETSI (European Telecommunications Standards Institute)

• Advanced development supported by collaboration with automakers • Technologies accumulated over 100 years • Full lineup of products, ranging from general to high-performance batteries of all sizes • Disaster-ready production and supply system	Strengthen organizational cooperation between domestic and overseas units and build a more stable supply system.	S Strength	O Opportunity	• Increased number of cars with EN (European Norm) compliant batteries • Increased demand for cars with start-stop systems	Strengthen cooperation with car manufacturers and pursue development ahead of competitors.
• Lower cost competitiveness	Strive to improve cost competitiveness by building an optimal production system and promoting rationalization.	W Weakness	T Threat	• Falling demand for automobiles in Japan due to demographic shift • Entry of overseas battery manufacturers into the Japanese market • Falling sales prices due to price competition	While aiming to establish an optimal production framework, we will also work with car manufacturers to promote product sales that meet the needs of each country.

TOPICS

Expanded core model ECO.R lineup of replacement batteries

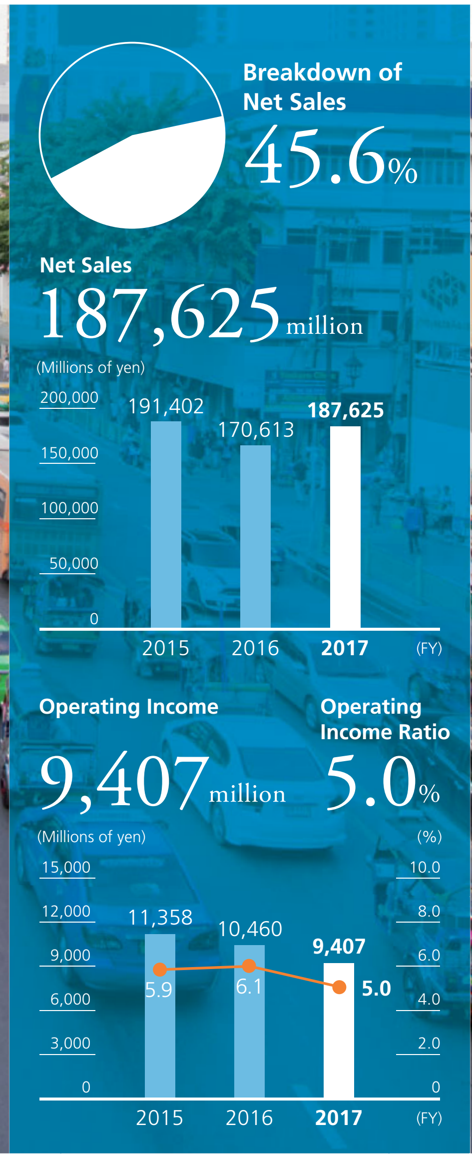
The ECO.R Revolution battery incorporates new technology which was developed based on collecting numerous used storage batteries from cars with start-stop systems and carefully analyzing their deterioration status. As a result, the idling stop performance life of the new battery model is over 200%* better than with conventional products. This means that the better fuel economy of such cars can be maintained until the end of the service life of the battery. We also revamped the ECO.R ENJ series of EN compliant batteries which are well suited to the Japanese climate and meet JIS safety requirements. The greatly expanded battery lineup is suitable not only for use as auxiliary batteries in hybrids but also as starter batteries for regular vehicles.

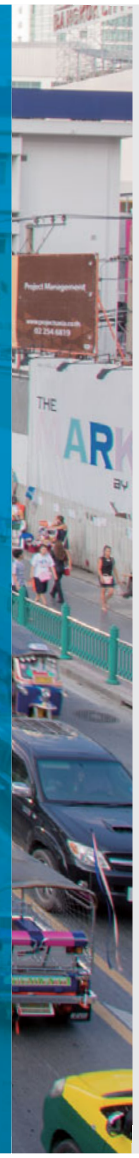
* As compared to the M-42 type

ECO.R Revolution

ECO.R ENJ

Automotive Batteries (Overseas)





Fiscal 2017 (fiscal year ended March 31, 2018)

Increased sales in Southeast Asia boost net sales

Overseas sales of our automotive battery business in fiscal 2017 totaled 187,625 million yen (up 17,012 million yen), and operating income decreased to 9,470 million yen (down 1,052 million yen year on year). The main reasons for the increase in net sales were increased sales in Southeast Asia, as well as the impact of the favorable yen exchange rate. Operating income decreased due to the impact of the soaring price of lead, our main raw material.

Main initiatives in fiscal 2017 in the field of automotive lead-acid batteries mainly for the European and Chinese markets were the development of lead-acid batteries for charge control vehicles and vehicles with start-stop systems produced and used overseas, and the start of selling new products in Turkey and China. In the field of lead-acid batteries for motorcycles, production of mid-sized motorcycles is expanding in Southeast Asia. In response, we expanded our lineup by embarking on the development and production of medium-capacity valve-regulated lead-acid batteries for such motorcycles, as well as the development of valve-regulated lead-acid batteries for commuter bikes and cars with start-stop systems in India. In the field of industrial lead-acid batteries, we established a production framework for Southeast Asia at the Vietnam factory and pushed ahead with the development of lead-acid batteries for battery-powered forklifts, for which global demand is on the rise.

In addition, by sharing manufacturing and sales know-how from Japan and examples of initiatives at overseas sites, we worked to improve profitability and strengthen our existing overseas sites.

Fiscal 2018 (fiscal year ending March 31, 2019)

Meeting demand for start-stop system car lead-acid batteries while also exploring new business opportunities

In the field of automotive lead-acid batteries, we expect demand for batteries for cars with start-stop systems to expand, especially for new cars which is one of our areas of expertise in Europe and the ASEAN region. We will of course continue to pay attention to changes in demand trends due to the tightening of environmental regulations in Europe. With regard to motorcycle lead-acid batteries, demand is expected to keep rising in India.

Given these circumstances, we intend to firmly maintain our leading position in Asia as well as aiming for strong performance in the global market. In the field of automotive lead-acid batteries we will further enhance our production framework in China, Turkey and elsewhere. We are also preparing to establish ourselves in markets that are as yet new to us, such as Africa, the Middle East, the Commonwealth of Independent States (CIS), and East Europe. In the field of lead-acid batteries for motorcycles, we are strengthening our production framework to meet demand in the huge Indian market, and we are establishing a sales promotion structure for lead-acid batteries for cars with start-stop systems in the ASEAN region.

As a result of these initiatives, we are forecasting net sales of 220 billion yen (up 32.275 billion yen year on year) and operating income of 10.5 billion yen (up 1.093 billion yen year on year) for fiscal 2018.

• High market share and brand power • Trusted by customers with regard to technology and quality • Collecting and utilizing quality information • Broad lineup covers a wide range from high-performance to lower priced products.	Further strengthen mutual supply cooperation and sharing of technical information among sites in Japan and overseas.	S Strength	O Opportunity	• Increased domestic and overseas demand for batteries designed for cars with start-stop systems • Economic growth in developing nations such as India and the Mekong economic region • Demands placed on storage batteries are changing	While boosting sales on the European market, we also expand our manufacturing capacities and sales in India.
• Low brand recognition in areas where we have a low market share • Lower cost competitiveness	We will continue to introduce resources to areas with low market share (ASEAN countries without a GS Yuasa site, Africa, the Middle East, the Commonwealth of Independent States (CIS), East Europe and Latin America.).	W Weakness	T Threat	• Entry of overseas battery manufacturers into the Japanese market • Falling sales prices due to price competition • Stricter regulations for lead in Europe and North America • Emergence of lithium-ion batteries as an alternative to lead-acid batteries	We will promote the introduction of new products and work to optimize the production framework.

TOPICS

Bolstering production capacities in response to rapid expansion of the Indian market

In order to respond to the expansion of worldwide demand for lead-acid batteries, we are not only building new plants in Turkey and China (see "Special Feature" on p. 27–28) but also increasing production capacity at existing plants.

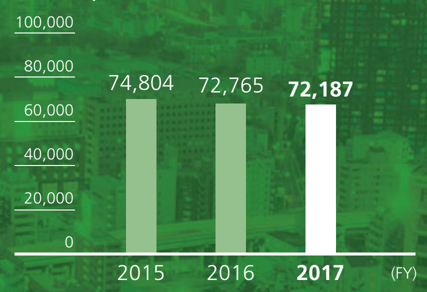
The remarkable expansion of the Indian market is a case in point. In the near future, it is expected that its motorcycle market will become the world's largest. In anticipation of this development, we began to establish a production framework for lead-acid batteries for motorcycles in India from early on and have been boosting its production capacity. By fiscal 2021 we intend to reach a production capacity of seven million units per year, which is about three times the current level and which should further enhance our market share.

Our Indian subsidiary Tata AutoComp GY Batteries Pvt. Ltd.

Industrial Batteries and Power Supplies

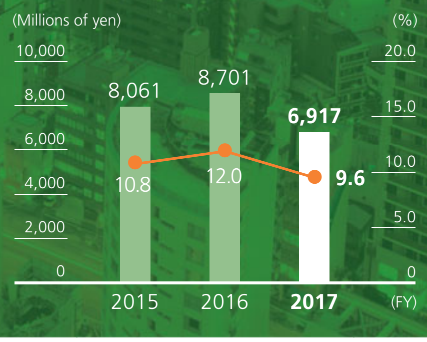
Breakdown of Net Sales
17.5%

Net Sales
72,187 million



Operating Income
6,917 million

Operating Income Ratio
9.6%



Fiscal 2017 (fiscal year ended March 31, 2018)

Decreased income and profit due to slow sales of industrial lead-acid batteries, higher lead prices, etc.

Net sales in our industrial battery and power supply business in fiscal 2017 totaled 72,187 million yen (a decrease of 578 million yen year on year), and operating income was 6,917 million yen (a decrease of 1,784 million yen year on year).

In addition to sluggish demand for replacement industrial lead-acid batteries, the volume of large-scale orders for industrial lithium-ion batteries hit a plateau. Sales of power conditioners for self-consumption type solar power generation equipment did not reach the planned levels, which also contributed to the decline in revenue.

By contrast, batteries for forklifts, automatic guided vehicles and other motor-driven vehicles reflected the solid rise in demand. In addition, efforts by the manufacturing and sales divisions to shorten lead times and enable a more flexible shipment response have helped us to capture demand with fast delivery times. On the development side, we expanded the lineup of power conditioners with storage batteries which contributed to our forward-looking performance on environment-related markets.

However, operating income was strongly affected by the drop in sales volume and by the pronounced rise in the price of lead, our major raw material.

Fiscal 2018 (fiscal year ending March 31, 2019)

Bolstering our lineup of market friendly products leads to increased sales of industrial lithium-ion batteries

The demand for batteries and power supply equipment to serve for power backup in social infrastructure applications, as well as the demand for lead-acid batteries for forklifts and similar remains strong. Among social infrastructure applications, we are seeing a shift away from conventional lead-acid batteries to Industrial lithium-ion batteries which require less space and offer superior charge/discharge performance. This trend can be expected to accelerate further in future.

The solar power generation market is also undergoing a major transformation, moving from the feed-in tariff system to self-consumption type solar power generation equipment. If this persists, stable demand can be expected to develop, regardless of factors such as subsidy schemes and the purchase price for power. In order to meet this demand, we are actively readying products such as power conditioners with storage batteries. We will also establish an overseas sales headquarters and strengthen overseas development of industrial lithium-ion batteries.

For improving profits, we will raise the price of lead-acid batteries, and we are building a business model that allows cost fluctuations in raw material, logistics etc. to be appropriately reflected in the selling price.

As a result of these initiatives, we are forecasting net sales of 75.5 billion yen (up 3.3 billion yen year on year) and operating income of 7.3 billion yen (up 400 million yen year on year) for fiscal 2018. Going forward, we will continue to steadily promote the expansion of our business domain through an evolved process of creating products and services with a clear focus on the next generation.

• High share of the industrial battery and power supply markets in Japan • Stable brand awareness in Japan • Strong reputation for reliability and a broad product lineup • Extensive sales and service network	Establish a comprehensive structure that goes beyond products to encompass services as well.	**S** Strength	**O** Opportunity
• Growing use of renewable energy as society shifts to low-carbon power sources • Increasing number of electric vehicles due to environmental regulations • Advances in services from using the Internet of Things	Expand the industrial lithium-ion battery business through a commitment to renewable energy related demand, and enhance service sophistication by utilization of IoT and AI.		
• Comparative slowness responding to global market trends • Insufficient inter-group communication due to organizing divisional headquarters according to product lines	Promote active communication through integration of sales departments and promptly respond to changes in the global market.	**W** Weakness	**T** Threat
• Intensifying competition, especially for industrial lithium-ion batteries • Rising prices for raw materials • Fluctuations in exchange rates	Build a resilient business model that allows cost fluctuations in raw material, logistics, etc. to be appropriately reflected in the selling price and that is not unduly affected by external factors.		

TOPICS

Initiatives in renewable energy

In recent years, the construction of wind power plants has been increasing in areas with good wind conditions, such as Hokkaido, Tohoku and Kyushu, and the demand for storage batteries as a means of stabilizing output fluctuations caused by natural conditions is increasing.

Therefore we are intensifying our sales efforts for storage systems using industrial lithium-ion batteries, targeting very large wind farms in particular. In addition to expanding our industrial lithium-ion battery business, we are also working on further elevating quality and ensuring cost competitiveness.

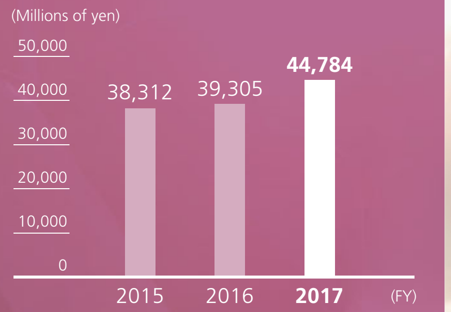
Automotive Lithium-ion Batteries

Breakdown of Net Sales

10.8%

Net Sales

44,784 million

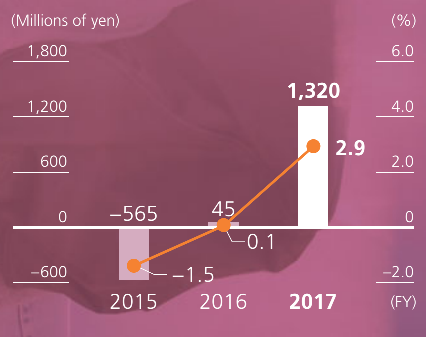


Operating Income

1,320 million

Operating Income Ratio

2.9%



Fiscal 2017 (fiscal year ended March 31, 2018)

Achieve profit for the second consecutive year by proactively promoting sales expansion and cost reduction

Net sales of our automotive lithium-ion battery business in fiscal 2017 totaled 44,784 million yen (up 5,478 million yen year on year), and operating income was 1,320 million yen (up 1,274 million yen year on year). We remained in the black for two consecutive years, in spite of increased development costs and other factors.

The positive result was due in part to increased sales of lithium-ion batteries for plug-in hybrid electric vehicles (PHEVs) of domestic and European manufacturers by Lithium Energy Japan, and strong sales of car models for which Blue Energy Co., Ltd. is supplying lithium-ion batteries purpose-designed for hybrid electric vehicles (HEVs).

In fiscal 2017, the development division established a collaborative framework with related departments and continued to develop products for all types of eco-friendly vehicles. In the manufacturing division, we promoted cost reductions by reducing material costs and strengthening management of direct labor costs which contributed to the improvement of profitability.

In addition, we decided to build a factory in Hungary in order to produce lithium-ion starter batteries for cars, a product category where demand is expected to grow especially in Europe with its high awareness of environmental issues.

Fiscal 2018 (fiscal year ending March 31, 2019)

Promote the exploration of new markets to bolster revenue

The market for eco-friendly vehicles, electric vehicles and PHEVs will grow due to vehicle type regulations, but for the time being we are expecting HEVs with their excellent balance of environmental performance and price to remain a focal point.

In this climate, Blue Energy Co., Ltd. is responding flexibly to contacts from multiple automobile manufacturers. Lithium Energy Japan is building up production capacity for lithium-ion batteries (cells) to be used as starter batteries for cars. On the development side, we are boosting our technological strength through integration and unification, and we are pursuing research and development projects aimed at products with higher energy density. From the viewpoint of the resource depletion risk, we are also engaged in research on reuse and recycling of automotive lithium-ion batteries for other purposes, after they have reached the end of their initial service life.

As a result of these initiatives, we are forecasting net sales of 44.0 billion yen (down 784 million yen year on year) and operating income of 500 million yen (down 820 million yen year on year). Continuing to focus on quality, we will endeavor to strengthen cost control and production management and speed up investment recovery, as well as developing new markets in the automotive sector to secure profitability.

S — Strength

- Cutting-edge research and development
- Technologies for ensuring the safe design of high-capacity lithium-ion batteries
- Skilled human resources and business partners
- A 100-year history as a specialized manufacturer of storage batteries

Strengthen the research and development framework using our accumulated know-how, in order to accurately anticipate needs.

O — Opportunity

- Widespread adoption of eco-friendly vehicles
- Increasingly strict fuel consumption regulations
- Growing market for industrial applications

Cultivate new markets with GS Yuasa Hungary Ltd. as a future European site and strengthen the production system of the respective business companies.

W — Weakness

- Business partners are needed for expanding operations due to insufficient capital.
- Lack of technologies for mass production
- Development of overseas markets (non-European)

Strengthen technology development framework to further improve manufacturing technology and manufacturing capabilities.

T — Threat

- Possibility of accidents at the production stage and accidents caused by unsafe or defective products
- Depletion of raw materials and rising prices
- Changing customer needs, competitors moving ahead

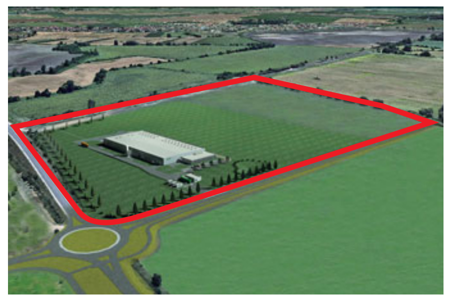
Focus on strengthening research and development to enable raw materials cost reduction, realize horizontal deployment of productivity improvement activities and intensify research on reuse and recycling.

TOPICS

New lithium-ion battery plant in Hungary

In October 2017, we established the wholly owned subsidiary GS Yuasa Hungary Ltd. in Miskolc, Hungary, where we are currently constructing a new plant for automotive lithium-ion batteries. For the time being, the plant will be using lithium-ion cells made in Japan to manufacture batteries, but we are also considering the production of lithium-ion cells at the plant in the future.

We have already secured a vast site of about 140,000 square meters, which provides the potential to develop the plant into a base for supplying batteries for various types of eco-friendly vehicles in Europe, where the tightening of environmental regulations is expected to result in a considerable rise in demand.



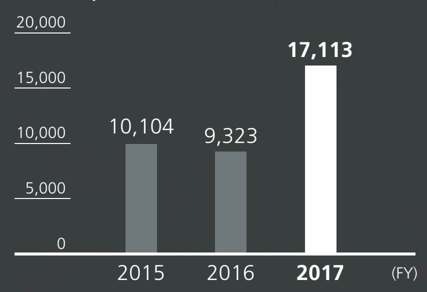
New plant site of GS Yuasa Hungary Ltd.

Others


©JAXA/NASA

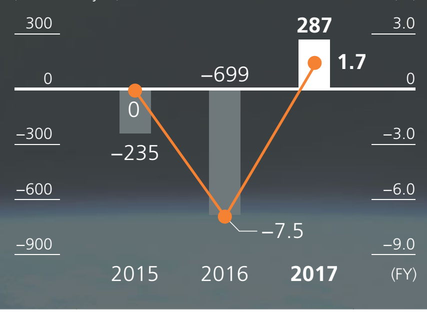
Breakdown of Net Sales
4.1%

Net Sales
17,113 million



Operating Income
287 million

Operating Income Ratio
1.7%



Fiscal 2017 (fiscal year ended March 31, 2018)

Started mass-production of the world's first submarine lithium-ion battery, achieving higher sales and profits

Net sales from our other business operations in fiscal 2017 totaled 17,113 million yen (up 7,790 million yen year on year), and operating income was 287 million yen (up 987 million yen year on year).

The main reason for the substantial increase in revenue is that mass production of lithium-ion batteries for submarines has been readied and launched in this term. Increased demand for replacement aircraft batteries overseas and shipments of batteries for deep water rescue vessels were further contributing factors.

In addition, our space lithium-ion batteries were adopted for the Michibiki 2 which plays a central role in Japan's quasi-zenith satellite system, as well as for the Michibiki 3 and 4 satellites. We focused on research and development to provide the level of technical performance and quality that can withstand the harsh conditions that exist in environments such as the deep sea and space. Our intensive sales promotion activities to the respective markets have also borne fruit. On the other hand, soaring raw material prices have put a damper on business performance.

With regard to profits, in addition to the increase in sales, we recorded a substantial increase in operating income as a result of the decrease in administrative department expenses which has a company-wide effect.

Fiscal 2018 (fiscal year ending March 31, 2019)

Forecast of decreased income and profit due to change in sales composition ratio

Defense spending shows an increasing trend, and we expect stable demand for products of our Group as well. We will work to stabilize our existing business operations and promote intensive efforts to further expand growth.

In fiscal 2018, we will begin to ship the world's first lithium-ion batteries for submarines. In addition, we will focus on research and development of various products including satellite batteries with high energy density, and we will continue to work on improving our production systems to ensure stable quality.

As a result of these initiatives, we are forecasting net sales of 17.0 billion yen (down 613 million yen year on year). Operating income is expected to drop, mainly due to a change in sales composition ratio. Company-wide expenses are also expected to rise.

S — Strength

- Advanced capabilities in and close cooperation between manufacturing, development, engineering and sales operations
- Safe, reliable and high-quality products
- Group-wide use of the latest technologies that have high barriers to entry
- Extensive experience in specialized applications

Stabilize production and quality, and work on product development, including the planting of technology seeds for the next generation.

O — Opportunity

- Growing requirement for high-capacity lithium-ion batteries
- Increasing demand for lithium-ion batteries for submarines
- Increasing demand for aircraft lithium-ion batteries
- Japan's easing of restrictions on exporting arms

Realize a stable mass production system and work to strengthen sales promotion activities and export business based on thorough market analysis.

W — Weakness

- Weak brand presence outside Japan
- Large investments needed for R&D and facilities

Review sales framework for facilitating overseas expansion.

T — Threat

- Depletion and rising prices for raw materials
- Intensifying competition with rival companies
- Commoditization of lithium-ion batteries

In response to the sharp rise in raw material prices, we aim to secure appropriate volumes and have begun efforts to hedge risk.

TOPICS

Michibiki 2 utilizes lithium-ion batteries of our Group

Following the currently operating Michibiki (first quasi-zenith satellite), the GS Yuasa Group's space lithium-ion batteries were also installed in the Michibiki 2 satellite. Satellites are becoming important also as tools for a new social infrastructure, performing tasks such as data acquisition, communications etc. Related demand in this area is expected to rise in future.

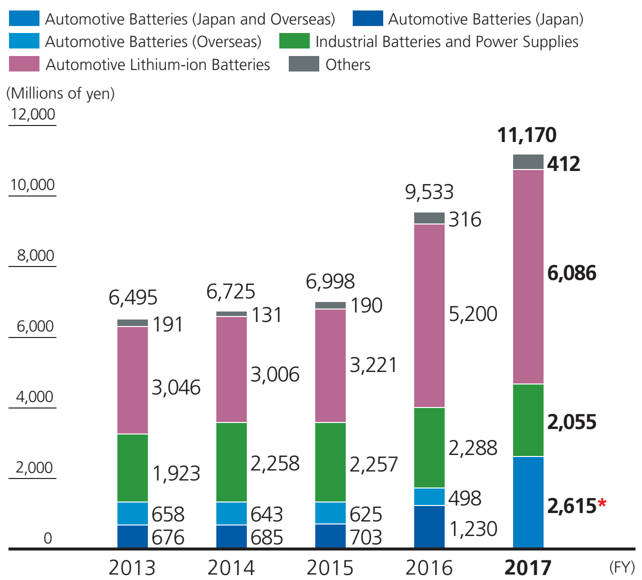

©JAXA

The first quasi-zenith satellite Michibiki

Actively Investing in New Technology and New Product Development

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 (Japan and overseas), Industrial Batteries and Power Supplies, Automotive Lithium-ion Batteries, and other businesses.

Research and Development Costs



* The data for FY 2017 combine the automotive battery business figures for Japan and overseas.

Automotive Batteries (Japan)

As part of our R&D efforts in the automotive lead-acid battery sector, we developed a technology for substantially reducing sulfation (the build-up of lead sulfate crystals), the primary cause of deterioration in lead-acid batteries for vehicles with start-stop systems. We also released the ECO.R Revolution series of products suitable for both vehicles with start-stop systems and regular vehicles. Furthermore, in view of the fact that Japanese cars are also increasingly being equipped with EN batteries for the European market, we expanded our lineup ECO.R ENJ lineup first introduced in 2016.

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. Anti-idling start-stop systems are making inroads also in the motorbike sector, as concern for the environment is on the rise, and the high reliability and excellent charge acceptance performance of our batteries make them preferred choices for such applications as well.

Automotive Batteries (Overseas)

In the field of automotive lead-acid batteries for overseas markets, we are developing products and manufacturing technologies for charge control vehicles and vehicles with start-stop systems produced and sold overseas. At Turkey's Inci GS Yuasa Aku Sanayi ve Ticaret Annimim Sirketi which was incorporated in 2015, we are developing lead-acid batteries for cars with start-stop systems in the European market. In addition, special products for such vehicles have been added to the range of lead-acid batteries offered by the Tianjin GS Battery Co., Ltd. in China for replacement applications and to the automotive lead-acid batteries made by GS Yuasa Japan for export, with a view toward further expanding sales.

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 production at the respective manufacturing sites has been started successively. We also developed valve-regulated lead-acid batteries for commuter motorcycles and motorcycles with start-stop systems 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.

Industrial Batteries and Power Supplies

In the industrial battery and power supply business, we are conducting research and development on industrial lead-acid batteries, power supply equipment, power conditioners for photovoltaic power generation, industrial lithium-ion batteries, as well as lighting and environment-related equipment.

In the field of industrial lead-acid batteries, we are working to expand our SLR line of stationary lead-acid batteries for large-capacity power storage systems, featuring super long life and world-leading cycle life performance. In addition to the existing 1000 Ah SLR-1000, we introduced the SLR-500 model in fiscal 2017, and we are planning to release more smaller-capacity types in fiscal 2018. We also developed an additive that significantly improves the performance of lead-acid batteries for electric forklifts. This will be brought to market in products scheduled for release in fiscal 2018.

In the power supply sector, we developed the TRUSTAR-LIM DC power supply utilizing industrial lithium-ion batteries. Similar to lead-acid batteries or alkaline batteries, it has Fire Service Law approval, which means that it can be used in fire-fighting facilities. In addition, the BACSTAR-LIM series of AC uninterruptible power supplies equipped with industrial lithium-ion batteries has been renewed. By expanding our lineup of DC power supplies and AC uninterruptible power supplies for protecting important equipment from power outages and disasters, we are contributing to the realization of a safe and secure society.

In the field of power conditioners for solar power generation, we developed a Single-phase Line Back αIV power conditioner (10 kVA) designed for wall mounting that is optimal for medium-sized photovoltaic power generation facilities. Featuring high conversion efficiency and excellent durability, it can be adapted to a wide range of requirements. An integrated self-sustained operation output circuit ensures that the power generated by the photovoltaic cells can be used effectively even during a power outage.

In the field of industrial lithium-ion batteries, the high output type LIM 25H-8 module that supports instant high-current charge and discharge is being used in dockside gantry cranes and automated guided vehicles, etc., saving energy and reducing emissions, and thereby contributing to a reduction of environmental impact.

In the field of lighting, we are working on expanding our lineup of LED lighting fixtures mainly for outdoors and factory use.

In the field of environment-related equipment, we have developed membranes with less clogging and inexpensive membranes for membrane bioreactors (MBR) and are working on expanding sales to the Asian market. We also developed a grafted membrane separator for hydrogen generators and plan to market it from fiscal 2018.

Automotive Lithium-ion Batteries

In this area, we are conducting fundamental research on lithium-ion batteries and research and development on automotive lithium-ion batteries.

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 electric vehicles, plug-in hybrid electric vehicles (PHEVs), and hybrid electric vehicles. We are widening our product palette with a focus on even better reliability and higher safety.

Others

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

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.

Practicing Our Corporate Philosophy Is the Basis of Our CSR

GS Yuasa Group's CSR

"Innovation and Growth," our corporate philosophy, is the basis of the GS Yuasa Group's CSR. By reforming our business processes and developing new technologies 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, have become the foundation of the Group's CSR activities.

In the GS Yuasa Group, all employees understand that CSR activities are business activities, and we encourage everyone to take part based on our CSR Policy and Code of Conduct in order to ensure the sustainable development of society and business.

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

GS YUASA 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 global environment.

1. **Developing fair, transparent, and sound business, and anti- corruption**
   GS YUASA conducts a transparent business policy which aims to earn the trust of customers, business partners, shareholders, and of local communities as a top priority. And to adhere to laws and regulations of each country and region. Furthermore, we address to prevent any kind of corruption, will not tolerate any illegal political contribution, bribery of public officials, and will not have relationships with personnel or organizations of organised crime.
2. **Respect for human rights**
   GS YUASA will respect all human rights and labor rights, and will not tolerate any forced labor or child labor. Diversity will be respected, without any discrimination being tolerated.
3. **Conservation and improvement of adequate working environment**
   GS YUASA will provide safe and comfortable working environments for anyone who works for GS YUASA. Proper management will be provided in order to promote mid to long-term development of human resources.
4. **Fulfillment of our responsibilities to provide safe and secure products and services**
   GS YUASA ensures the safety and quality of products/services to the end of their lifecycle throughout manufacturing. Furthermore, GS YUASA honest provides clear safety information for all products/services.
5. **Global environmental conservation**
   GS YUASA addresses to prevent pollution, and to mitigate climate change, and to establish a sound material-cycle society through using sustainable resources.
6. **Building better relationships with local communities**
   GS YUASA will contribute to sound and sustainable development of local communities through building better relationships with their local communities.
7. **Ensuring social responsibility within our supply chain**
   GS YUASA will promote actions to ensure social responsibility within our supply chain.

CSR Promotion Framework

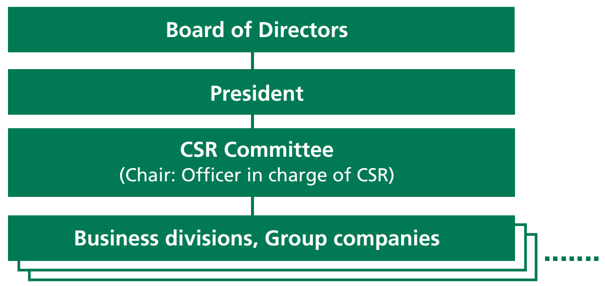
Our Group has established an organizational framework to promote CSR through our business and to make continuous improvements.

In order to supervise the CSR activities of the entire Group, including related companies both in Japan and overseas, we have designated the company President as the chief commanding officer for the promotion of CSR and set up the post of officer in charge of CSR, who is appointed by and works directly under the president.

In addition, the CSR Committee, which is chaired by the officer in charge of CSR and comprises persons responsible for CSR in business divisions, Group companies, etc. as members, discusses, plans, and promotes CSR activities throughout the Group as a whole.

After important matters relating to the promotion of CSR in the Group, including CSR Policy, have been discussed in the CSR Committee, they are decided by the Board of Directors.

CSR Promotion Framework



Medium- to Long-Term CSR Promotion Initiatives

As shown in the following table, our Group formulates medium- to long-term CSR promotion plans with the aim of conducting CSR activities through our business.

For fiscal 2019, we have set the target of incorporating important CSR themes that take account of global social issues and the needs and expectations of interested parties into our business strategy.

Medium- to Long-Term Initiatives

Phase	Period	Target
First stage	FY 2016–17	Create processes to deal with the CSR challenges in relation to our business strategy (Fourth Mid-Term Management Plan)
Second stage	FY 2018	Analyze and evaluate our performance using these processes and then make improvements
Third stage	FY 2019	Establish business processes that incorporate CSR challenges into our business strategy (Fifth Mid-Term Management Plan)

Specification of Materiality (Key CSR Challenges)

To reflect CSR challenges 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, have formulated concrete activity plans and key performance indicators (KPIs) to gauge progress in achieving the goals.

Materiality Specification Process

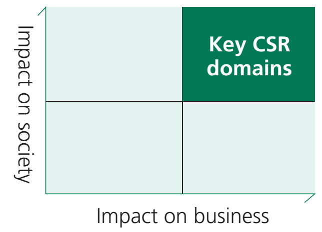
Step 1 : Identify risks and opportunities in CSR

For key challenges in the Mid-Term Management Plan, GS Yuasa identifies risks in CSR (that hinder the resolution of challenges) and opportunities in CSR (that promote the resolution of challenges). When identifying these risks and opportunities, our actions are based on international guidelines related to CSR.

Step 2 : Specify significant risks and opportunities in CSR

GS Yuasa evaluates and assigns a score to the scale of the CSR risks and opportunities identified in Step 1 in consideration of the impact on business (possibility of occurrence x scale of impact on business), which enables us to specify risks and opportunities as key business challenges. Next, we evaluate the impact of our Group's business activities on society relative to these core business risks and opportunities based on the number of related CSR themes and social importance. We then specify risks and opportunities that will be key CSR domains.

Matrix of key CSR domains



Step 3 : Specify materiality

GS Yuasa orders the core CSR risks and opportunities evaluated in Step 2 and then specifies materiality in consideration of the response method to the risks and opportunities.

Materiality and KPIs

Regarding the specified materiality, we set targets (KPIs) in order to achieve the specific challenges. Clarifying the scope of important challenges as domestic, overseas, or global, we rotate the PDCA (plan, do, check, act) cycle for CSR activities.

Materiality	Activity outline	Scope of application*	KPI	FY 2018 target	SDGs
Developing fair, transparent, and sound business, and anticorruption					
Thoroughly fulfilling our CSR and ensuring compliance	Provision of legal information and promotion of compliance training	Domestic	Annual frequency of issue of legal information	16 times	16
			Ratio of implementation of compliance training in training by rank for employees promoted to managerial and supervisory positions	100% of eligible persons	
		Overseas	Overseas deployment of domestic compliance training system	Understanding of local training systems	
			Building of system to share the legal information of each country	Understanding of method of gathering legal information at overseas sites	
Respect and protection for intellectual property	Thorough avoidance of infringements of third-party intellectual property rights	Global	Strengthening of surveys to prevent patent violations (thorough implementation of surveys at the development stage)	Complete operation	16
	Promotion of the exposure of imitation goods (expansion of access channels to overseas organizations, etc.)	Overseas	Monitoring and eradication of local intellectual property violations (imitation products)	Complete operation	
Strict management of confidential information	Promotion of security measures and strengthening of illegal/inappropriate access monitoring	Global	Cyberattack response ratio at time of detecting high security alerts	100%	16
		Domestic	Information leakage confirmation and response ratio at time of large data output	100%	
		Overseas	Achievement of plan to deploy illegal/inappropriate access monitoring system in overseas Group companies	100%	
	Promotion of information security training	Domestic	Ratio of employees passing information security proficiency test	100%	
Respect for human rights					
Respect for individuality	Promotion of compliance training and thorough dissemination of hotline report system	Domestic	Achievement of human rights education plan	100%	5 8 10
		Overseas	Understanding of state of harassment response	Understanding of performance	
Conservation and improvement of adequate working environment					
Human resources development	Promotion of human resource development programs	Domestic	Achievement of educational plans relating to the improvement of self-analysis skills	100%	4 8
		Overseas	Understanding of the state of implementation of education relating to the improvement of self-analysis skills	Understanding of performance	
Improvement of safety and health in working environments	Promotion of the thorough management of employees' working hours and prevention of the recurrence of long working hours	Domestic	(1) Response ratio to prevent the recurrence of long working hours (2) Annual frequency of labor-management consultations (3) Number of days of annual paid leave acquired	(1) 100% (2) 12 times (3) 10 or more days/person	8
		Overseas	Understanding of the state of response to long working hours, etc.	Understanding of performance	
	Promotion of labor safety and health risk management	Domestic	(1) Number of accidents requiring days off work (2) Employees' blood lead concentration (3) Number of Class 3 working environments	(1) None (2) 35 μg/dL or less (3) None	3 8
		Overseas	(1) Understanding of state of accidents requiring days off work (2) Understanding of state of employees' blood lead concentration and setting of administrative standards (3) Understanding of state of lead handling control concentration	Understanding of performance Setting of administrative standards	

For your reference, here is an explanation of the SDG numbers shown in the materiality list of important CSR issues.

Materiality	Activity outline	Scope of application*	KPI	FY 2018 target	SDGs
Fulfillment of our responsibilities to provide safe and secure products and services					
Provision of high-quality products	Promotion of quality improvement and strengthening of quality communication (utilization of quality management system)	Global	Achievement of quality targets	100%	12
	Strengthening of maintenance service setup (site expansion, personnel training, etc.)	Domestic	Achievement of sales targets of maintenance companies	100%	7 11 12
	Promotion of product safety education	Global	Number of serious product accidents	None	12
Global environmental conservation					
Promoting environmental protection	Promotion of effective use of water resources	Domestic	Volume of wastewater	Reduce by 77% or more (compared with FY 2003)	6 12
		Overseas	Understanding of state of use of water recycling	Understanding of performance	
	Contribution to realization of low-carbon society	Domestic	CO_2 emission intensity	Reduce by 5% or more (compared with FY 2013)	7 13
		Overseas	Understanding of state of management of CO_2 emission reduction targets	Understanding of performance	
	Promotion of measures to prevent pollution (thorough environmental risk management)	Domestic	Number of cases exceeding voluntary administrative standards (water and air quality)	None	3 6
		Overseas	Understanding of state of operation of voluntary administrative standards (water and air quality)	Understanding of performance	
			Implementation of underground seepage risk surveys	Understanding of performance	
	Consideration of overseas deployment of voluntary used product recovery system	Overseas	(1) Understanding of state of used product recovery in target countries (2) Understanding of used product recovery systems at target sites	Understanding of performance	12
Developing and popularizing environmentally considered products	Market expansion for our products contained in environmentally conscious products (for use in low-pollution vehicles, etc.)	Global	Achievement of sales targets	100%	7 12 13
	Development of products enhancing environmental performance	Domestic	Achievement of long-life targets for Li batteries	100%	
Ensuring social responsibility within our supply chain					
CSR procurement promotion	Continued implementation of conflict mineral surveys	Global	Conflict mineral survey implementation ratio	100%	1 3 16
	Management of supplier CSR risks	Global	Retrieval ratio of supplier CSR risk questionnaires	100%	

* The scope of application may not cover all Group companies.

List of Website Contents

Details of our Group's CSR efforts 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

- Corporate Governance
- Risk Management
- Compliance with Laws, etc.
- Information Security
- Intellectual Property

Respect for Human Rights

- Prohibition of Discrimination and Respect for Diversity
- Respect for Labor Rights
- Prohibition of Forced Labor and Child Labor

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

Fulfillment of Our Responsibilities to Provide Safe and Secure Products and Services

- Focus on Safety and Quality
- Examples of Activities

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

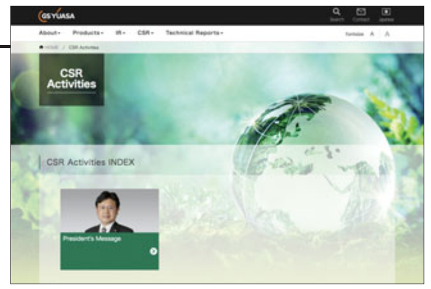
Ensuring Social Responsibility within Our Supply Chain

- Basic Procurement Policy
- Promotion of CSR Procurement

Other

- Editorial Policy
- External Evaluation

Click here to view our CSR efforts:
http://www.gs-yuasa.com/en/csr/



Governance

Our Group has established a speedy and efficient organization structure so as to continuously enhance our medium- and long-term corporate value in line with our philosophy of "Innovation and Growth." We also endeavor to improve the fairness and impartiality of our management by having outside directors with adequate independence supervise our management and executive functions.

Furthermore, with the aim of fulfilling our social responsibility and building trust among all stakeholders, we not only abide by laws, regulations, and our articles of incorporation but also practice highly transparent management based on a rigorous view of corporate ethics.

Directors and Auditors

(As of June 28, 2018)

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)

Kei Nishida, Executive Vice President and Representative Director

Apr. 1977 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.)
Jul. 2007 Corporate Officer, GS Yuasa Power Supply, Ltd. (currently GS Yuasa International Ltd.)
General Manager, Corporate Strategic Planning Office and Head of the Public Relations Office of the Company
Jun. 2008 Corporate Officer of the Company
Jun. 2009 Director of the Company
Apr. 2010 Head of the Corporate Office of the Company; Director, GS Yuasa International Ltd.; Head of Lithium-ion Batteries Business of the Company
Jun. 2012 Managing Director of the Company; Managing Director, GS Yuasa International Ltd.
Jun. 2015 Senior Managing Director of the Company; Senior Managing Director, GS Yuasa International Ltd. (current position)
Jun. 2018 Executive Vice President of the Company (current position); Executive Vice President, GS Yuasa International Ltd. (current position)

Toshiyuki Nakagawa, Senior Managing 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
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); Senior Managing Director, GS Yuasa International Ltd. (current position)

Masahide Kuragaki, Managing Director

Apr. 1979 Joined Japan Storage Battery Co., Ltd. (currently GS Yuasa International Ltd.)
Jul. 2007 Corporate Officer, GS Yuasa Power Supply, Ltd. (currently GS Yuasa International Ltd.)
Apr. 2008 General Manager, Human Resources Division of the Company
Jun. 2009 Director of the Company;
Director of GS Yuasa Power Supply, Ltd. (currently GS Yuasa International Ltd.)
Jun. 2015 Outside Audit and Supervisory Board Member, Mitsubishi Nichiyu Forklift Co., Ltd. (currently Mitsubishi Logisnext Co., Ltd.), Outside Audit & Supervisory Board Member (current position)
Jun. 2017 Managing Director, GS Yuasa International Ltd. (current position)
Jun. 2018 Managing Director of the Company (current position)

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.
Jun. 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)

Ikuo Otani, Outside Director

Mar. 1976 Joined Wacoal Corp. (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)

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)

Auditors

Shinji Ochiai, Outside Full-time Auditor

Apr. 1978 Joined Mitsui Trust and Banking Company, Limited (currently Sumitomo Mitsui Trust Bank, Limited)
Oct. 1999 Manager, Toyohashi Branch,
May 2001 General Manager, Audit No. 2 Division, Chuo Mitsui Trust and Banking Company (currently Sumitomo Mitsui Trust Bank, Limited)
Oct. 2003 General Manager, General Affairs Division, Chuo Mitsui Trust and Banking Company (currently Sumitomo Mitsui Trust Bank, Limited); General Manager, General Affairs Division, Mitsui Trust Holdings (currently Sumitomo Mitsui Trust Holdings, Inc.)
Jul. 2006 Executive Officer, Chuo Mitsui Trust and Banking Company Limited (currently Sumitomo Mitsui Trust Bank, Limited)
Jun. 2010 Managing Director, Chuo Mitsui Trust Holdings, Inc. (currently Sumitomo Mitsui Trust Holdings, Inc.)
Apr. 2011 Director and Managing Executive Officer of Sumitomo Mitsui Trust Holdings, Inc.
Apr. 2013 Director of Sumitomo Mitsui Trust Holdings, Inc.
Jun. 2013 Full-time Corporate Auditor of the Company (current position); Corporate Auditor of GS Yuasa International Ltd. (current position)

Katsuya Ohara, Outside Full-time Auditor

Apr. 1981 Joined the Bank of Tokyo, Ltd. (currently the MUFG Bank, Ltd.)
Apr. 1996 Deputy Manager of Paris Branch, Bank of Tokyo-Mitsubishi, Ltd. (currently MUFG Bank, Ltd.)
Sep. 2000 Deputy Manager, Treasury Trading Group, Currency Exchange and Capital Division, Bank of Tokyo-Mitsubishi UFJ, Ltd. (currently the 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, Ltd.)
Jan. 2006 General Manager of Milano Branch, the Bank of Tokyo-Mitsubishi UFJ, Ltd. (currently MUFG Bank, Ltd.)
May 2008 President, Managing Director & General Manager of 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); Corporate Auditor of GS Yuasa International Ltd. (current position)

Hideaki Yamada, Full-time Corporate Auditor

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
Jun. 2009 Corporate Officer, GS Yuasa Power Supply, Ltd. (currently GS Yuasa International Ltd.)
Jun. 2010 General Manager in charge of Corporate Strategy, Corporate Office of the Company; Head of Corporate Strategic Planning Office of 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)

Tsukasa Fujii, Outside Part-time Auditor

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)

Corporate Governance

We are focused on strengthening our corporate governance to enhance our sustainable growth and improve our medium- and long-term corporate value.

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, effective decisions by prioritizing strategic decision making and supervisory functions for management policy. In addition, increasing the number of independent outside directors helps reinforce monitoring.

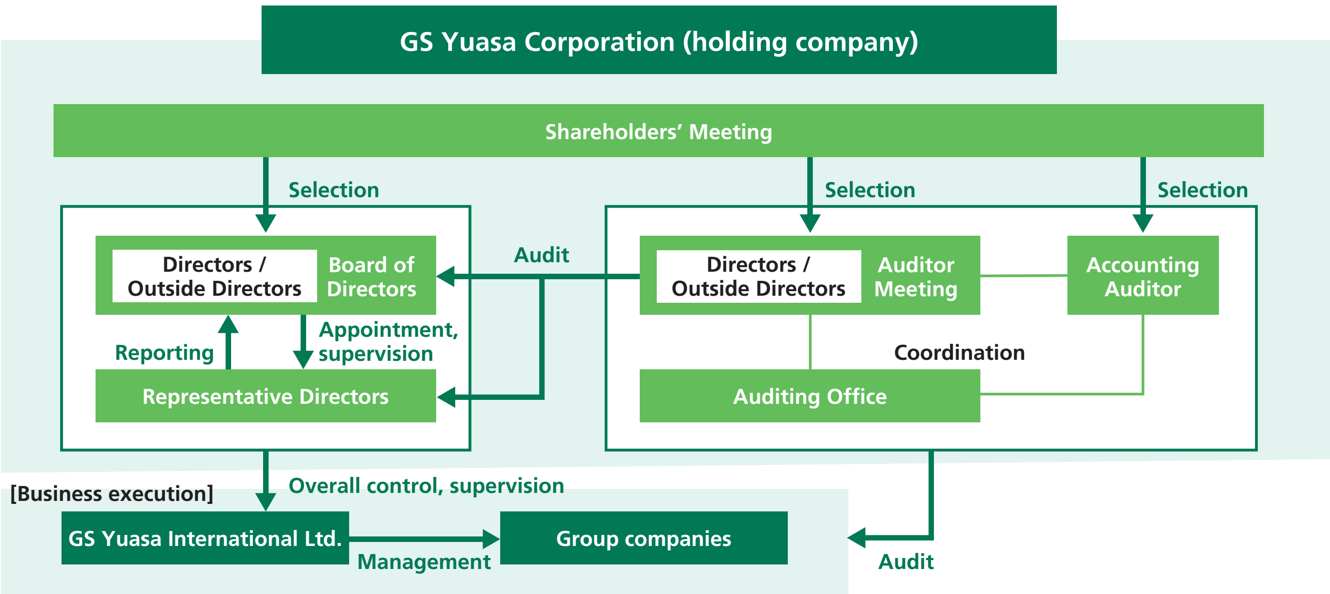
Evaluating the Effectiveness of the Board of Directors

The effectiveness of the Board of Directors has been evaluated once a year since fiscal 2016. All directors and corporate auditors fill out a questionnaire on the structure, management, agenda and duties of the board. As a result of analysis and evaluation of the content, it has been deemed that the Board of Directors is operating effectively. In fiscal 2017, however, opinions were also stated to the effect that the follow-up of important agenda items was inadequate and discussion of medium- and long-term management plans needed deepening. Therefore, we have resolved to issue regular reports on matters designated as requiring progress reports, review the compilation process for medium- and long-term management plans, issue regular progress reports after compilation, and implement appropriate analysis and response. Going forward, we will continue to assess the effectiveness of the Board of Directors and strive to make further improvements.

Reasons for Appointing Internal Directors

To provide control over the Group as the holding company, GS Yuasa Corporation applies a balanced approach to appointing directors who possess knowledge and experience covering the business and functions of the entire Group and the necessary aptitude and competence to ensure speedy decision making.

Governance Structure



At present there are no female directors, but GS Yuasa positively recruits female graduates and promotes measures to encourage women to be active at work, including next-generation training, and the ratio of women in managerial positions is gradually increasing.

Policy on the Independence of Outside Directors

Candidates selected as outside directors must meet the requirements for independence set out in the Companies Act and possess the experience and insight to objectively and fairly judge the legality and appropriateness of the execution of the company's duties from the shareholders' perspective without being limited by being in charge of business implementation. Also, we believe in the importance of employing people who are outwardly independent and use the Tokyo Stock Exchange's independence standards as their reference.

Remuneration of Directors

Remuneration paid to directors and auditors in fiscal 2017 is shown below.

Total Amount of Remuneration, Etc. by Category, Total Amount of Remuneration, Etc. by Type, and Number of Applicable Persons

Category	Total amount of remuneration, etc. (Million of yen)	Number of applicable persons
Directors (excluding outside directors)	209	11
Auditors (excluding outside auditors)	11	2
Outside directors/auditors	51	6

Outside Director's Comment

Actively Making Proposals While Maintaining Objectivity and Impartiality

Outside Director
Ikuo Otani

I was appointed as an outside director of GS Yuasa in June 2017. Before my appointment, I was involved in accounting and management planning at Wacoal Holdings, where I was in charge of the transition to a holding company system and the establishment of a governance setup. Utilizing this experience, at GS Yuasa I have been endeavoring to ensure that discussions and reports in the Board of Directors are conducted appropriately and to check that agenda items have been scrutinized from many angles, including the legal and accounting aspects and risks.

At GS Yuasa, directors have a close relationship among themselves, and an atmosphere has been created in which it is easy to state opinions. Rational management decisions are made on each agenda item, and I sense that all of the directors, including the president, are very sincere about governance. In recent years various improvements have been made to the governance mechanism, and I believe that the effectiveness of the Board of Directors is steadily increasing. Furthermore, when I requested that progress reports should be made as necessary to outside directors so as to boost their understanding of principal business activities, it was decided to create such an opportunity.

GS Yuasa launched a new governance setup in fiscal 2017, but I think there is still room for further improvement in the monitoring functions of the Group as a whole. As the further strengthening of the setup is required, while maintaining my objectivity and impartiality as an outside director, I will continue to actively make proposals toward the improvement of governance in the GS Yuasa Group.

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 2017 is shown below.

Record of Attendance by Outside Directors at Board of Director and Auditor Meetings

Names	Board of Directors No. of attendances / No. of meetings	Auditor Meeting No. of attendances / No. of meetings
Hirofumi Onishi, Outside Director	18 / 18 times	— times
Ikuo Otani, Outside Director	13 / 13	—
Shinji Ochiai, Full-time Corporate Auditor	18 / 18	15 / 15
Katsuya Ohara, Outside Full-time Auditor	18 / 18	15 / 15
Tsukasa Fujii, Outside Part-time Auditor	13 / 13	10 / 10

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.

Risk Management

Basic Approach

The GS Yuasa Group believes that risk management is essential for the lasting growth of the company.

As our basic approach, the 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 in general.

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.

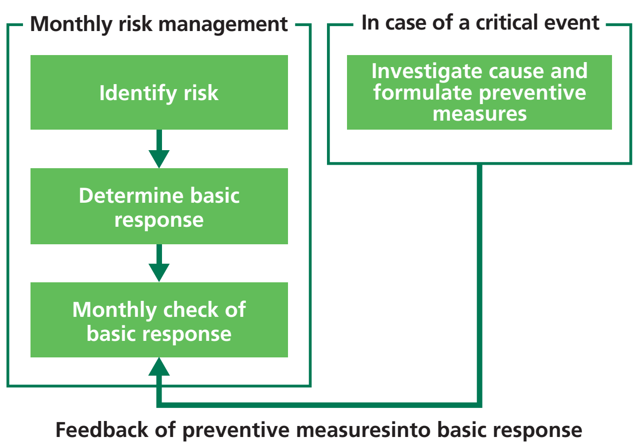
Based on this approach, to properly promote risk management, our Group has formulated risk management rules that stipulate the responsibilities of employees and our risk management promotion setup.

Risk Management Based on Risk Management Sheets

In accordance with the risk management rules, each department assesses risk every month using a risk management sheet. On this form, the department first fills in the measures it is taking as a basic response to mitigate the risks it has 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 polices each month. The department also fills in the details of any critical events that occurred, as well as a summary of the response and the investigation into the cause and measures to prevent a reoccurrence. These preventive measures are fed back into the "basic response" and the status of implementation is checked each month to provide a framework that ensures that similar events do not happen again.

The risk management sheets produced by the departments are compiled at the divisional level with the director in charge of the division verifying and assessing the status of response through the Risk Management Committee. The deliberations by the committees are summarized and then fed back to each department as part of a mechanism to improve the effectiveness of risk management.

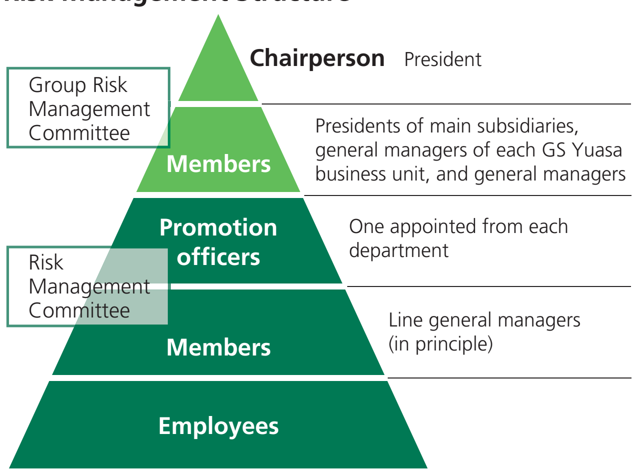
Risk Management Sheet



Risk Management under the Group Risk Management Committee

The Group Risk Management Committee, headed by the president and consisting of the chairs of departmental Risk Management Committees, holds semiannual meetings to promote groupwide risk management and to encourage the sharing of key information related to 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 Structure



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 of the Group Risk Management Committee will be appointed to organize a crisis management headquarters, under the president, to minimize corporate losses. The system we have set up enables us to implement an effective response swiftly and with appropriate care.

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.

Multifaceted activities with innovative methods are being used to promote compliance and ensure that the different themes cover all levels of employees. When promoting compliance, it is also essential to establish rules and a structure to follow, as well as a strong sense of commitment. In this spirit, we adopted Compliance Promotion Regulations in line with the Compliance Declaration made by the president. The GS Yuasa Corporate Ethical Standards cover the ten items that all employees must support and the corporate ethical behavior guidelines that outline responses to specific situations. Other activities are aimed at enhancing awareness by getting every employee to think about what he or she should do for compliance.

Compliance Manual

We distribute a compliance manual to all employees that includes company regulations related to compliance. The ten-item Code of Conduct includes commentary in a Q&A format, innovative ways to promote understanding with content based on actual practices, an introduction to the GS Yuasa Group corporate ethics hotline, the Group's internal whistleblower system, and an emergency contact system for use in a crisis.

Workplace Meetings on Compliance

Workplace meetings on compliance have been conducted for six consecutive years since fiscal 2012. The purpose of these meetings is to improve employee awareness of compliance. The meetings, including active exchanges of opinion, were held at 441 workplaces in fiscal 2017, with 96% of the sites commenting that the activities were effective. Many topics were covered, including respect for human rights, prevention of inappropriate conduct, management of working hours, harassment, occupational health and safety, waste management, product safety, handling of confidential information, and subcontracting laws. The meetings use educational materials made by the division in charge on each topic and including content related to the circumstances of the Group. We intend to continue running these meetings and upgrading the content to ensure that it is both up-to-date and educational.

GS Yuasa Group Corporate Ethics Hotline

We have 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 2017, six reports were made (five in fiscal 2016), including one case of harassment. We conduct inquiries and take appropriate action on these matters, while remaining committed to protecting whistleblowers.

Elimination of Antisocial Elements

In our Corporate Ethical Standards, our Group clearly states its policy of "not having any relations whatsoever with antisocial elements and resolutely confronting any unreasonable demands, etc." And in our Corporate Ethical Behavior Guidelines, we specifically stipulate "prohibition of the provision of benefits," "elimination of antisocial elements," and a "firm response." Our employees are made fully aware of these standards and guidelines.

Information Security

Efforts to Ensure Information Security

Our Group places importance on global 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.

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

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

Intellectual Property

Efforts to Ensure the Protection of Intellectual Property

We see intellectual property, the result of technological development, as one of our important assets.

Our basic policy is to protect our outstanding technology through aggressive patent applications and to maintain the trust of our customers by eliminating imitation products.

Every year we file about 300 patent applications; in fiscal 2017 the number was 343.

Financial Section

10-Year Consolidated Financial Highlights

Years ended March 31

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
For the year (millions of yen):										
Net sales	¥ 283,421	¥ 247,224	¥ 272,514	¥ 285,434	¥ 274,509	¥ 347,995	¥ 369,760	¥ 365,610	¥ 359,605	**¥ 410,951**
Automotive batteries (Japan)	67,190	56,713	58,887	58,784	55,648	56,905	51,747	50,986	67,598	**89,240**
Automotive batteries (Overseas)	126,189	104,706	118,197	120,906	119,885	164,252	183,759	191,402	170,613	**187,625**
Industrial batteries and power supplies	65,559	59,031	65,944	68,464	72,427	79,242	79,822	74,804	72,765	**72,187**
Automotive lithium-ion batteries	–	–	–	20,974	10,597	32,501	45,181	38,312	39,305	**44,784**
Lighting	8,941	7,037	–	–	–	–	–	–	–	**–**
Others	15,540	19,736	29,485	16,303	15,951	15,094	9,248	10,104	9,323	**17,113**
Operating income	14,276	11,521	17,589	16,030	9,775	18,197	20,914	21,909	23,106	**21,920**
Automotive batteries (Japan)	1,563	1,753	4,837	4,266	3,931	3,310	2,397	3,291	5,676	**6,143**
Automotive batteries (Overseas)	5,112	6,904	8,593	6,006	6,380	8,996	10,786	11,358	10,460	**9,407**
Industrial batteries and power supplies	9,862	6,889	8,436	9,640	10,813	12,199	8,657	8,061	8,701	**6,917**
Automotive lithium-ion batteries	–	–	–	(3,265)	(11,249)	(7,243)	(2,626)	(565)	45	**1,320**
Lighting	24	(1,001)	–	–	–	–	–	–	–	**–**
Others	(615)	(1,295)	(4,278)	(617)	(100)	936	1,698	(235)	(699)	**287**
Elimination and/or corporate	(1,671)	(1,730)	–	–	–	–	–	–	–	**–**
Net income attributable to owners of the parent	4,228	6,487	11,722	11,733	5,767	9,982	10,043	9,030	12,229	**11,449**
Capital investment	10,775	16,911	20,005	38,849	33,159	18,570	11,008	12,955	19,909	**15,223**
Depreciation/amortization	8,869	8,863	10,167	11,228	13,264	12,939	15,715	15,309	15,241	**16,506**
Research and development expenses	5,395	4,442	5,854	6,250	6,227	6,495	6,725	6,996	9,533	**11,170**
Cash flows from operating activities	25,328	22,827	25,478	8,287	19,069	19,704	19,729	30,215	34,846	**21,934**
Cash flows from investing activities	(6,529)	(13,066)	(25,444)	(28,660)	(29,249)	(9,786)	(14,519)	(17,311)	(32,912)	**(20,810)**
Free cash flow	18,799	9,761	34	(20,373)	(10,180)	9,918	5,210	12,904	1,934	**1,124**
Cash flows from financing activities	(11,245)	284	8	13,152	3,839	589	(5,798)	(9,685)	(3,715)	**(6,702)**
At year-end (millions of yen):										
Total assets	¥ 213,585	¥ 236,804	¥ 247,446	¥ 278,426	¥ 290,368	¥ 340,462	¥ 359,522	¥ 346,523	¥ 370,508	**¥ 391,324**
Cash and cash equivalents	14,005	24,722	24,030	16,476	11,210	23,392	25,708	27,788	24,673	**19,776**
Total equity	66,049	111,860	122,310	136,221	141,189	154,702	182,187	177,790	188,155	**205,638**
Total debt	87,785	55,304	48,289	56,124	71,674	80,134	82,166	73,608	74,257	**75,153**
Total equity before noncontrolling interests	60,731	101,648	108,360	115,126	125,352	139,454	161,386	153,723	161,722	**175,775**
Number of employees	11,795	12,235	12,394	12,265	12,599	13,609	14,506	14,415	14,710	**14,585**
Per share data (yen):										
Basic net income	¥ 11.52	¥ 16.32	¥ 28.39	¥ 28.42	¥ 13.97	¥ 24.18	¥ 24.33	¥ 21.88	¥ 29.63	**¥ 27.78**
Net assets	165.46	246.20	262.48	278.87	303.65	337.82	390.98	372.43	391.83	**427.69**
Cash dividends applicable to the year	6.00	6.00	8.00	8.00	6.00	8.00	10.00	10.00	10.00	**10.00**
Financial indices (%):										
Operating income ratio	5.0	4.7	6.5	5.6	3.6	5.2	5.7	6.0	6.4	**5.3**
ROE (Return On Equity)	6.4	8.0	11.2	10.2	4.8	7.5	6.7	5.7	7.8	**6.8**
Shareholders' equity ratio	28.4	42.9	43.8	41.3	43.2	41.0	44.9	44.4	43.6	**44.9**
Ratio of interest-bearing debt to cash flow (years)	3.5	2.4	1.9	8.0	4.0	4.2	4.3	2.5	2.2	**3.5**
Treasury stock purchase amount (planned for next fiscal year) (100 million yen)	–	–	–	–	–	–	–	–	10	**10**
Dividend payout ratio	52.1	36.8	28.2	28.1	42.9	33.1	41.1	45.7	37.4	**36.9**
Overseas sales ratio	45.5	43.1	44.0	43.4	44.4	48.5	52.4	55.5	51.1	**49.9**

Notes: 1. Lighting net sales and operating income were included in the "others" 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 "others" category up to the fiscal year ended March 31, 2011.
3. Payout ratio refers to net income before the amortization of goodwill after FY 2016.

Financial Review

Management Results

During fiscal 2017, the employment income environment in Japan continued to improve and the moderate recovery in consumer spending was maintained. In addition, exports were strong due to increased willingness to make capital investments globally, and as a result domestic and overseas demand was firm.

Turning to the global economy, the domestic consumer market in China continue to expand at a moderate pace, while in the United States, consumer spending is undergoing a moderate recovery as a result of stronger internal demand in response to ongoing improvement in employment. In Europe, the economic outlook remains uncertain as a result of Brexit, but overall the economy remained firm. As can be seen from these economic trends in each country and region, the global economy generally remained on a recovery path.

Under these economic circumstances, GS Yuasa Corporation posted consolidated net sales of ¥410,951 million, up ¥51,345 million, or 14.3%, from the previous fiscal year, reaching a new record high. Sales in the Domestic Automotive Batteries segment increased as a result of solid domestic demand for new automobiles and the effects of bringing Panasonic Corporation's domestic lead-acid battery business into the scope of consolidation.

On the income side, despite solid performance in the Domestic Automotive Batteries segment as indicated above, goodwill amortization and effects from rising costs for lead, a key material used in the Industrial Batteries and Power Supplies segment and the Overseas Automotive Batteries segment, caused consolidated operating income to fall ¥1,186 million, or 5.1%, compared to the previous fiscal year to ¥21,920 million (operating income before goodwill amortization was ¥24,076 million). In conjunction with the decrease in operating income, consolidated ordinary income was ¥21,387 million, down ¥1,157 million, or 5.1%, from the previous fiscal year. Net income attributable to owners of the parent was ¥11,449 million (net income attributable to owners of the parent before the amortization of goodwill was ¥13,894 million), down ¥779 million, or 6.4%, from the previous fiscal year.

Note: Reporting segments where changed as of fiscal 2017, and in the following comparison of consolidated fiscal years, figures for prior fiscal years are compared after adjustment to the modified segments.

Automotive Batteries

Net sales in Japan were ¥89,240 million, up ¥21,642 million, or 32%, compared to the previous fiscal year. The increase was the result of solid sales to car manufacturers and an increase in sales from acquiring Panasonic Corporation's domestic lead-acid batteries business.

Segment profit (before goodwill amortization) was ¥6,143 million, up ¥466 million, or 8.2%, from the previous fiscal year. The increase was due to the effects of the business acquisition mentioned above and other factors.

Overseas sales were ¥187,625 million, up ¥17,012 million, or 10,0%, year-on-year. The increase was the result of higher sales, primarily in Southeast Asia, as well as currency translation effects. Segment profit was ¥9,407 million, down ¥1,052 million, or 10.1%, year on year. The decrease was due to rising prices for lead, a key material, and other factors.

As a result, total domestic and overseas net sales were ¥276,866 million, up ¥38,654 million, or 16,2%, from the previous fiscal year. Segment profit before goodwill amortization was ¥15,551 million, down ¥585 million, or 3.6%, year-on-year.

Industrial Batteries and Power Supplies

Net sales were ¥72,187 million, down ¥578 million, or 0.8%, compared to the previous fiscal year. The decrease was the result of sluggish sales of industrial lead-acid batteries and a decline in sales of industrial lithium-ion batteries following special demand in the previous year.

Segment profit was ¥6,917 million, down ¥1,784 million, or 20.5%, from the previous fiscal year. The decline was due to the decrease in sales referenced above, higher lead prices and other factors.

Automotive Lithium-Ion Batteries

Net sales were ¥44,784 million, up ¥5,478 million, or 13.9%, compared to the previous fiscal year. The increase was due to increases in sales of both lithium-ion batteries for hybrid electric vehicles and for plug-in hybrid electric vehicles.

As a result, segment profit was ¥1,320 million, up ¥1,274 million compared to the previous fiscal year.

Others

Net sales were ¥17,113 million, up ¥7,790 million, or 83.6%, compared to the previous fiscal year. The increase was the result of higher sales of specialized batteries and the start of production of lithium-ion batteries for submarines.

Segment profit after adjustment for corporate expenses was ¥287 million, an improvement of ¥987 million compared to the previous fiscal year, as a result of lower management division expenses.

Financial Status

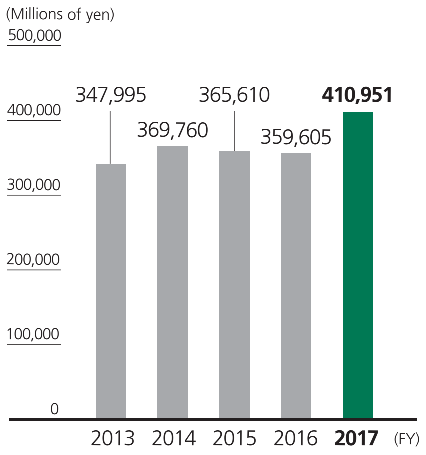
Total assets as of the end of fiscal 2017 were ¥391,324 million, an increase of ¥20,815 million compared to the end of the previous fiscal year. Cash and deposits declined, but sales receivables increased in conjunction with higher sales, the value of securities increased as a result of higher stock prices, and assets relating to retirement benefits were up.

Liabilities were ¥185,685 million, up ¥3,332 million compared to the end of the previous fiscal year. Loans, notes payable-facilities, and accounts payable decreased, but corporate bonds were issued and trade payables increased.

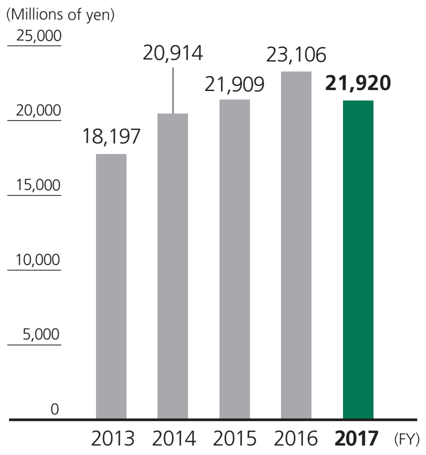
Total equity were ¥205,638 million, an increase of ¥17,483 compared to the end of the previous fiscal year. Payment of dividends and purchase of treasury shares reduced net assets, while net income attributable to owners of the parent, the market value of securities owned, and foreign currency translation adjustments increased, pushing net assets higher.

As a result of the above, the shareholders' equity ratio was 44.9%, up 1.3 points from the end of the previous fiscal year.

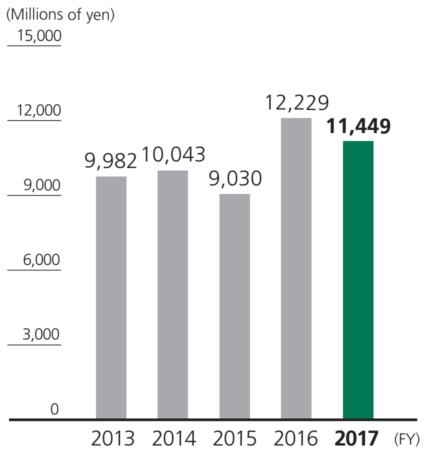
Net sales



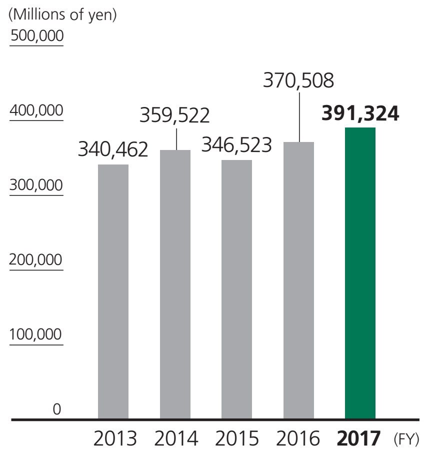
Operating income



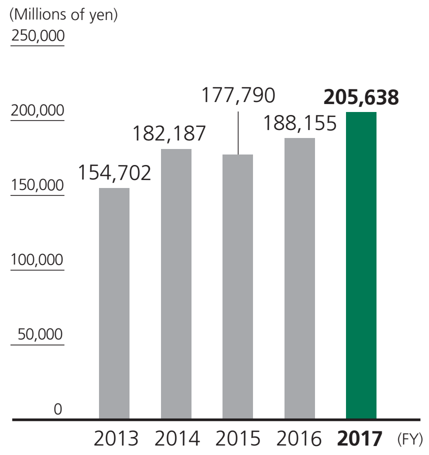
Net income attributable to owners of the parent



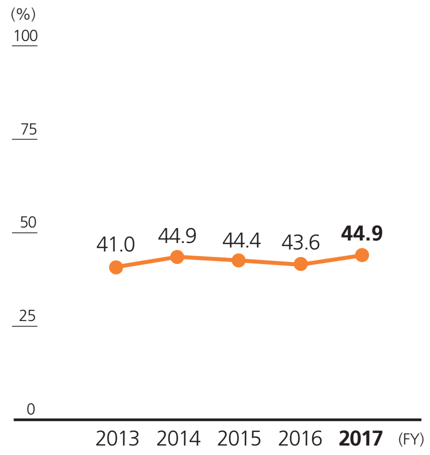
Total assets



Total equity



Shareholders' equity ratio



Risk Information

Cash Flows

Cash and cash equivalents as of the end of fiscal 2017 were ¥19,776 million, down ¥4,896 million, or 19.8%, compared to the previous fiscal year. The results of each category of cash flows and the main factors that contributed to those results are set forth below.

Cash flows from operating activities

Net cash provided by operating activities totaled ¥21,934 million (compared to ¥34,846 million in the previous fiscal year), mainly as a result of inflows of income before income taxes and depreciation expenses, which offset income taxes paid.

Cash flows from investing activities

Net cash used in investing activities totaled ¥20,810 million (compared to ¥32,912 million in the previous fiscal year), mainly due to expenditures in conjunction with acquisition of tangible fixed assets and investment securities.

Cash flows from financing activities

Net cash used in financing activities totaled ¥6,702 million (compared to ¥3,715 million in the previous fiscal year). An inflow was generated from issuance of corporate bonds, but this was offset by repayment of loans, payment of dividends and other factors.

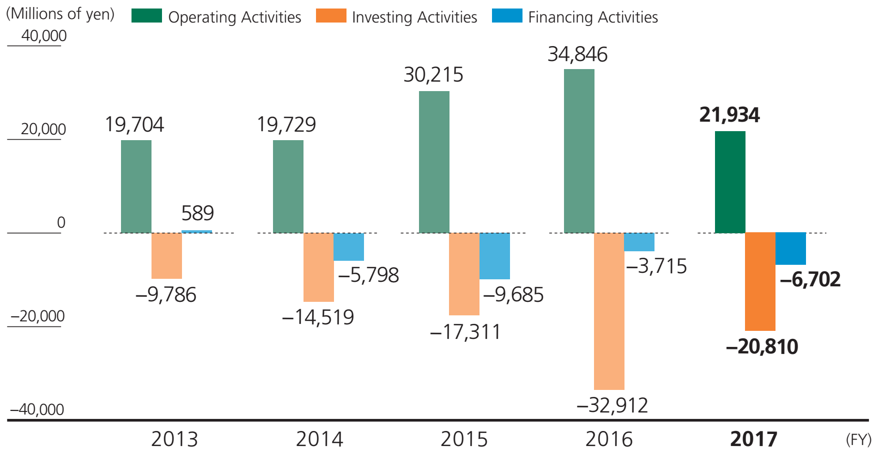
Dividend Policy

The Company positions the provision of shareholder returns as a top-priority management policy, but we also believe that in principle, comprehensive determinations should be made regarding the payment of dividends taking into consideration consolidated business trends, financial status, the payout ratio and other factors. We also seek to use internal reserves to invest in future business expansion and maintain and improve competitiveness. Based on this, our fundamental policy is to continue growing into the future while providing stable returns to shareholders over the long term.

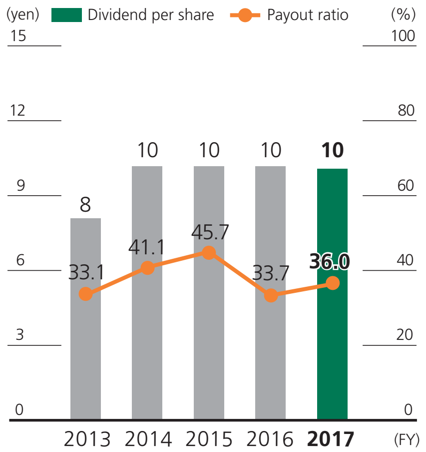
The Company's basic policy is to pay dividends from surplus twice each year: an interim dividend and year-end dividend. The Board of Directors makes determinations regarding the interim dividend, and the General Shareholders Meetings makes determinations regarding the year-end dividend. In fiscal 2017, although net income attributable to owners of the parents was down from the previous fiscal year, we maintained the dividend at ¥10 per share (a ¥3 dividend was paid at the end of the first half, followed by a ¥7 year-end dividend). As a result, the payout ratio was 36.0%.

Continuing from fiscal 2017, as a further share buyback, in fiscal 2018 the Company plans to acquire a total of ¥1 billion of shares. The total payment ratio taking this into account will be 36.9% (based on net income attributable to owners of the parent before the amortization of goodwill).

Cash Flows from Operating Activities, Investing Activities and Financing Activities



Dividend per share/payout ratio



1. Economic Conditions

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.

2. Intensification of Price Competition

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. Particularly in the automotive battery field (replacement), 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. The GS Yuasa Group is cutting costs and implementing measures to strengthen marketing power, but it may not be easy to maintain and expand market share and secure profitability in the future.

3. Foreign Exchange Rate Fluctuations

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. The Group conducts forex-hedged transactions in an effort to hold the ill effects of short-term foreign exchange rate fluctuations to a minimum, but 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.

4. Risks Related to International Activities and Overseas Expansion

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.

5. Risks Related to M&A

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.

6. Risks Related to Raw Material Markets Fluctuations

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.

7. Effect of Seasonal Factors on Automotive Battery (Replacement) Sales Volume

The sales volume of the GS Yuasa Group's main product, automotive batteries (replacement) is affected by seasonal factors, particularly the weather. For example, cool summers and warm winters result in a narrower temperature range, which is favorable for maintaining battery performance, so replacement demand and thus sales volume declines under these conditions. These seasonal factors cannot be accurately forecast, making it difficult to take adequate countermeasures in advance, so seasonal factors could affect the Group's earnings and financial standing.

8. Interest Rate Fluctuations

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.

9. Lawsuits and Other Legal Proceedings

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.

10. Environmental Regulations

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.

Consolidated Balance Sheet

March 31, 2018

	Millions of Yen 2018	Millions of Yen 2017	Thousands of U.S. Dollars (Note 1) 2018
ASSETS			
CURRENT ASSETS:			
Cash and cash equivalents (Notes 7 and 13)	**¥ 19,777**	¥ 24,673	**$ 186,575**
Time deposits (Notes 7 and 13)	**186**	322	**1,755**
Receivables (Notes 7 and 13):			
Trade notes	**6,299**	5,489	**59,425**
Trade accounts	**70,783**	63,455	**667,764**
Unconsolidated subsidiaries and associated companies	**2,897**	3,249	**27,330**
Other	**7,825**	8,232	**73,820**
Allowance for doubtful receivables	**(499)**	(507)	**(4,708)**
Inventories (Notes 3 and 7)	**69,743**	62,840	**657,953**
Deferred tax assets (Note 10)	**3,170**	3,175	**29,906**
Prepaid expenses and other current assets (Note 7)	**2,384**	2,231	**22,491**
Total current assets	**182,565**	173,159	**1,722,311**
PROPERTY, PLANT AND EQUIPMENT (Notes 6 and 7):			
Land (Notes 2.h and 2.j)	**24,047**	24,251	**226,858**
Buildings and structures	**99,196**	96,367	**935,811**
Machinery and equipment	**157,694**	147,690	**1,487,679**
Furniture and fixtures	**31,980**	30,135	**301,698**
Leased assets	**5,976**	5,834	**56,377**
Construction in progress	**7,889**	9,419	**74,426**
Total	**326,782**	313,696	**3,082,849**
Accumulated depreciation	**(203,935)**	(189,417)	**(1,923,915)**
Net property, plant and equipment	**122,847**	124,279	**1,158,934**
INVESTMENTS AND OTHER ASSETS:			
Investment securities (Notes 4 and 13)	**26,701**	20,985	**251,896**
Investments in unconsolidated subsidiaries and associated companies (Notes 5 and 13)	**30,839**	27,406	**290,934**
Goodwill	**4,350**	5,600	**41,038**
Asset for retirement benefits (Note 8)	**12,097**	6,715	**114,123**
Deferred tax assets (Note 10)	**1,381**	1,317	**13,028**
Other assets (Note 7)	**10,544**	11,048	**99,472**
Total investments and other assets	**85,912**	73,071	**810,491**
TOTAL	**¥ 391,324**	¥ 370,509	**$ 3,691,736**

* Shares have not been restated, GS Yuasa Corporation having resolved a one-for-five reverse stock split at the shareholders' meeting held on June 28, 2018.

See notes to consolidated financial statements.

	Millions of Yen 2018	Millions of Yen 2017	Thousands of U.S. Dollars (Note 1) 2018
LIABILITIES AND EQUITY			
CURRENT LIABILITIES:			
Short-term bank loans (Notes 7 and 13)	**¥ 13,348**	¥ 11,358	**$ 125,925**
Current portion of long-term debt (Notes 7 and 13)	**29,654**	16,793	**279,755**
Payables (Note 13):			
Trade notes	**18,684**	13,433	**176,264**
Trade accounts	**31,003**	28,455	**292,481**
Unconsolidated subsidiaries and associated companies	**2,441**	2,720	**23,028**
Other	**8,466**	16,775	**79,868**
Income taxes payable (Note 13)	**3,005**	3,616	**28,349**
Accrued expenses	**11,166**	10,323	**105,340**
Other current liabilities (Note 10)	**6,891**	6,348	**65,009**
Total current liabilities	**124,658**	109,821	**1,176,019**
LONG-TERM LIABILITIES:			
Long-term debt (Notes 7 and 13)	**33,912**	47,887	**319,925**
Liability for retirement benefits (Note 8)	**6,400**	5,979	**60,377**
Long-term deposits received	**5,402**	5,187	**50,962**
Deferred tax liabilities (Note 10)	**12,670**	11,190	**119,528**
Deferred tax liabilities on land revaluation (Note 2.j)	**1,043**	1,043	**9,840**
Other	**1,602**	1,246	**15,113**
Total long-term liabilities	**61,029**	72,532	**575,745**
COMMITMENTS AND CONTINGENT LIABILITIES (Notes 12, 14, and 15)			
EQUITY (Notes 9 and 18)**:**			
Common stock, authorized, 1,400,000,000 shares; issued 413,574,714 shares in 2018 and 2017*	**33,021**	33,021	**311,519**
Capital surplus	**55,313**	55,293	**521,821**
Retained earnings	**66,823**	59,501	**630,406**
Treasury stock – at cost: 2,586,786 shares in 2018 and 835,277 shares in 2017 (Note 2.m)*	**(1,387)**	(359)	**(13,085)**
Accumulated other comprehensive income:			
Unrealized gain on available-for-sale securities	**14,713**	10,769	**138,802**
Deferred loss on derivatives under hedge accounting	**(1)**		**(9)**
Land revaluation surplus (Note 2.j)	**2,398**	2,398	**22,623**
Foreign currency translation adjustments	**5,279**	2,331	**49,802**
Defined retirement benefit plans (Note 8)	**(384)**	(1,231)	**(3,623)**
Total	**175,775**	161,723	**1,658,256**
Noncontrolling interests	**29,862**	26,433	**281,716**
Total equity	**205,637**	188,156	**1,939,972**
TOTAL	**¥ 391,324**	¥ 370,509	**$ 3,691,736**

Consolidated Statement of Income

Year Ended March 31, 2018

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018	2017	**2018**
NET SALES (Note 5)	**¥ 410,951**	¥ 359,606	**$ 3,876,896**
COST OF SALES (Notes 5 and 11)	**317,890**	270,993	**2,998,962**
Gross profit	**93,061**	88,613	**877,934**
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (Note 11)	**71,141**	65,506	**671,142**
Operating income	**21,920**	23,107	**206,792**
OTHER INCOME (EXPENSES):			
Interest and dividend income	**764**	689	**7,208**
Interest expense	**(837)**	(932)	**(7,896)**
Write-down of investment securities	**(98)**		**(925)**
Gain on sales of property, plant and equipment	**578**	86	**5,453**
Loss on disposal of property, plant and equipment	**(382)**	(605)	**(3,604)**
Loss on impairment of long-lived assets (Note 6)		(392)	
Foreign exchange gain (loss)	**89**	(920)	**840**
Equity in earnings (losses) of unconsolidated subsidiaries and associated companies	**(519)**	371	**(4,896)**
Gain on sales of investment securities		19	
Loss on liquidation of subsidiary	**(650)**		**(6,132)**
Other – net	**(96)**	101	**(906)**
Other expenses – net	**(1,151)**	(1,583)	**(10,858)**
INCOME BEFORE INCOME TAXES	**20,769**	21,524	**195,934**
INCOME TAXES (Note 10)**:**			
Current	**6,040**	6,203	**56,981**
Deferred	**(618)**	349	**(5,830)**
Total income taxes	**5,422**	6,552	**51,151**
NET INCOME	**15,347**	14,972	**144,783**
NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS	**(3,897)**	(2,743)	**(36,764)**
NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT	**¥ 11,450**	¥ 12,229	**$ 108,019**

	Yen		U.S. Dollars
	2018	2017	**2018**
PER SHARE OF COMMON STOCK (Note 17)*:			
Basic net income	**¥ 27.78**	¥ 29.63	**$ 0.26**
Diluted net income	**25.89**	27.62	**0.24**
Cash dividends applicable to the year	**10.00**	10.00	**0.09**

* Per share figures have not been restated, GS Yuasa Corporation having resolved a one-for-five reverse stock split at the shareholders' meeting held on June 28, 2018.

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

Year Ended March 31, 2018

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018	2017	**2018**
NET INCOME	**¥ 15,347**	¥ 14,972	**$ 144,783**
OTHER COMPREHENSIVE INCOME (LOSS) (Note 16)**:**			
Unrealized gain on available-for-sale securities	**3,945**	2,257	**37,217**
Deferred gain (loss) on derivatives under hedge accounting	**(1)**	9	**(9)**
Foreign currency translation adjustments	**2,260**	(3,488)	**21,321**
Defined retirement benefit plans	**821**	1,334	**7,745**
Share of other comprehensive income (loss) in associates	**1,218**	(1,650)	**11,490**
Total other comprehensive income (loss)	**8,243**	(1,538)	**77,764**
COMPREHENSIVE INCOME (Note 16)	**¥ 23,590**	¥ 13,434	**$ 222,547**
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:			
Owners of the parent	**¥ 19,188**	¥ 11,228	**$ 181,019**
Noncontrolling interests	**4,402**	2,206	**41,528**

See notes to consolidated financial statements.

Consolidated Statement of Changes in Equity

Year Ended March 31, 2018

Millions of Yen

	Number of Shares of Common Stock Outstanding*	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock
BALANCE, APRIL 1, 2016	412,757,511	¥ 33,021	¥ 55,293	¥ 51,400	¥ (350)
Net income attributable to owners of the parent				12,229	
Cash dividends, ¥10.00 per share*				(4,128)	
Purchase of treasury stock	(18,074)				(9)
Net change in the year					
BALANCE, MARCH 31, 2017	**412,739,437**	**33,021**	**55,293**	**59,501**	**(359)**
Net income attributable to owners of the parent				11,450	
Cash dividends, ¥10.00 per share*				(4,128)	
Purchase of treasury stock	(1,751,509)				(1,127)
Disposal of treasury shares			20		99
Net change in the year					
BALANCE, MARCH 31, 2018	**410,987,928**	**¥ 33,021**	**¥ 55,313**	**¥ 66,823**	**¥ (1,387)**

Millions of Yen

	Accumulated Other Comprehensive Income					Total	Noncontrolling Interests	Total Equity
	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			
BALANCE, APRIL 1, 2016	¥ 8,491	¥ (9)	¥ 2,398	¥ 6,943	¥ (3,462)	¥ 153,725	¥ 24,067	¥ 177,792
Net income attributable to owners of the parent						12,229		12,229
Cash dividends, ¥10.00 per share*						(4,128)		(4,128)
Purchase of treasury stock						(9)		(9)
Net change in the year	2,278	9		(4,612)	2,231	(94)	2,366	2,272
BALANCE, MARCH 31, 2017	**10,769**		**2,398**	**2,331**	**(1,231)**	**161,723**	**26,433**	**188,156**
Net income attributable to owners of the parent						11,450		11,450
Cash dividends, ¥10.00 per share*						(4,128)		(4,128)
Purchase of treasury stock						(1,127)		(1,127)
Disposal of treasury shares						119		119
Net change in the year	3,944	(1)		2,948	847	7,738	3,429	11,167
BALANCE, MARCH 31, 2018	**¥ 14,713**	**¥ (1)**	**¥ 2,398**	**¥ 5,279**	**¥ (384)**	**¥ 175,775**	**¥ 29,862**	**¥ 205,637**

Thousands of U.S. Dollars (Note 1)

	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock
BALANCE, MARCH 31, 2017	**$ 311,519**	**$ 521,632**	**$ 561,330**	**$ (3,387)**
Net income attributable to owners of the parent			108,019	
Cash dividends, $0.09 per share*			(38,943)	
Purchase of treasury stock				(10,632)
Disposal of treasury shares		189		934
Net change in the year				
BALANCE, MARCH 31, 2018	**$ 311,519**	**$ 521,821**	**$ 630,406**	**$ (13,085)**

Thousands of U.S. Dollars (Note 1)

	Accumulated Other Comprehensive Income					Total	Noncontrolling Interests	Total Equity
	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			
BALANCE, MARCH 31, 2017	**$ 101,594**		**$ 22,623**	**$ 21,991**	**$ (11,613)**	**$ 1,525,689**	**$ 249,368**	**$ 1,775,057**
Net income attributable to owners of the parent						108,019		108,019
Cash dividends, $0.09 per share*						(38,943)		(38,943)
Purchase of treasury stock						(10,632)		(10,632)
Disposal of treasury shares						1,123		1,123
Net change in the year	37,208	$ (9)		27,811	7,990	73,000	32,348	105,348
BALANCE, MARCH 31, 2018	**$ 138,802**	**$ (9)**	**$ 22,623**	**$ 49,802**	**$ (3,623)**	**$ 1,658,256**	**$ 281,716**	**$ 1,939,972**

* Shares and per share figures have not been restated, GS Yuasa Corporation having resolved a one-for-five reverse stock split at the shareholders' meeting held on June 28, 2018.

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

Year Ended March 31, 2018

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018	2017	2018
OPERATING ACTIVITIES:			
Income before income taxes	¥ 20,769	¥ 21,524	$ 195,934
Adjustments for:			
Income taxes–paid	(7,025)	(5,368)	(66,274)
Depreciation and amortization	18,119	16,314	170,934
Write-down of investment securities	98		925
Loss on impairment of long-lived assets		392	
Gain on sales of property, plant and equipment	(578)	(86)	(5,453)
Loss on disposal of property, plant and equipment	382	605	3,604
Gain on sales of investment securities		(19)	
Equity in losses (earnings) of unconsolidated subsidiaries and associated companies	519	(371)	4,896
Loss on liquidation of subsidiary	650		6,132
Changes in assets and liabilities:			
(Increase) decrease in trade receivables	(6,709)	1,523	(63,292)
Increase in inventories	(5,694)	(2,817)	(53,717)
Decrease in interest and dividend receivables	790	555	7,453
Increase in trade payables	3,096	1,608	29,208
Decrease in interest payables	(25)	(12)	(236)
Decrease in liability for retirement benefits	(3,781)	(3,084)	(35,670)
Other – net	1,323	4,082	12,481
Net cash provided by operating activities	21,934	34,846	206,925
INVESTING ACTIVITIES:			
Proceeds from sales of property, plant and equipment	1,427	201	13,462
Purchases of property, plant and equipment	(18,277)	(18,375)	(172,425)
Proceeds from sales of investment securities		31	
Purchases of investment securities	(3,310)	(1,655)	(31,226)
Purchases of shares of the newly consolidated subsidiaries		(12,971)	
Other – net	(651)	(144)	(6,141)
Net cash used in investing activities	¥ (20,811)	¥ (32,913)	$ (196,330)

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018	2017	2018
FINANCING ACTIVITIES:			
Increase (decrease) in short-term bank loans – net	¥ 1,263	¥ (7,384)	$ 11,915
Proceeds from long-term bank loans	4,989	13,793	47,066
Repayments of long-term bank loans	(16,152)	(3,292)	(152,377)
Proceeds from issuance of bonds	10,000		94,340
Purchase of treasury stock	(1,127)	(9)	(10,632)
Proceeds from disposal of treasury shares	119		1,123
Dividends paid	(4,130)	(4,127)	(38,962)
Dividends paid to noncontrolling interests	(1,466)	(1,669)	(13,830)
Proceeds from noncontrolling interests in capital increase of consolidated subsidiaries	380		3,585
Other – net	(579)	(1,028)	(5,464)
Net cash used in financing activities	(6,703)	(3,716)	(63,236)
NET DECREASE IN CASH AND CASH EQUIVALENTS	(5,580)	(1,783)	(52,641)
FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS	684	(1,332)	6,452
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	24,673	27,788	232,764
CASH AND CASH EQUIVALENTS, END OF YEAR	¥ 19,777	¥ 24,673	$ 186,575

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Year Ended March 31, 2018

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 2017 consolidated financial statements to conform to the classifications used in 2018.

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 ¥106 to $1, the approximate exchange rate at March 31, 2018. 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, 2018, include the accounts of the Company and its 56 (55 in 2017) 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 24 (24 in 2017) 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.

The Company newly established GS Yuasa Hungary Limited Liability Company, which became a consolidated subsidiary from the fiscal year ended March 31, 2018.

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; and (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.

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; and (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.

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 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, 2018 and 2017, the accumulated deducted cost of the assets acquired were ¥11,270 million ($106,321 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, 2018, the carrying amount of the land after the above one-time revaluation exceeded the market value by ¥949 million ($8,953 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.

l. ***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 cannot be made in the period 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 ¥120 million ($1,132 thousand) and 230,000 shares, respectively.

n. ***Research and Development Costs*** — Research and development costs are charged to income as incurred.

o. ***Leases*** — Finance lease transactions are capitalized by recognizing lease assets and lease obligations in the balance sheet.

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*** — On March 30, 2018, the ASBJ issued ASBJ Statement No. 29, "Accounting Standard for Revenue Recognition," and ASBJ Guidance No. 30, "Implementation Guidance on Accounting Standard for Revenue Recognition."

(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 accounting standard from the beginning of the fiscal year ending March 31, 2022.

(3) Impact of the adoption of accounting standard
The Company is currently evaluating the effect that the adoption of this guidance will have on its consolidated financial statements.

3. INVENTORIES

Inventories at March 31, 2018 and 2017, consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Finished products	**¥ 37,835**	¥ 34,446	**$ 356,934**
Work in process	**16,621**	15,535	**156,802**
Raw materials and supplies	**15,287**	12,859	**144,217**
Total	**¥ 69,743**	¥ 62,840	**$ 657,953**

4. INVESTMENT SECURITIES

Investment securities as of March 31, 2018 and 2017, consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Non-current:			
Equity securities	**¥ 26,672**	¥ 20,956	**$ 251,623**
Debt securities	**29**	29	**273**
Total	**¥ 26,701**	¥ 20,985	**$ 251,896**

The costs and aggregate fair values of investment securities at March 31, 2018 and 2017, were as follows:

	Millions of Yen 2018			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Securities classified as: Available-for-sale: Equity securities	**¥ 5,259**	**¥ 20,875**	**¥ (49)**	**¥ 26,085**

	Millions of Yen 2017			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Securities classified as: Available-for-sale: Equity securities	¥ 5,245	¥ 15,136	¥ (12)	¥ 20,369

	Thousands of U.S. Dollars 2018			
	Cost	Unrealized Gains	Unrealized Losses	Fair Value
Securities classified as: Available-for-sale: Equity securities	**$ 49,613**	**$ 196,934**	**$ (462)**	**$ 246,085**

Available-for-sale securities whose fair value cannot be reliably determined at March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Non-current:			
Equity securities	**¥ 587**	¥ 587	**$ 5,538**
Debt securities	**29**	29	**273**
Total	**¥ 616**	¥ 616	**$ 5,811**

The information of available-for-sale securities which were sold during the year ended March 31, 2017, is as follows:

	Millions of Yen		
March 31, 2017	Proceeds	Realized Gains	Realized Loss
Available-for-sale: Equity securities	¥ 31	¥ 19	—

Available-for-sale securities which were not sold during the year ended March 31, 2018:

Impairment losses on available-for-sale equity securities for the year ended March 31, 2018, were ¥98 million ($925 thousand).

5. INVESTMENTS IN UNCONSOLIDATED SUBSIDIARIES AND ASSOCIATED COMPANIES

Investments in unconsolidated subsidiaries and associated companies at March 31, 2018 and 2017, consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Investments at cost	¥ 8,661	¥ 8,168	$ 81,708
Equity in undistributed earnings	22,178	19,238	209,226
Total	¥ 30,839	¥ 27,406	$ 290,934

Sales to and purchases from unconsolidated subsidiaries and associated companies for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Sales	¥ 14,070	¥ 12,983	$ 132,736
Purchases	21,283	20,515	200,783

6. LONG-LIVED ASSETS

The Group reviewed its long-lived assets for impairment as of March 31, 2018. As a result, the Group did not recognize an impairment loss.

The Group reviewed its long-lived assets for impairment as of March 31, 2017. As a result, the Group recognized an impairment loss of ¥392 million in total for certain assets used for business. Because these assets became idle assets in the current fiscal year, 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, 2018, short-term bank loans of ¥755 million ($7,123 thousand) were collateralized.

The weighted-average interest rates for the Group's short-term bank loans were 2.38% and 2.13% at March 31, 2018 and 2017, respectively.

Long-term debt at March 31, 2018 and 2017, consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Zero coupon convertible bonds due in March 2019	¥ 25,000	¥ 25,000	$ 235,849
Unsecured corporate bond due in September 2027	10,000		94,340
Unsecured bank loans, maturing serially through 2019 with interest rates ranging from 0.1% to 6.4% (2018) and from 0.2% to 5.5% (2017)	26,465	37,281	249,670
Collateralized	341	620	3,217
Obligations under finance leases	1,760	1,779	16,604
Total	63,566	64,680	599,680
Less current portion	29,654	16,793	279,755
Long-term debt	¥ 33,912	¥ 47,887	$ 319,925

Annual maturities of long-term debt at March 31, 2018, were as follows:

Year Ending March 31	Millions of Yen	Thousands of U.S. Dollars
2019	¥ 29,654	$ 279,755
2020	2,024	19,094
2021	5,415	51,085
2022	4,239	39,991
2023	1,502	14,170
2024 and thereafter	20,732	195,585
Total	¥ 63,566	$ 599,680

Zero coupon convertible bonds

Class of shares to be issued	Ordinary shares of common stock
Issue price for stock acquisition rights	—
Exercise price per share	¥851 ($8)
Total amount of debt securities issued	¥25,000 million ($235,849 thousand)
Total amount of shares issued by exercising stock acquisition rights	—
Percentage of shares with stock acquisition rights	100%
Exercise period	March 27, 2014 – February 27, 2019

If all the outstanding stock acquisition rights incorporated in convertible bonds had been exercised at March 31, 2018, 29,377 thousand shares of common stock would have been issued. The conversion price of the convertible bonds is subject to adjustments to reflect stock splits and certain other events.

The carrying amounts of assets pledged as collateral for short-term borrowings and long-term debt at March 31, 2018, were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Cash and cash equivalents	¥ 343	$ 3,236
Trade accounts	2,114	19,943
Inventories	594	5,604
Building and structures	358	3,377
Machinery and equipment	20	189
Land	1,849	17,443
Other	17	161
Total	¥ 5,295	$ 49,953

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 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, 2018 and 2017, were ¥49 million ($462 thousand) and ¥66 million, respectively.

(1) Changes in defined benefit obligation for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Balance at beginning of year (as restated)	**¥ 50,331**	¥ 45,938	**$ 474,821**
Current service cost	**1,607**	1,541	**15,160**
Interest cost	**162**	126	**1,528**
Actuarial losses	**548**	136	**5,170**
Benefits paid	**(2,399)**	(2,612)	**(22,632)**
Increase due to change in scope of consolidation		5,185	
Others	**(31)**	17	**(292)**
Balance at end of year	**¥ 50,218**	¥ 50,331	**$ 473,755**

(2) Changes in plan assets for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Balance at beginning of year	**¥ 51,133**	¥ 42,451	**$ 482,387**
Expected return on plan assets	**735**	674	**6,934**
Actuarial gains	**2,101**	3,072	**19,821**
Contributions from the employer	**3,839**	3,740	**36,217**
Benefits paid	**(1,817)**	(1,934)	**(17,142)**
Increase due to change in scope of consolidation		3,112	
Others	**(27)**	18	**(255)**
Balance at end of year	**¥ 55,964**	¥ 51,133	**$ 527,962**

(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:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Defined benefit obligation	**¥ 46,972**	¥ 47,280	**$ 443,132**
Plan assets	**(55,964)**	(51,133)	**(527,962)**
Total	**(8,992)**	(3,853)	**(84,830)**
Unfunded defined benefit obligation	**3,246**	3,051	**30,622**
Net assets arising from defined benefit obligation	**¥ (5,746)**	¥ (802)	**$ (54,208)**

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Liability for retirement benefits	**¥ 6,351**	¥ 5,913	**$ 59,915**
Assets for retirement benefits	**(12,097)**	(6,715)	**(114,123)**
Net assets arising from defined benefit obligation	**¥ (5,746)**	¥ (802)	**$ (54,208)**

(4) The components of net periodic benefit costs for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Service cost	**¥ 1,608**	¥ 1,542	**$ 15,170**
Interest cost	**162**	126	**1,528**
Expected return on plan assets	**(735)**	(674)	**(6,934)**
Amortization of prior service cost	**(190)**	(307)	**(1,792)**
Recognized actuarial (gains) losses	**(180)**	589	**(1,698)**
Net periodic benefit costs	**¥ 665**	¥ 1,276	**$ 6,274**

(5) Amounts recognized in other comprehensive income (before income tax effect) in respect of defined retirement benefit plans for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Prior service cost	**¥ (189)**	¥ (306)	**$ (1,783)**
Actuarial losses	**1,414**	3,525	**13,340**
Total	**¥ 1,225**	¥ 3,219	**$ 11,557**

(6) Amounts recognized in accumulated other comprehensive income (before income tax effect) in respect of defined retirement benefit plans as of March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Unrecognized prior service cost	**¥ 659**	¥ 849	**$ 6,217**
Unrecognized actuarial losses	**(1,206)**	(2,620)	**(11,377)**
Others		(1)	
Total	**¥ (547)**	¥(1,772)	**$ (5,160)**

(7) Plan assets

a. Components of plan assets

Plan assets as of March 31, 2018 and 2017, consisted of the following:

	2018	2017
Equity investments	**44%**	45%
General accounts	**24**	24
Debt investments	**12**	13
Investment trusts	**9**	9
Short-term assets	**4**	2
Others	**7**	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, 2018 and 2017, were set forth as follows:

	2018	2017
Discount rate	**0.1%**	0.1%
Expected rate of return on plan assets	**2.0%**	2.0%

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.

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 SurplusX

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, 2018 and 2017.

The tax effects of significant temporary differences and loss carryforwards which resulted in deferred tax assets and liabilities at March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Deferred tax assets:			
Accrued bonuses	**¥ 1,296**	¥ 1,351	**$ 12,226**
Liability for retirement benefits	**1,988**	1,900	**18,755**
Write-down of investment securities	**346**	316	**3,264**
Unrealized profit	**274**	229	**2,585**
Tax loss carryforwards	**12,644**	12,516	**119,283**
Other	**5,539**	4,522	**52,255**
Less valuation allowance	**(14,116)**	(14,706)	**(133,170)**
Deferred tax assets	**7,971**	6,128	**75,198**
Deferred tax liabilities:			
Valuation excess of property	**1,589**	1,850	**14,991**
Unrealized gain on available-for-sale securities	**6,137**	4,379	**57,896**
Undistributed earnings of foreign subsidiaries	**5,600**	5,341	**52,830**
Other	**2,764**	1,255	**26,075**
Deferred tax liabilities	**16,090**	12,825	**151,792**
Net deferred tax liabilities	**¥ (8,119)**	¥ (6,697)	**$ (76,594)**

Reconciliation between the normal effective statutory tax rates and the actual effective tax rates reflected in the accompanying consolidated statement of income for the year ended March 31, 2018, was as follows:

Normal effective statutory tax rate	30.5%
Expenses not deductible for income tax purposes	1.2
Per capita levy	0.4
Net change in valuation allowance	(1.7)
Lower income tax rates applicable to income in certain foreign countries	(2.3)
Dividends of foreign subsidiaries and associated companies	1.2
Equity in earnings of unconsolidated subsidiaries and associated companies	0.8
Non-taxable dividend income	1.3
Unrecognized tax effects on eliminated intercompany unrealized profit	(0.1)
Foreign tax credit	1.0
Goodwill depreciation	1.8
Loss on impairment of investments in securities	(6.7)
Other – net	(1.3)
Actual effective tax rate	26.1%

Since the difference between the normal effective statutory tax rates and the actual effective tax rates for the fiscal year ended March 31, 2017, is less than 5%, a reconciliation of the differences is omitted.

At March 31, 2018, certain subsidiaries had tax loss carryforwards aggregating approximately ¥41,703 million ($393,425 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:

Year Ending March 31	Millions of Yen	Thousands of U.S. Dollars
2019	¥ 110	$ 1,038
2020	396	3,736
2021	2,788	26,302
2022	12,610	118,962
2023 and thereafter	25,799	243,387
Total	¥ 41,703	$ 393,425

11. RESEARCH AND DEVELOPMENT COSTS

Research and development costs charged to income were ¥9,752 million ($92,000 thousand) and ¥8,452 million for the years ended March 31, 2018 and 2017, respectively.

12. LEASES

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

Total lease payments for the years ended March 31, 2018 and 2017, were ¥1,581 million ($14,915 thousand) and ¥1,614 million, respectively.

The minimum rental commitments under noncancelable operating leases at March 31, 2018, were as follows:

	Millions of Yen	Thousands of U.S. Dollars
Due within one year	¥ 1,063	$ 10,028
Due after one year	1,893	17,858
Total	¥ 2,956	$ 27,886

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 five years after 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 detail about 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 on the basis of 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, 2018	Carrying Amount	Fair Value	Unrealized Gain (Loss)
Cash and cash equivalents	**¥ 19,777**	**¥ 19,777**	
Time deposits	**186**	**186**	
Receivables:			
Trade notes	**6,299**	**6,299**	
Trade accounts	**70,783**	**70,783**	
Unconsolidated subsidiaries and associated companies	**2,897**	**2,897**	
Investment securities	**26,296**	**26,296**	
Investments in unconsolidated subsidiaries and associated companies	**14,788**	**7,273**	**¥ (7,515)**
Total	**¥ 141,026**	**¥ 133,511**	**¥ (7,515)**
Short-term bank loans	**¥ 17,464**	**¥ 17,464**	
Payables:			
Trade notes	**18,684**	**18,684**	
Trade accounts	**31,003**	**31,003**	
Unconsolidated subsidiaries and associated companies	**2,441**	**2,441**	
Income taxes payable	**3,005**	**3,005**	
Long-term debt:			
Convertible bonds	**25,000**	**25,203**	**¥ 203**
Corporate bonds	**10,000**	**9,984**	**(169)**
Bank loans	**22,689**	**22,647**	**(42)**
Lease obligations	**1,223**	**1,223**	
Total	**¥ 131,509**	**¥ 131,654**	**¥ 145**

March 31, 2017	Millions of Yen Carrying Amount	Fair Value	Unrealized Gain (Loss)
Cash and cash equivalents	¥ 24,673	¥ 24,673	
Time deposits	321	321	
Receivables:			
Trade notes	5,489	5,489	
Trade accounts	63,455	63,455	
Unconsolidated subsidiaries and associated companies	3,249	3,249	
Investment securities	20,369	20,369	
Investments in unconsolidated subsidiaries and associated companies	12,427	8,299	¥ (4,128)
Total	¥ 129,983	¥ 125,855	¥ (4,128)
Short-term bank loans	¥ 27,534	¥ 27,534	
Payables:			
Trade notes	13,432	13,432	
Trade accounts	28,454	28,454	
Unconsolidated subsidiaries and associated companies	2,367	2,367	
Income taxes payable	3,616	3,616	
Long-term debt:			
Convertible bonds	25,000	25,386	¥ 386
Bank loans	21,723	21,726	3
Lease obligations	1,163	1,163	
Total	¥ 123,289	¥ 123,678	¥ 389

March 31, 2018	Thousands of U.S. Dollars Carrying Amount	Fair Value	Unrealized Gain (Loss)
Cash and cash equivalents	**$ 186,575**	**$ 186,575**	
Time deposits	**1,755**	**1,755**	
Receivables:			
Trade notes	**59,425**	**59,425**	
Trade accounts	**667,764**	**667,764**	
Unconsolidated subsidiaries and associated companies	**27,330**	**27,330**	
Investment securities	**248,075**	**248,075**	
Investments in unconsolidated subsidiaries and associated companies	**139,510**	**68,613**	**$ (70,897)**
Total	**$ 1,330,434**	**$ 1,259,537**	**$ (70,897)**
Short-term bank loans	**$ 164,755**	**$ 164,755**	
Payables:			
Trade notes	**176,264**	**176,264**	
Trade accounts	**292,481**	**292,481**	
Unconsolidated subsidiaries and associated companies	**23,028**	**23,028**	
Income taxes payable	**28,349**	**28,349**	
Long-term debt:			
Convertible bonds	**235,849**	**237,764**	**$ 1,915**
Corporate bonds	**94,340**	**94,189**	**(151)**
Bank loans	**214,047**	**213,651**	**(396)**
Lease obligations	**11,538**	**11,538**	
Total	**$ 1,240,651**	**$ 1,242,019**	**$ 1,368**

Cash and cash equivalents, Time deposits, and Receivables

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.

Short-term bank loans, Payables, and Income taxes payable

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.

Derivatives

Fair value information for derivatives is included in Note 14.

(b) Carrying amount of financial instruments whose fair value cannot be reliably determined

	Millions of Yen 2018	2017	Thousands of U.S. Dollars 2018
Investments in equity instruments that do not have a quoted market price in an active market	**¥ 16,456**	¥ 15,595	**$ 155,245**

(5) Maturity Analysis for Financial Assets and Securities with Contractual Maturities

	Millions of Yen 2018 Due in 1 Year or Less	2018 Due after 5 Years through 10 Years	2017 Due in 1 Year or Less	2017 Due after 5 Years through 10 Years
Cash and cash equivalents	**¥ 19,777**		¥ 24,673	
Time deposits	**186**		321	
Receivables	**79,979**		71,939	
Investment securities:				
Available-for-sale securities with contractual maturities		**¥ 29**		¥ 29
Total	**¥ 99,942**	**¥ 29**	¥ 96,933	¥ 29

	Thousands of U.S. Dollars	
	2018	
	Due in 1 Year or Less	Due after 5 Years through 10 Years
Cash and cash equivalents	**$ 186,575**	
Time deposits	**1,755**	
Receivables	**754,519**	
Investment securities:		**$ 274**
Available-for-sale securities with contractual maturities		
Total	**$ 942,849**	**$ 274**

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, 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 Not Applied

	Millions of Yen			
At March 31, 2018	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss
Foreign currency forward contracts:				
Selling EUR and GBP	**¥ 1,639**		**¥ (19)**	**¥ (19)**
THB	**177**		**(1)**	**(1)**
USD	**151**		**2**	**2**

	Millions of Yen			
At March 31, 2017	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss
Foreign currency forward contracts:				
Buying THB	¥ 45			
Selling EUR and GBP	2,097		¥ 24	¥ 24
THB	1,929		(14)	(14)
AUD	98			

	Thousands of U.S. Dollars			
At March 31, 2018	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss
Foreign currency forward contracts:				
Selling EUR and GBP	**$ 15,462**		**$ (179)**	**$ (179)**
THB	**1,670**		**(9)**	**(9)**
USD	**1,425**		**19**	**19**

Derivative Transactions to Which Hedge Accounting Is Applied

	Millions of Yen			
At March 31, 2018	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**	

	Millions of Yen			
At March 31, 2017	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	¥ 4,652	¥ 1,852	

	Thousands of U.S. Dollars			
At March 31, 2018	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**	**$ 17,472**	**$ 17,472**	

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, 2018, the Group had the following contingent liabilities:

	Millions of Yen	Thousands of U.S. Dollars
Endorsed notes	¥ 803	$ 7,575
Guarantees of bank loans of certain associated companies	34	321

16. OTHER COMPREHENSIVE INCOME (LOSS)

The components of other comprehensive income (loss) for the years ended March 31, 2018 and 2017, were as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	**2018**
Unrealized gain on available-for-sale securities:			
Gains arising during the year	**¥ 5,700**	¥ 3,232	**$ 53,774**
Reclassification adjustments to profit or loss		(18)	
Amount before income tax effect	**5,700**	3,214	**53,774**
Income tax effect	**(1,755)**	(957)	**(16,557)**
Total	**¥ 3,945**	¥ 2,257	**$ 37,217**
Deferred gain (loss) on derivatives under hedge accounting:			
Gains arising during the year	**¥ 13**	¥ 32	**$ 123**
Reclassification adjustments to profit or loss	**(15)**	(19)	**(142)**
Amount before income tax effect	**(2)**	13	**(19)**
Income tax effect	**1**	(4)	**10**
Total	**¥ (1)**	¥ 9	**$ (9)**
Foreign currency translation adjustments:			
Adjustments arising during the year	**¥ 2,260**	¥ (3,488)	**$ 21,321**
Amount before income tax effect	**2,260**	(3,488)	**21,321**
Total	**¥ 2,260**	¥ (3,488)	**$ 21,321**
Defined retirement benefit plans:			
Adjustments arising during the year	**¥ 1,553**	¥ 2,936	**$ 14,651**
Reclassification adjustments to profit or loss	**(369)**	283	**(3,481)**
Amount before income tax effect	**1,184**	3,219	**11,170**
Income tax effect	**(363)**	(1,885)	**(3,425)**
Total	**¥ 821**	¥ 1,334	**$ 7,745**
Share of other comprehensive income (loss) in associates:			
Gains (losses) arising during the year	**¥ 1,218**	¥ (1,650)	**$ 11,490**
Total other comprehensive income (loss)	**¥ 8,243**	¥ (1,538)	**$ 77,764**

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, 2018 and 2017, is as follows:

	Millions of Yen	Thousands of Shares	Yen	U.S. Dollars
Year Ended March 31, 2018	Net Income Attributable to Owners of the Parent	Weighted-Average Shares	EPS	
Basic EPS – Net income attributable to common shareholders	**¥ 11,450**	**412,152**	**¥ 27.78**	**$ 0.26**
Effect of dilutive securities:				
Convertible bonds	**(18)**	**29,378**		
Diluted EPS – Net income for computation	**¥ 11,432**	**441,530**	**¥ 25.89**	**$ 0.24**
Year Ended March 31, 2017				
Basic EPS – Net income attributable to common shareholders	¥ 12,229	412,752	¥ 29.63	
Effect of dilutive securities:				
Convertible bonds	(17)	29,377		
Diluted EPS – Net income for computation	¥ 12,212	442,129	¥ 27.62	

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 (230,000 shares in 2018) is reflected.

As stated in Note 18, the Company resolved a one-for-five reverse stock split at the shareholders' meeting held on June 28, 2018. However, the number of weighted-average shares and EPS have not been restated.

18. SUBSEQUENT EVENTS

(1) Reverse Stock Split and Change in the Number of Shares Per Share Unit

The Company resolved at its Board of Directors meeting held on May 8, 2018 to submit the proposal for change in the number of shares, reverse stock split, and revision to articles of incorporation at the 14th Company in shareholders' meeting held on June 28, 2018. The proposal was approved at the Company's shareholders' meeting.

(a) Change in the number of shares per share unit

1. Purpose of the change in the number of shares per share unit

   All Japanese securities exchanges announced and are promoting the "Action Plan for Consolidating Trading Units," under which the trading units of common shares for domestically listed companies are uniformly set at 100 shares. In light of this action plan, the Company, whose shares are listed on the Tokyo Stock Exchange, will change the share unit number from the current 1,000 shares to 100 shares.

2. Details of the change in the number of shares per share unit

   The Company will change the share unit number from the current 1,000 shares to 100 shares.

3. Date for the change in the number of shares per share unit

   October 1, 2018

(b) Reverse stock split

1. Purposal for reverse stock split

Along with the change in the share unit, the Company will also conduct a reverse stock split in order to adjust the investment unit to the appropriate level.

2. Details of reverse stock split

i) Class of shares
Common stock

ii) Reverse split ratio
The Company will effect a one-for-five reverse stock split on October 1, 2018 based on the number of shares held by shareholders listed in the final shareholders' register as of September 30, 2018.

iii) Total number of issuable shares after the reverse stock split
280,000,000 shares (before the reverse stock split: 1,400,000,000 shares)

iv) Decrease in the number of shares due to the reverse stock split

Number of outstanding shares before the reverse stock split (as of March 31, 2018)	413,574,714 shares
Decrease in number of shares due to the reverse stock split	330,859,772 shares
Number of outstanding shares after the reverse stock split	82,714,942 shares

Note:
The "Decrease in number of shares due to the reverse stock split" and "Number of outstanding shares after the reverse stock split" are theoretical values calculated by multiplying the number of outstanding shares before the reverse stock split by the reverse split ratio.

v) Handling of fractional shares of less than one share
If any fractional shares arise as a result of the reverse stock split, pursuant to the provisions of Article 235 of the Companies Act, the Company will sell all such fractional shares and distribute the proceeds to shareholders having fractional shares in proportion to their respective fractions.

3. Effect on per share information

Per share information for the years ended March 31, 2018 and 2017, on the assumption that the reverse stock split had been implemented as of April 1, 2016, are as follows:

	Yen		U.S. Dollars
	2018	2017	**2018**
Net assets per share	**¥ 2,138.45**	¥ 1,959.14	**$ 20.17**
Basic EPS – Net income attributable to common shareholders	**138.90**	148.14	**1.31**
Diluted EPS – Net income for computation	**129.46**	138.10	**1.22**

(2) Appropriation of Retained Earnings

The following appropriation of retained earnings at March 31, 2018, was approved at the Company's shareholders' meeting held on June 28, 2018:

	Millions of Yen	Thousands of U.S. Dollars
Year-end cash dividends, ¥7 ($0.07) per share	¥ 2,879	$ 27,160

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. The partial sales of Automotive Batteries (Overseas) is included in Overseas Industrial Batteries and Power Supplies.

The total amount of Automotive Batteries (Japan) and Automotive Batteries (Overseas) are presented as Automotive Batteries in the financial statement. Reportable segments in the previous fiscal year are presented as the new changed reportable segments.

(4) Information about Sales, Profit (Loss), Assets, and Other Items

Millions of Yen

	2018							
	Reportable Segments						Other	Consolidated
	Automotive Batteries			Industrial Batteries and Power Supplies	Automotive Lithium-ion Batteries	Total		
	Japan	Overseas	Total					
Sales:								
Sales to external customers	¥ 89,241	¥ 187,625	¥ 276,866	¥ 72,187	¥ 44,784	¥ 393,837	¥ 17,114	¥ 410,951
Intersegment sales of transfers	1,448	1,041	2,489	2,904	706	6,099	(6,099)	
Total	¥ 90,689	¥ 188,666	¥ 279,355	¥ 75,091	¥ 45,490	¥ 399,936	¥ 11,015	¥ 410,951
Segment profit	¥ 6,143	¥ 9,408	¥ 15,551	¥ 6,917	¥ 1,321	¥ 23,789	¥ 288	¥ 24,077
Segment assets	54,326	158,028	212,354	41,177	45,445	298,976	92,348	391,324
Other:								
Depreciation	1,860	4,175	6,035	1,267	5,213	12,515	5,604	18,119
Investment in equity method	1,033	30,141	31,174	138	516	31,828		31,828
Increase in property, plant and equipment and intangible assets	2,362	6,360	8,722	1,115	1,361	11,198	4,605	15,803
Amortization of goodwill	1,217	33	1,250			1,250		1,250
Goodwill – net	4,259	91	4,350			4,350		4,350

Millions of Yen

	2017							
	Reportable Segments						Other	Consolidated
	Automotive Batteries			Industrial Batteries and Power Supplies	Automotive Lithium-ion Batteries	Total		
	Japan	Overseas	Total					
Sales:								
Sales to external customers	¥ 67,599	¥ 170,613	¥ 238,212	¥ 72,765	¥ 39,305	¥ 350,282	¥ 9,324	¥ 359,606
Intersegment sales of transfers	1,498	1,097	2,595	3,151	878	6,624	(6,624)	
Total	¥ 69,097	¥ 171,710	¥ 240,807	¥ 75,916	¥ 40,183	¥ 356,906	¥ 2,700	¥ 359,606
Segment profit (loss)	¥ 5,677	¥ 10,460	¥ 16,137	¥ 8,702	¥ 46	¥ 24,885	¥ (700)	¥ 24,185
Segment assets	52,522	145,082	197,604	41,355	40,481	279,440	91,069	370,509
Other:								
Depreciation	1,340	4,205	5,545	1,225	5,555	12,325	3,989	16,314
Investment in equity method	936	26,275	27,211	120	986	28,317		28,317
Increase in property, plant and equipment and intangible assets	1,917	3,788	5,705	1,254	1,839	8,798	11,863	20,661
Impairment losses of assets				52	340	392		392
Amortization of goodwill	608	33	641			641		641
Goodwill – net	5,476	124	5,600			5,600		5,600

Thousands of U.S. Dollars

	2018							
	Reportable Segments						Other	Consolidated
	Automotive Batteries			Industrial Batteries and Power Supplies	Automotive Lithium-ion Batteries	Total		
	Japan	Overseas	Total					
Sales:								
Sales to external customers	$ 841,896	$ 1,770,047	$ 2,611,943	$ 681,009	$ 422,491	$ 3,715,443	$ 161,453	$ 3,876,896
Intersegment sales of transfers	13,660	9,821	23,481	27,396	6,660	57,537	(57,537)	
Total	$ 855,556	$ 1,779,868	$ 2,635,424	$ 708,405	$ 429,151	$ 3,772,980	$ 103,916	$ 3,876,896
Segment profit	$ 57,953	$ 88,755	$ 146,708	$ 65,255	$ 12,462	$ 224,425	$ 2,717	$ 227,142
Segment assets	512,509	1,490,830	2,003,339	388,462	428,726	2,820,527	871,209	3,691,736
Other:								
Depreciation	17,547	39,387	56,934	11,953	49,179	118,066	52,868	170,934
Investment in equity method	9,745	284,349	294,094	1,302	4,868	300,264		300,264
Increase in property, plant and equipment and intangible assets	22,283	60,000	82,283	10,519	12,840	105,642	43,443	149,085
Amortization of goodwill	11,481	311	11,792			11,792		11,792
Goodwill – net	40,180	858	41,038			41,038		41,038

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, 2018 and 2017, were ¥2,325 million ($21,934 thousand) and ¥2,449 million, respectively. The details of the adjustments are as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Elimination of intersegment transactions	¥ 1,304	¥ 1,434	$ 12,302
Company-wide expenses	1,021	1,015	9,632
Total	¥ 2,325	¥ 2,449	$ 21,934

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, 2018 and 2017, were ¥91,384 million ($862,113 thousand) and ¥90,081 million, respectively. The details of the adjustments are as follows:

	Millions of Yen		Thousands of U.S. Dollars
	2018	2017	2018
Elimination of intersegment transactions	¥ (84,886)	¥ (69,198)	$ (800,811)
Company-wide assets	176,270	159,279	1,662,924
Total	¥ 91,384	¥ 90,081	$ 862,113

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, 2018 and 2017, were ¥4,225 million ($39,858 thousand) and ¥3,591 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, 2018 and 2017, were ¥4,111 million ($38,783 thousand) and ¥5,156 million, respectively. The adjustments consisted of the purchase amount of property, plant and equipment and intangible assets classified as Company-wide assets.

3. For the year ended March 31, 2018, the difference between the segment profit listed above and operating income in the consolidated statement of income, ¥24,077 million ($227,142 thousand) and ¥21,920 million ($206,792 thousand), respectively, resulted from the amortization of goodwill and other intangible assets of ¥2,157 million ($20,349 thousand). The goodwill and other intangible assets include identifiable assets acquired on the effective date of the business combination.

(5) Information about Geographical Areas

(a) Sales

Millions of Yen

2018				
Japan	Asia	Europe and North America	Other	Total
¥ 206,026	**¥ 110,365**	**¥ 66,233**	**¥ 28,327**	**¥ 410,951**

Millions of Yen

2017				
Japan	Asia	Europe and North America	Other	Total
¥ 176,003	¥ 100,013	¥ 58,888	¥ 24,702	¥ 359,606

Thousands of U.S. Dollars

2018				
Japan	Asia	Europe and North America	Other	Total
$ 1,943,642	**$ 1,041,179**	**$ 624,840**	**$ 267,235**	**$ 3,876,896**

Note: Sales are classified by country or region based on the location of customers.

(b) Property, plant and equipment

Millions of Yen

2018				
Japan	Asia	Europe and North America	Other	Total
¥ 89,292	**¥ 29,231**	**¥ 2,401**	**¥ 1,923**	**¥ 122,847**

Millions of Yen

2017				
Japan	Asia	Europe and North America	Other	Total
¥ 94,141	¥ 25,976	¥ 2,189	¥ 1,973	¥ 124,279

Thousands of U.S. Dollars

2018				
Japan	Asia	Europe and North America	Other	Total
$ 842,377	**$ 275,764**	**$ 22,651**	**$ 18,142**	**$ 1,158,934**

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of GS Yuasa Corporation:

We have audited the accompanying consolidated balance sheet of GS Yuasa Corporation and its consolidated subsidiaries as of March 31, 2018, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these 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.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of GS Yuasa Corporation and its consolidated subsidiaries as of March 31, 2018, and the consolidated results of their operations and their 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.

Deloitte Touche Tohmatsu LLC

June 27, 2018 (June 28, 2018 as to Note 18 (1))

Member of
Deloitte Touche Tohmatsu Limited

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: 14,585

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.
GS Yuasa Lighting Service Co., Ltd.
GS Yuasa Wing Ltd.
GS KASEI KOGYO Co., Ltd.
GS Ibaraki Works, Ltd.
GS Environmental Science Laboratories Co., Ltd.
Yuasa Membrane Systems Co., Ltd.
Iwaki Yuasa Ltd.
Yuasa Chemical Co., Ltd.
YUASA ELECTRIC CO., LTD.

Overseas

USA
GS Battery (U.S.A.) INC.
GS Yuasa Lithium Power, Inc.
Yuasa Battery, Inc.

UK
GS Yuasa Battery Europe Limited

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.
Yuasa (Tianjin) Technology 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.

THAILAND
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.

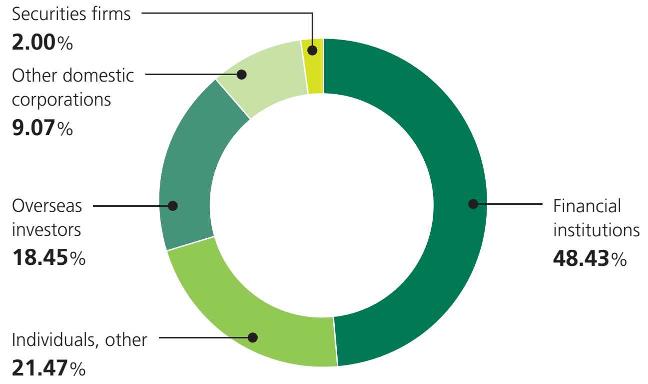
INDIA
Tata AutoComp GY Batteries Private Limited

AUSTRALIA
Century Yuasa Batteries Pty. Limited

Stock Information

Fiscal Year-End	March 31
Number of Shares Authorized	1,400,000,000
Number of Shares Issued	413,574,714
Shares per Trading Unit	1,000
Number of Shareholders	36,880
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.

Shareholdings by Type of Shareholder



Principal Shareholders

Name	Number of Shares Held (thousands)	As a Proportion of Shares Issued (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	36,074	8.77
Japan Trustee Services Bank, Ltd. (Trust Account)	28,890	7.03
Meiji Yasuda Life Insurance Company	14,000	3.40
Toyota Motor Corporation	11,180	2.72
BBH FOR GLOBAL X LITHIUM AND BATTERY TECH ETF	10,164	2.47
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	9,327	2.27
Nippon Life Insurance Company	8,945	2.18
The Bank of Kyoto, Ltd.	7,740	1.88
Sumitomo Mitsui Trust Bank, Limited	7,354	1.79
Sumitomo Mitsui Banking Corporation	7,108	1.73

Notes 1. Shareholding rates are calculated based on the number of shares issued (412,217,928 shares) after deducting treasury shares.
2. The Bank of Tokyo-Mitsubishi UFJ, Ltd. was renamed MUFG Bank, Ltd. effective April 1, 2018.

Stock Price and Trading Volume