

Integrated Report 2020

April 2019–March 2020



BUILDING ON A SOLID FOUNDATION

Editorial Policy

The Sumitomo Heavy Industries Group (SHI Group) published an Integrated Report for FY2017 in lieu of the Annual Report that it had published since the 1970s. Integrated Report 2020 contains reports on financial information as well as the SHI Group's unique strengths and the sources of its medium- to long-term growth with the aim of deepening understanding among a wide range of stakeholders, including shareholders and investors.

Please refer to our website for detailed information and figures related to financial data (including Securities Reports) and non-financial data (such as CSR data).

(Scope of Report)

This report covers Sumitomo Heavy Industries, Ltd., 144 consolidated subsidiaries (42 in Japan, 102 overseas) and 6 equity-method affiliates (1 in Japan, 5 overseas). Context changes are duly noted in the text.

(Timeline)

This report covers FY2019 (April 1, 2019 to March 31, 2020). Coverage of overseas subsidiaries is from January 1, 2019 to December 31, 2019 with the exception of two companies. Some content makes references to dates outside of this time period.

Reference Guidelines

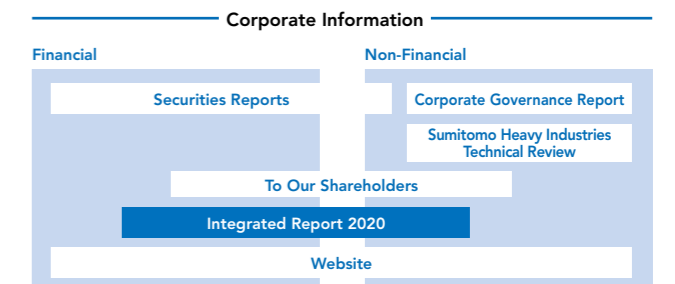
- "International Integrated Reporting Framework," International Integrated Reporting Council (IIRC)
- "WICI Intangibles Reporting Framework Version 1.0," World Intellectual Capital Initiative
- "G4 Sustainability Reporting Guidelines," Global Reporting Initiative (GRI)
- "Guidance for Collaborative Value Creation," METI of Japan



Cautionary Note Concerning Forward-Looking Statements

Integrated Report 2020 includes forward-looking statements regarding the future performance of Sumitomo Heavy Industries, Ltd. These forward-looking statements are based on information currently available to the Company and determined subjectively. All information contained herein is subject to changes in actual business performance.

Positioning of Integrated Report 2020



Our Website

Please refer to our website for detailed information and figures related to financial data (including Securities Reports and timely disclosure information) and non-financial data (such as environmental and CSR data).

Investor Relations
<https://www.shi.co.jp/english/ir>



CSR
<https://www.shi.co.jp/english/csr>



The SHI Group

To Our Stakeholders	02
The Sumitomo Business Spirit and the Sumitomo Heavy Industries Group's Business Principles	03
SHI Group Tracings of Growth At a Glance	04
Message from the President	08

Strength of the SHI Group

Relationship of Capitals and Strength of the SHI Group	14
Strength 1 Excellent Products and Services	16
Strength 2 Management Power to Realize High Market Share and Profitability	20
Strength 3 A Culture of Transformation	22
SHI Group Value Creation	24

Business Activities

Machinery Components	26
Precision Machinery	28
Construction Machinery	31
Industrial Machinery	33
Ships	36
Environmental Facilities & Plants	38

Base Supporting the SHI Group

Directors, Corporate Auditors, and Executive Officers	40
Interview with a New External Director	43
Messages from External Directors	44
Corporate Governance	45
Compliance and Risk Management	48

CSR

CSR Mid-Term Plan	50
Environment	52
Human Resources	56
Actual	
Eleven-Year Summary and Key Financial Data	60
Seven-Year Non-Financial Key Data	62

Financial Section

Consolidated Financial Statements	64
Major Subsidiaries and Affiliates	107
History	109
Corporate Data / Stock-Related Information	110

To Our Stakeholders

The Sumitomo Heavy Industries (SHI) Group was established in 1888 as a machinery production and repair shop for the Besshi Copper Mine, the founding business of the Sumitomo Group. We have since evolved along with the development of society and industry. We are committed to fulfilling our corporate mission in accordance with the Sumitomo Business Spirit, which embodies the common philosophy of all Sumitomo Group companies and also forms the basis of management for the SHI Group.

Throughout our long history, we have also cultivated a “spirit of manufacturing,” which we are utilizing in various business fields, from nano-technology to huge structures. By strengthening marketing, development, and production efficiency, we will strive to achieve the “ultimate in manufacturing.” Our aim is to be an “organizational knowledge creation-driven company” that continuously provides first-class products to our customers. To ensure stable, high-level growth on the world stage, we strive to earn the long-term trust of customers by focusing on “creating customer value.” We believe this will lead to the sustainable development of the Group and enhancement of corporate value, and enable us to meet the expectations of shareholders, employees, and local communities.

In this Integrated Report 2020, we discuss our thoughts, business strategies, and corporate social responsibilities as we seek to fulfill our corporate mission. We also explain current business conditions and our future outlook. In the latter half of fiscal 2019, the COVID-19 pandemic spread around the world and had a major impact on the Group’s domestic and overseas businesses. In light of these circumstances, we have postponed the announcement of our next medium-term management plan, which was scheduled to start in April 2020.

We hope that this report will help deepen your understanding of the SHI Group.



Shunsuke Betsukawa
Representative Director,
Chairman of the Board

Shinji Shimomura
Representative Director,
President and CEO

The Sumitomo Business Spirit and the Sumitomo Heavy Industries Group’s Business Principles

The Sumitomo Business Spirit

Business Principles

Article 1

Sumitomo shall achieve prosperity based on a solid foundation by placing prime importance on integrity and sound management in the conduct of its business.

Article 2

Sumitomo’s business interest must always be in harmony with public interest; Sumitomo shall adapt to good times and bad times but will not pursue immoral business.

[Commentary]

1. Sumitomo shall achieve prosperity based on a solid foundation by placing prime importance on trust and reliability.
2. We need to watch changes and aggressively pursue business expansion using our management resources but should not behave hastily for an easy profit in any case.

Corporate Philosophy

Corporate Mission Statement

We will aim to become a machinery manufacturer that continues to provide excellent products and services to the world.

With integrity being a key principle in the Group, we will contribute towards society by gaining high respect and confidence from all stakeholders.

Our Values

Customer First

We exceed customer expectations by providing sophisticated efficient products and services, giving the utmost consideration to their needs and requirements.

Embrace Changes

We will continue to drive and embrace changes without accepting the status quo.

Commitment to Technology and Innovation

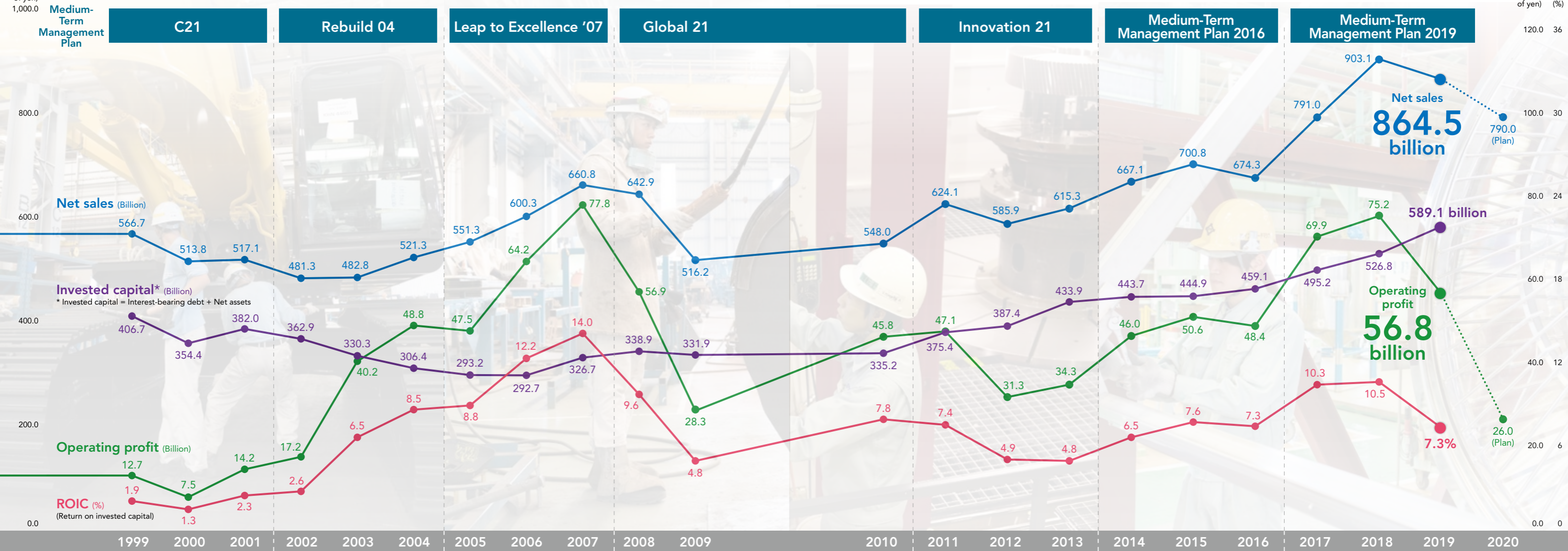
We are passionate about contributing to society by further developing our unique, in-house technologies.

Respect People

We will nurture an organizational climate that fosters mutual respect, tolerance and learning for growth.

Net sales / Invested capital (Billions of yen) 1,000.0

SHI Group Tracings of Growth



21 Years of Business Results and Key Initiatives

- Machinery Components
- Precision Machinery
- Construction Machinery
- Industrial Machinery
- Ships
- Environmental Facilities & Plants

▶1999
Employed ROIC early as a management index
Implemented business structural reform
Introduced Executive Officer System
Sought separation of management and execution

▶2003
Introduced global brand in the gear reducer business
Sumitomo Drive Technologies
Spun off ships business



Plastics machinery plant in Germany



▶2006
Motor plant for gear reducers completed in Hanoi, Vietnam
Motor plant in Vietnam

▶2007
Recorded all-time highs for orders received, net sales, operating profit and net profit (then)

▶2008
Acquired the Demag Plastics Group (currently known as Sumitomo (SHI) Demag Plastics Machinery GmbH) to accelerate global deployment of the plastics machinery business

▶2009
Opened Sumitomo Heavy Industries (Tangshan), Ltd. and Sumitomo Construction Machinery (Tangshan) Co., Ltd.
In the semiconductor manufacturing equipment business, made SEN-SHI and Axcelis Company (currently known as Sumitomo Heavy Industries Ion Technology Co., Ltd.) a wholly owned subsidiary



Opening ceremony for the Tangshan Plant
The first overseas manufacturing site of the hydraulic excavators business

▶2010
Built a plant for hydraulic excavators in Indonesia as the hub for the ASEAN region



Hydraulic excavator plant in Indonesia

▶2015 Reformed Business Principles
Added non-financial indexes to the performance evaluation indexes

▶2017
Hitachi Sumitomo Heavy Industries Construction Crane Co., Ltd. (currently, Sumitomo Heavy Industries Construction Cranes Co., Ltd.) became a consolidated subsidiary
Acquired the circulating fluidized bed (CFB) boiler business of Amec Foster Wheeler plc to reinforce the energy plant business



Boiler-related plant in Finland

▶2018
Achieved new record highs in orders, net sales and profit attributable to owners of parent
Acquired the Lafert Group, a manufacturer of industrial motors in Italy



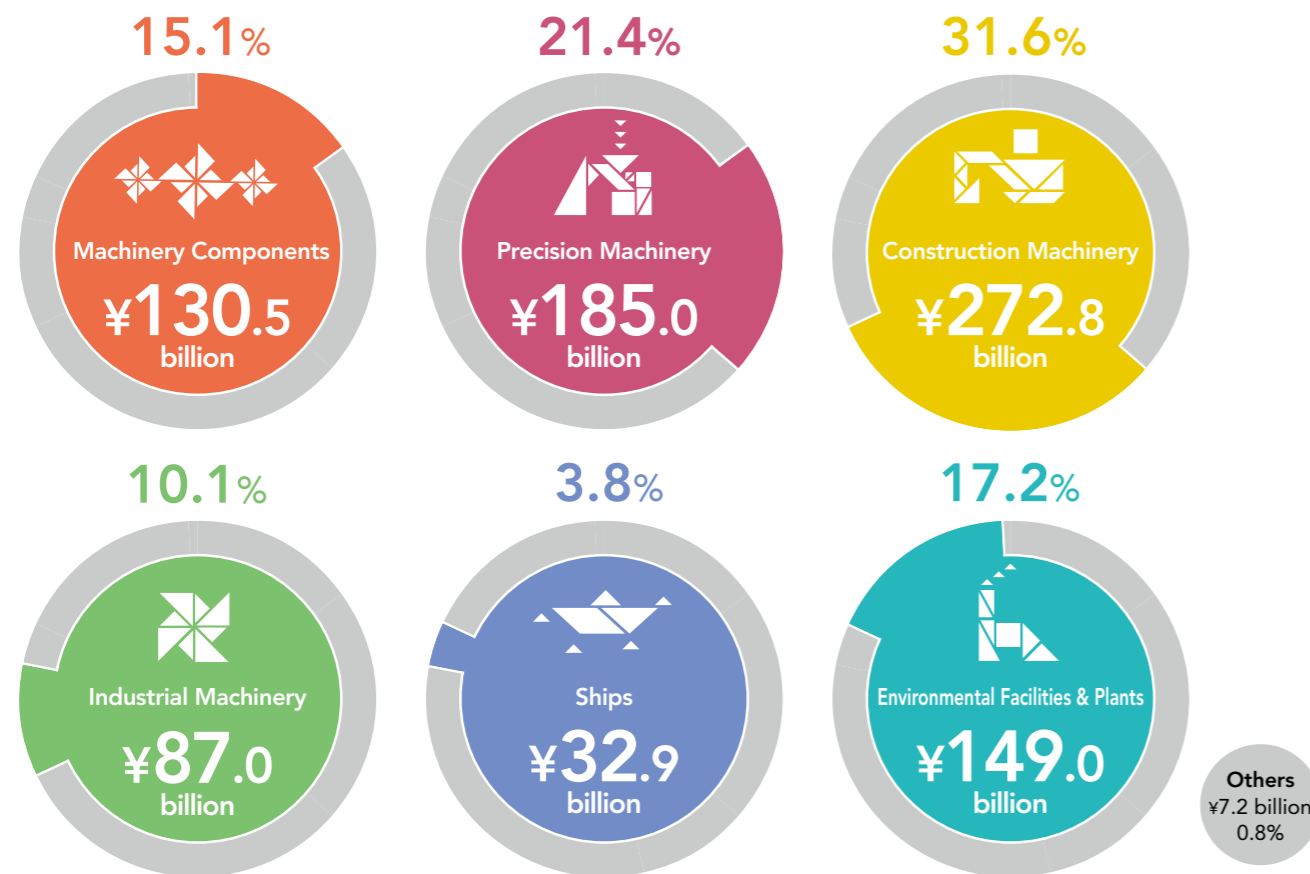
Motor plant in Italy

▶2019
Acquired U.K.-based inverter maker, Invertek Drives Ltd., to expand our gear reducer business

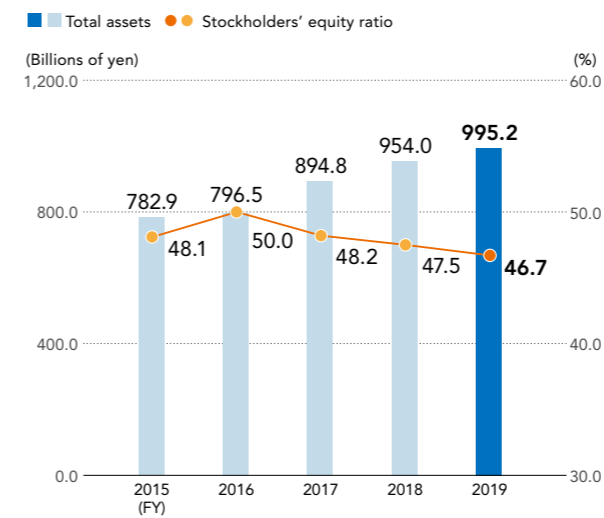
At a Glance



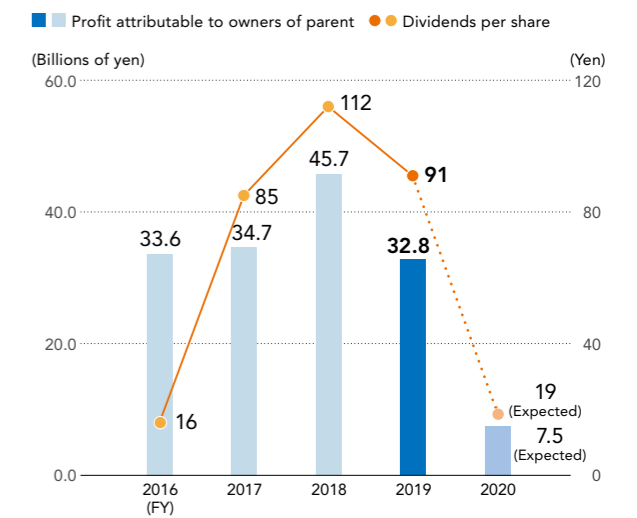
FY2019 Net Sales Ratio by Segment



Total Assets and Stockholders' Equity Ratio

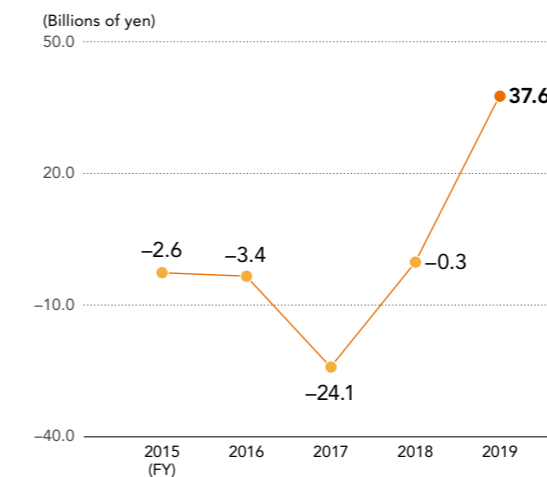


Profit Attributable to Owners of Parent and Dividends per Share

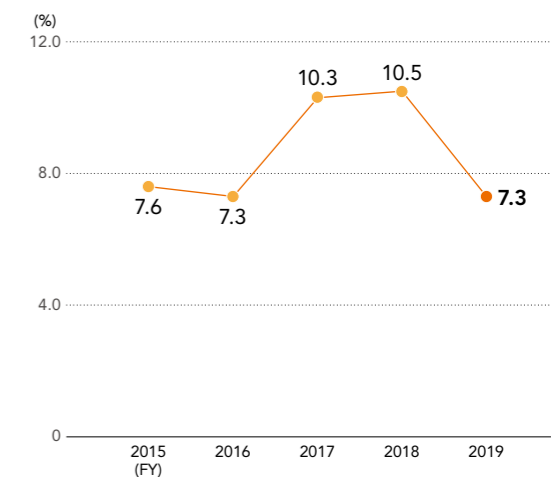


* Stock split (5:1) in October 2017

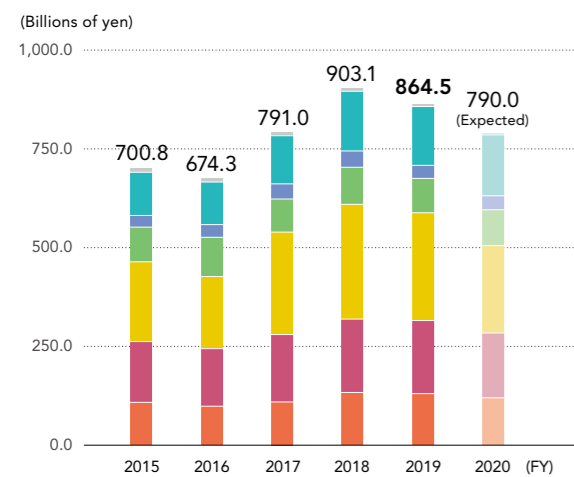
Net Interest-Bearing Debt



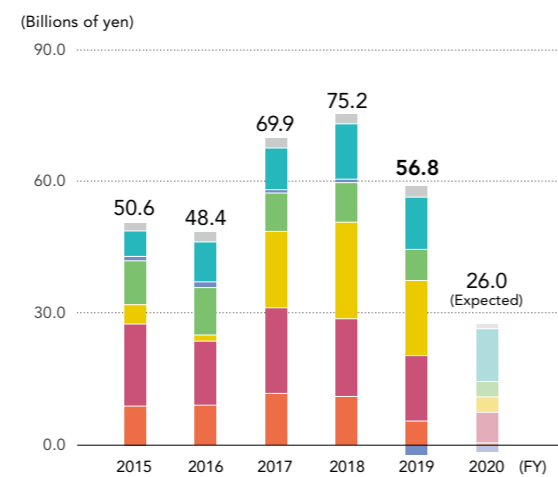
ROIC



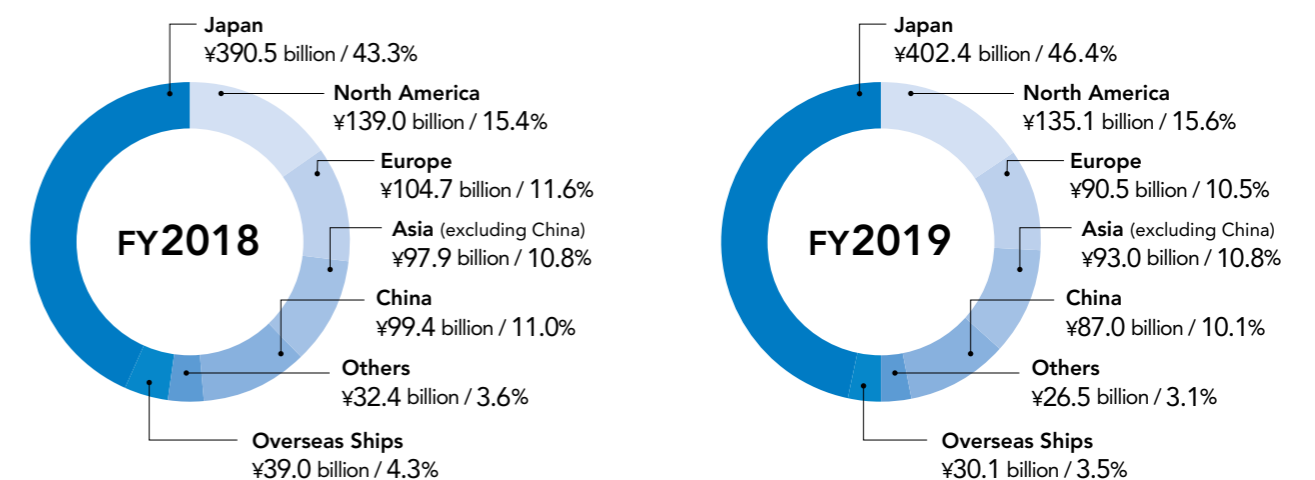
Net Sales



Operating Profit



Net Sales Ratio by Region



Message from the President

With top priority on management quality, we aim to strengthen our business foundations for the next medium-term management plan.

Shinji Shimomura
Representative Director,
President and CEO



► Fiscal 2019 in Review

In fiscal 2019, corporate performance as a whole remained firm in Japan, but signs of weakness in capital investments in machinery began to appear in the manufacturing sector. Overseas, although the U.S. economy continued to recover, global demand for machinery entered an adjustment phase due to trade-related problems in the manufacturing industry, as well as indications of gradual economic slowdown in China. In addition, the worsening trade dispute between the United States and China, as well as ongoing geopolitical risks, fluctuations in exchange rates, and the spread of COVID-19, led to an increased sense of uncertainty.

In this business environment, the SHI Group continued implementing its Medium-Term Management Plan 2019, which started in April 2017. Under the plan, we promoted priority measures, including growth-oriented investments in equipment and R&D and active advancement of CSR initiatives. In fiscal 2019, the final year of Medium-Term Management Plan 2019, the Group received orders totaling ¥826.2 billion and posted net sales of ¥864.5 billion, operating profit of ¥56.8 billion, ordinary profit of ¥52.7 billion, and profit attributable to

owners of parent of ¥32.8 billion. After-tax ROIC* was 7.3%. Unfortunately, we reported year-on-year declines in orders, net sales, and operating profit in all segments.

For the year, we paid annual dividends of ¥91.00 per share, for a dividend payout ratio of 34.0%.

On March 31, 2020, total assets amounted to ¥995.2 billion, a year-on-year increase of ¥41.1 billion (¥14.5 billion of which was due to the consolidation of Invertek Drives Ltd., acquired during the year). Other factors were an increase in fixed assets stemming from capital investments and M&As, as well as a rise in cash and deposits.

Reflecting the increase in total assets, the stockholders' equity ratio edged down 0.8 of a percentage point, to 46.7%.

Net cash provided by operating activities amounted to ¥36.3 billion, mainly reflecting a decrease in income before income taxes and an increase in income taxes paid. Net cash used in investing activities totaled ¥57.8 billion, due to an increase in expenditures associated with higher investments. As a result, there was a free cash outflow of ¥21.5 billion, the first year-on-year net decline in seven years.

Fiscal 2019 Financial Summary

(Billions of yen)

	FY2018	FY2019	Change
Orders	952.2	826.2	-126.0
Net Sales	903.1	864.5	-38.6
Operating Profit	75.2	56.8	-18.4
Operating Profit Ratio	8.3%	6.6%	-1.7 pt
Profit Attributable to Owners of Parent	45.7	32.8	-12.8
Return on Profit Attributable to Owners of Parent	5.1%	3.8%	-1.3 pt
ROIC*	10.5%	7.3%	-3.2 pt

* ROIC (Return on invested capital) = $\frac{(\text{Operating profit} + \text{Interest and dividend income}) \times (1 - \text{Effective tax rate})}{(\text{FY average of stockholders' equity} + \text{FY average of interest-bearing debt})}$

Message from the President

With respect to liquidity on hand required for its business activities, the Company regards the sum of cash and cash equivalents and unused balance of its commitment lines as being liquid. The balance of cash and cash equivalents at fiscal year-end was ¥83.6 billion. We also hold commitment lines through contracts with multiple financial institutions. The balance of unused commitment lines at fiscal year-end was ¥45.0 billion. Accordingly, we believe that liquidity on hand is sufficient even in the current financing environment.

The main sources of demand for the Group's funds include long-term funds needed for capital investments, M&As, and the like and working capital for

purchasing materials and parts to manufacture the Group's products.

Seeking to reduce fund-raising costs and ensure reliable access to funds, we endeavor to achieve diversification across types of funding—direct financing (such as corporate bonds and commercial paper) and indirect financing (such as bank loans)—as well as financing periods. In fiscal 2019, we raised funds through a combination of multiple funding methods. As a result, the balance of interest-bearing debt totaled ¥124.7 billion at fiscal year-end, up ¥51.4 billion from a year earlier.

▶ Snapshot of Medium-Term Management Plan 2019

The Group met its financial targets in the first two years of Medium-Term Management Plan 2019, benefiting from increases in semiconductor-related investments in China and elsewhere, as well as a healthy domestic economy. We also made proactive growth-oriented investments in overseas M&As and

the like. In the final year, however, we were unable to achieve our financial targets in terms of profits. This was due to economic stagnation in Europe, the impact of U.S.-China trade friction, and damage caused by typhoons in some business divisions. Nevertheless, we achieved business expansion of the entire Group by actively implementing the basic policies of the plan: ① Achieve steady growth, ② Become a high-profit company, ③ Work tirelessly to improve operational quality, ④ Form business integrations, M&As, and alliances with other companies, and ⑤ Actively pursue CSR initiatives. We also enhanced profitability and competitiveness by strengthening our service business and deepening global collaboration within the Group while steadily implementing measures for sustainable growth, including launching new products. In addition, we carried out aggressive M&A activities to grow our various businesses. These include the consolidation of Sumitomo SHI FW Energie B.V. in 2017, the Lafert Group (including Lafert S.p.A.) in 2018, and Invertex Drives Ltd. in 2019.

With respect to inappropriate inspections of products and services of the Company and the SHI Group, disclosed in fiscal 2018, we will steadily implement measures to prevent recurrence, improve operational quality, reinforce our management policy with top priority on compliance, and continue making every effort to restore trust.

3-Year Financial Summary by Segment (Medium-Term Management Plan 2019)

(Billions of yen)

	FY2017 Results (Apr. 2017 – Mar. 2018)				FY2018 Results (Apr. 2018 – Mar. 2019)				FY2019 Results (Apr. 2019 – Mar. 2020)			
	Orders	Net Sales	Operating Profit	Operating Profit Ratio	Orders	Net Sales	Operating Profit	Operating Profit Ratio	Orders	Net Sales	Operating Profit	Operating Profit Ratio
Machinery Components	115.1	109.4	11.8	10.8%	134.0	133.4	11.1	8.3%	126.5	130.5	5.5	4.2%
Precision Machinery	190.5	169.4	19.5	11.5%	191.5	185.7	17.7	9.5%	189.8	185.0	14.9	8.1%
Construction Machinery	265.2	260.5	17.4	6.7%	305.3	290.5	22.0	7.6%	259.5	272.8	17.1	6.3%
Industrial Machinery	87.7	83.8	8.8	10.5%	90.8	93.7	9.0	9.6%	88.4	87.0	7.1	8.1%
Ships	34.9	38.3	0.7	1.9%	32.0	41.4	0.8	2.0%	30.1	32.9	-2.1	-6.4%
Environmental Facilities & Plants	162.7	121.9	9.5	7.8%	191.3	151.0	12.6	8.3%	124.7	149.0	11.9	8.0%
Others	7.7	7.8	2.1	26.7%	7.3	7.3	2.2	29.8%	7.1	7.2	2.4	33.0%
Total	864.0	791.0	69.9	8.8%	952.2	903.1	75.2	8.3%	826.2	864.5	56.8	6.6%
									Target in Medium-Term Management Plan 2019	800.0	60.0	7.5%

▶ Fiscal 2020 Forecast

Seeking to build on the outcomes of Medium-Term Management Plan 2019, the Group was in the process of formulating its next medium-term management plan. However, the spread of COVID-19 around the world and the status of the Group's domestic and overseas businesses necessitated a reconsideration of the plan. For this reason, we decided to postpone the announcement of the next medium-term management plan until around May 2021.

The paramount issue to address in fiscal 2020 is combatting COVID-19. To prevent further spread of infections, we will firstly work to ensure the safety of employees, make maximum effort to meet social demands, and maintain our business foundation. Specifically, we will continue and strengthen measures to prevent the spread of infections by offering teleworking, staggered work shifts, and other arrangements to officers and employees, while suspending business operations as needed in case of emergency. We will also work to maintain relationships with customers and partner companies and provide the support they need. Then we will develop a short-term business continuity plan (BCP) to ensure continuation of production when a person gets infected. We will also respond to customer requests about delivery dates and the like and strive to maintain business and secure operations when faced with declining orders. We will place particular attention on establishing business continuity frameworks, including for overseas manufacturing bases, to address any serious spread of infections. In addition, we will prepare

for an upturn and growth in demand for businesses that are sensitive to economic changes, such as Machinery Components and Precision Machinery.

Our consolidated performance in fiscal 2020 will continue to be impacted by COVID-19. Based on information currently available in the wake of resumption of economic activity around the world, however, we have prepared the following consolidated forecasts: Orders of ¥750 billion (down ¥76.2 billion year on year), net sales of ¥790 billion (down ¥74.5 billion), and operating profit of ¥26 billion, for an operating margin of 3.3%. Despite the major impact of COVID-19, especially in the Precision Machinery and Construction Machinery segments, we expect our performance to gradually recover in the second half, and we based our forecasts on that assumption.

Earnings Forecast by Segment for Fiscal 2020

(Billions of yen)

	FY2020 Forecast (Apr. 2020 – Mar. 2021)			
	Orders	Net Sales	Operating Profit	Operating Profit Ratio
Machinery Components	122.0	120.0	0.5	0.4%
Precision Machinery	160.0	164.0	7.0	4.3%
Construction Machinery	207.0	221.0	3.5	1.6%
Industrial Machinery	74.0	90.0	3.5	3.9%
Ships	26.0	36.0	-1.5	-4.2%
Environmental Facilities & Plants	155.0	155.0	12.0	7.7%
Others	6.0	4.0	1.0	25.0%
Total	750.0	790.0	26.0	3.3%

Message from the President

► CSR Initiatives

In our next medium-term management plan, we are considering working on “integration of business activities and non-financial matters.” This reflects our belief that CSR initiatives that help resolve social problems are necessary to achieve sustainable corporate growth. Our aim is to realize social value by resolving social issues and increasing economic value through our business activities.

At its final meeting in fiscal 2019, the Board of Directors decided on the CSR Basic Policy and CSR important issues.

Using a fruit tree as an analogy, the outcome of our business activities is the fruit, while the role of CSR is to extend the roots, trunk, and leaves that bear such good fruit.

With respect to CSR important issues as business foundation, we will place top priority on the safety and health of employees. At the same time, we will

instill our Corporate Philosophy and ethical rules, comply with laws and regulations, guarantee product quality, and gain the trust of customers, business partners, and local communities. At the same time, we will develop products and services that help resolve social issues, which is a CSR important priority for value creation, in order to flourish as a business and bear fruit in the form of positive performance results.

Resolving social issues is the responsibility of our generation. The conventional idea of “corporate growth = economic growth” does not mean that we have fulfilled our responsibility to future generations. To fulfill this responsibility, we need to change and evolve the behavior of our company, in addition to individual employees. By combining these important issues with our business activities, like two sides of a coin, we aim to develop stronger and more sustainable corporate activities and thus earn the trust of our stakeholders.

The impact of the COVID-19 pandemic may be long-lasting and may lead to market structural changes. With this in mind, our medium- to long-term priorities are to address changes in the market structure, increase profitability, and formulate and execute recovery scenarios for growth. In the latter half of fiscal 2020, we will formulate a full-fledged BCP that can be used to address any type of situational changes. We will also formulate our next medium-term management plan.

Going forward, we will strive to improve the quality of management and solidify our foundation for business growth so that we can continue generating profits even in the face of structural changes to society and markets. In addition to basic CSR initiatives targeting employee safety, health, and development, we will promote value-creating CSR initiatives aimed at better living, more comfortable work styles, and reduced environmental impact, which will lead to sustainable growth.

CSR Basic Policy

- ① The SHI Group will establish an internal control system to enhance the soundness and transparency of management.
- ② The SHI Group will provide products and services that contribute towards both economic and technological development that targets the realization of a sustainable society.
- ③ The SHI Group will make every effort to minimize the environmental load of its products and services across the entire life cycle. In addition, the Group will protect the safety, security and health of every person involved in any corporate activity with the aim to create a vibrant workplace for every employee.

CSR Priority Issues for the SHI Group (CSR that creates corporate value)

1. **Creating a vibrant lifestyle and workplace for every employee**
 - ① Improvement in labor productivity
 - ② Application of state-of-the-art technology
 - ③ Contributions to infrastructure enhancement and stable energy supply
2. **Minimizing the environmental load**
 - ① Enhancement of energy efficiency
 - ② Challenge of achieving a circular economy
 - ③ Adapting to climate change

(CSR that reinforces the foundation of our businesses)

3. **Employee safety, health, and development**
4. **Ensuring product quality**
5. **Improving governance**
6. **Enhancing information disclosure**
7. **Mutually beneficial relationships with communities**



Shinji Shimomura
Representative Director,
President and CEO



Relationship of Capitals and Strength of the SHI Group

Manufacturing capital

Responsiveness to various customers' needs
(A broad product lineup and technical capabilities that can meet high-level requirements)

Domestic manufacturing sites: **7 sites**

Domestic subsidiaries' manufacturing sites: **6 sites**

Overseas manufacturing sites (Group total): **28 sites**

Capital investment
Three (3) year total in Medium-Term Management Plan 2019:

¥127.6 billion

(Three (3) year total in previous medium-term management plan: ¥67.0 billion)

Intellectual capital

Top level in the industry thanks to successive technical innovation in individual business domains and pursuit of advanced technologies

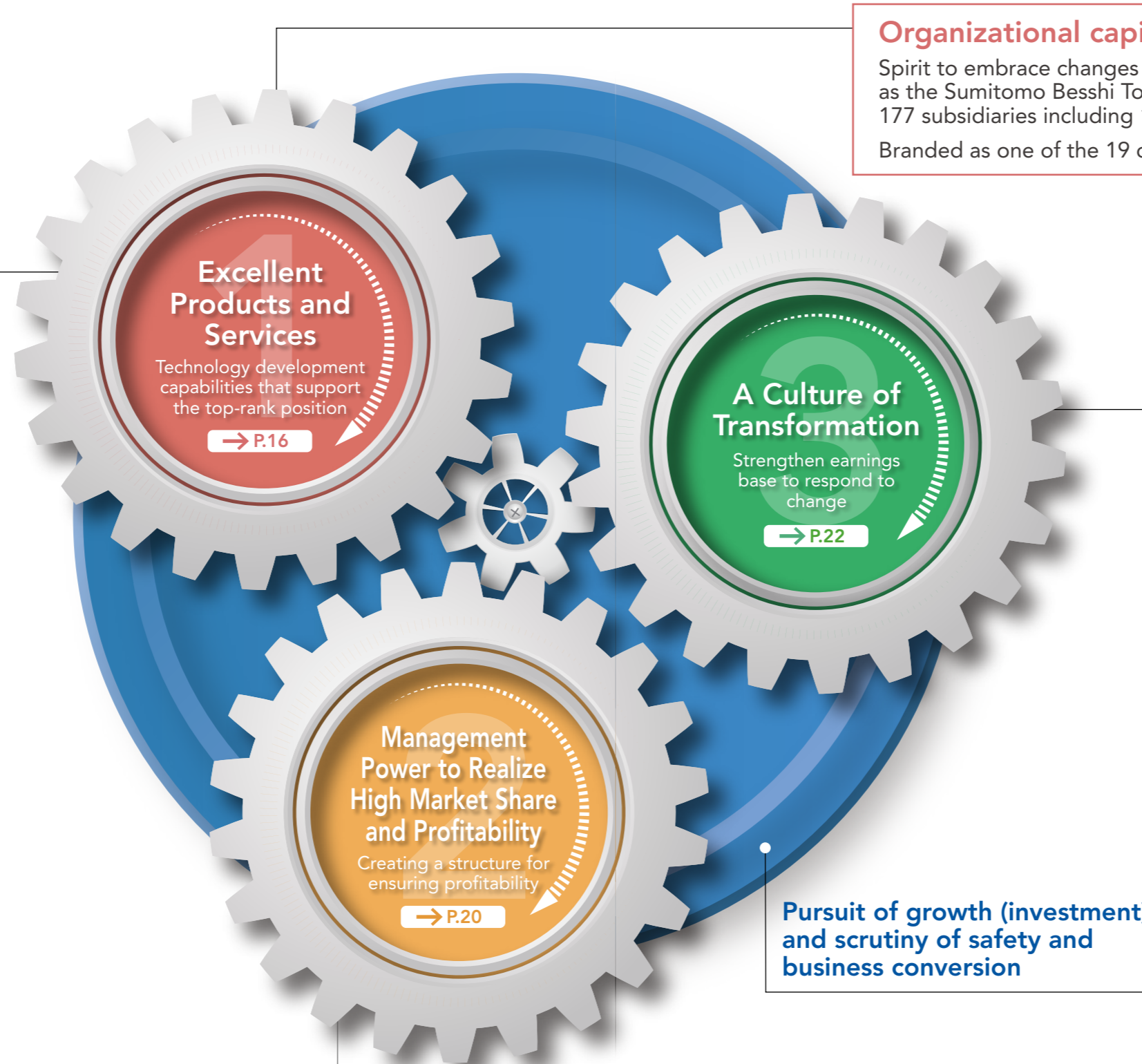
→ P.18

Number of patents acquired:

6,638

Number of overseas patents out of the above:

3,047



Organizational capital

Spirit to embrace changes cultivated in the growth process from the start as the Sumitomo Besshi Tool Making Workshop in 1888 to today's total of 177 subsidiaries including 13 affiliated companies

Branded as one of the 19 core companies of the Sumitomo Group

Intellectual capital

Development of base technologies for service business enhancement in addition to underlying technologies (ICT, AI and robotics, etc.)

→ P.18

R&D expenses
Three (3) year total in Medium-Term Management Plan 2019:

¥56.5 billion

(Three (3) year total in previous medium-term management plan: ¥40.6 billion)

Human capital

Development of human resources to enable conversion to high-earnings business model

→ P.56

New hires (domestic)
Three (3) year total in Medium-Term Management Plan 2019:

2,184 jobs

Financial capital

Solid financial basis that enabled conversion of business composition over the past 20 years

Stockholders' Equity Ratio **46.7%**

Net Interest-Bearing Debt Ratio **3.8%**

ROIC after Tax (Return on invested capital) **7.3%**

Social capital

Relationships of trust with customers maintained and reinforced by the management in accordance with the Sumitomo Business Spirit

Number of suppliers:
About 9,000 companies



Relationship of Capitals and Strength of the SHI Group

Strength 1

Excellent Products and Services

What SHI Considers as Excellent Products and Services

The SHI Group considers products and services that customers “really want to buy” or “really want us to sell” as excellent products and services. In order to create excellent products and services that deliver confidence to customers, we are rigorously pursuing solutions for each customer’s problems and what we can do to create customer value.

Smart Product Project

The Group is running the Smart Product Project as part of its Excellent Product Creation Project.

Definition of a smart product	IoT/ICT products that improve customer’s profitability through operation monitoring, failure prediction, and other functions	Highly intelligent, attractive products that inspire customers
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Smart Product Project
Persons in charge of product planning and development of the following eight models participate in the Smart Product Project and, with an eye towards next generations, work on new product development, main body development, application development, and other themes in the collaborative framework involving the Corporate Technology Management Group and each business division.



Challenge System

To sustain growth, the SHI Group is keen to develop new products and technologies while fostering an employee mindset that accepts new challenges. We launched the Challenge System in FY2018 to nurture this mindset, with the objective of providing a “venue for making dreams a reality” to employees who come up with technologies, ideas and product concepts for the SHI Group. Instead of the Company assigning tasks, employees come up with their own concepts they would like to see become a reality. Key evaluation metrics are “excellent ideas,” “efforts to address issues,” and “achievement of objectives.” For now, the Challenge System is available to employees at the Technology Research Center, and we are considering its rollout to Group companies later. We adopted three themes in fiscal 2018 and three more in fiscal 2019, for a total of six themes currently in progress.

R&D Framework

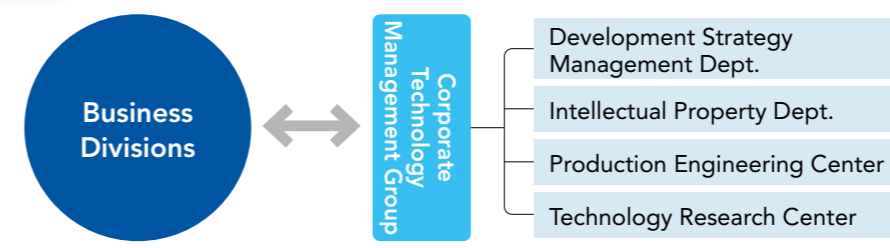
The Group will differentiate itself through products and services in order to convert to a high-earnings business model, and it will pool its collective capacities to create excellent products and services. For new product development, we are promoting activities with close coordination between business divisions and the Technology Research Center, and we are implementing an integrated development process that involves conducting basic technology and elemental technology development in advance at the center and commercialization development in our business divisions.

Toshihiko Chijiwa
General Manager of Corporate Technology Management Group;
General Manager of Technology Research Center



Collaborative Framework for Corporate Technology Management Group and Business Divisions

The Corporate Technology Management Group works in close collaboration with the business divisions through organizational units differentiated by function.



Technology Research Center (Yokosuka, Kanagawa Prefecture)

R&D Field

The Technology Research Center is focused on the development of proprietary technologies for our six business segments, comprising Machinery Components, Precision Machinery, Construction Machinery, Industrial Machinery, Ships, and Environmental Facilities & Plants, as well as on the development of basic technologies that are essential to these business segments, including machine elements, materials, CAE, control, ICT, AI, and robotics, based on a medium- to long-term roadmap.

manufacturing that is responsive to diverse customer needs while securing a competitive advantage.

With respect to elemental technologies, in particular, we are closely monitoring megatrends in markets and basic technologies to identify R&D topics based on a longer-term outlook that goes beyond the next two generations of products.

At the same time, SHI is strongly advancing R&D in products and services that solve social issues, such as the SDGs, and helping build a sustainable society. We are addressing important issues shared by all Group companies by endeavoring to improve energy efficiency, address an aging society and labor shortages, and promote circular businesses.

Amid intense competition on global markets, most of the Group’s businesses need to more rapidly provide excellent products and services that satisfy customers. For this reason, the Company is building out a global network of R&D functions through open innovation.
With the understanding that in-house technologies are inadequate to achieve R&D outcomes in this day and age, we aim to expand R&D alliances with overseas subsidiaries while conducting joint research with universities in Europe and the U.S., for example.

Relationship of Capitals and Strength of the SHI Group

Intellectual Property Strategy

Intellectual property for the SHI Group is a source of competitive advantage.

With a focus on creating (securing rights to intellectual property), attacking (utilizing exclusive rights) and defending (respecting the rights of other companies), the SHI Group actively works on a unified basis to create, protect and utilize the Group's intellectual property.

To establish a direct connection between senior management in business divisions and intellectual property activities, we have appointed chief intellectual property officers (CIPO) in each division. The Intellectual Property Department also participates in the intellectual property activities of divisions in all respects and conducts activities to enhance interdivisional synergies to raise intellectual property value throughout the Group from a medium- to long-term standpoint and to further vitalize related activities at the division level.

In order to establish superiority in development of overseas business, we are actively working to raise the overseas acquisition ratio of patent rights.

Major Intellectual Property Activities

Creating Acquisition of intellectual property rights

Regarding excellent products and services, we plan intellectual property portfolios from a medium- to long-term perspective at the stage before R&D and brainstorm ideas with each division and research center to establish intellectual property portfolios. Intellectual property portfolios are periodically reviewed to maintain a competitive advantage.

Attacking Intellectual property utilization

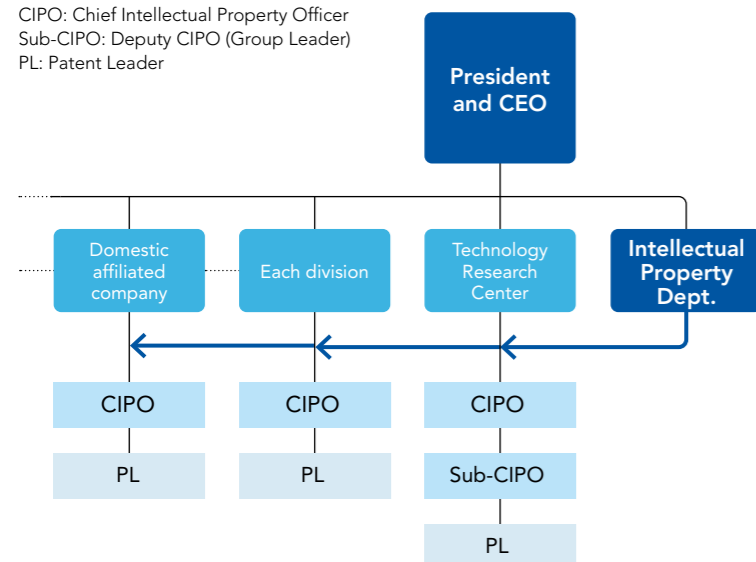
Acquired intellectual property rights are utilized not only for publicity and PR of excellent products and services, but also for checking against companies that do not respect the rights, helping our business activities. In recent years, we have also focused on licensing and transferring and are trying to make more effective use of intellectual property rights.

Defending Respect of other companies' rights

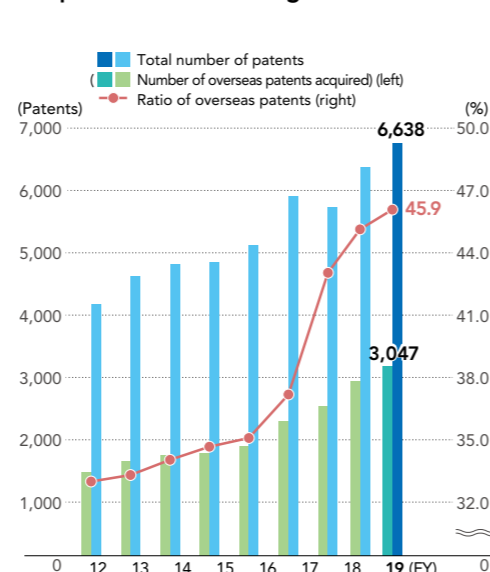
From the spirit of compliance, we respect other companies' rights and never infringe on them. We conduct a thorough investigation of rights of other companies before starting R&D, and continue doing an ongoing investigation from that point onward. In addition, the rights of other companies are checked during each phase of DR (design review), ensuring intellectual property activities are integrated into the quality assurance system.

CIPO System

CIPO: Chief Intellectual Property Officer
Sub-CIPO: Deputy CIPO (Group Leader)
PL: Patent Leader



Acquisition of Patent Rights



Quality Management System

We will continue to consistently provide high-quality products and services that are appreciated by customers.

Our Approach to Quality Assurance

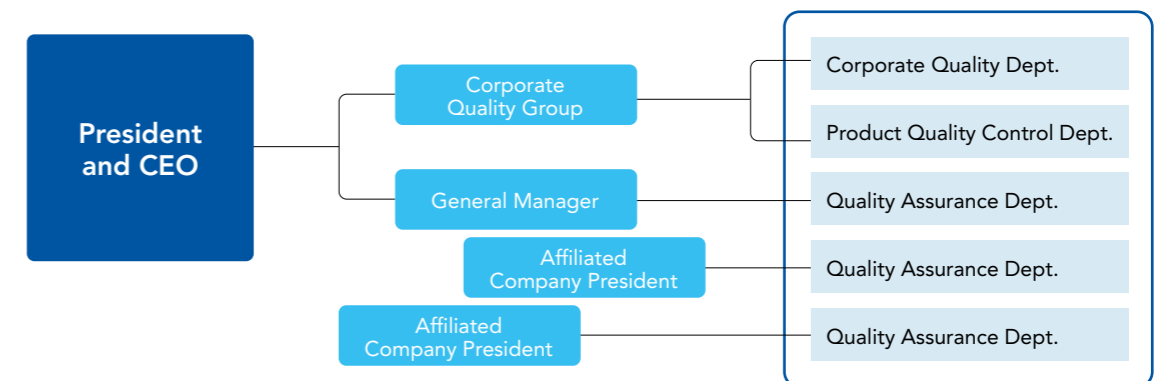
The SHI Group believes that the quality of products depends on its way of doing work, namely, on the quality of processes employed. For this reason, in addition to ensuring compliance with the quality management protocols of each business division, the President and CEO examines the overall processes of each division, and the Management Quality Headquarters of the Head Office conducts quality management system (QMS) audits.

In addition, we have introduced Six Sigma as a common concept across the Group to provide practical training. We have assigned Master Black Belts and Black Belts to each business division and affiliated company, and we are actively working to strengthen our processes. We are also striving to raise the level of our overall efforts, with more than 2,200 employees certified as Green Belts.

Quality Assurance System

Each business division and affiliated company of the SHI Group has their own quality assurance systems that are suitable for their various businesses ranging from large building structures like ships to key components incorporated into industrial machinery and various devices. The Quality Assurance Department reports directly to the business manager or president for affiliated companies, to ensure independence. In

addition, the Group's quality assurance managers get together to share ideas, policies, and measures for improving quality and learn from each other through group discussion at the Quality Assurance Department managers meeting. Since FY2018, we have been working on the theme "From strengthening of recurrence prevention activities toward proactive activities."



SHI Group Quality Policy

Quality Principals

Through the continuous and unwavering pursuit of world-class quality that is recognized globally, we will supply customers with products and services that they recognize as adding value to their business.

Quality Policy

- Customer First:** Define quality targets based on the expectations of the customer
- Continuous Progress:** Continuously advance the quality system and incorporate quality with a process mindset
- Everyone Participates:** Every person involved in quality sets an objective and tackles quality issues head-on as a team



Relationship of Capitals and Strength of the SHI Group

Strength 2

Management Power to Realize High Market Share and Profitability

Reflecting the perspective of stockholders, the SHI Group introduced ROIC (return on invested capital) as a key performance indicator in fiscal 1999 and has worked hard to increase corporate value with the goal of ROIC exceeding WACC (weighted average cost of capital).

Since introducing this indicator, SHI has focused on transforming its business structure in order to achieve the ROIC target. Specifically, we changed our portfolio by concentrating resources on strategic growth businesses, and we modified our financial position with a focus on reducing invested capital.

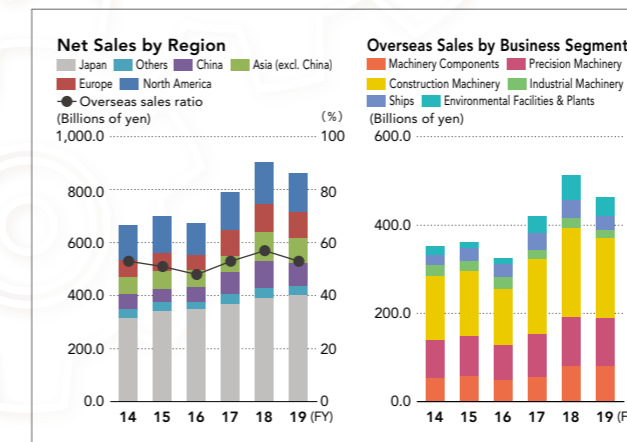
With ROIC as our metric, we have relentlessly pursued changes in our business structure, management, product development, marketing, manufacturing, and human resource development. These initiatives have translated into steady growth and our current robust financial position.

Hideo Suzuki
CFO



Furthermore, we made capital investments with a focus on fields earmarked for steady growth and earnings, such as power transmission and controls and injection molding machines. We also invested in R&D aimed at developing new products in growth businesses and fields with the potential to become

next-generation pillars of operations, namely those related to healthcare, automobiles, and semiconductors. Compared with the previous medium-term management plan, we made significantly higher capital and R&D investments under the plan that just ended, and we invested with a view to future growth.



Morihiro Kondo
General Manager of Corporate Planning Group



$$\text{ROIC (Return on Invested Capital)} = \frac{(\text{Operating profit} + \text{Interest and dividend income}) \times (1 - \text{Effective tax rate})}{(\text{FY average of stockholders' equity} + \text{FY average of interest-bearing debt})}$$

Final Year of Medium-Term Management Plan 2019

Fiscal 2019 was the final year of Medium-Term Management Plan 2019, which started in fiscal 2017.

SHI has invested heavily in M&As in the Machinery Components, Precision Machinery, and Environmental Facilities & Plants segments, which are positioned as businesses targeting growth under the plan.

Over the three years of the plan, we made capital investments of ¥127.6 billion and R&D investments of ¥56.5 billion.

As a result, we almost achieved the plan's target ROIC of 7.5% or higher, falling slightly short due to

economic slowdown. We will continue investing steadily with plans to invest ¥55 billion in fiscal 2020.

Target in Medium-Term Management Plan 2019	FY2017 Results	FY2018 Results	FY2019 Results
ROIC: higher than 7.5% (FY2019)	10.3%	10.5%	7.3%
Capital investments: ¥80.0 billion (3 years)	¥127.6 billion (3 years)		
	¥36.0 billion	¥41.0 billion	¥50.6 billion
R&D investments: ¥52.0 billion (3 years)	¥56.5 billion (3 years)		
	¥16.4 billion	¥18.3 billion	¥21.8 billion

Heavy Investments under Medium-Term Management Plan 2019

SHI has invested aggressively to achieve three of the basic policies when Medium-Term Management Plan 2019 was launched: Deliver steady growth, transition into a highly profitable company, and pursue M&As and business alliances. Thanks to large-scale overseas M&As—in the Environmental Facilities & Plants segment in fiscal 2017 and Machinery

Components segment in fiscal 2018 and 2019—the SHI Group has achieved global growth. Specifically, we posted year-on-year increases in net sales driven mainly by North America, Asia (including China), and Europe. We also reported a higher overseas sales ratio in comparison with the previous medium-term management plan.

Identifying Markets Where Our Strengths Become Advantages and Optimally Allocating Management Resources from Our Own Portfolio

The SHI Group's basic approach to investment is based on the objective of enhancing growth and profitability by allocating management resources in accordance with the roles of each Group business while evaluating the growth potential and profitability of each business line. When formulating the medium-term management plan that just ended, we categorized the Group's businesses and decided to focus investments on businesses currently targeting growth and high profits and those aiming to enhance profitability.

The SHI Group has built a business portfolio with many products and business lines. These businesses generate synergies from their mutual technical know-how and shared manufacturing and sales bases. The Technology Research Center spearheads and engages

in R&D programs across the Group and is a cornerstone of the entire Group's competitiveness.

Looking from a different angle, our business lines can be broadly divided into mass production businesses that are sensitive to economic cycles, and orders-based production businesses with long delivery timeframes that help stabilize business operations during cyclic economic fluctuations. Although our operations will be greatly affected by COVID-19 in fiscal 2020, we will not change the way we think about our investments and business portfolio. By leveraging our track record of investments and the organic links between businesses in our portfolio, we as a Group will aim to achieve stronger growth and higher profits.

Business Roles in Medium-Term Management Plan 2019

Role	Growth & High Profitability	Improve Profitability	Stabilize Profit Margins
Positioning	Aim to achieve growth while maintaining high levels of profitability (10% or greater)	Aim to achieve growth while improving profitability	Ensure a stable level of profit
Next-Generation Business	Cryogenic Equipment Core pillar of profitability and growth for the Group	Next-Generation Growth Devices (e.g. medical, semiconductor, automotive)	Medical-Related Equipment Metal Processing Equipment (e.g. presses, flow forming, etc.)
Device-Related Business	Power Transmission and Controls Injection Molding Machines	Semiconductor Production Equipment Chemical Processing Equipment (e.g. agitators, food-related machinery)	Hydraulic Excavators Stabilize business without being concerned about scale Shipbuilding
Infrastructure-Related Business	Industrial Cranes / Mobile Cranes / Turbines / Boilers / Water Treatment Facilities Maximize profitability and create a second pillar of growth (e.g. energy, environment, transportation, etc.)		



Relationship of Capitals and Strength of the SHI Group

Strength 3

A Culture of Transformation

The SHI Group's History of Transformation

The SHI Group's Precision Equipment Division mainly manufactures and sells cryocoolers and cryopumps. Cryocoolers can lower the temperature of substances to close to -270 degrees Celsius (4 Kelvin). They are widely used for medical purposes, including for cooling of superconducting magnets used in magnetic resonance imaging (MRI) machines. Cryopumps employ the same technology as refrigeration equipment to lower the temperature of objects, enabling the creation of clean ultrahigh-vacuum environments required in the semiconductor manufacturing process. In these ways, cryogenic technologies contribute directly to the medical and semiconductor sectors, both of which are indispensable to modern daily life. These technologies help people maintain and enjoy healthy, prosperous, and comfortable lives.

Since entering this business more than 35 years ago, we have refined our technologies by incorporating knowledge from outside, paving the way to businesses with strong growth and high profits. Below, let us introduce examples of our "culture of transformation."

Taiji Tsuchiya
General Manager of
Precision Equipment Group



Commercialization and Adoption by General Electric

The SHI Group's cryocooler business began in 1983 when it commercialized a freezer developed at its laboratory. Since the target market was limited at that time, we delivered our cryocoolers to some small customers and research institutions. The turning point came in 1993, when we received a proposal from General Electric (GE) for the joint development of a new MRI using a 4K cryocoolers that we developed. We then worked together and achieved commercialization in 1997. At that time, we worked more like a research institute than a company, but we achieved success for two reasons. First, because GE believed in us, and second, because people at GE—not only in its business division but all other relevant in-house people as well—took seriously the prospect of utilizing

our unique cryogenic technologies. We also learned a lot from GE, including product development processes, global support methods, and product strategies. With the guidance of GE, our technologies were applied in all of its MRI models, and we entered agreements with other MRI makers. Then, in 2002, we acquired a U.S. competitor and our business subsequently grew dramatically.



SRDK series of 4KGM cryocoolers



MRI magnet used in 4KGM cryocoolers and our development team

Understanding Customer's Perspective through Entry into Cryopump Business

In 2004, we were asked to develop a cryopump by the Japanese subsidiary of a major U.S. semiconductor manufacturing equipment maker. We decided to take part based on the assumption that, even though we are a newcomer, we can win by applying our competitive cryocooler technologies. At the time, however, we had little experience with cryopumps, which are vacuum devices, and the journey was more difficult than we expected. Due to patent-related issues during the development process, it took time to make a profit, but our cryopumps are now contributing to business expansion and earnings as mainstay products.

Our entry into cryopumps also influenced our current business because it not only helped expand the scale of our business operations but also gave us an opportunity to review our business portfolio. Since there were no strong competitors for 4K cryocoolers already commercialized, we initially focused on product-oriented initiatives rather than listening to customers.



Cryopump

However, our cryopumps as a newcomer did not fit that methodology, so we shifted our focus to meeting customer demands. We realized that this action strengthened our business. It provided a great opportunity to reconsider the management of our cryocooler business. Today, we are emphasizing business operation and diversity from the customer's perspective. This is because we learned from our experiences in the cryopump business and the semiconductor industry.

Providing Greater Customer Value

In 2016, we acquired two U.S. vacuum equipment venture companies and thus entered the vacuum robotics and vacuum gauge businesses with the aim of developing synergies with our cryopump business. Again, we encountered a complicated market and strong competitors, and we still find it difficult to generate profits. However, a major semiconductor equipment customer recently decided to adopt our vacuum robotics technology in its lineup. We are confident this will enable us to turn a profit and contribute to significant business growth.

We started to think about what we can provide to customers by adding vacuum robotics and vacuum gauges to our product lineup, rather than just supplying products. That is, in addition to offering competitive cryocoolers, we can provide value to our customers' value chains.



Vacuum robot

Addressing Changes to Reinforce Our Profit Base

So far, we have learned about global business from GE, customer perspectives from the semiconductor equipment market, and value creation for customers from the vacuum equipment market. Upgrading the quality of our business is challenging only through our existing internal resources. However, we believe that

we can improve our business quality by learning from outside sources.

Innovation is a cohesion of knowledge. It is born by embracing and connecting knowledge that is different from ours. With this in mind, we will continue our relentless pursuit of learning and transformation.

SHI Group Value Creation

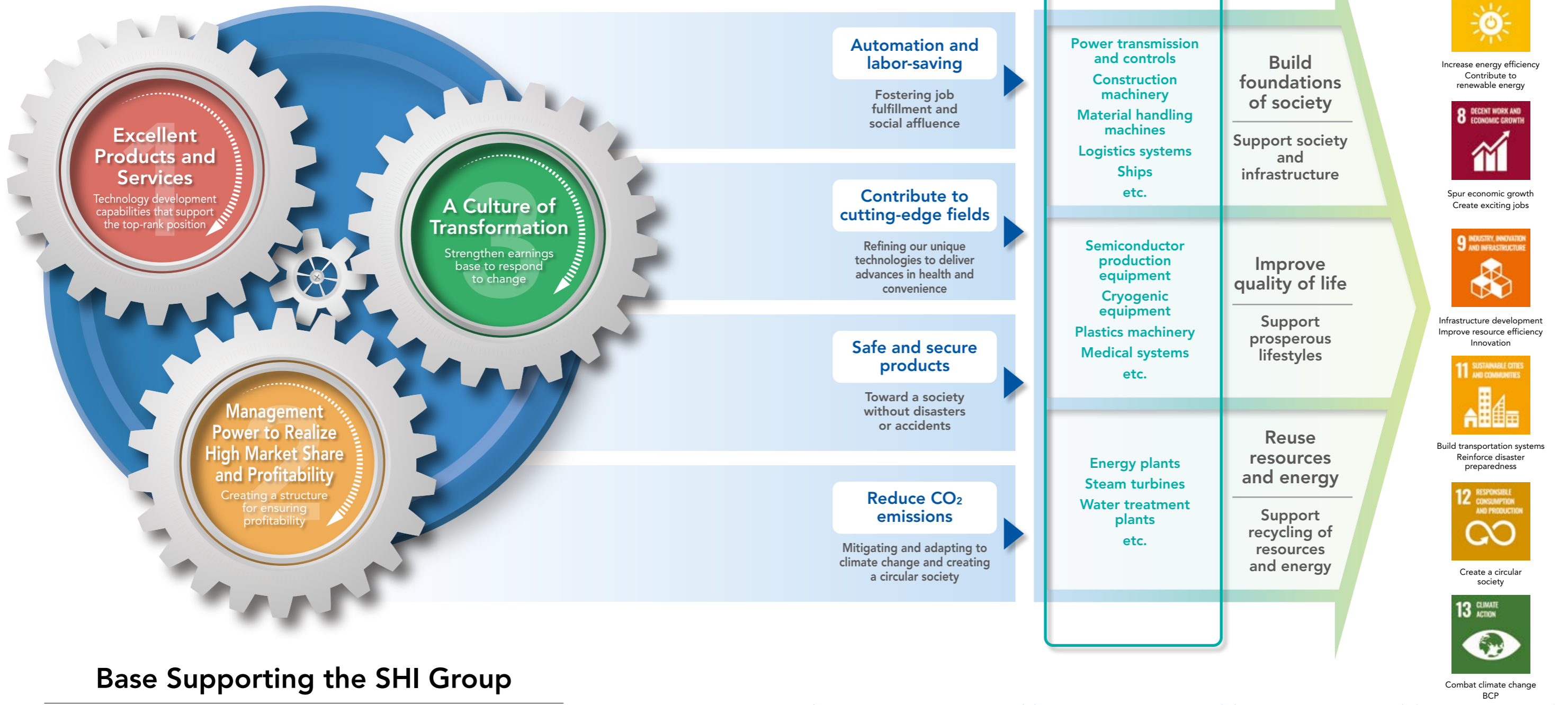
Strength of the SHI Group

The SHI Group contributes to customer value creation by offering excellent products and services based on our high-level technological capabilities. This value creation was made possible by our culture of transformation, which has been refined over many years. We will also utilize our management capability to realize high market share and profitability to continuously improve our corporate value.

Contributing to society through our businesses

Our products deliver three types of value to society by playing key roles in the processes of our customers. We are committed to resolving social issues and contributing to the achievement of the SDGs through responsible corporate activities.

< Features of the SHI Group's products and services >



Base Supporting the SHI Group

Corporate Governance, CSR, Human Resources

INPUT

PROCESS

OUTPUT

SDGs



Main Products and Markets

- **Power transmissions, Gear motors** machinery, Steel iron production machinery, Chemical processing machinery, Material handling machinery, Mining machinery, Food processing machinery, Water treatment plants
- **Motors**
- **Inverters**
- **Coupling machines** Factory automation machinery, Industrial robots, Machine tools, Conveying and logistics



CYCLO®DRIVE

Machinery Components

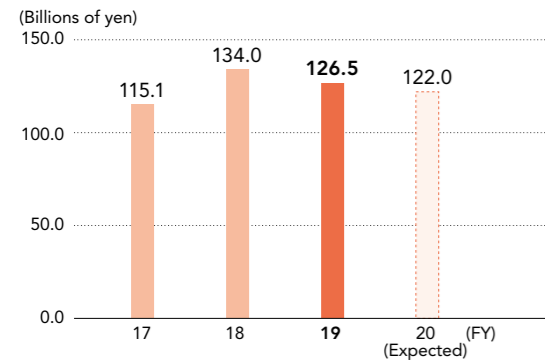
Power Transmission and Controls

▶ Segment Overview

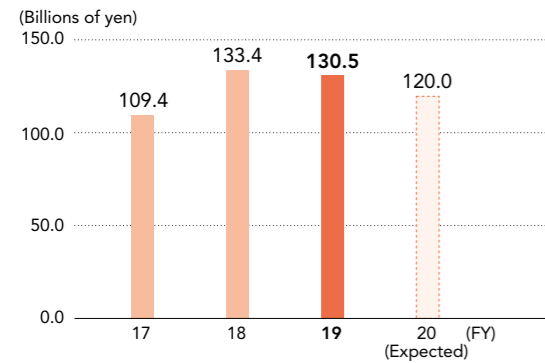
This segment's main products are gear reducers, motors, and inverters. A gear reducer is a power transmission component that reduces a motor's rotational speed to increase torque. An inverter is a device that controls the rotational speed and saves energy at the same time. Our products are widely adopted in all types of equipment used to move objects around. These include industrial robots in factories, package conveyors in logistics centers, and cranes that load and unload cargo at harbors. As such, our products contribute to society and people's lives.

We also have numerous manufacturing and sales bases in Japan and overseas, and we are expanding our business globally under the Sumitomo Drive Technologies brand. We have not only the largest market share in Japan but also the top-level market share in the world.

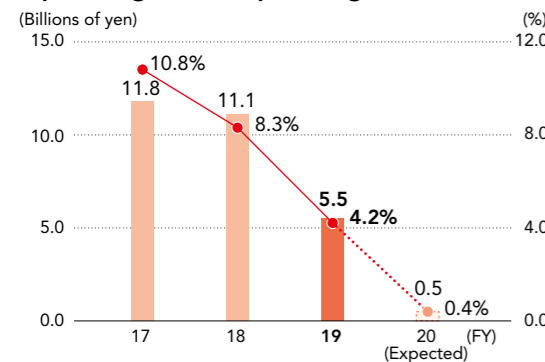
Orders



Net Sales



Operating Profit/Operating Profit Ratio



Inverters manufactured by Inverterk Drives



"smartris" drive solution for AGVs



E CYCLO® High-Precision Gearboxes ECY Series



Ultralight hybrid reducer

▶ Fiscal 2019 Review and Key Topics

We have been advancing our business activities with a focus on three core segments identified in Medium-Term Management Plan 2019—Robotics/Positioning, Factory Automation/Logistics, and Food & Beverages. In fiscal 2019, we posted year-on-year declines in orders and sales, both in Japan and overseas, as companies adjusted inventories of industrial robots and otherwise curtailed capital investments amid economic uncertainty caused by U.S.-China trade friction. Our small, medium-sized, and precision control gear reducers were particularly affected by market conditions.

Nevertheless, we look forward to further advances in downsizing, labor saving, and automation of factory equipment, logistics/transportation equipment, and the like in the future. To meet these needs, we launched the FINE CYCLO® High Precision Gearboxes DA Series in April 2019, and the E CYCLO® High-Precision Gearboxes ECY Series of more compact models in December. These precision control gear reducers are used in industrial robots, collaborative robots, and the like and feature reductions in noise, size, and weight. We expect our enhanced lineup to contribute to our future growth and business results.

Aiming to transition from a supplier of gear reducers to a provider of drive solutions, we welcomed U.K.-based Inverterk Drives Ltd. to the SHI Group during the year, following Lafert S.p.A., an Italian industrial motor manufacturer, in fiscal 2018. As a manufacturer of inverters, Inverterk Drives offers products and services for such applications as conveyors, fans and pumps, and other industrial machinery, mainly in the automation and energy fields. We are proceeding with post-merger integration (PMI) with the aim of building a system for providing integrated solutions that combine Inverterk's control products (inverters), Lafert's electrical products (motors), and our gear reducers.

▶ Fiscal 2020 Initiatives

In fiscal 2020, the rapid spread of COVID-19 has dampened market sentiment and increased uncertainty about the future. In response, we are reassessing our supply chain as part of our business continuity plan (BCP) to deal with trade friction, intensified natural disasters, lockdowns, and the like. Meanwhile, our business environment is undergoing major upheavals, including change in working styles on a remote basis. For this reason, our Power Transmission & Control Division is updating its business plan. By fully deploying resources acquired through M&As, as well as our global sales and service network, we will promote joint development of new products and mutual utilization of sales channels through the package of mechanical, electrical, and control technologies. This will enable us to propose solutions that help create value for our customers.

In fiscal 2020, we plan to launch exciting products in new markets resulting from our initial joint development efforts with Lafert. These include "smartris," a drive solution for automated guided vehicles (AGVs) that packages a gear reducer, servo motor, and driver, as well as ultralight hybrid reducers earmarked for such applications as collaborative robots, power assist suits, and service robots.

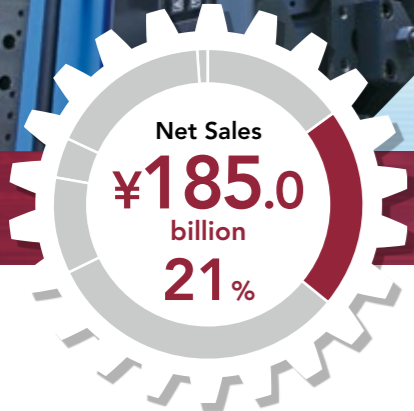
We will continue making future-oriented investments as necessary. In May 2020, for example, we completed construction of a new facility in Nagoya Works (Obu City, Aichi Prefecture) to produce small-sized and precision control gear reducers. Focusing on this new facility, we will work to enhance quality, shorten production lead time, and increase customer satisfaction.



Main Products and Markets

- **Plastics machinery**
Electronics, Electric equipment, Automobiles, Containers, Medical equipment
- **Ion implantation systems**
Laser processing systems, XY stages, Transfer-molding press machines, Semi-conductors, LCDs
- **Cryogenic equipment**
Medical equipment, Space technology development, Semiconductors
- **Precision forgings**
Jet engines for airplanes, Turbines for power generation
- **Defense equipment**
Defense

Plastics machinery



Precision Machinery

Plastics Machinery

► Segment Overview

Injection molding machines are used to fabricate various products by injecting hot plastic into molds.

The Company's machines excel in terms of precision and high-cycle molding. We are particularly strong in electrical- and electronics-related markets centered on smartphones, which require precision molding. Our machines can quickly and efficiently mold complex shapes down to thin products like food containers.

► Fiscal 2019 Review and Key Topics

In the first half of FY2019, demand for machinery entered an adjustment phase as the impact of U.S.-China trade friction has worsened since the second half of FY2018. Nevertheless, sales remained firm on the back of steady demand for electrical and electronic components, such as those for smartphones, mainly in China. By contrast, conditions in the automotive and consumer markets in Japan and Europe remained difficult. The second half of FY2019 saw ongoing U.S.-China trade friction, geopolitical risks, and fluctuating exchange rates, as well as the COVID-19 pandemic, making market conditions even more challenging. As a result, the Plastics Machinery business reported declines in orders, sales, and profit compared with FY2018.

Sumitomo (SHI) Demag Plastics Machinery GmbH increased its share of the electric motor market, where it is strong, despite a decline in sales volume stemming from sluggish market conditions in Europe.

► Fiscal 2020 Initiatives

Although electrical- and electronics-related demand in China has bottomed out and is on a recovery path, we expect the situation to remain unpredictable in FY2020. To make our product portfolio more competitive, we will step up initiatives in the electrical- and

electronics-related markets, where we are strong, while continuing to reinforce efforts in the automotive and consumer markets.

In the automotive market, in particular, we will reinforce our sales power with our global network. At the same time, we will enhance our solution proposals to meet customer needs for electrical and optical systems, where demand is growing due to advances in electric vehicles and autonomous driving systems.

In the electrical- and electronics-related markets, we will strive to further enhance our marketing capabilities while innovating our production system to provide a stable supply of exceptional products to the rapidly changing markets.

Precision Equipment and Others: Cryogenic Equipment

► Segment Overview

Our cryogenic equipment is not only used in the medical field for MRI and other devices, but also as cryopumps to create clean, ultrahigh-vacuum environments required for semiconductor production processes. We have the No. 1 share of the global market in MRI applications.

► Fiscal 2019 Review and Key Topics

In fiscal 2019, the medical MRI market slowed down due to stagnation in the European economy and the end of the government's science popularization policy in China, which accounts for 25% of the world market. Nevertheless, we achieved overall growth in business, driven by demand in North America. In June 2019, meanwhile, we enjoyed an upturn in demand in the semiconductor market, which expanded more than expected thanks to

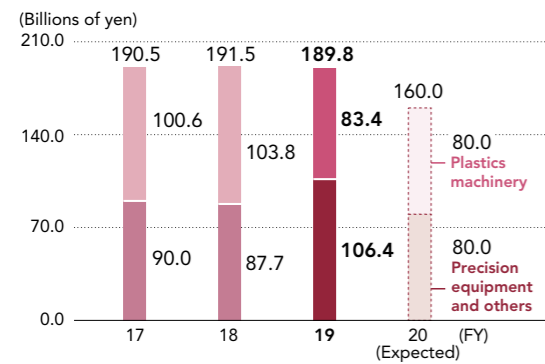
strong demand for applications in leading-edge production lines in the logic field.

Under such circumstances, we continued working to boost market share by releasing new products while capturing replacement demand. With respect to refrigeration equipment, we sought to maintain our market supremacy by providing highly efficient machines for helium-saving MRI equipment. By emphasizing the effective use of helium, a rare resource, in this way, we help create social value. We are also active in the expanding market for cryopumps. These are used mainly in physical vapor deposition (PVD) systems, but major customers have started using them in ion implantation equipment. In the vacuum robotics business, which we acquired in February 2017, we enjoyed an increase in orders thanks to the resumption of memory-related investments in the second half of fiscal 2019. We also secured new orders from a major customer for use in PVD systems.

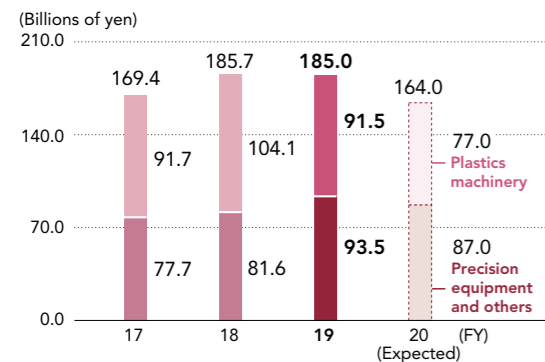
► Fiscal 2020 Initiatives

Production of medical- and semiconductor-related items is regarded as an "essential business" in Europe and the United States. Due to the impact of COVID-19, however, installation and maintenance of MRI equipment in hospitals have been postponed, resulting in potential build-up of inventory at customers' factories and rescheduling of after-sales service. We also assume that orders will be postponed and deliveries delayed due to the closure of research institutions in the laboratory market. Meanwhile, semiconductor-related demand from the smartphone and automotive sectors is sluggish, and there is a risk of market upheaval due to U.S.-China trade friction. However, we see potential for growth in demand for our cryopumps, bolstered by increased demand for personal

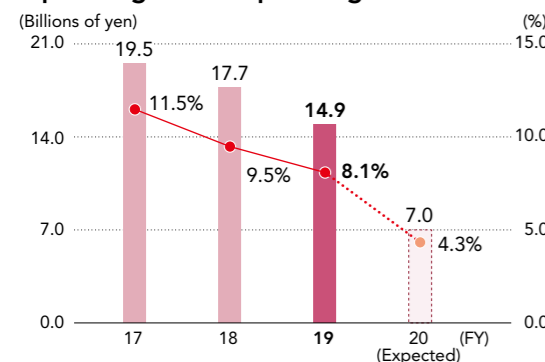
Orders



Net Sales



Operating Profit/Operating Profit Ratio



SE280EV-A-SHR
Plastics processing machine (Injection molding machine)

computers thanks to the proliferation of teleworking, as well as recovery in the memory market as more data centers are established. For these reasons, we will continue carefully monitoring market trends.

With respect to refrigeration equipment, we will continue dominating the market for helium-saving MRI machines while targeting sales expansion in fields earmarked for the future, such as quantum computers and quantum communications in the laboratory market. In the semiconductor market, meanwhile, we will aim to further boost sales of cryopumps in Asia and increase their application in the growing market for ion implantation equipment. As for vacuum robotics, we will expand our share among main customers and install our products on the mass production systems for new customers. In these ways, we will continue emphasizing both increased orders and cost reductions.



SICERA® Ultra cryopump

Precision Equipment and Others: Semiconductor Production Equipment
Sumitomo Heavy Industries Ion Technology Co., Ltd.

► **Segment Overview**

SHI manufactures ion implantation equipment that implants ions with high precision into silicon wafers to control their semiconductor electrical properties. We have a leading share of the domestic market in terms of sales.

► **Fiscal 2019 Review and Key Topics**

The semiconductor market underwent an adjustment phase that began in the second half of fiscal 2018, bottomed out in the first half of fiscal 2019, and started to rise after the summer of 2019. At present, there is increasing demand for new iPhones and other smartphones equipped with 5G and advanced AI technologies, as well as demand from data centers for equipment to handle the increase in communication volume stemming from the arrival of 5G.

Orders for new equipment drastically increased 78% from the previous year. In Japan, orders from image sensor manufacturers remained strong from fiscal 2018. Overseas, we received a sharp increase in inquiries in the second half of fiscal 2019 due to large-scale investment

plans among Taiwanese foundry makers. These accounted for around 60% of main-unit orders in fiscal 2019. In China, we attracted steady orders as investment sentiment remained strong.

With respect to product development, we will continue improving and developing our SSUHE ultrahigh-energy device, as well as our SAion all-in-one ion implementation device, which can handle wide implantation areas. In addition to further strengthening our product appeal, we have begun preparing to make prototypes for next-generation ultrahigh-energy devices.

► **Fiscal 2020 Initiatives**

Due to sluggish personal consumption stemming from the spread of COVID-19, as well as declining sales of smartphones and automobiles and falling demand for related devices, we expect the semiconductor market to post negative growth in the short term. On the other hand, the advent of COVID-19 has prompted people to change their lifestyles, leading to increased demand for high-speed communication capabilities to meet the needs of teleworking and online education. We also anticipate further growth in demand for devices used in data communications, cloud-related equipment, and high-spec personal computers. In semiconductor production equipment, we expect manufacturers to continue making proactive investments in preparation for medium-term growth in demand. This is despite temporary moves to postpone investment plans amid the sharp economic downturn and decline in consumption.

Continuing from fiscal 2019, we will work to increase profitability by expanding sales of the mainstay SAion and S-UHE Series, while positioning the aftermarket as a key supporter of income to ensure business stability.



Semiconductor production equipment
(New all-in-one ion implementation device: SAion)



SH200-7 hydraulic excavators

Main Products and Markets

- **Hydraulic excavators**
Construction, Civil engineering, Scrap, Forestry
- **Mobile cranes**
Construction, Civil engineering
- **Road machinery**
Roadway construction



Construction Machinery

Net Sales
¥272.8 billion
32%

Hydraulic Excavators and Road Machinery
Sumitomo (S.H.I.) Construction Machinery Co., Ltd.

► **Segment Overview**

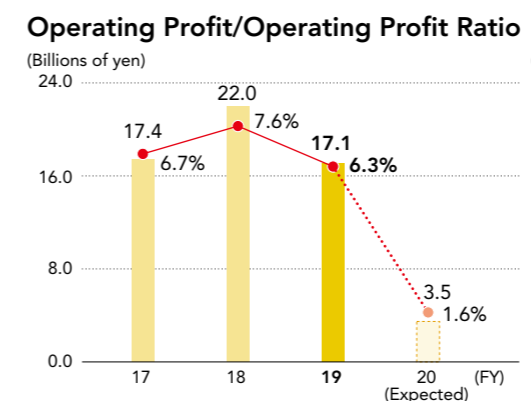
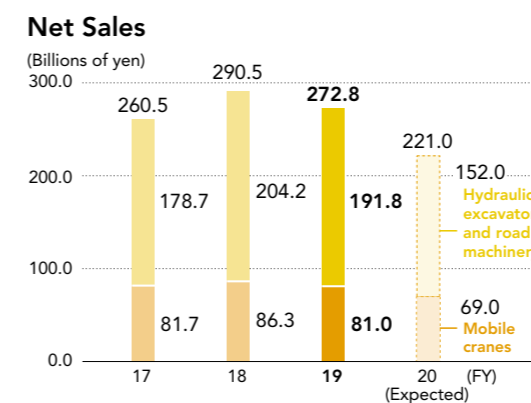
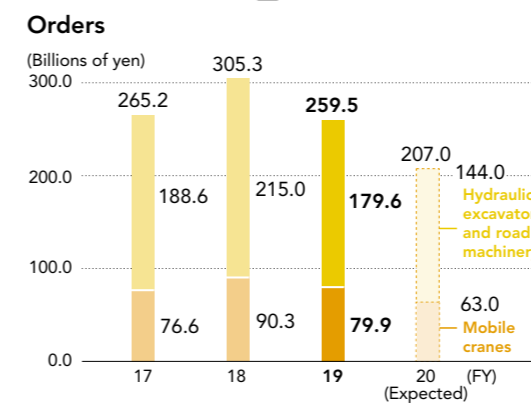
Our hydraulic excavators, which feature outstanding fuel efficiency, were the first construction machines to receive the Energy Conservation Grand Prize from Japan's Ministry of Economy, Trade and Industry. The machines themselves are earning high evaluations, having also received the Energy-Efficient Machinery Award and the Good Design Award on many occasions. In recent years, moreover, we have incorporated increasingly sophisticated functions into the monitoring devices of our hydraulic excavators to ensure better operational safety. Meanwhile, our road pavement asphalt finishers have an overwhelming market share in Japan, and we are expanding rollouts of these machines overseas, including in Southeast Asia.

► **Fiscal 2019 Review and Key Topics**

In fiscal 2019, domestic demand for hydraulic excavators remained mostly unchanged, at around 25,000 units. Overseas demand, including in China, the world's largest market, also remained mostly unchanged, at 323,000 units.

To address extensive inquiries from the global market, we focused on maximizing the supply capacity of our three factories—in Japan, China, and Indonesia—as we did in the previous year. However, our domestic suppliers suffered serious typhoon damage that significantly impacted our parts procurement capability. This led to a major decline in the number of units produced, with total shipments from the three factories limited to just 12,500 units.

On the other hand, we made aggressive investments overseas aimed at future business expansion. In the United States, we opened the LBX Customer Experience Center, a large facility covering more than 100,000 square meters, in Lexington, Kentucky. It is a multifunctional facility where we can conduct machine demonstrations and service training for our customers and dealers, and



we expect that it will contribute to our sales growth. In Southeast Asia, meanwhile, we started construction of a new factory adjacent to our existing plant in Indonesia, with an investment of around ¥3.5 billion. Scheduled for completion in January 2021, the new factory will have an annual production capacity of 2,500 units. In terms of products, we released two small-rear-swing hydraulic models equipped with Field View Monitor 2 (FVM2), an ambient monitoring device with a notification function in our LEGEST series of hydraulic excavators, which are popular among our customers.



SH75X-7 type ultrasmall-swing excavator



LBX Customer Experience Center (Kentucky, USA)

Fiscal 2020 Initiatives

In fiscal 2020, we expect global demand for hydraulic excavators to shrink in all regions due to the spread of COVID-19. In response, we will conduct a thorough review of our fixed costs to bolster our business performance while strengthening crisis management to deal with natural disasters that are assumed to occur in the future. In terms of products, we will work to expand sales of new excavators and road machines equipped with FVM2+, a new safety support device, as well as models compatible with computer-aided construction. On the sales side, we will work to increase market share by strengthening our sales and service activities that are closely tied to the regions we serve around the world. Meanwhile, our R&D teams will work to expedite development of products incorporating cutting-edge technologies to increase productivity on the customer side.

Mobile Cranes Sumitomo Heavy Industries Construction Cranes Co., Ltd. Link-Belt Cranes, L.P., LLLP

Segment Overview

Sumitomo Heavy Industries Construction Cranes Co., Ltd. mainly manufactures and sells crawler cranes in Japan and overseas (except the Americas). Our market share in Japan is more than 40%.

In North America, Link-Belt Cranes, L.P., LLLP mainly manufactures and sells truck cranes and has a top-class share of the local market. Both companies are currently collaborating with each other in the crane-dealing business.

Fiscal 2019 Review and Key Topics

The construction crane market benefited from a slight increase in domestic public works projects, as well as solid conditions for private-sector construction, urban redevelopment, logistics warehousing and transportation infrastructure. By contrast, projects related to the Tokyo Olympics and Paralympics ended, and there was a decline in reconstruction work in the Tohoku area. Also due to a shortage of machine operators and natural disasters in the second half of the year, overall demand for construction cranes declined from the previous year. In overseas markets, our business in the Americas was impacted by competitors' attacks and postponements of scheduled infrastructure-related projects, while we saw a decrease in demand in Europe due to uncertainty about the future of Brexit. In Asia, by contrast, solid economic growth, driven mainly by local demand, led to an increase in demand. As a result, overall overseas demand was up from the previous year.

Although we pursued various initiatives under these circumstances, some of our domestic suppliers were hit by typhoon damage, which impacted our production activities and led to a decline from the previous year in new machine sales volume. In Japan, sales from our service business remained mostly unchanged from FY2018, but changes in our sales configuration and other factors resulted in a 5% year-on-year decrease in domestic sales.

We opened a branch in Europe in April 2019 to supervise our European market operations. We also strengthen support to our distributors and promoted new market development, resulting in a 7% year-on-year increase in overseas sales.

Fiscal 2020 Initiatives

Conditions in the global market are expected to remain uncertain due to various factors. These include soaring material prices, the impact of the COVID-19 pandemic, and the risk of shrinkage in world trade due to prolonged protectionism, as well as a lull in domestic investments. Looking ahead, we will continue working to build a competitive business structure by accelerating new product development, improving product quality, and strengthening alliances with overseas distributors to increase customer satisfaction. At the same time, we will pursue synergies by strengthening collaboration with Link-Belt Cranes and other SHI Group companies while promoting the efficient use of resources.



SCX1800A-3 Hydraulic crawler crane

The SHI Group | Strength of the SHI Group | Business Activities | Base Supporting the SHI Group | CSR | Actual | Financial Section

Main Products and Markets

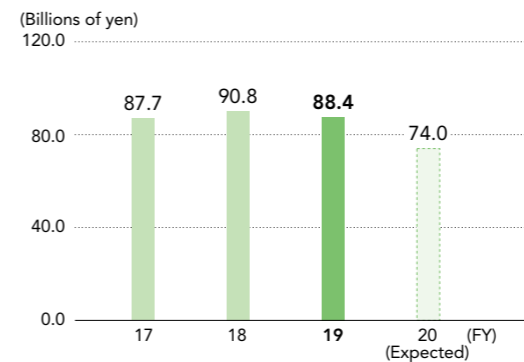
- Cyclotrons for medical use
Medical equipment
- Cyclotrons for research use
Research
- Coating systems
LCDs
- Forging presses
Automobiles, Iron and steel, Non-ferrous metals
- Material handling machinery
Iron and steel, Electric power, Shipbuilding, Port logistics
- Logistics & handling systems
Logistics
- Turbines
Power generation
- Pumps
Oil refineries, Petrochemical facilities

Net Sales
¥87.0 billion
10%

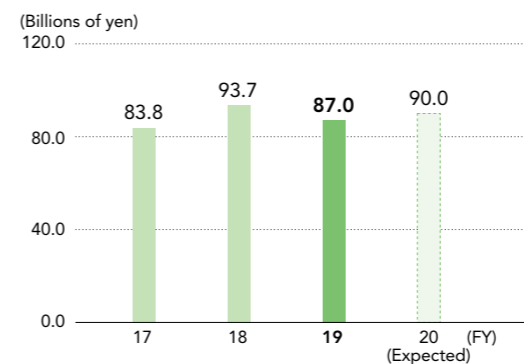
Industrial Machinery

Boron neutron capture therapy (BNCT) system

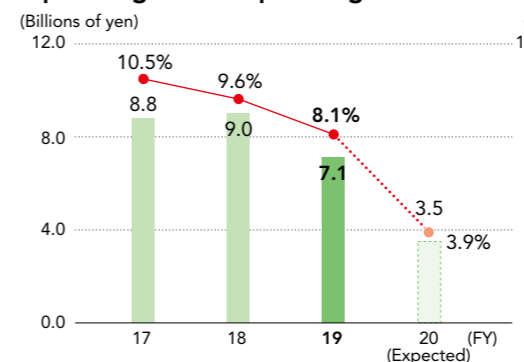
Orders



Net Sales



Operating Profit/Operating Profit Ratio



Forging Presses

Segment Overview

Our hot forging presses, which strike and mold heated metal into desired shapes, are used to make parts in automobile manufacturing plants in Japan and overseas.

Fiscal 2019 Review and Key Topics

FY2019 saw a downward trend in automobile production amid economic recession in China, compounded by the spread of COVID-19 at fiscal year-end. Accordingly, conditions were sluggish in the world automobile sector, especially the largest markets of China and the United States, leading to a decline in demand for installation of new forging presses. Under these circumstances, we strove to expand our service business. We also benefited from investments made to address rising demand for aluminum-forged parts associated with the trend toward lighter vehicles and other investments in response to changes in production methods. As a result, we received orders for multiple medium-sized presses.

Fiscal 2020 Initiatives

Going forward, our aim is to help establish better forging work environments and expand our business. Here, we will focus on the new FPZ Series of forging presses based on the concepts of stability, suitability, and comfort. The FPZ Series was unveiled at MF-TOKYO 2019, an exhibition at the 6th Metal Forming Fair Tokyo held in July 2019.



New FPZ Series of forging presses

Medical Equipment

► Segment Overview

Our cyclotron technologies are used in the manufacture of advanced systems for cancer diagnosis and treatments. In the diagnosis field, we account for more than half the share of the domestic market for equipment for production of radiopharmaceuticals for PET scans, which are used to diagnose cancer, as well as brain and heart disease. In the treatment field, we have many references in Japan and overseas countries for delivering proton therapy systems and injectors for heavy-ion particle therapy systems, which provide advanced radiation therapy.

► Fiscal 2019 Review and Key Topics

In the diagnosis field, the market for PET cyclotron systems is characterized by strong demand in Japan for equipment for research purposes and replacement of aged systems. Demand for installation of new equipment is also increasing overseas, especially in China and South-east Asia. Under these circumstances, we have developed and launched a high-power compact cyclotron that can meet increasing demand for PET scans.

In the treatment field, new cancer treatments are starting to gain attention, while demand for proton and heavy-ion particle therapy systems is increasing in Europe, United States, and Asia. In addition to existing cancer therapy equipment, we have developed an accelerator-based Boron Neutron Capture Therapy (BNCT) system and obtained approval of a medical device first in the world for manufacturing and sales of the new system.

► Fiscal 2020 Initiatives

In the diagnosis field, we will work to popularize PET-use drug manufacturing systems for research institutes, hospitals, and pharmaceutical companies that produce and distribute radiopharmaceuticals, both in Japan and overseas. In the treatment field, we will develop compact next-generation proton therapy systems and engage in sales activities for our BNCT system.



Magic Rack®

Material Handling Systems

Sumitomo Heavy Industries Material Handling Systems Co., Ltd.

► Segment Overview

In this segment, we manufacture industrial material handling systems, automated warehouses, and other logistics systems for logistics companies, as well as automated parking systems.

SHI provides material handling systems to a broad range of customers in the steelmaking, shipbuilding, and other manufacturing fields, as well as energy and harbors. In recent years, we have acquired strengths in warehouse-related products for the logistics industry, where demand for automation is growing.

► Fiscal 2019 Review and Key Topics

In material handling systems, demand for upgrading aging facilities remained brisk in the steelmaking, energy, and shipbuilding fields. During the year, we made investments as planned, resulting in domestic demand in FY2019 that was roughly equivalent to FY2018. In logistics systems, we enjoyed continued robust demand for automation on the back of rising distribution volumes and serious labor shortages on the logistics front lines. In automated parking systems, large-scale redevelopment plans are gaining momentum for major urban railway terminals in Tokyo and surrounding areas to meet demand after the Tokyo Olympic and Paralympic Games.

Under these circumstances, SHI secured a certain amount of orders for material handling systems from customers in a wide range of fields. In addition to steel, energy, and shipbuilding—our main sources of business to date—these included automated systems for harbors. The result was a year-on-year increase in overall orders.

In logistics systems, we continued to enjoy firm demand and large-scale orders for Magic Rack®, the industry's first high-density deep storage system. We also received a large volume of orders for RDRV® and automated warehouse systems in the high-tech film segment.

In automated parking systems, we posted a steady increase in the number of installed systems, centered on urban parking projects, and maintained our leading market share. This was due to the appeal of our systems as having the best storage efficiency and the fastest vehicle loading/unloading speeds in the industry.

► Fiscal 2020 Initiatives

Going forward, we will focus on developing automation technologies and enhancing product competitiveness to meet expected increases in demand for automation and also address the need to avoid concentrated gatherings of people. In the service business, we will continue implementing reinforcement measures while enhancing our remote maintenance capabilities.



Remote-controlled RTG

Turbines and Pumps

Shin Nippon Machinery Co., Ltd.

► Segment Overview

In this segment, SHI manufactures small and medium-size steam turbines, mainly for in-house power generation of factories, as well as to generate electricity for sale. We

also make process pumps for oil refineries and other plants. More than 50% of our steam turbines and process pumps are exported, mainly to Asia.

► Fiscal 2019 Review and Key Topics

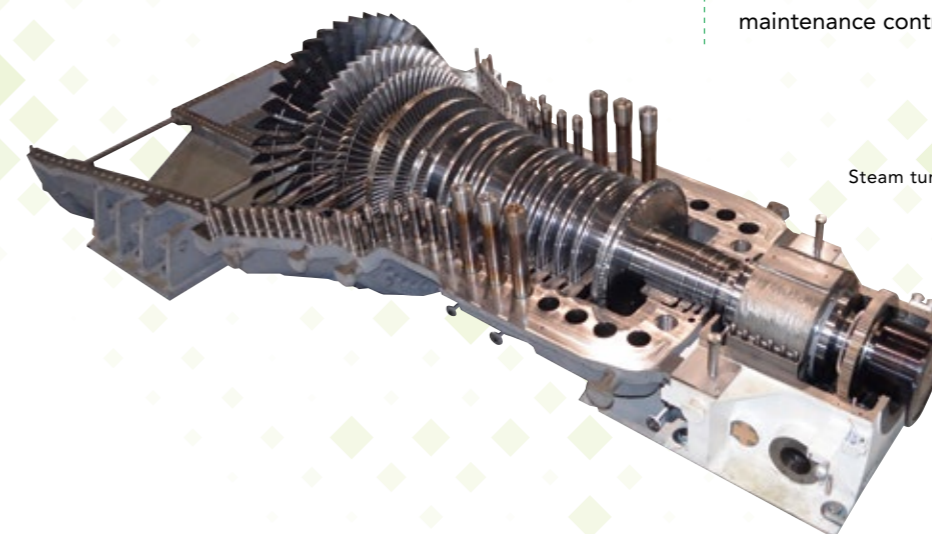
In the power generation business, we faced challenging conditions, characterized by contraction of the coal-fired power generation market in Asia as investment sentiment among sugar refinery customers stagnated, as well as intensifying price competition with other companies. Nevertheless, we received large-scale orders from a group of existing sugar refinery customers in Thailand and a government-owned company in Bangladesh. We also enjoyed healthy orders for feed-in tariff (FIT) projects in Japan.

In the oil and gas business, plans for environmental measures (improving environmental conditions of refineries) in the oil refining market made good progress, mainly in India. In large-scale projects, however, we faced strong competition from other companies, placing us in a relatively weak position for projects that manufacturers in emerging countries can participate in. Due also to sluggish crude oil prices and political unrest in the Middle East, we posted a year-on-year decline in orders.

In the service business, orders for regular inspection work at domestic FIT power generation projects remained firm. In overseas markets, however, sluggish crude oil prices and political unrest in the Middle East led to a decline in demand, while the spread of COVID-19 prompted us to suppress our sales activities, leading to an overall decrease in orders.

► Fiscal 2020 Initiatives

Due to the spread of COVID-19, market conditions in the power generation, oil and gas, and service businesses are uncertain. Nevertheless, we will target business growth by enhancing efficiency and reducing costs to enhance our product appeal, while engaging in marketing activities that integrate our products and services. We will also strengthen our new service model through long-term maintenance contracts and the like.



Steam turbine





Main Products and Markets

- Ships
- Marine transportation



Crude oil tanker



Ships

Ships Sumitomo Heavy Industries Marine & Engineering Co., Ltd.

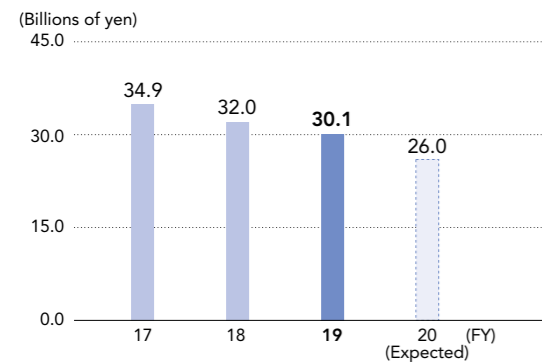
Segment Overview

To develop valuable product, we focus on marketing activity by reflecting the customer's voice to our designs. Since the past few years, SHI has selected differentiation focus strategy in the middle-size oil tanker segment, particularly for Aframax tanker. As a result, SHI gets approximately 14% of global market share in new-building Aframax tanker in past 10 years, and over 40% in domestic market.

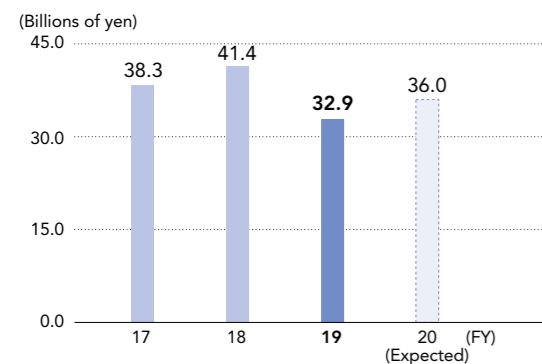
By concentrating on middle-size tanker, we are not only improving the quality of development, but also increasing the efficiency of designing and manufacturing activities. Furthermore, in addition to fulfillment of the customer's needs, we contribute to make society more sustainable through developing environmental-friendly vessel such as adopting sulfur oxide (SOx) scrubber* to our product ahead of the times and other shipyards.

*Sulfur oxide (SOx) scrubber: Remove SOx traces which contained in exhaust gas of vessel

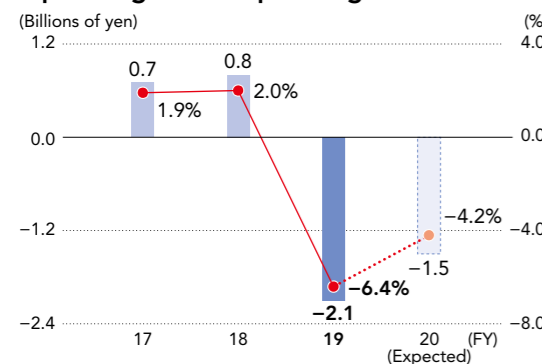
Orders



Net Sales



Operating Profit/Operating Profit Ratio



Fiscal 2019 Review and Key Topics

In contrast to the dry bulk vessel market, which remains a sluggish part of the shipping sector, the tanker market was on a temporary uptrend. This was due to an increase in the number of vessels out of operation stemming from SOx scrubber retrofitting work to comply with SOx emissions regulations and U.S. sanctions on Chinese shipping companies. Furthermore, the tanker market was also buoyed by a sharp increase in demand for offshore storage by ships in the wake of a fall in crude oil prices due to increased oil production activities in Saudi Arabia. Despite such highly positive factors, the economic outlook for the shipping market is uncertain—based on the assumption that such positive factors are temporary, as well as the unforeseen impact by COVID-19 and many shipowners have been cautious about placing new orders.

Under these circumstances, we focused on selling our mainstay products i.e. Aframax tankers. In fiscal 2019, we received an order for three vessels, which enable us to secure about two years' worth of work (as of March 31, 2020). We delivered four vessels, the same number as in fiscal 2018. Due to rising raw material costs and natural disasters, however, this segment reported an operating loss for the first time in five years.

Fiscal 2020 Initiatives

At the end of 2019, the total number of Aframax tankers and LR2 (product oil carrier) that are over 15 years old accounted for 25% of the current fleet of such vessels. It is still unclear to what extent the global economic slow-down stemming from the pandemic of COVID-19 will affect the shipping and shipbuilding markets going forward. Nevertheless, we expect that shipowners in the middle-size tanker segment, which we are focusing on, will make up-front investments in the near future in light of rising demand for replacing demand of such old vessels and predictions that oil shipment volumes by sea will remain firm in the medium and long terms.

We will deepen our differentiation focus strategy in the medium-sized tanker segment, our stronghold. At the same time, we will deploy marketing strategies to create customer value, enhance product appeal by refining the development process, and accelerate the improvement of productivity by positive or active investment and using ICT. Through these measures, we will emphasize product development that addresses changes even in volatile markets, respond proactively to the adoption of stricter regulations of greenhouse gases in the future and also improve the Company's profitability.



Product oil tanker



Crude oil tanker



Main Products and Markets

- **Power plants, Industrial wastewater treatment systems**
Electric utilities, Paper manufacturing, Steelmaking, Cement, Food processing plants, Medical equipment, Pulp and paper, Chemicals, Electricity and electronics, Machinery
- **Air pollution control plants**
Electric utilities, Iron and steel industry
- **Chemical process equipment & plants**
Petrochemical plants
- **Pressure vessels, Mixing vessels**
Oil refining, Petrochemical industries
- **Water and sewage treatment systems, Landfill leachate treatment systems**
Government agencies
- **Steel structures**
Iron and steel industry
- **Food processing machinery**
Food processing industry

Biomass power plant (Air Water & Energia Power Yamaguchi Corporation)



Environmental Facilities & Plants

Energy Plants

▶ Segment Overview

SHI is a leading company in fuel flexible circulating fluidized bed (CFB) boilers that can utilize a wide variety of fuels, including biomass.

▶ Fiscal 2019 Review and Key Topics

In Japan, there has been a steady increase in projects for biomass power plants encouraged by the feed-in tariff (FIT) renewable energy scheme, which was introduced in 2012. In fiscal 2019, we delivered one CFB boiler power plant utilizing the FIT scheme and received new orders for two more.

Outside Japan, demand remains steady for new power plants in Asian countries, and we are working with our subsidiaries of Sumitomo SHI FW Energie B.V. (SFW) to attract orders. In fiscal 2019, we received an order for three CFB boiler power plants: one from a Taiwanese paper manufacturer and two from Indonesia's state-owned power company.

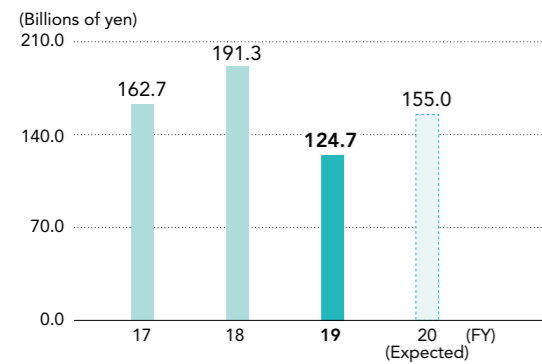
▶ Fiscal 2020 Initiatives

Since the start of fiscal 2020, two new 100% biomass-fired CFB boiler power plants have begun commercial operation under the FIT scheme.

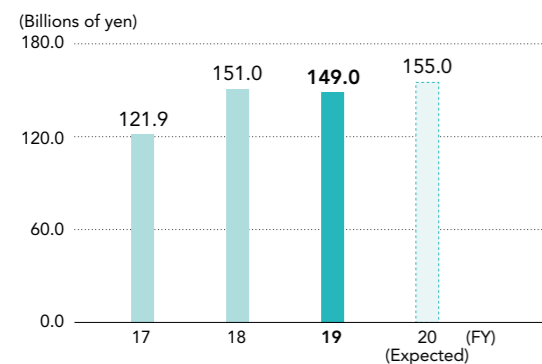


Biomass power plant (ENEOS Biomass Power Muroan G.K.)

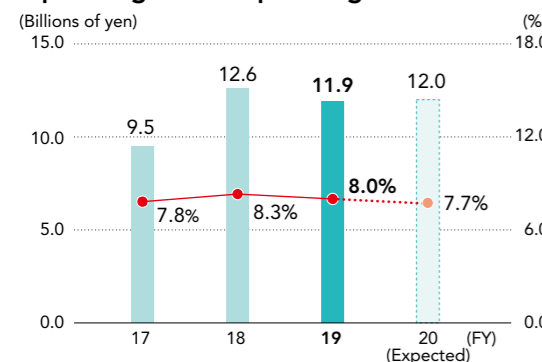
Orders



Net Sales



Operating Profit/Operating Profit Ratio



Biomass power plant (Chubu Electric Power Co., Inc.)

Although we need to consider the impact of COVID-19 on energy demand and new power plant designs as potential risks, interest in renewable energy remains high worldwide. In Japan, authorities are considering a dramatic revision of the FIT scheme. They are also discussing the establishment of community-based power supply systems that help provide energy to regional areas. Accordingly, we anticipate an increase in demand for construction of small, distributed biomass power plants in the future. Overseas, we expect demand for construction of power plants, especially in Asian countries, to remain steady.

SHI has a track record in the stable combustion of various fuels and is leveraging this experience to further improve our products. We are also working to further enhance efficiency in response to customer needs.

In February 2020, we acquired an equity stake in U.K.-based Highview Enterprises Limited, a leader in the development of liquid air energy storage (LAES) technology. Given the increasing importance of renewable energy amid moves toward decarbonization, there are growing expectations for energy storage technologies, which can compensate for the intermittent nature of renewable energy output and provide distributed power sources. Together with SFW, we will continue collaborating with Highview to promote the commercialization of its CRYOBattery™ energy storage system, which uses LAES technology.

Water and Wastewater Treatment Plants Sumitomo Heavy Industries Environment Co., Ltd.

▶ Segment Overview

We provide a wide range of water treatment systems for both the public and private sectors, with services ranging from construction to operation and management. Our systems are highly evaluated for their energy-saving performance.

▶ Fiscal 2019 Review and Key Topics

The market for water treatment business for the public sector remained stable, thanks largely to investments in the government's "National Resilience Plan." In response, we expanded sales of unit products and stepped up efforts to engage in plant design-and-build projects, resulting in a year-on-year increase in orders.

In our private sector water treatment business, the market scale was mostly unchanged from normal years despite the effects of U.S.-China trade friction and COVID-19. In response, we proposed solutions in line with customer needs and achieved orders that mostly reflected our targets.

▶ Fiscal 2020 Initiatives

In the market for water treatment systems for the public sector, we expect orders for design-and-build projects to continue increasing thanks to ongoing investments in the National Resilience Plan, as well as acceleration of public-private partnership projects. In this environment, we will continue focusing on expanding sales of unit products and engaging in design-and-build projects. We will also enhance our "plant-service circulation model" to facilitate our involvement in public-private partnership projects.

In the private sector, we are concerned that economic uncertainty may result in greater investment caution. Nevertheless, we will target increased orders by expanding sales of energy-saving and energy-creating systems and proposing solutions to extend the lives of aging facilities.



Sludge scraper



Flow control building (Iwanai/Kyowa Wastewater Management Center)



Anaerobic effluent treatment system

Directors, Corporate Auditors, and Executive Officers (As of June 30, 2020)

Board of Directors



Shunsuke Betsukawa
Representative Director, Chairman of the Board

Apr. 1978 Joined the Company
Apr. 2007 Senior Vice President, General Manager of Corporate Finance, Accounting & Administration Group
Apr. 2009 General Manager of Corporate Planning and Development Department
Jun. 2009 Director, Senior Vice President
Apr. 2010 Director, Executive Vice President
Apr. 2011 Representative Director, CFO and General Manager of Export Administration Department
Apr. 2012 Senior Executive Vice President
Apr. 2013 Representative Director, President and CEO
Apr. 2019 Representative Director, Chairman of the Board (current)

Reason for appointment as a director

Mr. Shunsuke Betsukawa was appointed as the Representative Director and President and CEO in 2013 after serving as the person in charge of the finance, accounting, and corporate planning divisions. He formulated two medium-term management plans titled Medium-Term Management Plan 2016 and Medium-Term Management Plan 2019, and promoted the building of a robust business structure. Since being appointed as the Representative Director and Chairman of the Board in April 2019, he has encouraged the enhancement of governance systems as the Chairman of the Board of Directors and has been responsible for the management of the SHI Group.

Since he has a high level of management knowledge and supervising ability, SHI has determined that he is qualified to serve as a director of the Company.



Shinji Shimomura
Representative Director, President and CEO

Apr. 1982 Joined the Company
Apr. 2012 Director of Sumitomo (S.H.I.) Construction Machinery Co., Ltd.
Apr. 2013 Executive Managing Director of Sumitomo (S.H.I.) Construction Machinery Co., Ltd.
Apr. 2014 Senior Executive Director of Sumitomo (S.H.I.) Construction Machinery Co., Ltd., Vice President of the Company
Apr. 2015 Senior Vice President, Representative Director and President & CEO of Sumitomo (S.H.I.) Construction Machinery Sales Co., Ltd.
Apr. 2016 Representative Director and President & CEO of Sumitomo (S.H.I.) Construction Machinery Co., Ltd.
Jun. 2016 Director of the Company
Apr. 2018 Executive Vice President
Apr. 2019 Representative Director, President and CEO (current)

Reason for appointment as a director

As Representative Director and President and CEO of Sumitomo (S.H.I.) Construction Machinery Co., Ltd., Mr. Shinji Shimomura oversaw strong business growth in the Construction Machinery segment with his strong leadership, and was responsible for the management of the SHI Group. After being appointed as Representative Director, President and CEO of the Company in April 2019, he has directed the management of the SHI Group such as efforts to establish a solid business structure with the aim of achieving the targets in Medium-Term Management Plan 2019.

Since he has a high level of management knowledge and supervising ability, SHI has determined that he is qualified to serve as a director of the Company.



Eiji Kojima
Director, Senior Vice President

Apr. 1984 Joined the Company
Nov. 2013 General Manager of Mechatronics Division
Apr. 2016 Senior Vice President (current)
Jul. 2016 General Manager of Energy & Environment Group (current)
Jun. 2017 Director (current)

Reason for appointment as a director

After being appointed as General Manager of the Mechatronics Division in 2013, Mr. Eiji Kojima performed his duties as the person in charge of the business driving the control technologies across the SHI Group. In 2016, he was appointed as Senior Vice President, and the same year he was appointed as General Manager of the Energy & Environment Group. He has advanced initiatives to strengthen business competitiveness and build competitive advantages. In 2017, he was appointed as Director, and in this role he has been responsible for the management of the SHI Group.

Since he has a high level of management knowledge and supervising ability, SHI has determined that he is qualified to serve as a director of the Company.



Susumu Takahashi
External Director

Feb. 2004 Counselor of The Japan Research Institute, Limited
Aug. 2007 Vice Chairman of The Japan Research Institute, Limited
Jun. 2011 Chairman of The Japan Research Institute, Limited
Jun. 2014 External Director of the Company (current)
Apr. 2018 Chairman Emeritus of The Japan Research Institute, Limited (current)

Reason for appointment as a director

Please see page 47 for details.



Tetsuya Okamura
Representative Director,
Senior Executive Vice President

Apr. 1980 Joined the Company
Mar. 2008 Managing Director & CEO of Demag Ergotech GmbH
Apr. 2012 Senior Vice President of the Company
Apr. 2017 General Manager of Industrial Equipment Division
Apr. 2018 Executive Vice President
Jun. 2018 Director
Apr. 2020 Representative Director, Senior Executive Vice President, General Manager of Export Administration Department (current)

Reason for appointment as a director

After being appointed as Managing Director & CEO of Demag Ergotech GmbH (currently Sumitomo (SHI) Demag Plastics Machinery GmbH) in 2008, Mr. Tetsuya Okamura was appointed as a Senior Vice President of the Company in 2012, and he contributed to strengthening the competitiveness of the SHI Group's Plastics Machinery business. After his appointment as the General Manager of the Industrial Equipment Division in 2017, he was appointed as Director and Executive Vice President in 2018. As the head of this business segment, he has been advancing initiatives to stabilize earnings and enhance the strengths of products. In April 2020, he was appointed Representative Director and Senior Executive Vice President, assisting the President in assuming responsibility for all Group operations.

Since he has a high level of management knowledge and supervising ability, SHI has determined that he is qualified to serve as a director of the Company.



Toshiharu Tanaka
Director, Executive Vice President

Apr. 1983 Joined the Company
Apr. 2005 Principal Engineer of Planning & Control Department, Quantum and Advanced Equipment Center, Precision Equipment Group
Apr. 2006 General Manager of Planning & Control Department, Quantum Equipment Division
Apr. 2010 Chief Staff Manager of Corporate Planning & Development Department
Apr. 2011 General Manager of Precision Equipment Group
Apr. 2013 Senior Vice President
Jun. 2013 Director (current)
Apr. 2014 General Manager of Overseas Sales Department, Power Transmission & Controls Group
Oct. 2014 General Manager of Power Transmission & Controls Group (current)
Apr. 2015 Executive Vice President (current)

Reason for appointment as a director

After being appointed as General Manager of the Precision Equipment Group in 2011, Mr. Toshiharu Tanaka was appointed as Director and Senior Vice President in 2013. Since 2014, he has been advancing efforts to develop the business as the person in charge of the Machinery Components segment. Mr. Tanaka was promoted as Executive Vice President in 2015, and has been responsible for the management of the SHI Group.

Since he has a high level of management knowledge and supervising ability, SHI has determined that he is qualified to serve as a director of the Company.



Hideo Kojima
External Director

Mar. 1980 Registered as a certified public accountant
May 1995 Representative Partner of Ota-Showa Auditors Office
May 2000 Vice Chairman of Century Ota Showa & Co.
May 2004 General Manager of International Division, Tokyo office, Shin Nihon & Co.
May 2006 Deputy Chief Executive Officer of Shin Nihon & Co.
Sep. 2010 Senior Advisor of Ernst & Young ShinNihon LLC
Jun. 2011 External Corporate Auditor of Alpine Electronics, Inc.
Established Hideo Kojima CPA Office
External Corporate Auditor of Mitsubishi UFJ Financial Group, Inc.
Jun. 2013 External Director of the Company (current)
Jun. 2015 External Director (Audit and Supervisory Committee Member) of Alpine Electronics, Inc.
Jun. 2016 External Director of the Company (current)

Reason for appointment as a director

Please see page 47 for details.



Akio Hamaji
External Director

Apr. 1979 Joined Mitsubishi Mining & Cement Co., Ltd. (currently Mitsubishi Materials Corporation)
Jun. 2007 Operating Officer of Mitsubishi Materials Corporation
Jun. 2010 Executive Officer of Mitsubishi Materials Corporation
Jun. 2012 Managing Executive Officer of Mitsubishi Materials Corporation
Apr. 2015 Vice President of Mitsubishi Materials Corporation
Apr. 2016 Director, Chief Executive Officer of Mitsubishi Aluminum Co., Ltd.
Dec. 2019 External Director of JAPAN BEST RESCUE SYSTEM Co., Ltd. (current)
Jun. 2020 External Director of the Company (current)

Reason for appointment as a director

Please see page 47 for details.



Hideo Suzuki
Director, Executive Vice President

Apr. 1982 Joined the Company
Jun. 2005 Director of SHI Financial Services Co., Ltd. (currently Sumitomo Heavy Industries Business Associates, Ltd.)
Mar. 2006 Representative Director and President of SHI Financial Services Co., Ltd.
Apr. 2012 General Manager of Corporate Finance, Accounting & Administration Group
Apr. 2014 Senior Vice President
Apr. 2018 Executive Vice President (current)
Jun. 2018 Director (current)
Apr. 2019 CFO (current)

Reason for appointment as a director

After being appointed as General Manager of the Corporate Finance, Accounting & Administration Group in 2012, Mr. Hideo Suzuki was appointed as Senior Vice President in 2014, and Director and Executive Vice President in 2018. As CFO since April 2019, he has been working to manage the SHI Group's operating performance and maintain financial discipline in the Company's aggressive investment activities targeting growth.

Since he has a high level of management knowledge and supervising ability, SHI has determined that he is qualified to serve as a director of the Company.



Kazuo Hiraoka
Director, Executive Vice President

Apr. 1985 Joined the Company
Apr. 2012 General Manager of Plastics Machinery Division (current)
Apr. 2015 Vice President
Apr. 2016 Senior Vice President
Apr. 2020 Director, Executive Vice President (current)

Reason for appointment as a director

Mr. Kazuo Hiraoka was appointed General Manager of the Plastics Machinery Division in 2012, Vice President in 2015 and Senior Vice President in 2016, before being elevated to Executive Vice President in April 2020. As the person in charge of the Plastics Machinery business, a driver of the Group's growth and high profitability, he is spearheading initiatives aimed at business expansion.

Since he has a high level of management knowledge and supervising ability, SHI has determined that he is qualified to serve as a director of the Company.

Directors, Corporate Auditors, and Executive Officers

Corporate Auditors



Yuji Takaishi
Standing Corporate Auditor

Apr. 1977 Joined the Company
Apr. 2007 Senior Vice President, General Manager of Human Resources Department
Jun. 2007 Director
Apr. 2010 Executive Vice President, General Manager of Plastics Machinery Division
Apr. 2012 General Manager of Corporate Planning & Development Department
Apr. 2013 Representative Director, General Manager of Export Administration Department
Apr. 2014 General Manager of Corporate Planning Group
Apr. 2015 Regional General Manager of Kansai Office
Jun. 2016 Standing Corporate Auditor (current)



Jun Nogusa
Standing Corporate Auditor

Apr. 1979 Joined the Company
Apr. 2014 General Manager of Internal Control Department
Jun. 2018 Standing Corporate Auditor (current)



Takeo Wakae
External Corporate Auditor

Apr. 1983 Registered as attorney-at-law
Apr. 1992 Civil Conciliation Commissioner at Tokyo District Court (current)
Apr. 2003 Vice President of Daiichi Tokyo Bar Association (fiscal year 2003)
Jun. 2012 External Corporate Auditor of the Company (current)
Apr. 2014 Executive Director of Japan Federation of Bar Associations (fiscal year 2014)



Masaichi Nakamura
External Corporate Auditor

Mar. 1987 Registered as a certified public accountant
Aug. 2008 Managing Director of Ernst & Young ShinNihon LLC
Jul. 2014 Representative Partner and Vice President of Ernst & Young ShinNihon LLC
Representative Director of Ernst & Young Business Initiative Co., Ltd.
Sep. 2016 Established Masaichi Nakamura CPA Office
Jun. 2017 External Corporate Auditor of the Company (current)

Executive Officers (■ designates concurrent position as a director)

President	■ Shinji Shimomura	CEO
Senior Executive Vice President	■ Tetsuya Okamura	General Manager of Export Administration Department
Executive Vice President	■ Toshiharu Tanaka	General Manager of Power Transmission & Controls Group
Executive Vice President	■ Hideo Suzuki	CFO
Executive Vice President	■ Kazuo Hiraoka	General Manager of Plastics Machinery Division
Senior Vice President	Hiroo Morita	Chairman of the Board of Sumitomo Heavy Industries (China), Ltd.; Representative Director, President & CEO of Sumitomo Heavy Industries Business Associates, Ltd.
Senior Vice President	Tatsuya Endo	Representative Director, President & CEO of Sumitomo Heavy Industries Material Handling Systems Co., Ltd.; General Manager of Ehime Works
Senior Vice President	Taiji Tsuchiya	General Manager of Precision Equipment Group
Senior Vice President	■ Eiji Kojima	General Manager of Energy & Environment Group
Senior Vice President	Hiroshi Arito	Representative Director, President & CEO of Nihon Spindle Manufacturing Co., Ltd.
Senior Vice President	Hideshi Shimamoto	General Manager of Ship & Marine Division; Representative Director and President & CEO of Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
Senior Vice President	Morihiro Kondo	General Manager of Corporate Planning Group
Senior Vice President	Yasunobu Kazumi	Representative Director, President & CEO of SUMITOMO CONSTRUCTION MACHINERY SALES CO., LTD.; Representative Director, President & CEO of SUMITOMO CONSTRUCTION MACHINERY CO., LTD.
Senior Vice President	Toshihiko Chijiwa	General Manager of Corporate Technology Management Group; General Manager of Technology Research Center
Senior Vice President	Shaun Dean	General Manager of EMEIA HQ, Power Transmission & Controls Group; CEO of Lafert S.p.A.; CEO of Invertek Drives Ltd.
Vice President	Tatsuro Araki	Representative Director and President & CEO of Sumitomo Heavy Industries Gearbox Co., Ltd.
Vice President	Sadahiko Kimura	General Manager of Mechatronics Division
Vice President	Shigeru Tajima	General Manager of Process Machinery Center; Representative Director & President of Sumitomo Heavy Industries Process Equipment Co., Ltd.
Vice President	Kazutoshi Shiraiishi	General Manager of Human Resources Group
Vice President	Toshiro Watanabe	General Manager of Corporate Finance, Accounting & Administration Group

Interview with a New External Director

In June 2020, we asked Mr. Akio Hamaji, who was newly appointed as an external director of the Company, about the challenges involved in achieving sustainable growth of the Group and enhancing corporate value.

My Appointment

My name is Akio Hamaji and I was recently appointed as an independent external director of the Company.

I started my career as a mining engineer and spent around 10 years on the front lines, then I engaged in the overseas expansion of the cement business. In the process, I participated in M&As in the United States and joint ventures in China and Vietnam, as well as contract negotiations, project financing, and post-operational business management. After that, I gained experience in the public relations, IR, and corporate planning departments at a Head Office, then served as CFO and executive vice president after working as a director. In 2016, I became CEO of a company in the same group, where I addressed various issues related to management, governance, and compliance.

In recent years, independent external directors are required to have clearer roles and specialties. As a practitioner who has been involved in corporate management, I have performed a wide range of duties related to business operations in the Japanese manufacturing industry, which is expanding globally. Going forward, I will work to provide oversight and advice from a practical perspective to the Board of Directors and thus help enhance the corporate value of the Group.

Enhancing Intangible Assets in Preparation for Growth

Generally, corporate value is measured and evaluated based on financial data. Today, however, the world economic outlook has become uncertain due to the spread of COVID-19. In this environment, I believe that reinforcement of intangible assets plays a greater role than financial data in enhancing corporate value. By intangible assets, I mean intellectual capital, human capital, brand

value, and social evaluation, which are key sources of corporate value creation.

Going forward, we need to demonstrate our damage control ability to minimize losses from the COVID-19 pandemic. At the same time, we must develop and provide products and services that reflect future social changes, while enhancing employee motivation and deepening relationships of trust with customers. We must also strengthen our ESG initiatives to fulfill our responsibility as a globally expanding company.

Build Trust through Autonomous Governance Initiatives

It goes without saying that effective risk management to deal with COVID-19 is an urgent management priority. Even in these difficult times, however, I believe we also need to continue strengthening compliance and governance, as evidenced by a recent problem with product inspections.

Nevertheless, strengthening governance can result in increased rules and reporting requirements, which can lead to organizational fatigue and a sense of stagnation. Governance and compliance efforts should be part of the process of building customer and social trust and a source of corporate value creation. It is important that we foster a corporate culture in which the leaders of each Group company in Japan and overseas have a comprehensive understanding of their own organizations and encourage their employees to act independently.

External Director **Akio Hamaji**

Director, Chief Executive Officer of Mitsubishi Aluminum Co., Ltd. in April 2016
External Director of JAPAN BEST RESCUE SYSTEM Co., Ltd. since December 2019
External Director of the Company since June 2020



Messages from External Directors

Beyond COVID-19

The COVID-19 pandemic has lasted longer than predicted, not only harming the economy but also slowing growth and negatively impacting society in various ways. Our operations have been greatly affected by the pandemic. In addition to impacting our business performance, it has required us to reassess our supply chain, business continuity plan (BCP), and other areas as well as rebuild our medium-term management plan.

While the pandemic has led to dramatic socioeconomic changes, it is also expediting various structural changes in the economy and society that were already under way. For example, the need for social distancing has increased the pace of digitalization, while other issues are also under the spotlight, including environmental protection and green campaigns targeting energy reforms, in addition to the serious problem of inequality. Our challenge is to find ways to address these issues.

The same thing applies to corporate management. The pandemic has highlighted the need to ensure business continuity while protecting the lives and health of employees and their families. Next, we need to reassess the business structure and management plan while flexibly incorporating the structural changes necessitated by

COVID-19. Furthermore, we will face increasing calls to strengthen initiatives related to the SDGs in addition to CSR in general.

This is an opportunity for us to rethink how we can contribute to society. The pandemic has prompted us to take various initiatives to accelerate structural changes, and the question is whether or not we can bridge these initiatives with our next stage of growth. Our actions going forward will reveal our true value. As an external director, I hope to continue contributing to the enhancement of corporate value from a broad perspective.



Susumu Takahashi

External Director

Chairman Emeritus, The Japan Research Institute, Limited
Appointed as a private sector member of the government's Economic and Financial Advisory Council in January 2013 and as External Director of the Company in June 2014.

Increasing Corporate Value in the "New Normal" Era

Since the beginning of 2020, the spread of COVID-19 has given rise to various problems and had a greater impact on the global economy than the global financial crisis of 2008. This has affected not only financial activity but also global economic activity as a whole, highlighting the urgent need to modify our systems and respond to usiness activities in the "new normal" era.

We are currently unable to provide performance forecasts for fiscal 2020, and we have also been forced to postpone the formulation and announcement of our medium-term business plan for the next period. Under these conditions, we cannot achieve our objectives of "maintaining sustainable growth and increasing corporate value" using conventional strategies and structures.

For this reason, we have positioned fiscal 2020 as a year for establishing and implementing "new normal" priorities. These include achieving business stability and creating a "new normal" business continuity plan (BCP), maintaining employment levels and reforming working styles, addressing digital transformation (particularly important in the post-COVID era), and building a new business environment with stakeholders. We also need to

consider the Sustainable Development Goals (SDGs) as we build a new foundation for growth in fiscal 2020 and thereafter in order to enhance corporate value. We will then review our governance structure to help implement these strategies and make steady reforms, which is an important task.

As an external director, I believe we need to consider what kind of governance enhancement measures are appropriate for the "new normal" situation in this severe environment. I will continue working to build a new foundation and further reinforce corporate value in the future.



Hideo Kojima

External Director

Certified Public Accountant
Appointed as External Corporate Auditor of the Company in June 2011 and as External Director of the Company in June 2015.

Corporate Governance

The Sumitomo Heavy Industries Group has formulated the "Corporate Governance Basic Policy of Sumitomo Heavy Industries, Ltd." as a basis for improving its corporate governance to establish an efficient and transparent management structure, with a view to further increasing its corporate value and enhancing the evaluation and trust of all stakeholders.

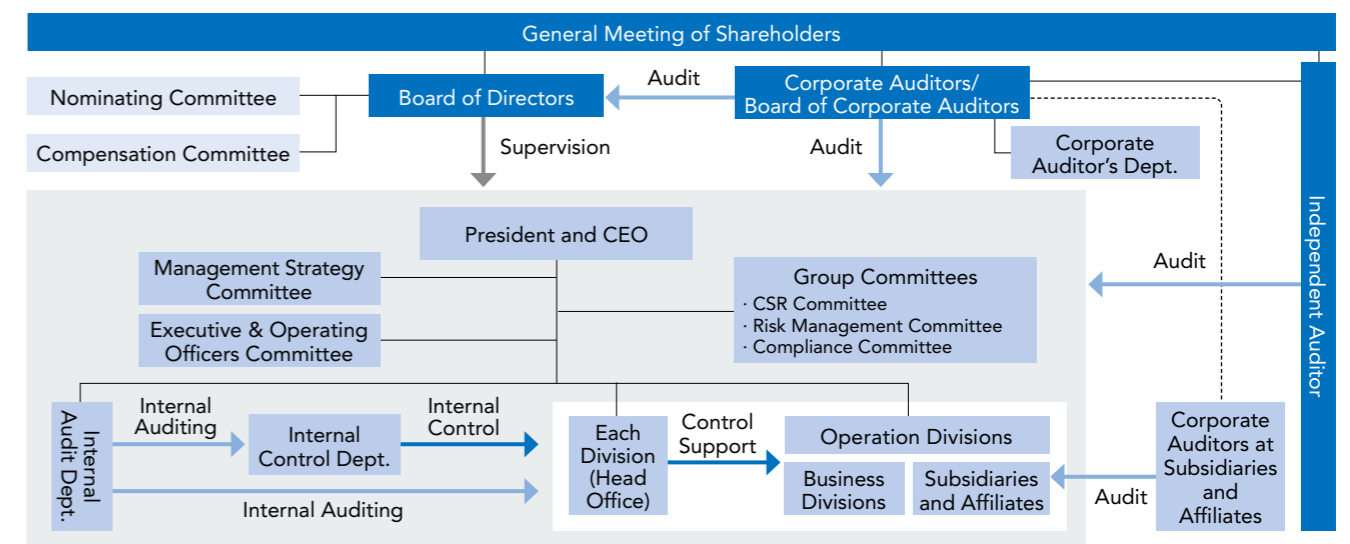
Corporate Governance Basic Policy of Sumitomo Heavy Industries, Ltd. (Summary)

Chapter 1	General Provisions
Chapter 2	Securing the Rights and Equal Treatment of Shareholders ▶ Securing the equal treatment of shareholders ▶ General Meeting of Shareholders ▶ Basic strategy for capital policy ▶ Strategic shareholdings ▶ Related party transactions
Chapter 3	Appropriate Cooperation with Stakeholders Other Than Shareholders ▶ Ethics code ▶ Approach to environmental problems ▶ Whistleblowing ▶ Ensuring diversity in the Company, including the active participation of women
Chapter 4	Ensuring Appropriate Information Disclosure and Transparency ▶ Basic policy on information disclosure
Chapter 5	Responsibilities of the Board of Directors, etc. ▶ Roles and responsibilities of the Board of Directors ▶ Effectiveness of the Board of Directors ▶ Roles and responsibilities of corporate auditors and the Board of Corporate Auditors ▶ External officers ▶ The Nominating Committee and the Compensation Committee ▶ Training for directors and corporate auditors
Chapter 6	Dialogue with Shareholders ▶ Policies on constructive dialogue with shareholders

Corporate Governance System

Sumitomo Heavy Industries (SHI) has adopted a governance system of a company with the board of corporate auditors.

The system is supported by a dual checking function based on management supervision by the Board of Directors' decision-making over business execution and audits by corporate auditors. The supervisory function is further reinforced by the appointments of multiple external directors and utilization of various discretionary committees, with a view to enhancing management transparency and fairness. This structure is believed to be the most appropriate institutional design for ensuring an effective supervisory function for SHI with rather diversified business domains.



Corporate Governance

Business Execution

Executive & Operating Officers Committee

The Executive & Operating Officers Committee, chaired by the President and CEO, consists of directors, corporate auditors, executive officers and those responsible for business execution at each operation division of the SHI Group. For the purpose of supervising business execution within the Group, the status of business execution, matters resolved by the Board of Directors and important corporate policies shall be disseminated across the Group, in an effort to follow up with the management of consolidated business results and the implementation of management policies. The Executive & Operating Officers Committee meets once a month in principle.

Supervision

Board of Directors

At the time of submitting this report, the Board of Directors is comprised of ten directors (limited to 12 directors). They include Chairman of the Board, who chairs the Board of Directors, and three external directors, who supervise management from a standpoint independent from the senior management and whose role is to incorporate the perspectives of external stakeholders into management. The Board of Directors has introduced an executive officer system to create an environment that enables prompt and bold business execution. The senior management reports as appropriate to the Board of Directors on critical management issues and high-risk management challenges, thereby ensuring effective supervision over the senior management and directors. The Board of Directors has also appropriately built up the internal control system and risk management system, pursuant to the Companies Act and other relevant laws and regulations, while supervising the operation of those systems as appropriate by receiving reports from the Internal Control Department on its annual plan and operational status and giving necessary instructions. The Board of Directors meets once a month in principle. Extraordinary Board of Directors meetings are held as appropriate.

SHI has also established the Nominating Committee and the Compensation Committee as advisory bodies to the Board of Directors. Both are chaired respectively by an external director with a view to ensuring objectivity.

Nominating Committee

On the advice of the Board of Directors, the Nominating Committee deliberates on candidates for directors and corporate auditors, dismissal of directors and corporate auditors, appointments and dismissal of representative directors and directors with managerial positions, as well as progress of the succession plan for the CEO and other top executives, and reports to and advises the Board of

Management Strategy Committee

The Management Strategy Committee, chaired by the President and CEO, consists of directors and others appointed by the President and CEO. It deliberates on matters to be discussed by the Board of Directors, including the important management strategies and business strategies concerning the SHI Group, and equivalent important decision-making matters, as an advisory body to the President and CEO. It reports the results of deliberations to the President and CEO. The Management Strategy Committee meets once a month in principle, but may meet at any time as appropriate.

Directors. The Nominating Committee meets at any time as appropriate. In FY2019, the committee met twice to report on the appointment of representative directors and directors with managerial positions, as well as the nomination of candidates for directors and corporate auditors, while advising on the appointment of the candidates for executive officers and verifying the progress of the succession plan for the CEO and other top executives.

Compensation Committee

On the advice of the Board of Directors, the Compensation Committee deliberates on the system and standards of compensation of directors and executive officers and related matters, and reports to and advises the Board of Directors. The Compensation Committee meets once a year in principle but may meet at any time as appropriate. In FY2019, the committee met three times to report on the revision of executive compensation for FY2019 and discussed a desirable executive compensation system for the future.

Board of Corporate Auditors

The Board of Corporate Auditors is currently comprised of four corporate auditors (limited to five corporate auditors), including the Chairman, served by a standing corporate auditor, and two external corporate auditors.

Highly effective audits are conducted by external corporate auditors who capitalize on advanced expertise and a wealth of experience in various fields, as well as by standing corporate auditors who capitalize on their expertise and wealth of experience in the Company's management. They also provide their opinions actively to the senior management at meetings, including those of the Board of Directors and the Executive & Operating Officers Committee.

The Board of Corporate Auditors meets once a month in principle but may meet at any time as appropriate.

External Directors and External Corporate Auditors

External directors and external corporate auditors have neither interests in the Company's senior management, nor the likelihood of conflicts of interest with its general shareholders. As they meet the Company's following Independence Standards for Independent Officers, the Company has reported all of them as independent officers to the Tokyo Stock Exchange.

Title	Name	Reason for Appointment	Attendance at Meetings of the Board of Directors/ Board of Corporate Auditors
External Director	Susumu Takahashi	Susumu Takahashi possesses a high level of insight in economic and management matters, along with broad-based practical experience at both private corporations and government organizations. The Company therefore expects him to offer useful advice for promotion of its sustainable growth and enhancement of its corporate value, and to supervise the management of the Company from an objective and independent standpoint as an external director.	Mr. Takahashi attended 14 of 14 Board of Directors meetings in FY2019.
External Director	Hideo Kojima	Hideo Kojima is an expert in finance and accounting with many years of practical experience as a certified public accountant. The Company therefore expects him to offer useful advice for promotion of its sustainable growth and enhancement of its corporate value, and to supervise the management of the Company from an objective and independent standpoint as an external director, based on his abundant experience and outstanding insight.	Mr. Kojima attended 14 of 14 Board of Directors meetings in FY2019.
External Director	Akio Hamaji	Akio Hamaji possesses detailed knowledge on corporate management gained through abundant experience and outstanding insight based on his years in a career as a corporate manager, as he was committed to corporate management as a representative director in the past. The Company therefore expects him to offer useful advice for promotion of its sustainable growth and enhancement of its corporate value, and to supervise the management of the Company from an objective and independent standpoint as an external director.	—
External Corporate Auditor	Takeo Wakae	Takeo Wakae possesses detailed knowledge on legal affairs as a lawyer. The Company therefore expects him to conduct effective audits of the Company's management from an objective and independent standpoint as an external corporate auditor, based on his abundant experience and outstanding insight.	Mr. Wakae attended 13 of 14 Board of Directors meetings in FY2019. Mr. Wakae attended 12 of 12 Board of Corporate Auditors meetings in FY2019.
External Corporate Auditor	Masaichi Nakamura	Masaichi Nakamura is an expert in finance and accounting with many years of practical experience as a certified public accountant and was committed to corporate management as a representative director in the past. The Company therefore expects him to conduct effective audits of the Company's management from an objective and independent standpoint as an external corporate auditor, based on his abundant experience and high level of insight.	Mr. Nakamura attended 12 of 14 Board of Directors meetings in FY2019. Mr. Nakamura attended 12 of 12 Board of Corporate Auditors meetings in FY2019.

Description of Executive Compensation

Compensation for the Company's directors and executive officers comprises basic remuneration, performance-linked remuneration and stock purchase remuneration. The approximate component ratios are 60%, 30% and 10%, respectively.

Basic remuneration is a fixed form of remuneration determined for each position. An allowance is added to remuneration of directors, 85% of which is fixed remuneration.

Performance-linked remuneration comprises dividend-based remuneration that fluctuates in response to the Company's annual dividend, and performance-based remuneration that fluctuates in response to the consolidated business results for directors and executive officers of the Head Office, and to the performance of operation divisions for directors and executive officers in charge of such divisions. The component ratios are 50% and 50%, respectively. The dividend-based remuneration is calculated by multiplying a standard amount determined according to each position by a coefficient determined based on the Company's annual dividend. 15% of the directors' allowance is variable as it is multiplied by the coefficient used for calculating dividend-based remuneration. Performance-based remuneration linked to the performance of operation divisions is calculated by multiplying a standard amount determined according to each position by a coefficient determined according to the rank of A to E as determined by the President and CEO as the final decision maker, based on the four indicators of ROIC, net income before tax

adjustments, orders and free cash flows, with additional consideration for factors such as safety records and status of compliance. The Company aims to share value with shareholders through the use of these indicators, while incorporating perspectives including profitability, growth potential, financial discipline, safety and compliance into executive remuneration.

Stock purchase remuneration is defined as remuneration for the purpose of purchasing SHI shares. An amount of remuneration over a certain level determined according to each position is used for purchasing SHI shares through the officers' shareholding association. Holders of the shares are obliged to retain them during their term of office.

SHI discontinued its executive retirement bonus system at the conclusion of the 109th Ordinary General Meeting of Shareholders held on June 29, 2005.

Compensation of corporate auditors is determined by mutual consultation between corporate auditors.

Compensation of external officers consists solely of basic remuneration.

The maximum aggregate amount of compensation paid to directors shall not exceed ¥40 million per month, pursuant to the resolution at the Ordinary General Meeting of Shareholders held in June 2006. The maximum aggregate amount of compensation paid to corporate auditors shall not exceed ¥7.5 million per month, pursuant to the resolution at the Ordinary General Meeting of Shareholders held in June 2005.

Classification	Amount of Compensation (Millions of yen)	Amount by Type of Compensation (Millions of yen)			Number of Eligible Officers
		Basic Remuneration	Performance-Linked Remuneration	Stock Purchase Remuneration	
Directors (excluding external directors)	372	219	119	34	8
Corporate auditors (excluding external corporate auditors)	69	69	—	—	2
External officers	38	38	—	—	4

Compliance and Risk Management

Compliance Initiatives

Basic Concept

The SHI Group calls for its officers and employees to comply with laws and corporate ethics and always act with discernment. In order to ensure comprehensive compliance throughout the Group, we established our Basic Compliance Policy in March 2020 and distributed it to officers and employees. The “Basic Compliance Policy” consists of the following three items.

- 1 Guided by the Sumitomo Business Spirit, the SHI Group shall promote compliance in accordance with its Corporate Philosophy in order to achieve sustainable growth and increase corporate value.
- 2 All officers and employees shall comply with laws and in-house rules and regulations based on ethical standards while observing social norms and other corporate ethical practices and conducting fair business in good faith.
- 3 Safety and compliance shall take precedence overall.

The SHI Group’s Ethics Code outlines the basic action guidelines that officers and employees of the Group must follow, and the Group asks everyone to put the code into practice. We also have compiled a Compliance Manual that provides specific action guidelines, including various rules to be observed by officers and employees, as well as the Sumitomo Business Spirit, Corporate Philosophy, and Ethics Code. The manual is distributed to all officers and employees to ensure it is fully understood.

Compliance Promoting System

We established the Compliance Committee, chaired by the president, to formulate the Group’s compliance policies, identify the status of potential compliance problems, and provide guidance to prevent issues from arising.

Compliance policies and other rules decided by the Compliance Committee are being developed through the Compliance Promoting System (see page 49).

The Internal Control Department serves as the secretariat of the Compliance Committee. Under the guidance of the president, the department supervises the Group’s Compliance Promoting System and is responsible for developing plans, implementing them, and monitoring their progress to promote Groupwide compliance. Each of our divisions, manufacturing facilities, and affiliated companies has its own internal control organization (staffed with a lead internal control promoter and internal control promoters) to promote compliance in collaboration with the Internal Control Department. In 2018, we revised the SHI Group Compliance Regulations and applied them to all domestic subsidiaries so that they implement compliance-related plans and measures more consistently throughout the Group.

Promoting Compliance Education

To maintain and improve awareness of compliance, we organized the following education and training system, which we carry out annually in a multilayered format.

Level-Specific Education

Eligible persons are newly hired employees, newly appointed assistant managers, and managers, as well as executive directors and officers.

Workplace-Specific Education

To deepen employees’ basic understanding of compliance, we conduct regular compliance education forums at each workplace, and we also continuously hold reading sessions of the Compliance Manual. In addition, employees at each workplace are divided into small groups to discuss and make presentations about compliance-related case studies. Such case-based education enables employees to gain a full understanding about compliance issues.

E-Learning

In addition to compliance, we include safety, harassment, and CSR as subjects of education and conduct across-the-board confirmation tests of all Group employees. We have also extended e-learning to overseas Group members, with all Chinese affiliates introducing e-learning in 2016 and major Southeast Asian affiliates in 2018.

Function-Specific Education

We provide compliance education for each job category, including for employees newly assigned to the Sales Division.

Pledge of Compliance

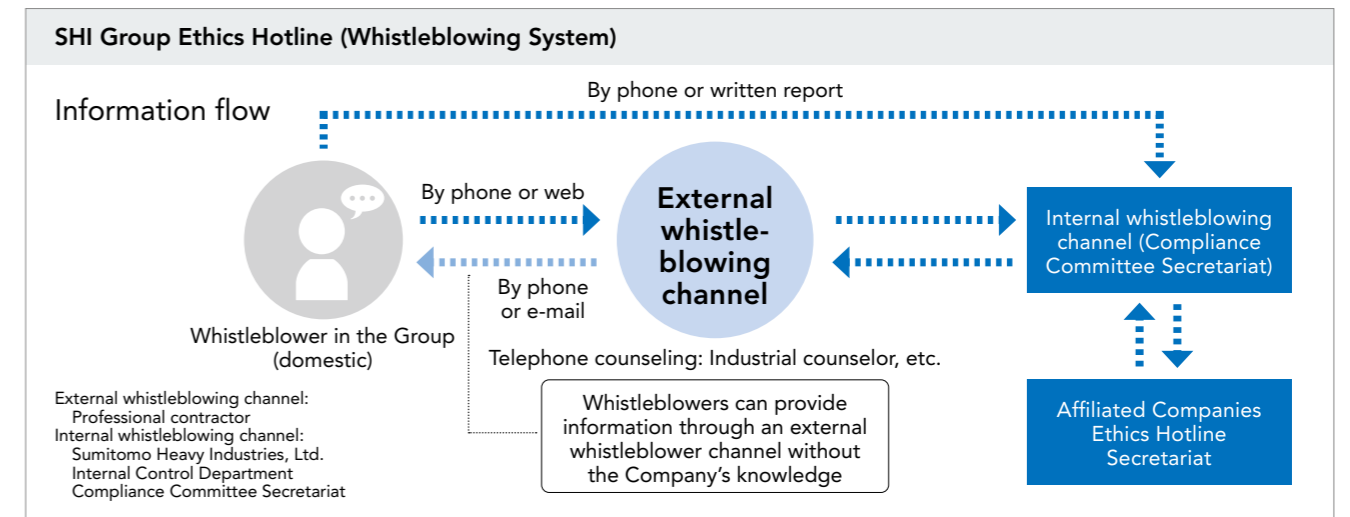
To ensure the execution of business activities with awareness of compliance, we require managers of each Group company to submit a pledge of compliance to their respective company presidents every year.

Whistleblowing System

We have a whistleblowing system called the SHI Group Ethics Hotline that allows officers and employees of the Company and affiliated companies to report to or consult with the Compliance Committee Secretariat concerning incidents that violate or may violate laws and internal rules. Since 2017, we have operated an external hotline in Japan that can be used equally by all Group employees to facilitate reporting and consultation. In 2019, we established a similar external hotline for all employees of affiliated companies in China.

Compliance Awareness Survey

We conduct a Groupwide compliance awareness survey annually to ascertain understanding levels related to compliance, potential risks, and other problems among employees, including those of affiliated companies in Japan and China. We take measures to improve compliance with a focus on trends in survey results, not only from the current fiscal year but from past ones as well.

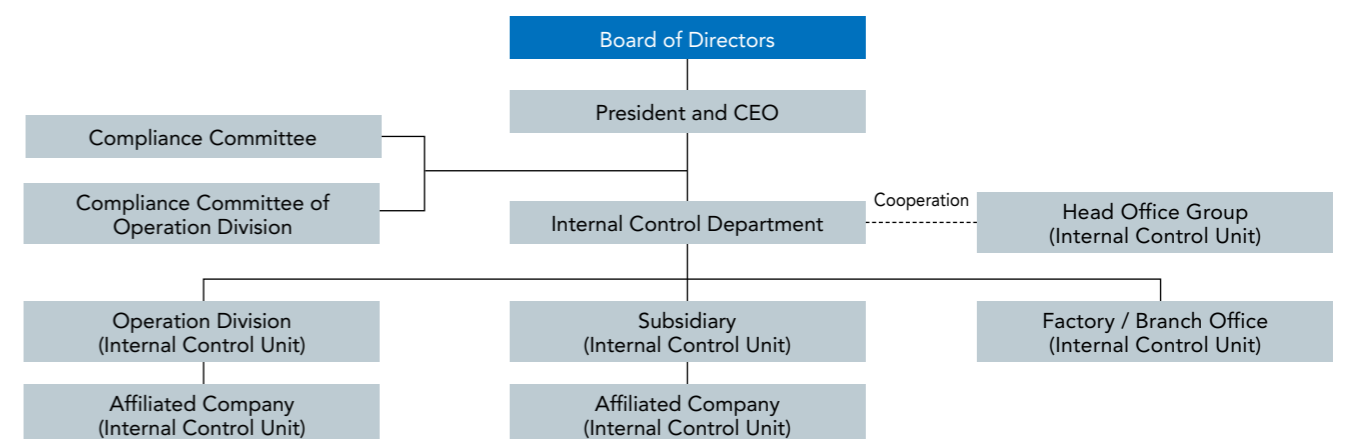


Risk Management Initiatives

At its meeting in March 2020, the Board of Directors decided to establish a Risk Management Committee, chaired by the president, to spearhead comprehensive risk management across the entire Group. The committee formulates risk management policies for the Group and selects important risks affecting the Group. It also confirms and monitors the status of responses to such risks, as well as the status of risk management in each business division.

If an emergency occurs, moreover, we immediately report it to top management in accordance with our “Emergency Communication Guidelines” so that we can take appropriate actions in a timely manner.

Compliance Promoting System and Risk Management



CSR Mid-Term Plan

1 CSR Mid-Term Plan and Its Progress

In fiscal 2017, the SHI Group formulated its CSR Mid-Term Plan in conjunction with its Medium-Term Management Plan 2019. Under the CSR Mid-Term Plan, we designated four priority areas: products/services, environment, society and employees. Since then, the CSR Department has spearheaded efforts to integrate the activities of related departments and promote CSR in general. In fiscal 2019, the third year of the CSR Mid-Term Plan, we made progress in the following areas.

In addition to the activities shown in the table below, the Internal Control Department is leading efforts to ensure rigorous compliance, recognizing that it is the most important foundation for CSR.



Issues in the SHI Group's CSR Mid-Term Plan and Progress in Fiscal 2019

Sector	Purpose	Activities	Our goals	Index	Progress in FY2019
Products/services	Develop products that tackle social issues	Dialogue with business divisions	· Hold meetings on tackling social issues through products/services with 5 divisions	(Construction machinery example) · Number of environmentally friendly products on the market · Reduction in CO ₂ emissions as a result of cycle time improvements	○ · Dialogue with 97 people in 20 business divisions · Furthered understanding of contributions to SDGs · Set indicators to measure the progress of CSR · Created a specific foundation for key Groupwide CSR issues
		Improving product quality	· Make continuous product quality improvements	· Quality evaluation indicators set for each business division	△ · Implemented quality audits and shared quality and business process improvement cases at Quality Control Division managers' meetings
		Compliance with/shortening delivery deadlines	· Production lead time Shorten by 30% compared to fiscal 2016	· Amount by which production lead times for target processes of each division are reduced	△ · Percentage of divisions that met their production lead time targets: 40%
Environment	Minimize the environmental load across the entire product life cycle	Reducing CO ₂ emissions	· Reduce CO ₂ emissions by 3% compared with fiscal 2016 during production and product transport in Japan	· During production: CO ₂ emissions per unit of sales compared to fiscal 2016 · During product transport: CO ₂ emissions per transport weight compared to fiscal 2016 · During product use: Disclosure of the total amount of reduction	△ · During production: 2.6% reduction in Japan and 20% overseas · During transport: 5.5% increase · During product use: Disclosed the total amount of reduction of 8,116,000 tons · Expanded initiatives for environmentally friendly products (see chapter on "Environment"): 24 models; sales ratio increased to 27% · Investments in energy conservation equivalent to about 0.2% of last year's net sales
		Environmental risk management			○ · Revised and expanded scope of environmental risk assessments · Continued policy of unified ISO 14001 certification
Society	Earn social trust	Promoting clean procurement	· Held a seminar for business partners · Conducted CSR survey of business partners engaged in key initiatives · Improvement guidance	· Information sessions held: 4 divisions · Number of target business partners in fiscal 2017 and fiscal 2018	○ · (Priority given to enhancement of explanatory materials) · Not implemented (scheduled targeting for 7 business partners in fiscal 2020) · 288 companies
		Internal/external dissemination of CSR	· Disclosure of information outside the Company · In-house education	· Publish an integrated report annually · Published CSR articles in SHI Group magazine · Distribute mail magazines	○ · Published an integrated report annually · Published four-part series of CSR articles in SHI Group magazine · Distributed mail magazines (10 times in a year)
		Supporting and contributing to local communities	· Develop the basis of regional cooperation (concluding a disaster prevention agreement, etc.) · Advance initiatives tailored to local needs and characteristics	· Number of sites with no disaster prevention agreement concluded · Number of new initiatives	○ · Concluded disaster prevention agreements between all bases and local governments, registered business locations with AEDs · Launched corporate training for teachers and acquisition of naming rights, and held product fairs inside our office building, etc.
Employees	Create a vibrant workplace for every employee	Create a workplace with zero accidents and both physically and mentally healthy employees	· Zero serious accidents · Eliminate accidents causing lost work time	· Number of serious accidents · Number of accidents causing lost work time (4 days or more/Japan)	× · 1 serious accident × · 19 actual cases against target of 9 (including 1 serious accident; January–December 2019)
		Promote health management		· Evaluation under Health Management Excellent Corporation Certification System	○ · Health management evaluation improved by 4% from previous year
		Promote diversity	· Promote the active participation of women · Promote work-life balance	· Ratio of female employees (non-consolidated) · Number of female managers (non-consolidated) · The total number of working hours per year (non-consolidated)	○ · Provided career development support through interviews with bosses of female employees at section chief level and preparation of training plans · Participated in J-Win, a group for women's management training △ · 1,979 target hours · 1,989 actual hours

2 Diversified CSR Dialogue with Employees

The CSR Department engages in dialogue with business divisions to help employees understand the significance of social contribution through business activities. Using the results of such dialogue, we clarify the significance of business, determine indicators to measure the progress of CSR activities, and report our findings to general managers of each division. Furthermore, the people in charge of relevant business divisions report these findings to the president of SHI. Subsequent progress reports are also made at the process review site, where the president examines the business processes of each division.

This dialogue additionally serves as a means of engagement with employees. The SHI Group operates in diverse businesses, so advancing CSR helps it understand the value that it provides to society and also identify key CSR issues.

3 CSR Executive Study Sessions

During the year, we invited Ms. Ayako Sonoda, Representative Director of sustainability accounting company Cre-en Inc., to hold two study sessions for our executives. At the sessions, attendees learned about the importance of sustainability and heard examples of corporate SDG-related initiatives and issues required of companies from an ESG perspective. The sessions also involved small group discussions, where business managers organized their thoughts on various issues, such as solutions for realizing the SDGs and opportunities and risks from an ESG perspective. The CSR Department will continue holding executive study sessions to provide business managers with the opportunity to broadly learn about the demands of society.



CSR study session

4 Identifying Key CSR Issues

Until now, decisions on priority CSR-related areas and issues have been made internally at SHI. Reflecting on this, we specified key CSR issues as an initiative for the third year of our active CSR promotion campaign. To identify such issues, we created a long list of priorities required of machine manufacturers, after referring to ISO 26000 social responsibility standards, Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the SDGs, and the like.

Next, we conducted a series of explanations and dialogues with relevant people in each Head Office department and business division to decide the importance level of each key issue to the Company. At the same time, we received opinions from CSR experts and Ms. Mari Yoshitaka*, who was invited to the dialogue sessions. Ms. Yoshitaka commented, "Value creation issues are not only related to the environment, but also to social challenges (such as a decrease in working population)."

As its meeting in March 2020, the Board of Directors finalized the Group's key CSR issues after incorporating all of these opinions, which represent the important perspective of stakeholders.

* Chief Environmental & Social Strategist, Environmental Strategy Advisory Division, Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. (at that time)

Priority issues	Challenges & Activities	
1. Creating a vibrant lifestyle and workplace for every employee	① Improvement in labor productivity: Automation, labor savings, remote operation, safety checks, failure prediction, etc. ② Application of state-of-the-art technology: Medical devices, semiconductor manufacturing, plastics machinery, etc. ③ Contributions to infrastructure enhancement and stable energy supply: Water treatment facilities, power generation turbines, etc.	CSR that creates value
2. Minimizing the environmental load	① Enhancement of energy efficiency ② Challenge of achieving a circular economy ③ Adapting to climate change (· Reduction of greenhouse gas emissions over product life cycles) (· Enhanced efficiency in energy usage in business activities) (· Creation of BCP)	
3. Employee safety, health, and development	· Ensuring employee safety · Health promotion (health management) · Employee training · Organizational development · Promotion of diversity and empowering women · Realizing work-life balance	CSR that provides the foundation
4. Ensuring product quality	· Quality assurance and on-time delivery	
5. Improving governance	· Practicing compliance · Practicing CSR along the entire supply chain	
6. Enhancing information disclosure	· Issuing integrated reports · Dialoguing with investors	
7. Mutually beneficial relationships with communities	· Understanding the expectations of and cooperating with communities and the diverse range of stakeholders	

5 Review of Corporate Governance System and Establishment of Basic CSR Policy

At its meeting in March 2020, the Board of Directors finalized the SHI Group's Basic CSR Policy and key CSR issues. Previously, we set "long-term CSR objectives" as an indication of the Group's CSR philosophy, but we reassessed this approach and decided to formulate the CSR Basic Policy (see page 12).

Following a review of our corporate governance system, we positioned the CSR Committee, Risk Management Committee, and Compliance Committee as Groupwide committees chaired by the president and CEO. Results of discussions held by these committees are reported to the Board of Directors, which provides guidance aimed at enhancing risk management and compliance (see page 45).

Environment

We promote environmental management based on the recognition that protecting the global environment and pursuing circular economic activities are our corporate social responsibilities. We will place particular emphasis on minimizing environmental impacts throughout the product life cycle while stepping up our focus on reducing CO₂ emissions.

Environmental Policy of the SHI Group

Environmental Philosophy

Adhering to the Sumitomo Business Spirit, we will work earnestly to protect the global environment in all of our business activities in our quest to realize a sustainable society.

Environmental Policy

Guided by our environmental philosophy, we will work proactively and voluntarily on the priorities listed to the right.

- Prevent environmental pollution
- Realize a circular society
- Comply with laws and regulations
- Help create a low-carbon society
- Preserve biodiversity
- Strengthen and continuously improve our environmental management system

Evolution of Our Environmental Policy

Since establishing our Global Environmental Committee in 1992, we have been promoting environmental protection and compliance in local communities. In November 1999, we established the SHI Group Environmental Policy to clarify our basic policy for Groupwide activities. Under the policy, we are applying environmental management across the entire Group, including in our overseas operations. In May 2017, we revised the policy to reflect our long-term CSR objectives, our basic governance policy, and a revision to the ISO 14001 standard.

Priority Issues

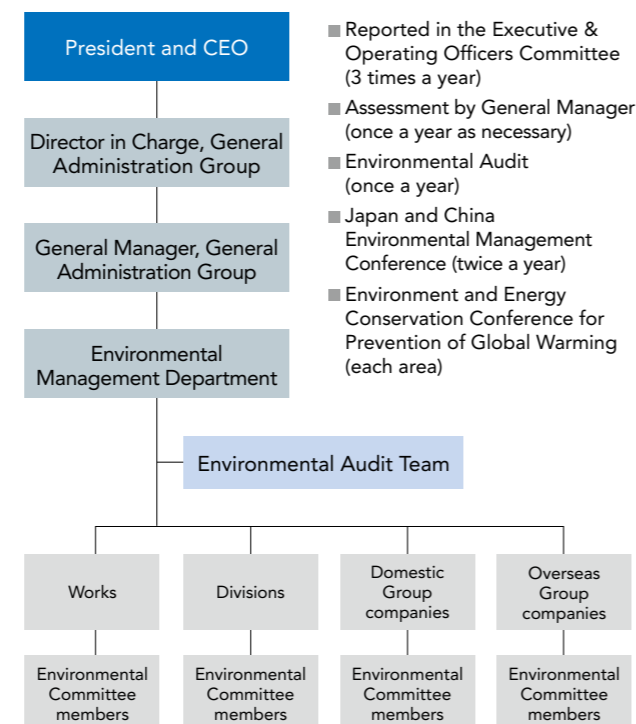
To implement its environmental policy, the SHI Group has been working to improve environmental management based on medium-term environmental plans with specific activity targets formulated every three years since fiscal 2005.

Under our 5th Medium-Term Environmental Plan (FY2017–FY2019), we are promoting environmental activities focusing on the four global priority issues listed below.

With respect to “2. Reduce CO₂ emissions across the product life cycle,” since fiscal 2018 we have placed particular attention on ascertaining and disclosing CO₂ emission reductions related to our products when in use (known as avoided emissions), because such emissions account for a large portion of total product life cycle emissions.

1. Strengthen environmental risk management
2. Reduce CO₂ emissions across the product life cycle
3. Minimize the environmental impact of our business activities
4. Preserve biodiversity

Environmental Management System



5th Medium-Term Environmental Plan: Summary of Activities

Indicator	Item	Base year	Target	FY2017	FY2018	FY2019	Not achieved
							5th Medium-Term Management Plan status
Risk management	Serious environmental accidents	—	Zero	○	○	○	○
	Environmental accidents	—	9 or less	○	×	○	×
	VOC reduction volume (domestic)—Total	FY2006	Maintain 34% reduction	○	○	○	○
Reduction of CO ₂ emissions	VOC reduction volume (domestic)—Basic unit	FY2006	Maintain 34% reduction	○	○	○	○
	During production / energy productivity (domestic)	FY2016	3% improvement	○	○	×	×
	During production / energy productivity (overseas)	FY2016	3% improvement	○	○	○	○
	During transport / green logistics (domestic)	FY2016	3% reduction	×	○	×	×
Effective use of resources	Reduction of waste generation (basic unit) (domestic)	FY2013	6% reduction	○	×	○	○
	Reduction of waste generation (basic unit) (overseas)	FY2013	6% reduction	×	×	×	×
	Domestic / zero emission—Landfill rate	—	Less than 0.5%	○	○	○	○
	Reduction of product packaging materials (basic unit)	FY2013	6% reduction	○	○	○	○
	Reduction of water consumption (domestic)	FY2014–2016 average	Maintain	×	×	×	×
Reduction of water consumption (basic unit) (overseas)	FY2013	3% reduction	○	○	○	○	

- Environmental accidents: A total of 11 environmental accidents occurred in fiscal 2019 (none serious), so our target was not achieved. One of the causes of accidents was aging equipment, and for this reason we will consider a capital investment plan and other measures.
- Energy productivity (domestic): Due mainly to an increase in fixed power usage stemming from installation of clean rooms and addition of air conditioners, as well as the increase in net sales, we did not reach our target. On the other hand, such measures are an indispensable part of our activities to improve working environments and ensure product quality, so we have reached our limit with respect to achieving reductions through operational management. We will consider a capital investment plan and other measures to address this issue.

- Green logistics: Due to an increase in shipments of parts stemming from expansion of service operations, as well as a rise in land transportation to distant places, we did not achieve our target. We will continue implementing various measures, including modal shift and increases in loading ratio, in order to reduce CO₂ emissions during transportation.
- Water consumption (domestic): Due to the need to address natural disasters that occurred in fiscal 2019, as well as higher summer temperatures and other factors, we did not achieve our target. We will continue monitoring separately to identify whether any future increases stem from our business activities or from disaster response and other activities.

Continuation of Unified ISO 14001 Certification

We engage in environmental activities in accordance with the SHI Group Environmental Philosophy and Environmental Policy. With the aims of integrating rules for the operation of environmental management systems and increasing the efficiency of maintaining certification, SHI obtained uniform ISO 14001 certification in fiscal 2018 for six manufacturing sites and seven plants. In fiscal 2019, Sumitomo Heavy Industries Construction Cranes

Co., Ltd., which had engaged in environmental activities as a division of a manufacturing plant, renewed its Companywide unified certifications to include the sales offices of its domestic affiliates for the first time.

Going forward, we will continue promoting Groupwide environmental activities, which we regard as a business priority.

Acquisition of Third-Party Certification of Environmental Data (Scope 1 and 2)

The SHI Group has obtained third-party certification from Bureau Veritas Japan Co., Ltd. for environmental data associated with its business activities in Japan*¹, including energy usage (crude oil equivalent)*² and CO₂ emissions from energy use*³ in fiscal 2018.

*1 Excludes Tanashi Works, which already has certification under Tokyo ordinances

*2 Energy usage (crude oil equivalent): Electricity, city gas, LPG, heavy fuel oil A, gasoline, light oil, kerosene, hot water, cold water

*3 CO₂ emissions from energy use: CO₂ emissions from energy used by the Company*²



Independent Assurance Statement

Environment

Environmentally Friendly Products

The SHI Group uses its own evaluation method to certify environmentally friendly products. The number of applications for environmentally friendly products in each segment has been increasing every year, with sales of such products now accounting for 27%* of consolidated net sales.

In our next medium-term environmental plan, we plan to increase the sales ratio of environmentally friendly products while stepping up efforts to help reduce CO₂ emissions when our products are used.

* FY2019 results

List of Environmentally Friendly Products

Segment	Division in charge	Product name (model)	Registration classification	Assessment criteria			
				Resource recycling	Combats global warming	Environmental risk	Automation and labor saving
Precision Machinery	Plastics Machinery Div.	SEEV-A injection molding machine	Environmentally friendly product	△	○	◎	○
		SAion-300 ion implantation devices	Environmentally friendly product	○	○	◎	△
	Sumitomo Heavy Industries Ion Technology	MC3-II/GP ion implantation devices	Environmentally friendly product	△	◎	◎	△
		S-UHE ion implantation devices	Environmentally friendly product	△	◎	◎	△
	Sumitomo NACCO Forklift	High-reach electric forklifts	Environmentally friendly product	△	◎	◎	(Re-evaluation required)
Construction Machinery	Sumitomo (S.H.I.) Construction Machinery	LEGEST hybrid hydraulic excavators	Super environmentally friendly product	△	◎	◎	△
		LEGEST hydraulic excavators	Super environmentally friendly product	△	◎	◎	△
		Hydraulic asphalt finisher	Environmentally friendly product	△	◎	◎	(Re-evaluation required)
	Sumitomo Heavy Industries Construction Cranes	SCX crawler crane	Environmentally friendly product	△	◎	○	○
		HSL crawler crane	Environmentally friendly product	△	◎	○	○
		HLX crawler crane	Environmentally friendly product	△	◎	○	○
Industrial Machinery	Industrial Equipment Div.	Forging servopress (FPS)	Environmentally friendly product	○	◎	◎	△
	Shin Nippon Machinery	Steam turbines (long-blade, high-efficiency model)	Environmentally friendly product	○	○	△	△
Environmental Facilities & Plants	Energy & Environment Group	Biomass boiler	Environmentally friendly product	△	○	◎	△
		Compact biomass boiler	Super environmentally friendly product	○	○	◎	△
	Sumitomo Heavy Industries Process Equipment	DWC vertically split distillation columns	Environmentally friendly product	△	○	◎	△
		Sumijetter grit jet pump	Super environmentally friendly product	○	◎	○	△
	Sumitomo Heavy Industries Environment	Vertical screw-type dust remover	Environmentally friendly product	△	◎	△	◎
		Evaporator	Super environmentally friendly product	△	○	◎	△
	Sumiju Plant Engineering*	Electrostatic precipitator	Environmentally friendly product	△	◎	△	△
		Eco Pulser™ bag filter dust collector	Environmentally friendly product	△	◎	○	△
	Nihon Spindle Manufacturing	Thermal series of air conditioners	Environmentally friendly product	△	◎	○	○
		Multi-function extractor	Environmentally friendly product	△	◎	○	△
Izumi Food Machinery		NT plate-type sterilizer	Environmentally friendly product	○	○	◎	○

* Merged with Sumitomo Heavy Industries, Ltd. in April 2020

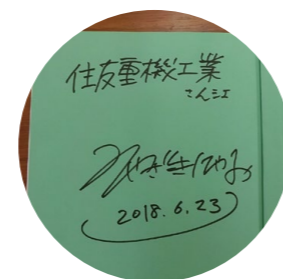
Tanashi Forest of Inspiration

Around 30% of the Tanashi Works site is occupied by the Musashino Forest, which has more than 4,500 trees of 40 different species.

Part of this forest, which we named "Forest of Inspiration," is open to the public. In addition to being a place for citizens to relax, it serves as a local disaster evacuation site and a space for academic research on biodiversity. Mr. Hayao Miyazaki (a director of Studio Ghibli, Inc.), a famous Japanese animator and movie director, learned about our "Forest of Inspiration" initiative and gifted a book with his autograph to us. We will draw on the good wishes we have received from people like Mr. Miyazaki, who is deeply knowledgeable about nature conservation, to encourage our future activities.



Forest of Inspiration at Tanashi Works



Autographed book received from Mr. Hayao Miyazaki

CSR Activities: Environmental Education for Elementary School Pupils and Cleanup the World in Obu

Sumitomo Heavy Industries Environment Co., Ltd. participates in an environmental fair held every June in Minamishigara City of Kanagawa Prefecture, talking about the environment while displaying panels and hosting mini classes.



Environmental fair

During the year, a total of 22 employees and their families—from Nagoya Works, Sumitomo Heavy Industries Construction Cranes Co., Ltd., and Sumitomo NACCO Forklift Co., Ltd.—participated in "Cleanup the World in Obu," an event sponsored by Obu City, Aichi Prefecture.



Scene of cleanup activity

Capital Investment in Environmental and Energy-Saving Equipment

In fiscal 2019, the ratio of capital investment in environmental and energy-saving equipment inside and outside Japan was 0.54% of net sales. SHI is taking a systematic and proactive approach to upgrading aged equipment and installing equipment with the latest technologies from the standpoint of increasing efficiency, conserving energy and preventing environmental accidents.

	Ratio of capital investment in fiscal 2019		
	Environment-related	Energy conservation-related	Total
Percentage of net sales	0.15%	0.39%	0.54%

6th Medium-Term Environmental Plan

We have formulated our 6th Medium-Term Environmental Plan, which starts in fiscal 2020. Under the new plan, we will work to address climate change by reducing total CO₂ emissions during production while expanding our lineup of environmentally friendly products (those that generate lower emissions when used).

■ New initiatives

Indicator	Item	Base year	Target value
Environmental management	Zero environmental accidents (domestic/overseas)	—	Zero serious environmental accidents
		—	3 or less environmental accidents
Respond to climate change (prevent global warming)	Reduce CO ₂ emissions (total volume)	FY2019	1% reduction per year
	During production/Increase energy efficiency (domestic)	FY2019	1% improvement per year
	During production/Increase energy efficiency (overseas)		1% improvement per year
	During transport/Promote green logistics (domestic)		Maintain FY2019 level
Environmentally friendly products	Reduce CO ₂ emissions of products when in use	FY2019	Expand number of products and contribution to reduction
	Expansion of environmentally friendly products	—	· Number of registered products: 23 or higher · Sales ratio: 30% or higher
Biodiversity	Promote activities to address marine plastic problem	—	Set qualitative/quantitative targets for each division and promote activities
Promote recycling to save resources (circular economy)	Reduce waste generation (domestic)	FY2017–19 average	Maintain FY2017–19 average in terms of volume/sales
	Reduce waste generation (overseas)	FY2019	1% reduction per year in terms of volume/sales
	Continue zero emissions campaign (domestic)	—	Landfill rate: 0.5% or lower
	Reduce water usage (domestic)	FY2017–19 average	Maintain FY2017–19 average
	Reduce water usage (overseas)	FY2019	Maintain FY2019 level
Promote environmental pollution prevention	Reduce volume of product packaging materials (including parts) (domestic)	FY2017–19 average	Maintain FY2017–19 average in terms of volume/sales
	Control emissions of VOC target substances (air pollutants) (domestic)	FY2019	Maintain FY2019 level
	Control emissions of VOC target substances (air pollutants) (overseas)	FY2019	1% reduction per year

Human Resources

“Our Business Is the People”

These words express a truth that runs throughout the SHI Group. In the era of VUCA*, greater importance is being placed on people.

The SHI Group has declared the SHI Group Human Resource Policy as its fundamental approach to human resource management.

Based on this policy, the SHI Group sets growth targets for each employee after holding discussions about personnel in the workplace, with the aim of creating workplaces where each and every employee can work to the best of their abilities. To help employees attain these

targets, we provide opportunities for growth within the organization as a part of initiatives for employees to grow alongside the Company. From management’s perspective, we take a strategic approach to health management, strive to provide work environments with zero accidents that are healthy for both mind and body, and promote diversity with a focus on empowering women in the workplace and encouraging work-life balance.

* VUCA = Volatility, Uncertainty, Complexity, Ambiguity

SHI Group Human Resource Policy

We have created the SHI Group Human Resource Policy to codify our fundamental approach to all aspects of human resource management and encourage all employees to always be aware of and follow the Sumitomo Business Spirit and the SHI Group Business Principles.

SHI Group Human Resource Policy

Our Business Is the People. Based on the notion that our most important management resource is our human capital, we at the SHI Group will achieve HR management that will contribute to sustainable business growth.

Organizational Climate	We will create an organization that respects the diverse personalities and potential of all individuals, and encourages good communication and open collaboration. We will create a workplace that is vibrant, and that is safe, secure and healthy.
Recruitment	We will recruit people who contribute to our business growth, resonating with Sumitomo’s Business Philosophy and the SHI Group’s Business Principles.
Deployment	We will assign the right people in the right places to maximize employee and organizational performance.
Talent Development	We will respect employees’ will to develop themselves, and will also offer learning opportunities as well as opportunities to put their learning into practice.
Evaluation and Treatment	We will offer a fair and convincing evaluation system and process to boost employee motivation.

Human Resource Development

1 Training Personnel Able to Create New Customer Value

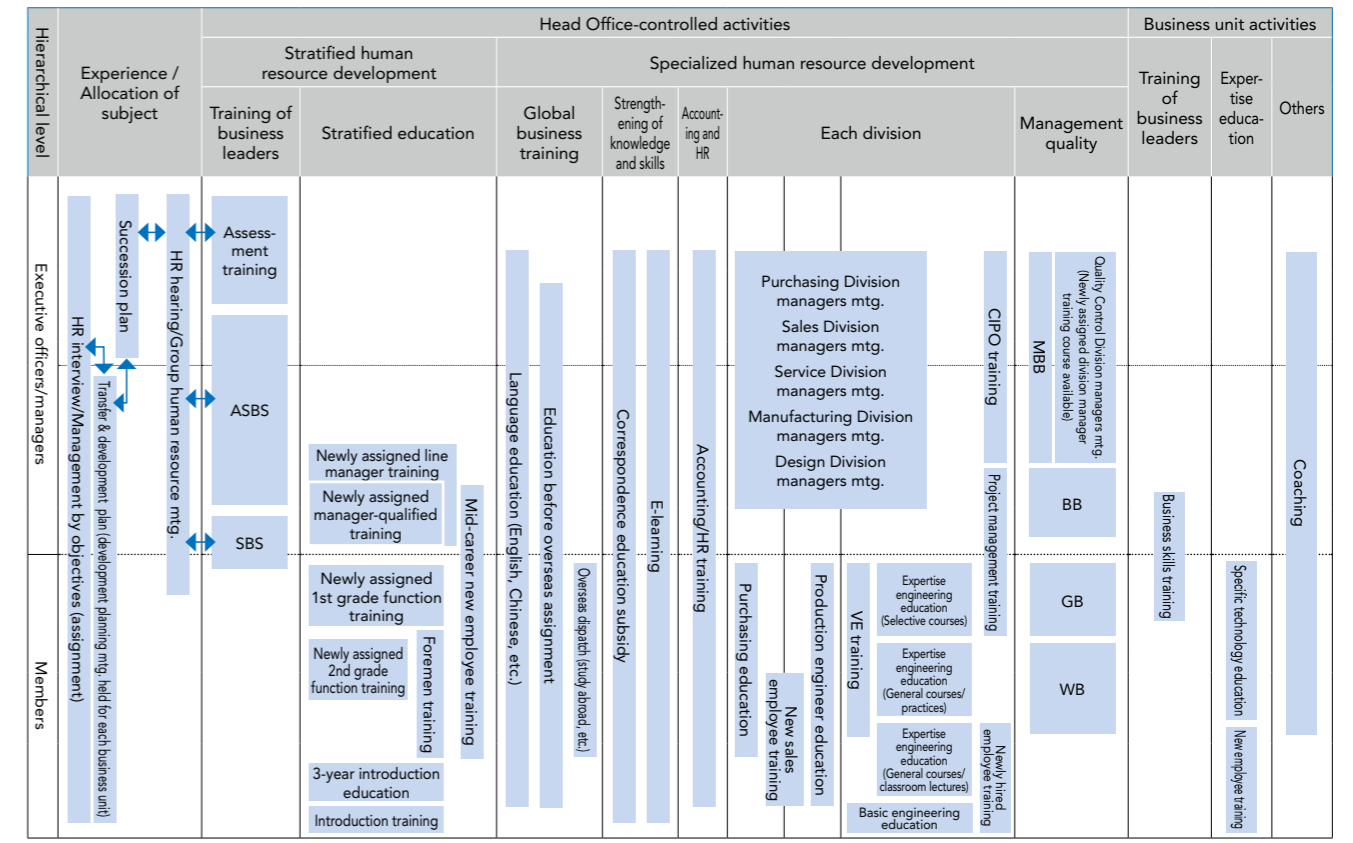
Starting with on-the-job training focused on target management, we provide opportunities for employees to learn necessary skills and knowledge through level-specific education and specialized field training, while establishing frameworks so employees can grow by learning and putting into practice their newfound knowledge.

We also provide career training based on promotion tracks in order to facilitate the steady growth of all

employees in line with their own career visions. For management positions, we have programs for learning management skills to encourage the personal growth of colleagues.

We continue to train personnel with the objective of sustaining growth for the SHI Group, as personal growth for employees translates into new customer value.

SHI Group Human Resource Training Systems



Training of business leaders
ASBS: Advanced SHI Group Business School
SBS: SHI Group Business School

Development design
CIPO training: Chief Intellectual Property Officer Training
VE training: Value Engineering Training

Management quality
MBB: Master Black Belt Training
BB: Black Belt Training
GB: Green Belt Training
WB: White Belt Training

■ Experience and allocation of subjects

In human resource meetings held by each business division, participants draw up plans for training individual employees based on future business targets and plans. At the same time, personnel meetings between superiors and subordinates in each workplace serve as an opportunity to work out training plans based on individual aptitudes, ambitions and life plans.

The topics covered in these personnel meetings are shared at the human resource meetings at the business division level and reflected in employee rotation plans and plans to dispatch employees for training programs.

■ Stratified human resource development

Employees undertake career training in their third year at the Company and at the time of promotions thereafter based on their carefully thought out career plans for the future. Employees are offered training opportunities to improve their ability to solve problems and their communication abilities based on their rank.

In recent years, we have concentrated in particular on training for the manager class and for foremen at manufacturing sites in a bid to enhance their management abilities while training personnel through helpful experiences at each worksite.

Group companies select candidates for key management positions to attend the SHI Group Business School (SBS) and take advanced courses (ASBS) in an intensive

training program that lasts 1–2 years with the objective of training future management personnel.

■ Specialized human resource development

Beginning with technical training, we conduct level-based training for employees for acquiring an area of expertise required for specialized fields related to each functional division at the Head Office.

E-learning is offered to employees for acquiring basic knowledge. Hands-on training in control programs is also offered for moving things around.

Every year, we continue to expand the curriculum of technical training programs in particular, in accordance with the needs of business divisions, such as training for AI through external organizations.

At Sales Division managers meetings and Manufacturing Division managers meetings, the leaders of each functional division across the Group learn about best practices in other divisions to assist with the training of personnel in their own divisions.

■ Other

Each business division also undertakes unique training activities, such as programs for proprietary technologies and passing along technical skills to younger employees.

Through cross-organizational coaching that spans across business divisions, some business divisions take steps to enhance the abilities of mid-career employees and to invigorate their organizations.

Human Resources

2 Promoting Diversity as a Corporate Strength

In order to fulfill the SHI Group's Corporate Mission Statement of aim to become a machinery manufacturer that continues to provide excellent products and services to the world, it is essential for us to nurture an organizational foundation where diverse personnel can work to the best of their abilities. In 2016, top management declared the promotion of diversity a priority, and began to advance three important business measures to empower women in the workplace, namely raising awareness, changing systems and improving environments. While promoting work-life balance, we are discouraging employees from working long hours and promoting more flexible work styles.

Targets

- 1 **Increase the number of newly employed women**
(Raise the ratio of women among new graduate hires above 20%)
- 2 **Double the number of female managers**
(by FY2023/Comparison with FY2015)
- 3 **Reduce long work hours (work-life balance)**
(Target: 1,900 total annual working hours in all business divisions and affiliated companies)

■ Career development promotion for female employees

We take a sophisticated approach to managing organizations with diverse human resources, creating environments where female employees can work to the best of their abilities.

- We send employees to participate in J-Win, an NPO, for the purpose of improving measures to train women for management positions.
- We create and provide opportunities for women to learn in workplace settings led by 3–4 women in each business office, as a part of the Plus One Project women's working group at the Head Office and each manufacturing site.



Plus One Project

- We held events for employees to have an opportunity to talk with top management.
- We assist with career formation through personnel meetings with superiors of female employees eyeing management positions and by creating training plans.
- Provision of return-to-work support seminars after maternity leave and superior's consultation

■ Raising awareness

- All employees receive e-learning about unconscious bias
- Provision of information on diversity management using e-mail magazines and internal newsletters
- Manager and level-specific training for diversity management



Management training

■ Changing systems

- Introduction of a work-from-home system in April 2019 for management personnel at the Head Office, expanding scope of eligibility to other areas
- Introduction of measures for flexible work styles, including the use of outside satellite offices and creation of relaxation spaces at the Head Office



■ Improving environments

- We help employees strike a work-life balance amid the increasing number of dual-income households. In fiscal 2019, we provided information to employees in dual-income households through seminars about returning to work, finding kindergartens, and finding after-school programs for elementary school students. We also make it easier for people to return to work by establishing systems that prioritize the dependents of our employees at neighboring kindergartens.



Kindergarten seminars

- To encourage male employees to take time off for raising their children, the director in charge of human resources at the Head Office sends emails about leave programs to male employees with newborns and their immediate superiors. We also interview male employees who took time off to care for their children and post the interviews on the Company intranet in order to raise awareness.
- Hosting Family Day (Family visits to manufacturing sites)

■ Deploying diverse human resources

- For foreign nationals working in Japan, we offer assistance in the form of education about understanding foreign cultures and Japanese language courses.
- We have various initiatives to hire and retain people who have disabilities.
 - Cleaning and greening teams are in charge of cleaning areas around manufacturing sites (Yokosuka Works).
 - SHI Iki-Iki Farm
Vegetables grown on the farm are sold at a discount to employees, and the proceeds are all donated to NPOs that assist with children's education.



SHI Iki-Iki Farm

3 Safety Initiatives for Creating Safe and Secure Workplaces

■ Safety and health initiatives

We strive to create pleasant workplaces where all employees can work in healthy, safe, and secure environments, based on a spirit of respect for human beings. With this mind, we have a "safety first" policy covering all work activities as part of our basic safety and health philosophy. Under this policy, in fiscal 2020 we will formulate our Fourth Action Plan as a medium-term plan for safety and health reforms, and pursue activities accordingly. We have already acquired ISO 45001 certification for Nagoya Works, and we will continue acquiring certification for other factories in the future.

In the previous medium-term plan (Third Action Plan), we worked actively to enhance engineering measures, upgrade training facilities, and the like to prevent



Safety training

accidents caused by machinery and equipment, with the aim of enhancing risk awareness among all employees.

Despite these efforts, however, there was a serious accident at one of our factories during the year-end and New Year holidays, which we sincerely regret. Since then, we have reviewed our risk assessment protocols and work process manuals, and rigorously implemented fundamental safety and health activities, including compliance with those protocols and manuals, not only at the Group's factories but also at construction sites.

4 Health Management

We promote ongoing activities under our Health Declaration, which we created to spread awareness of health management initiatives inside and outside the SHI Group.

■ Health declaration

Based on "respecting people" as stated in the Corporate Philosophy, the SHI Group will proactively maintain and promote the health of workers and develop an environment where everyone lives with good mental and physical health.

So far, we steadily addressed various kinds of issues of health management as follows.

• Introduction of health management system

Seeking to promote health management, we introduced and started operation of a system for digitizing and unifying the medical checkup results of all employees. We will manage employees' health examination data over time and use it to support employee health in a wide range of areas, from mental to physical illnesses.

• Measures to address mental health problems

Based on the results of stress checks, we offer care and mental health training for employees with high stress levels. We also offer comprehensive face-to-face guidance to employees working long hours while improving systems to help people return to work after taking medical leave.

• Measures to address cardiovascular diseases

We offer guidance about healthcare resources for high-risk individuals, such as people with high blood pressure, and refer them to specialist medical institutions for further diagnosis. We have also started health promotion programs at some business sites to help prevent lifestyle-related diseases. Going forward, we will expand the coverage of these programs to help employees make exercise a daily habit. At the same time, we will combine the programs with in-house events to stimulate communication about health.

Following a revision of the Health Promotion Act, we thoroughly complied with laws and regulations related to smoking areas and took the opportunity to streamline smoking sections at our sites. As a result, we reduced the number of smoking areas in our buildings by 80%. In addition to preventing secondhand smoke, meanwhile, we will continue to offer education to help employees quit smoking.

Eleven-Year Summary and Key Financial Data

Sumitomo Heavy Industries, Ltd. and Consolidated Subsidiaries

	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Millions of yen											
Summary of Income (for the year):											
Net sales	¥516,165	¥548,015	¥624,100	¥585,871	¥615,271	¥667,099	¥700,838	¥674,328	¥ 791,025	¥ 903,051	¥ 864,490
R&D expenses	8,187	7,445	9,343	9,835	10,718	11,415	12,299	11,276	14,805	16,836	18,753
Operating profit	28,254	45,803	47,135	31,288	34,329	45,998	50,568	48,431	69,921	75,244	56,821
EBITDA (Note 1)	47,979	63,744	64,955	49,570	52,946	62,279	70,289	68,742	92,925	101,219	84,686
Ordinary profit	26,333	44,253	44,619	30,997	33,000	45,113	49,131	48,274	67,466	72,623	52,657
Profit attributable to owners of parent	13,280	27,926	19,492	5,865	17,891	24,348	33,133	33,613	34,660	45,650	32,807
Cash Flows (for the year):											
Cash flows from operating activities	¥ 57,513	¥ 36,521	¥ 23,309	¥ 2,660	¥ 63,661	¥ 62,170	¥ 18,315	¥ 38,158	¥ 71,111	¥ 55,173	¥ 36,263
Cash flows from investing activities	(13,954)	(23,513)	(22,672)	(19,660)	(27,622)	(14,112)	(15,350)	(25,852)	(37,810)	(54,973)	(57,752)
Free cash flows (Note 2)	43,559	13,008	638	(17,000)	36,039	48,058	2,965	12,306	33,301	199	(21,489)
Cash flows from financing activities	(26,686)	(22,020)	19,879	(11,428)	(9,498)	(36,889)	(23,789)	(17,809)	(10,146)	(13,314)	35,964
Cash and cash equivalents at the end of the period	61,452	51,700	72,376	46,476	76,418	90,324	68,625	61,017	85,503	69,776	83,630
Financial Position (at year-end):											
Total assets	¥610,087	¥626,829	¥691,841	¥647,724	¥724,182	¥786,027	¥782,859	¥796,484	¥ 894,835	¥ 954,051	¥ 995,154
Interest-bearing debt	87,660	67,833	96,522	98,547	107,433	83,644	68,232	60,460	64,181	73,311	124,669
Net interest-bearing debt (Note 3)	25,149	15,347	23,149	50,732	29,607	(8,779)	(2,572)	(3,360)	(24,052)	(278)	37,602
Total net assets	254,153	269,380	282,145	292,826	331,059	365,101	382,817	409,171	444,964	465,001	477,648
Amounts per Share of Common Stock: (unit: yen) (Note 4)											
Earnings (Note 5)	¥ 22.01	¥ 45.87	¥ 31.75	¥ 9.56	¥ 29.17	¥ 39.71	¥ 54.06	¥ 54.85	¥ 282.83	¥ 372.56	¥ 267.77
Net assets	404.73	435.10	454.43	470.69	532.28	587.37	614.51	650.47	3,517.33	3,701.01	3,790.99
Cash dividends	4.00	8.00	10.00	8.00	7.00	12.00	16.00	16.00	85.00	112.00	91.00
Financial Indexes: (unit: %)											
Operating profit ratio	5.5	8.4	7.6	5.3	5.6	6.9	7.2	7.2	8.8	8.3	6.6
EBITDA ratio	9.3	11.6	10.4	8.5	8.6	9.3	10.0	10.2	11.7	11.2	9.8
R&D expenses ratio to net sales	1.6	1.4	1.5	1.7	1.7	1.7	1.8	1.7	1.9	1.9	2.2
Return on assets (ROA)	2.1	4.5	3.0	0.9	2.5	3.1	4.2	4.2	3.9	4.8	3.3
Return on equity (ROE)	5.6	10.9	7.1	2.1	5.8	7.1	9.0	8.7	8.4	10.3	7.1
Stockholders' equity ratio	40.0	42.6	40.3	44.6	45.1	45.8	48.1	50.0	48.2	47.5	46.7
Interest-bearing debt ratio	14.4	10.8	14.0	15.2	14.8	10.6	8.7	7.6	7.2	7.7	12.5
D/E ratio (times)	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3
ROIC (Note 6)	4.8	7.8	7.4	4.9	4.8	6.5	7.6	7.3	10.3	10.5	7.3
Investment in Plant and Equipment and Others:											
Capital expenditures (Note 7)	¥ 24,465	¥ 14,292	¥ 19,682	¥ 29,888	¥ 20,329	¥ 20,670	¥ 23,721	¥ 27,539	¥ 30,432	¥ 33,713	¥ 39,435
Depreciation	19,725	17,941	17,820	18,282	18,617	16,281	19,720	20,311	23,003	25,975	27,865

Notes: 1. EBITDA (Earnings before Interest, Taxes, Depreciation) = Operating profit + Depreciation
2. Free cash flows = Cash flows from operating activities + Cash flows from investing activities
3. Net interest-bearing debt = Interest-bearing debt - (Cash and deposits + Securities)
4. The Company carried out a 5-to-1 reverse stock split for its common stock with an effective date of October 1, 2017. Amounts per share of common stock was calculated, under the assumption that such share consolidation was conducted at the beginning of FY2017.
5. Profit per share of common stock is based on the weighted average number of shares outstanding in each year.
6. ROIC (Return on invested capital) = $\frac{(\text{Operating profit} + \text{Interest and dividend income}) \times (1 - \text{Effective tax rate}^*)}{(\text{FY average of stockholders' equity} + \text{FY average of interest-bearing debt})}$
7. Capital expenditures are capitalized and recorded as assets.
* Effective tax rate = 45% until FY2013, 40% for FY2014, 35% from FY2015

Seven-Year Non-Financial Key Data

Evaluation item (middle classification)		Evaluation item (small classification)	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	
E	Climate change, Air pollution	CO ₂ emissions (domestic)* ² (10,000 tons-CO ₂)	7.94	8.42	8.86	8.88	9.17	9.53	9.44	
		Energy productivity (domestic) (Millions of yen/tons-CO ₂)	5.39	5.54	5.44	5.43	5.67	5.90	5.60	
		Volume of waste disposed (domestic) (ton)	25,985	26,547	31,066	29,345	28,809	31,919	29,464	
Water resource	Water consumption (1,000 m ³)	Domestic	1,129	1,099	1,146	1,143	1,166	1,226	1,178	
		Overseas	337	304	248	245	239	275	375	
S	Employment	Number of employees (consolidated)	17,936	18,061	18,491	19,321	21,017	22,543	23,635	
		Managers (%)	1.4	1.5	1.4	1.5	1.5	1.6	1.6	
		Regular recruitment (%)	8.0	12.5	12.7	10.1	25.8	20.2	17.5	
		Ratio of female employees	—	—	—	1.8	1.9	1.9	2.0	
		Ratio of women and foreign nationals in upper management positions (higher than department manager, officers, including executive officers) (%)	—	—	—	1.8	1.9	1.9	2.0	
		Number of foreign-registered employees	65	50	61	160	248	241	239	
		Number of foreign-registered managers	5	6	6	6	6	4	3	
		Number of foreign-registered employees newly employed	14	11	14	6	2	7	9	
		Average length of service by gender	Male	—	—	—	16.7	17.5	16.0	15.8
			Female	—	—	—	—	—	11.4	13.7
		Average age by gender	Male	—	—	—	43.2	43.1	42.6	42.6
			Female	—	—	—	40.9	40.7	40.2	40.1
		Number of employees by age group	Under 30	—	—	—	450	488	527	523
			30-39	—	—	—	614	697	738	777
			40-49	—	—	—	788	740	757	778
			50-59	—	—	—	668	706	770	777
			Above 60	—	—	—	252	226	210	213
		Retirement rate (non-consolidated) (%)	—	—	—	1.6	2.1	2.8	2.4	
		Turnover rate within three years of joining (%)	—	—	—	15.8	15.5	10.3	16.9	
		Retirement rate for personal reasons (%)	—	—	—	1.1	1.5	2.2	2.4	
Number of foreign employees (consolidated)	—	—	—	8,091	9,647	10,861	11,652			
Working practices	Way of working (non-consolidated)	Working hours per year	2,091	2,086	2,074	2,054	2,039	2,029	1,989	
		Number of nursing care leave users	0	0	0	2	3	6	0	
		Number of annual paid leave days	22	22	22	22	22	22	22	
		Number of annual paid leave days taken (average per person)	14.8	14.9	14.8	15.7	15.9	16.3	16.7	
		Number of disabled people employed	57	57	56	53	62	68	72	
		Employment ratio of disabled people (%)	2.14	2.14	2.04	1.97	2.44	2.32	2.39	
		Number of childcare leave users	1	0	4	3	9	18	28	
			Male	1	0	4	3	9	18	
			Female	12	8	11	12	6	5	
			Return-to-work ratio after taking childcare leave (%)	100	100	100	100	100	100	
Occupational health and safety (non-consolidated)	Number of employees who took time off for volunteer work	Number of work-related deaths	0	0	0	0	0	0		
		Number of work-related injuries that require lost work days (4 days or more)	2	0	6	5	0	16		
		Number of employees who took time off for mental health reasons	—	—	—	9	12	13		
Support and contribution to society (non-consolidated)	Industry-university collaborative research* ³ (Millions of yen)	41	124	61	140	48	81			
		43	50	50	86	69	82			
Expenditures for training (Millions of yen)	Domestic	—	—	—	—	139	148			
	Group companies	26	23	26	28	16	20			
G	Compliance	Number of cases reported to Ethics Hotline	39	43	44	39	54	63		
		Number of employees completing compliance education by e-learning	9,162	9,314	9,408	9,800	9,815	10,432		
		Number of managers submitting Pledge of Compliance	Domestically consolidated	—	—	2,479	2,490	2,436	2,748	
			Non-consolidated	2,490	2,501	2,490	2,471	2,466	2,645	
		Number of compliance awareness survey respondents	Domestic Group companies	6,150	6,348	6,513	6,475	7,252	10,055	
			Overseas	—	—	—	—	—	929	

*1. Detailed environmental data is published on the web.
 *2. The emission coefficient for calculating actual emissions in fiscal 2019 under the Greenhouse Gas (GHG) Emissions Accounting, Reporting, and Disclosure System was set at 0.462 (t-CO₂/10,000 kWh).
 *3. Total of commissioned and farmed-out studies

Life Cycle CO₂ Emissions (FY2019)

With respect to Scope 1 and 2 CO₂ emissions, Japan and overseas each accounted for about 50%, and the breakdowns were also similar. For Scope 3 CO₂ emissions (including energy-related fields), use of products sold accounted for a very high 98%.

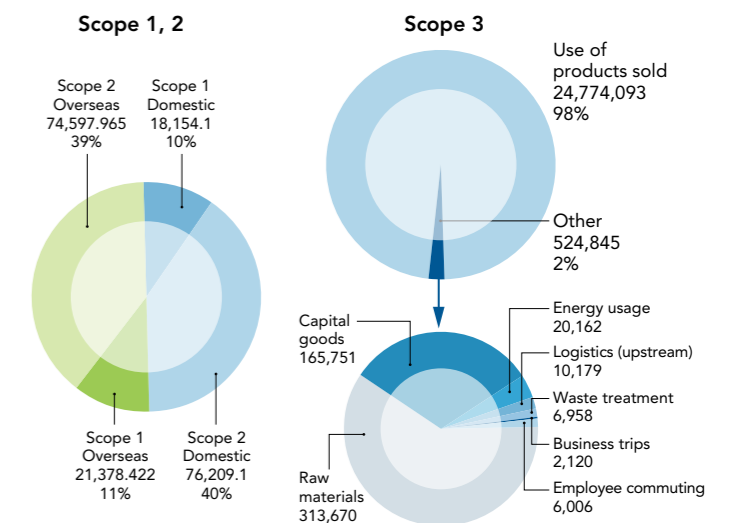
Reducing CO₂ emissions when sold products are used is an important issue to address going forward. In addition to reducing emissions during manufacturing, therefore, we will help lower emissions when customers use our products.

Product Life Cycle CO₂ Emissions

		Japan	Overseas	Total
Scope 1	Fuel	18,154	21,378	39,533
Scope 2	Electricity/heat (location)	76,209	74,598	150,807
Raw materials				313,670
Capital goods				165,751
Energy usage				20,162
Logistics (upstream)				10,179
Scope 3	Waste treatment			6,958
Business trips				2,120
Employee commuting				6,006
Use of products sold*				24,774,093
Scope 3 total				25,298,938
Grand total				25,489,278
Five greenhouse gases		42	0	42

* Emissions from products when in use are based on the assumed life of each product.

Life Cycle CO₂ Emissions (Tons-CO₂)



Product-Related Contribution to CO₂ Emission Reduction (FY2019)

In fiscal 2019, our products contributed to reductions of CO₂ emissions by a total of approximately 9,520,000 tons, of which energy-related sectors comprised 82%. We will work to improve our contributions in the transportation-related and industrial machinery sector as well, while developing technologies and other solutions based on our commitment to addressing climate change as an important business issue.

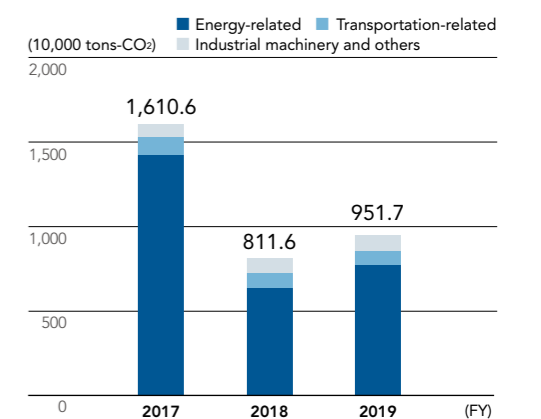
Product-Related Contribution Amount to CO₂ Emission Reduction (Major products delivered in FY2019)

Sector	Contribution to CO ₂ emission reduction over product life cycles (Based on design standards)	Calculation base	Product
Energy-related	775.7	Reduction and high efficiency due to biomass power generation	CFB boiler, turbine
Transportation-related	85.7	Improved fuel efficiency and propulsion capability achieved in new models, etc.	Aframax tanker
Industrial machinery and others	90.4	Improved fuel efficiency, energy saving, regenerative energy use, high efficiency achieved in new models, etc.	Hydraulic excavator, forklift, plastic injection molding machine, precision vacuum pump, diffuser, mixer, etc.
Total	951.7		

Contribution to CO₂ Emission Reduction due to Biomass Power Generation (Accumulated from FY1999 to FY2019)

Energy-related products
6,135,000 tons-CO₂

Life Cycle (Based on Design Standards) Contributions to CO₂ Reductions



Consolidated Financial Statements

[Financial Section]

1 Methods for Preparing the Consolidated Financial Statements

The consolidated financial statements of Sumitomo Heavy Industries, Ltd. (SHI) have been prepared in accordance with the "Regulation on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements" (Ministry of Finance Order No. 28 of 1976; hereinafter the "Consolidated Financial Statements Regulation")

2 Audit Certification

The consolidated financial statements of SHI for the current consolidated fiscal year (from April 1, 2019 to March 31, 2020) and the previous consolidated fiscal year (from April 1, 2018 to March 31, 2019) have been audited by KPMG AZSA LLC pursuant to the provisions of Article 193-2, paragraph (1) of the Financial Instruments and Exchange Act.

Consolidated Balance Sheets

	Millions of yen	
	March 31, 2019	March 31, 2020
ASSETS		
Current assets		
Cash and deposits	*1 ¥ 73,589	¥ 87,067
Notes and accounts receivable—trade	*2 291,578	271,406
Finished goods	74,552	81,573
Work in process	*3 72,522	*3 76,565
Raw materials and supplies	41,971	42,840
Others	33,185	36,673
Allowance for doubtful accounts	(3,829)	(3,341)
Total current assets	583,568	592,784
Non-current assets		
Property, plant and equipment		
Buildings and structures	172,609	*1 178,188
Accumulated depreciation	(115,147)	(115,971)
Buildings and structures, net	57,462	62,217
Machinery, equipment and vehicles	203,668	*1 212,697
Accumulated depreciation	(142,832)	(148,108)
Machinery, equipment and vehicles, net	60,836	64,589
Land	*4 107,720	*1, *4 107,535
Construction in progress	6,131	9,250
Others	54,550	66,653
Accumulated depreciation	(38,422)	(42,179)
Others, net	16,128	24,474
Total property, plant and equipment	248,276	268,066
Intangible assets		
Goodwill	24,049	33,505
Others	41,022	39,649
Total intangible assets	65,071	73,154
Investments and other assets		
Investment securities	*5 18,270	*5 19,771
Long-term loans receivable	3,812	3,213
Deferred tax assets	26,874	26,928
Defined benefit asset	1,213	2,936
Others	*5 12,280	*5 12,600
Allowance for doubtful accounts	(5,314)	(4,297)
Total investments and other assets	57,136	61,151
Total non-current assets	370,483	402,370
Total assets	¥ 954,051	¥ 995,154

3 Efforts to Ensure the Adequacy of the Consolidated Financial Statements

SHI has been making efforts to ensure the adequacy of the consolidated financial statements. More concretely, SHI joined the Financial Accounting Standards Foundation and attends seminars in order to enhance the understanding of the accounting standards and develop a system that enables it to adapt to changes in accounting standards.

	Millions of yen	
	March 31, 2019	March 31, 2020
LIABILITIES		
Current liabilities		
Notes and accounts payable—trade	*2 ¥188,069	¥158,489
Short-term loans payable	23,444	28,139
Bonds redeemable within 1 year	10,000	—
Current portion of long-term loans payable	1,956	*1 4,499
Commercial papers	17,000	35,000
Income taxes payable	11,453	5,921
Advances received	52,579	57,523
Provision for construction warranties	13,339	13,742
Provision for loss on construction contracts	*3 6,309	*3 4,233
Others	58,229	58,111
Total current liabilities	382,378	365,657
Non-current liabilities		
Bonds payable	10,000	30,000
Long-term loans payable	10,912	*1 27,032
Provision for loss on business transfers	115	115
Provision for loss on product liability claims	39	38
Defined benefit liability	46,082	53,628
Deferred tax liabilities for land revaluation	*4 20,713	*4 20,628
Others	18,812	20,408
Total non-current liabilities	106,673	151,849
Total liabilities	489,051	517,506
NET ASSETS		
Shareholders' equity		
Share capital	30,872	30,872
Capital surplus	26,071	26,070
Retained earnings	348,863	367,229
Treasury shares	(1,048)	(1,080)
Total shareholders' equity	404,757	423,091
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	3,871	2,410
Deferred gains or losses on hedges	(318)	(532)
Revaluation reserve for land	*4 40,820	*4 40,626
Foreign currency translation adjustments	8,879	4,911
Remeasurements of defined benefit plans	(4,542)	(6,049)
Total accumulated other comprehensive income	48,711	41,366
Non-controlling interests	11,533	13,191
Total net assets	465,001	477,648
Total liabilities and net assets	¥954,051	¥995,154

Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

Consolidated Statements of Income

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Net sales	¥903,051	¥864,490
Cost of sales	*1, *2 693,128	*1, *2 670,199
Gross profit	209,923	194,291
Selling, general and administrative expenses	*2, *3 134,679	*2, *3 137,470
Operating profit	75,244	56,821
Non-operating income		
Interest income	915	1,017
Dividend income	825	594
Others	3,279	3,462
Total non-operating income	5,019	5,073
Non-operating expenses		
Interest expenses	1,082	1,184
Foreign exchange losses	2,286	1,807
Patent related expenses	765	904
Loss on valuation of investment securities	1	1,041
Others	3,507	4,301
Total non-operating expenses	7,640	9,237
Ordinary profit	72,623	52,657
Extraordinary losses		
Impairment loss	*4 3,448	—
Loss on settlement following buyout of pension plan	*5 2,105	—
Total extraordinary losses	5,553	—
Profit before income taxes	67,070	52,657
Income taxes—current	21,070	17,008
Income taxes—deferred	(2,637)	830
Total income taxes	18,433	17,838
Profit	48,637	34,819
Profit attributable to non-controlling interests	2,987	2,012
Profit attributable to owners of parent	¥ 45,650	¥ 32,807

Consolidated Statements of Comprehensive Income

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Profit	¥ 48,637	¥34,819
Other comprehensive income		
Valuation difference on available-for-sale securities	(1,535)	(1,465)
Deferred gains or losses on hedges	(1,240)	(215)
Foreign currency translation adjustments	(9,168)	(4,272)
Remeasurements of defined benefit plans	(857)	(1,509)
Share of other comprehensive income of entities accounted for using equity method	13	7
Total other comprehensive income	*1 (12,787)	*1 (7,453)
Comprehensive income	¥ 35,850	¥27,365
Comprehensive income attributable to		
Comprehensive income attributable to owners of parent	¥ 33,345	¥25,657
Comprehensive income attributable to non-controlling interests	2,505	1,709

Consolidated Statements of Changes in Equity

For the year ended March 31, 2019

	Millions of yen				
	Shareholders' equity				Total shareholders' equity
	Share capital	Capital surplus	Retained earnings	Treasury shares	
Balance at the beginning of the period	¥30,872	¥25,267	¥314,296	¥(1,000)	¥369,434
Changes of items during the period					
Dividends of surplus			(11,641)		(11,641)
Profit attributable to owners of parent			45,650		45,650
Purchase of treasury shares				(49)	(49)
Disposal of treasury shares		0		1	1
Reversal of revaluation reserve for land			10		10
Change in ownership interest of parent due to transactions with non-controlling interests		804			804
Remeasurements of retained earnings due to the U.S. tax reform			548		548
Net changes of items other than shareholders' equity					
Total changes of items during the period	—	804	34,568	(49)	35,323
Balance at the end of the period	¥30,872	¥26,071	¥348,863	¥(1,048)	¥404,757

	Millions of yen							
	Accumulated other comprehensive income						Non-controlling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Remeasurements of defined benefit plans	accumulated other comprehensive income		
Balance at the beginning of the period	¥ 5,406	¥ 925	¥40,831	¥17,565	¥(3,153)	¥ 61,574	¥13,956	¥444,964
Changes of items during the period								
Dividends of surplus								(11,641)
Profit attributable to owners of parent								45,650
Purchase of treasury shares								(49)
Disposal of treasury shares								1
Reversal of revaluation reserve for land								10
Change in ownership interest of parent due to transactions with non-controlling interests								804
Remeasurements of retained earnings due to the U.S. tax reform								548
Net changes of items other than shareholders' equity	(1,535)	(1,243)	(10)	(8,686)	(1,389)	(12,863)	(2,423)	(15,286)
Total changes of items during the period	(1,535)	(1,243)	(10)	(8,686)	(1,389)	(12,863)	(2,423)	20,037
Balance at the end of the period	¥ 3,871	¥ (318)	¥40,820	¥ 8,879	¥(4,542)	¥ 48,711	¥11,533	¥465,001

For the year ended March 31, 2020

	Millions of yen				
	Shareholders' equity				Total shareholders' equity
	Share capital	Capital surplus	Retained earnings	Treasury shares	
Balance at the beginning of the period	¥30,872	¥26,071	¥348,863	¥(1,048)	¥404,757
Cumulative effects of changes in accounting policies			(178)		(178)
Restated balance at the beginning of the period	30,872	26,071	348,685	(1,048)	404,580
Changes of items during the period					
Dividends of surplus			(14,458)		(14,458)
Profit attributable to owners of parent			32,807		32,807
Purchase of treasury shares				(34)	(34)
Disposal of treasury shares		(0)	(0)	2	2
Reversal of revaluation reserve for land			194		194
Net changes of items other than shareholders' equity					
Total changes of items during the period	—	(0)	18,544	(32)	18,512
Balance at the end of the period	¥30,872	¥26,070	¥367,229	¥(1,080)	¥423,091

	Millions of yen							
	Accumulated other comprehensive income						Non-controlling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Remeasurements of defined benefit plans	accumulated other comprehensive income		
Balance at the beginning of the period	¥ 3,871	¥(318)	¥40,820	¥ 8,879	¥(4,542)	¥48,711	¥11,533	¥465,001
Cumulative effects of changes in accounting policies								(178)
Restated balance at the beginning of the period	3,871	(318)	40,820	8,879	(4,542)	48,711	11,533	464,823
Changes of items during the period								
Dividends of surplus								(14,458)
Profit attributable to owners of parent								32,807
Purchase of treasury shares								(34)
Disposal of treasury shares								2
Reversal of revaluation reserve for land								194
Net changes of items other than shareholders' equity	(1,462)	(213)	(194)	(3,968)	(1,507)	(7,344)	1,658	(5,686)
Total changes of items during the period	(1,462)	(213)	(194)	(3,968)	(1,507)	(7,344)	1,658	12,825
Balance at the end of the period	¥ 2,410	¥(532)	¥40,626	¥ 4,911	¥(6,049)	¥41,366	¥13,191	¥477,648

Consolidated Statements of Cash Flows

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Cash flows from operating activities		
Profit before income taxes	¥ 67,070	¥ 52,657
Depreciation	25,975	27,865
Loss on settlement following buyout of pension plan	2,105	—
Impairment loss	3,448	—
Interest and dividend income	(1,740)	(1,611)
Interest expenses	1,082	1,184
Increase (decrease) in provision	597	(2,856)
Decrease (increase) in notes and accounts receivable—trade	(11,622)	21,221
Decrease (increase) in inventories	(22,416)	(17,759)
Increase (decrease) in notes and accounts payable—trade	2,972	(27,859)
Others	2,448	5,104
Subtotal	69,918	57,946
Interest and dividend income received	2,028	1,582
Interest expenses paid	(1,078)	(1,189)
Income taxes paid	(15,696)	(22,076)
Net cash provided by (used in) operating activities	55,173	36,263
Cash flows from investing activities		
Purchase of property, plant and equipment and intangible assets	(33,852)	(41,316)
Proceeds from sale of property, plant and equipment, and intangible assets	1,081	934
Purchase of shares of subsidiaries and investments in capital resulting in change in the scope of consolidation	*2 (20,908)	*2 (12,864)
Purchase of shares of subsidiaries and associates	(189)	(5,211)
Proceeds from sale of investment securities	407	839
Net decrease (increase) in short-term loans receivable	139	325
Payments of loans receivable	(161)	(543)
Collection of loans receivable	337	190
Others	(1,827)	(106)
Net cash provided by (used in) investing activities	(54,973)	(57,752)
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	(12,615)	5,135
Net increase (decrease) in commercial papers	17,000	18,000
Proceeds from long-term loans payable	9,642	21,415
Repayments of long-term loans payable	(8,944)	(2,730)
Proceeds from issuance of bonds	—	20,000
Payments for redemption of bonds	—	(10,000)
Cash dividends paid	(11,636)	(14,451)
Dividends paid to non-controlling interests	(662)	(1,078)
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	(5,166)	—
Others	(934)	(325)
Net cash provided by (used in) financing activities	(13,314)	35,964
Effect of exchange rate change on cash and cash equivalents	(2,613)	(621)
Net increase (decrease) in cash and cash equivalents	(15,728)	13,854
Cash and cash equivalents at the beginning of the period	85,503	69,776
Cash and cash equivalents at the end of the period	*1 ¥ 69,776	*1 ¥ 83,630

Notes to the Consolidated Financial Statements

(Basis of Preparation)

1 Basis of presenting consolidated financial statements

(1) Basis of accounting

The accompanying consolidated financial statements 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 conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain aspect in terms of application and disclosure requirements of International Financial Reporting Standards.

The accounts of foreign consolidated subsidiaries are prepared in accordance with either International Financial Reporting Standards or U.S. generally accepted accounting principles. However, Practical Issues Task Force (PITF) No. 18, "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries, etc. for Consolidated Financial Statements" issued by the Accounting Standards Board of Japan (ASBJ) requires making adjustments for the following five specific items, unless they are not material: (a) amortization of goodwill; (b) scheduled amortization of actuarial gain or loss of pensions that has been recorded in equity through other comprehensive income; (c) expensing capitalized development costs of R&D; (d) canceling revaluation model or fair value model of accounting for property, plant and equipment, and investment properties, as well as applying the cost model of accounting; and (e) subsequent changes in fair value of equity instruments presented as other comprehensive income.

The accompanying consolidated financial statements for Sumitomo Heavy Industries, Ltd. (SHI) and its subsidiaries (collectively, the Company) have been reformatted and translated into English from the ones prepared in accordance with Japanese GAAP and filed with the appropriate Local Finance Bureau of the Ministry of Finance as required by the Financial Instruments and Exchange Act.

(2) Transactions eliminated on consolidation

All significant intercompany accounts and transactions have been eliminated in consolidation. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of SHI's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

2 The scope of consolidation

(1) Number of consolidated subsidiaries—143 companies

Major consolidated subsidiaries: Shin Nippon Machinery Co., Ltd.

Sumitomo Heavy Industries Gearbox Co., Ltd.
 Sumitomo Construction Machinery Co., Ltd.
 Sumitomo Construction Machinery Sales Co., Ltd.
 Sumitomo Heavy Industries Ion Technology Co., Ltd.
 Sumitomo Heavy Industries Environment Co., Ltd.
 Sumitomo Heavy Industries PTC Sales Co., Ltd.
 Sumitomo Heavy Industries Material Handling Systems Co., Ltd.
 Sumitomo Heavy Industries Process Equipment Co., Ltd.
 Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
 Nihon Spindle Manufacturing Co., Ltd.
 Sumitomo Heavy Industries Construction Crane Co., Ltd.
 LBCE Holdings, Inc.
 PT Sumitomo S.H.I. Construction Machinery Indonesia
 SCM (America), Inc.
 Sumitomo Heavy Industries (Vietnam) Co., Ltd.
 Sumitomo Industrias Pesadas do Brasil Ltda.
 SUMITOMO MACHINERY CORPORATION OF AMERICA
 Sumitomo (SHI) Cryogenics of America, Inc.
 Sumitomo (SHI) Cyclo Drive Germany GmbH
 Sumitomo (SHI) Demag Plastics Machinery GmbH
 Sumitomo SHI FW Energie B.V.
 Lafert S.p.A
 Invertek Drives Ltd.
 Sumitomo Construction Machinery (Tangshan) Co., Ltd.
 Sumitomo Heavy Industries (China), Ltd.
 Sumitomo Heavy Industries (Tangshan), Ltd.
 Sumitomo (SHI) Cyclo Drive China, Ltd.

From the current consolidated fiscal year, Invertek Drives Ltd. and four other subsidiaries whose shares were newly acquired by SHI, as well as Tatung SM-Cyclo Co., Ltd. whose shares were additionally acquired by SHI, are included in the scope of consolidation. In addition, SM-Cyclo Iberia, S.L., which was dissolved as a result of a merger, and Hansen Transmissions Tianjin Industrial Gearbox Co., Ltd. and another subsidiary that completed their liquidation, are excluded from the scope of consolidation.

(2) Name of major non-consolidated subsidiaries

Major non-consolidated subsidiary: Kyokuto Seiki Co., Ltd.

(Reasons for exclusion from the scope of consolidation)

All of the non-consolidated subsidiaries are small-scale companies and their aggregated total assets, net sales, and profit or loss (amount commensurate with equity interests) and retained earnings (amount commensurate with equity interests) do not have a material effect on SHI's Consolidated Financial Statements.

3 The application of the equity method

(1) The number of non-consolidated subsidiaries accounted for using the equity method: nil

(2) The number of affiliated companies accounted for using the equity method: 6

Name of major company: Sumitomo NACCO Forklift Co., Ltd.

(Change in the affiliated companies accounted for using the equity method)

Invertek Cz, s.r.o. and another affiliated company whose shares were newly acquired by SHI are included in the scope of affiliated companies accounted for using the equity method.

(3) The non-consolidated subsidiaries (including Kyokuto Seiki Co., Ltd.) and affiliated companies (including Mizu Kankyo Chiba K.K.) not accounted for using the equity method are excluded from the scope of application of the equity method because their respective profits or losses and retained earnings have an immaterial effect on SHI's Consolidated Financial Statements and are insignificant as a whole.

4 The fiscal years of consolidated subsidiaries

Among the consolidated subsidiaries, the closing date of 100 overseas subsidiaries (other than Nihon Spindle Cooling Towers Sdn. Bhd. and one more company) is December 31, and their financial statements prepared as of December 31 or for the year ended December 31 are used for the preparation of SHI's Consolidated Financial Statements.

Material transactions that arose during the period between their closing date and the closing date of SHI's Consolidated Financial Statements have been adjusted as necessary for the purposes of the consolidated financial statements.

The closing date of other consolidated subsidiaries is March 31, which is consistent with SHI.

5 Accounting policies

(1) Basis of and methods for valuation of significant assets

(i) Securities

(a) Bonds held to maturity

The amortized cost method (The straight-line depreciation method)

(b) Available-for-sale securities

Securities with market value

The market value method, for example, based on market prices at the end of the consolidated fiscal year (Valuation difference is reported as a component of shareholders' equity, and the cost of sales is calculated using the moving-average method.)

Securities without market value

The cost method based on the moving-average method

(ii) Derivatives

The market value method

(iii) Inventories

(a) Work in process

Mainly the cost method based on the specific identification method

(Carrying amounts in the balance sheet are measured after the consideration of write-down to reflect decreased profitability.)

(b) Finished goods, raw materials and supplies

Mainly the cost method based on the weighted average method

(Carrying amounts in the balance sheet are measured after the consideration of write-down to reflect decreased profitability.)

(2) Methods for depreciation of significant depreciable assets

(i) Property, plant and equipment (excluding leased assets)

The straight-line method is adopted.

Depreciable lives of major assets are as shown below:

Buildings and structures: 10 to 50 years

Machinery, equipment and vehicles: 5 to 12 years

(ii) Intangible assets (excluding leased assets)

The straight-line method is adopted.

Depreciable lives of in-house software are based on the useful life estimated by the Company (5 years).

(iii) Leased assets

The straight-line method is adopted for leased assets for financial lease transactions without the transfer of ownership, in which the lease period is considered as the depreciable life and the residual value is zero.

For the finance lease transactions without the transfer of ownership, the lease transactions that are immaterial and were commenced on or prior to March 31, 2008 are accounted for as ordinary rental transactions.

(3) Basis of accounting for significant provisions

(i) Allowance for doubtful accounts

The allowance is provided based on historical bad debts losses from general accounts receivable. For doubtful accounts receivable, and claims provable in bankruptcy and claims provable in rehabilitation and other, the required allowance is determined at the amount estimated to be uncollectible on an individual basis.

(ii) Provision for construction warranties

In order to provide for free repair work expenditures after the delivery of finished goods, the required allowance is provided for based on historical data.

(iii) Provision for loss on construction contracts

For undelivered construction works at the end of the consolidated fiscal year that are highly likely to generate losses subsequent to the fiscal year, if the losses can be reliably estimated, the estimated amount of losses is recognized as provision for loss on construction contracts.

(iv) Provision for loss on business transfers

The estimated amount of losses that is expected to be generated in the future as a result of transferring the resort development business is recognized as provision for loss on business transfers.

(v) Provision for loss on product liability claims

The estimated amount of losses on product liability claims that is expected to be generated in the future from the crane business of overseas subsidiaries is recognized as a provision for loss on product liability claims.

(4) Methods for accounting retirement benefits

(i) Method of attributing expected retirement benefits

For retirement benefit obligations, the benefit formula basis is used to calculate the expected retirement benefits up to the term elapsed for the end of the consolidated fiscal year.

(ii) Method of amortization of actuarial difference and past service costs

Past service costs are amortized following the straight-line method over a period within the historical average remaining service period of employees when those costs are incurred.

Actuarial difference is amortized proportionally from the following year of the incurrence of actuarial difference using the straight-line method over a period within the average remaining service period of employees at the time of incurrence of actuarial difference.

(5) Method of significant hedge accounting

(i) Method of hedge accounting

The Company adopts deferred hedge accounting. However, for interest swap transactions that meet the requirements for simplified accounting treatment, the Company adopts such simplified accounting treatment.

If forward exchange contracts meet the requirements for allocation, the Company adopts the allocation accounting method.

(ii) Hedge instruments and hedged items

Forward exchange contracts: Foreign currency-denominated accounts receivable, foreign currency-denominated accounts payable and forecast transactions

Interest swap transactions: Loans

(iii) Hedge policy

Under the "Market Risk Management Policy" stipulated by the Board of Directors, the Company's objective for hedging transactions is to mitigate foreign currency and interest rate fluctuation risks, and not to execute speculative transactions.

(iv) Method of assessing hedge effectiveness

The Company compares the aggregated fluctuation from cash flow or market condition of the hedged items against aggregated fluctuation from cash flow or market condition of the hedged instruments every six months, and assesses hedge effectiveness based on the fluctuation. The Company, however, does not assess the hedge effectiveness of interest swap transactions for which it is subject to simplified accounting treatment.

(6) Basis of recognition of material revenues and expenses

For construction works, for which the progress can be reliably estimated by the end of the consolidated fiscal year, the Company adopts the percentage-of-completion method (with the output method by compositely aggregating the estimated total man-hours required for each stage of project constructions and man-hours consumed during the estimated construction period to estimate a progress rate or the cost-to-cost method). For other construction works, the Company adopts the completed-contract method.

(7) Method and period of amortization of goodwill

Goodwill is amortized using the straight-line method over a period of up to 20 years. However, any insignificant amount of goodwill is amortized in full upon its recognition.

(8) Cash and cash equivalents in the consolidated statements of cash flows

Cash and cash equivalents consist of cash on hand, immediately available cash, and short-term investments that are highly liquid, have an insignificant risk of changes in value with maturities of three months or less.

(9) Other significant matters for preparation of consolidated financial statements

(i) Accounting for the consumption taxes

The consumption tax and local consumption tax are accounted for on a tax-exclusive basis.

(ii) Application of the consolidated tax payment system

SHI and some of its consolidated subsidiaries follow the consolidated tax payment system.

(iii) Application of tax effect accounting for the transition from the consolidated tax payment system to the group taxation system

Having regard to paragraph 3 of "Practical Solution on the Treatment of Tax Effect Accounting for the Transition from the Consolidated Taxation System to the Group Tax Sharing System" (Practical Issues Task Force (PITF) No. 39, March 31, 2020), the Company and its domestic consolidated subsidiaries did not follow paragraph 44 of "Implementation Guidance on Tax Effect Accounting" (Accounting Standards Board of Japan (ASBJ) Guidance No. 28, February 16, 2018) but applied provisions of pre-amended tax laws when calculating the amounts of deferred tax assets and liabilities that relate to transitioning to the group taxation system and related amendments of tax laws for transitioning to the single tax payment system.

(iv) Net assets

Under the Japanese laws and regulations, the entire amount paid for new shares is required to be designated as common share. However, a company may, by a resolution of the Board of Directors, designate an amount not exceeding one-half of the price of the new shares as additional paid-in capital, which is included in capital surplus.

Under the Japanese Corporate Law ("the Law"), in case where a dividend distribution of surplus is made, the smaller of an amount equal to 10% of the dividend or the excess, if any, of 25% of common share over the total of additional paid-in-capital and legal earnings reserve must be set aside as additional paid-in-capital or legal earnings reserve. Legal earnings reserve is included in retained earnings in the accompanying consolidated balance sheets.

Under the Law, generally legal earnings reserve and additional paid-in capital could be used to eliminate or reduce a deficit by a resolution of the shareholders' meeting.

Under the Law, all additional paid-in-capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends.

The maximum amount allowed to be distributed as dividend is determined based on SHI's non-consolidated financial statements in accordance with the Japanese laws and regulations.

(v) Research and development ("R&D") expense

R&D expenditures are expensed as incurred.

(Changes in the Accounting Policies)

(Application of ASC 606 Revenue from Contracts with Customers)

At foreign subsidiaries that apply US GAAP, ASC 606, "Revenue from Contracts with Customers" has been adopted from the beginning of the fiscal year ended March 31, 2020. In line with this adoption, revenue is recognized upon the transfer of promised goods or services to customers in an amount that reflects the consideration to which they expect to be entitled in exchange for those goods or services.

In adopting the accounting standards, in accordance with the transitional treatment, the cumulative effect of adoption of the standards was recognized on the date of adoption, and was added to or subtracted from retained earnings at the beginning of the fiscal year ended March 31, 2020.

As a result, the balance of retained earnings at the beginning of the fiscal year ended March 31, 2020, has declined by ¥178 million. In addition, the impact on the consolidated statement of income for the fiscal year ended March 31, 2020, was immaterial.

(Application of IFRS 16 "Leases")

The overseas consolidated subsidiaries, excluding the U.S. consolidated subsidiaries, have applied IFRS 16 "Leases" from the beginning of the fiscal year ended March 31, 2020. In applying IFRS 16 "Leases", the Company has adopted the method approved as a transitional measure for recognizing the cumulative effect of applying this accounting standard on the date of initial application.

Right-of-use assets and lease liabilities were recognized for the leases that had been classified as operating leases under IAS 17 on the commencement date of application of IFRS 16.

With the application of IFRS 16, "Others" under "Property, plant and equipment" on the consolidated balance sheets at the beginning of the fiscal year ended March 31, 2020, has increased by ¥2,684 million, "Others" under "Current liabilities" by ¥1,146 million, and "Others" under "Non-current liabilities" by ¥1,538 million. Some assets of ¥2,830 million, which were conventionally included in "Others" under "Intangible assets", have also been included in "Others" under "Property, plant and equipment" from the beginning of the fiscal year ended March 31, 2020. The impact on the consolidated statement of income for the fiscal year ended March 31, 2020, was immaterial. On the consolidated statements of cash flows, the outflow of "Cash flows from operating activities" has decreased by ¥1,295 million, and the outflow of "Cash flows from financing activities" has increased by ¥1,295 million.

(Standards and Guidance not yet Adopted)

SHI and its domestic subsidiaries

- “Accounting Standard for Revenue Recognition” (Accounting Standards Board of Japan (ASBJ) Statement No. 29, March 31, 2020, Accounting Standards Board of Japan)
- “Implementation Guidance on Accounting Standard for Revenue Recognition” (ASBJ Guidance No. 30, March 31, 2020, Accounting Standards Board of Japan)

(1) Overview

The International Accounting Standards Board (IASB) and the U.S. Financial Accounting Standards Board (FASB) jointly developed a comprehensive accounting standard for revenue recognition and published “Revenue from Contracts with Customers” (IASB’s IFRS 15 and FASB’s Topic 606) in May 2014. Given the situation that IFRS 15 applies to an annual reporting period beginning on or after January 1, 2018 and Topic 606 applies to an annual reporting period after December 15, 2017, a comprehensive accounting standard for revenue recognition was developed and issued with an implementation guidance by the ASBJ.

For the accounting standard for revenue recognition, the ASBJ introduced the fundamental principles of IFRS 15 from the standpoint of comparability among companies’ financial statements, which is to ensure the consistent application of IFRS 15 and, if there are any considerations required for the practices in Japan, alternative treatment will be added without compromising comparability.

(2) Effective date

Effective from the beginning of the fiscal year ending March 31, 2022

(3) Effects of the application of the standards

SHI and its consolidated domestic subsidiaries are currently in the process of determining the effects of these new standards on the consolidated financial statements.

- “Accounting Standard for Disclosure of Accounting Policies, Changes in Accounting and Correction of Errors” (ASBJ Statement No. 24, March 31, 2020, Accounting Standards Board of Japan)

(1) Overview

Purpose of the accounting standard is to provide the outline of adopted accounting policies and procedures if provisions of the related accounting standards are not clarified.

(2) Effective date

Effective from the end of the fiscal year ending March 31, 2021

- “Accounting Standard for Disclosure of Accounting Estimates” (ASBJ Statement No. 31, March 31, 2020, Accounting Standards Board of Japan)

(1) Overview

Purpose of the accounting standard is to disclose information relating to the accounting estimates that are recognized in the financial statements of the current fiscal year and have risk of significant impact on the financial statements of the following year, and to contribute to further understanding of the financial statement users.

(2) Effective date

Effective from the end of the fiscal year ending March 31, 2021

(Changes in Presentation Methods)

(Consolidated Statements of Income)

“Loss on valuation of investment securities,” which was included in “Others” of “Non-operating expenses” for the previous consolidated fiscal year, is separately presented in the current consolidated fiscal year because it is material in terms of amount. The consolidated financial statements for the previous consolidated fiscal year have been reclassified to reflect this change.

As a result, ¥3,507 million presented in “Others” of “Non-operating expenses” in the Consolidated Statement of Income for the previous consolidated fiscal year has been reclassified into ¥1 million of “Loss on valuation of investment securities” and ¥3,507 million of “Others.”

(Consolidated Balance Sheets)

*1 Collateralized assets and secured obligations

The assets offered as collateral are presented below.

	Millions of yen	
	March 31, 2019	March 31, 2020
Cash and deposits	¥11	¥ —
Land	—	1,308
Buildings and structures	—	1,117
Machinery, equipment and vehicles	—	99
Others	—	2
Total	¥11	¥2,526

Secured obligations are presented below.

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Current portion of long-term loans payable	¥—	¥ 76
Long-term loans payable	—	513
Total	¥—	¥589

*2 Notes due at the end of the year

Notes due at the end of the consolidated fiscal year are accounted for as of the clearing dates.

As the last day of the previous consolidated fiscal year was a bank holiday, the following notes due at the end of the year have been included in the balance at the end of the previous consolidated fiscal year.

	Millions of yen	
	March 31, 2019	March 31, 2020
Notes receivable—trade	¥4,969	¥—
Notes payable—trade	1,966	—

*3 Presentation of inventories and provision for loss on construction contracts

Inventories and the provision for loss on construction contracts relating to construction contracts that are highly likely to incur losses have been presented separately and have not been offset.

The amount of the provision for loss on construction contracts that relate to inventories resulting from construction contracts which are likely to generate losses is presented below.

	Millions of yen	
	March 31, 2019	March 31, 2020
Provision for loss on construction contracts related to inventories	¥489	¥613

*4 Revaluation of land

Land for business use is revalued pursuant to the Act on Revaluation of Land (Act No. 34 of March 31, 1998) and the Act for Partial Amendment of the Act on Revaluation of Land (Act No. 19 of March 31, 2001).

For revaluation difference, the amount corresponding to the tax on such revaluation difference has been recognized as “Deferred tax liabilities for land revaluation” under the Act for Partial Amendment of the Act on Revaluation of Land (Act No. 24 of March 31, 1999), and the amount from which Deferred tax liabilities for land revaluation are deducted has been recognized as “Revaluation reserve for land” in net assets.

• Method of revaluation

While revaluation has been done by making reasonable adjustments to the value of the property tax stipulated in Article 2, item (iii) of the Order for Enforcement of the Act of on Revaluation of Land (Cabinet Order No. 119 of March 31, 1998), revaluation has at times been done based on the appraised values by real estate appraisers stipulated in item (v) of the said Article.

• Date of revaluation

March 31, 2002

	Millions of yen	
	March 31, 2019	March 31, 2020
Difference between the market value of revalued land at the end of the year and the book value after revaluation	¥(18,174)	¥(18,119)

*5 Securities of non-consolidated subsidiaries and affiliated companies are as follows.

	Millions of yen	
	March 31, 2019	March 31, 2020
Investment securities (equity)	¥3,810	¥9,212
Investments in capital	750	745

For presentation purposes, investments in capital have been included in "Others" of "Investments and other assets."

*6 Loan commitment line agreements

SHI has the loan commitment line agreements with 10 banks to finance operating funds efficiently.

Balances of undrawn loan commitment lines under those agreements are presented below.

	Millions of yen	
	March 31, 2019	March 31, 2020
Total loan commitment lines	¥34,000	¥45,000
Balance of drawn loan commitment lines	—	—
Undrawn loan commitment lines	¥34,000	¥45,000

*7 Guaranteed liabilities

The Company guarantees loans and other liabilities of companies other than the consolidated companies from banks and financial institutions as shown below.

	Millions of yen	
	March 31, 2019	March 31, 2020
Sumitomo Mitsui Finance and Leasing Company, Ltd. (Purchase guarantee, etc. in connection with the lease agreement)	¥14,811	¥11,715
IBJ Leasing Company, Limited (Purchase guarantee, etc. in connection with the lease agreement)	3,425	2,724
Fuyo General Lease Co., Ltd. (Purchase guarantee, etc. in connection with the lease agreement)	978	723
Diamond Construction Equipment Corp. (Purchase guarantee, etc. in connection with the lease agreement)	285	338
Shutoken Leasing Co., Ltd. (Purchase guarantee, etc. in connection with the lease agreement)	243	74
Another 14 transactions (Purchase guarantee, etc. in connection with the lease agreement)	450	210
Total	¥20,191	¥15,784

Note: The corporate name "IBJ Leasing Company, Limited" was changed to "Mizuho Leasing Company, Limited" from October 1, 2019.

The amounts at the end of the previous year include foreign currency-denominated liabilities of CNY933 million (¥15,080 million) and NTD13 million (¥47 million), and the amounts at the end of the current year include foreign currency-denominated liabilities of CNY728 million (¥11,413 million) and NTD10 million (¥35 million).

(Consolidated Statements of Income)

*1 Provision for loss on construction contracts included in the cost of sales

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
	¥6,423	¥2,915

*2 R&D expenses included in general and administrative expenses and production cost for the period

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
	¥16,899	¥18,775

*3 Major items of selling, general and administrative expenses

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Salaries and allowances	¥48,200	¥48,733
R&D expenses	16,836	18,753
Retirement benefit expenses	3,639	3,994
Provision for loss on business	(220)	—
Provision of allowance for doubtful accounts and bad debts expenses	163	(219)

*4 Impairment loss

For the year ended March 31, 2019

The Company recognized impairment loss for the following groups of assets.

Purpose of use	Category	Location	Millions of yen
			Amount
Business assets	Goodwill and others	United States	¥2,946
Business assets	Machinery, equipment and others	Niihama City, Ehime and others	265
Idle assets	Buildings and others	Obu City, Aichi	238

For the above-mentioned assets, the Company recognized impairment loss because it was not possible to recover the investments due to decreased profitability.

The Company determined impairment loss for each business segment and idle assets not expected to be used in the future, and grouped them by individual property.

Recoverable amounts are calculated based on the underlying net selling value or value in use. Net selling value has been calculated based on the amount of disposal values less costs of disposal. Value in use has been calculated by discounting future cash flow by 11%.

For the year ended March 31, 2020

Not applicable

*5 Incurred as a result of the settlement following the buyout of defined benefit pension plans of SHI's consolidated subsidiary Sumitomo (SHI) Demag Plastics Machinery North America, Inc.

(Consolidated Statements of Comprehensive Income)

*1 Reclassification adjustment and tax effect relating to other comprehensive income

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Valuation difference on available-for-sale securities		
Amount accrued during the year	¥ (1,907)	¥(3,174)
Reclassification adjustment	(216)	1,238
Before tax effect adjustment	(2,123)	(1,936)
Tax effect	588	471
Valuation difference on available-for-sale securities	(1,535)	(1,465)
Deferred gains or losses on hedges		
Amount accrued during the year	(915)	347
Reclassification adjustment	(932)	(577)
Before tax effect adjustment	(1,847)	(230)
Tax effect	608	16
Deferred gains or losses on hedges	(1,240)	(215)
Foreign currency translation adjustments		
Amount accrued during the year	(9,168)	(4,248)
Reclassification adjustment	—	(23)
Foreign currency translation adjustments	(9,168)	(4,272)
Remeasurements of defined benefit plans		
Amount accrued during the year	(4,730)	(5,107)
Reclassification adjustment	3,731	3,136
Before tax effect adjustment	(998)	(1,971)
Tax effect	141	462
Remeasurements of defined benefit plans	(857)	(1,509)
Share of other comprehensive income of entities accounted for using the equity method		
Amount accrued during the year	7	(4)
Reclassification adjustment	7	11
Share of other comprehensive income of entities accounted for using the equity method	13	7
Total other comprehensive income	¥(12,787)	¥(7,453)

(Consolidated Statements of Changes in Equity)

For the year ended March 31, 2019

1 Type and total number of issued shares and treasury shares

	Thousand shares			
	Number of shares at the beginning of the year	Increase during the year	Decrease during the year	Number of shares at the end of the year
Issued shares				
Common share	¥122,905	¥—	¥—	¥122,905
Total	¥122,905	¥—	¥—	¥122,905
Treasury shares				
Common share	¥ 367	¥13	¥ 0	¥ 380
Total	¥ 367	¥13	¥ 0	¥ 380

Notes: 1 The increase in common share of treasury shares by 13 thousand shares was due to requests for the repurchase of shares less than one unit.
2 The decrease in common share of treasury shares by less than 1 thousand shares was due to the sale of shares less than one unit.

2 Dividends

(1) Cash dividends paid

(Resolution)	Type of share	Total amount of dividends (Millions of yen)	Amount of dividend per share (Yen)	Record date	Effective date
June 28, 2018 Annual general meeting of shareholders	Common share	¥ 5,514	¥45	March 31, 2018	June 29, 2018
October 31, 2018 Meeting of the Board of Directors	Common share	6,126	50	September 30, 2018	December 3, 2018
Total		¥11,641	¥—		

(2) Dividends recorded during the year, but effective in the next fiscal year

(Resolution)	Type of share	Source for payment of dividends	Total amount of dividends (Millions of yen)	Amount of dividend per share (Yen)	Record date	Effective date
June 27, 2019 Annual general meeting of shareholders	Common share	Retained earnings	¥7,597	¥62	March 31, 2019	June 28, 2019

For the year ended March 31, 2020

1 Type and total number of issued shares and treasury shares

	Thousand shares			
	Number of shares at the beginning of the year	Increase during the year	Decrease during the year	Number of shares at the end of the year
Issued shares				
Common share	¥122,905	¥—	¥—	¥122,905
Total	¥122,905	¥—	¥—	¥122,905
Treasury shares				
Common share	¥ 380	¥10	¥ 1	¥ 389
Total	¥ 380	¥10	¥ 1	¥ 389

Notes: 1 The increase in common share of treasury shares by 10 thousand shares was due to requests for the repurchase of shares less than one unit.
2 The decrease in common share of treasury shares by 1 thousand shares was due to the sale of shares less than one unit.

2 Dividends

(1) Cash dividends paid

(Resolution)	Type of share	Total amount of dividends (Millions of yen)	Amount of dividend per share (Yen)	Record date	Effective date
June 27, 2019 Annual general meeting of shareholders	Common share	¥ 7,597	¥62	March 31, 2019	June 28, 2019
October 31, 2019 Meeting of the Board of Directors	Common share	6,861	56	September 30, 2019	December 2, 2019
Total		¥14,458	¥—		

(2) Dividends recorded during the year, but effective in the next fiscal year

(Resolution)	Type of share	Source for payment of dividends	Total amount of dividends (Millions of yen)	Amount of dividend per share (Yen)	Record date	Effective date
June 26, 2020 Annual general meeting of shareholders	Common share	Retained earnings	¥4,288	¥35	March 31, 2020	June 29, 2020

(Consolidated Statements of Cash Flows)

*1 Reconciliations between the cash and cash equivalents and cash and deposits presented in the Consolidated Balance Sheets

	Millions of yen	
	March 31, 2019	March 31, 2020
Cash and deposits	¥73,589	¥87,067
Time deposits with term of over 3 months to maturity	(3,814)	(3,437)
Cash and cash equivalents	¥69,776	¥83,630

*2 Major components of assets and liabilities of the companies newly included in the scope of consolidation as a result of acquisition of shares

For the year ended March 31, 2019

SHI consolidated the newly acquired subsidiary, Lafert S.p.A. and its holding company. The following summarizes the recognized amount of assets acquired and liabilities assumed, and net cash outflow arising from the acquisition of the subsidiary at the acquisition date.

	Millions of yen
Current assets	¥ 12,571
Non-current assets	11,727
Goodwill	12,107
Current liabilities	(10,245)
Non-current liabilities	(4,369)
Non-controlling interests	(10)
Foreign currency translation adjustments	(425)
Price at which SHI acquired shares	21,356
Cash and cash equivalents	(737)
Net of acquisition cost	¥ 20,619

For the year ended March 31, 2020

SHI consolidated the newly acquired subsidiary, Invertek Drives Ltd. The following summarizes the recognized amount of assets acquired and liabilities assumed, and net cash outflow arising from the acquisition of the subsidiary at the acquisition date.

	Millions of yen
Current assets	¥ 2,290
Non-current assets	1,019
Goodwill	10,320
Current liabilities	(736)
Non-current liabilities	(576)
Foreign currency translation adjustments	315
Price at which SHI acquired shares	12,631
Cash and cash equivalents	(212)
Net of acquisition cost	¥12,420

(Lease Transactions)

1 As lessee

(1) Finance lease transactions without the transfer of ownership

Although finance lease transactions without the transfer of ownership carried out before March 31, 2008 have been accounted for by using the accounting treatment for ordinary lease transactions, no further disclosure has been made because those transactions are immaterial.

(2) Operating lease transactions

Lease payments

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Within 1 year	¥1,563	¥ 984
Over 1 year	1,634	1,466
Total	¥3,197	¥2,450

2 As lessor

(1) Finance lease transactions without the transfer of ownership

Although finance lease transactions without the transfer of ownership carried out before March 31, 2008 have been accounted for by using the accounting treatment for ordinary lease transactions, no further disclosure has been made because those transactions are immaterial.

(2) Operating lease transactions

For operating lease transactions, no further disclosure has been made because those transactions are immaterial.

(Financial Instruments)

1 Financial instruments

(1) Policy to cope with financial instruments

As a general machinery manufacturer, the Company manufactures, sells, and distributes various machines and systems including gear reducers and transmissions, as well as finances necessary operating and equipment funds through bank loans and issue of corporate bonds. Temporary surplus funds are limited to investment in highly stable and short-term financial assets. Derivatives are used to hedge the risks described below and the Company has a policy to refrain from entering into any speculative transactions.

(2) Details of financial instruments and their risks

Notes and accounts receivable—trade, and long-term loans receivable are exposed to customers' credit risks. Although foreign currency-denominated trade accounts receivable generated from the global expansion of business operations are exposed to foreign exchange fluctuation risks, the Company hedges the net positions of foreign currency-denominated trade accounts receivable and trade accounts payable by utilizing forward exchange contracts to maintain those positions at a certain range of percentages. Reports on hedge ratios and unhedged positions are submitted to the Board of Directors in a timely manner.

Investment securities consist of shares in the companies with which the Company has a business relationship and which are exposed to market price fluctuation risks.

Most notes and accounts payable—trade are due within one year. Some of them, which relate to imports of raw materials and are denominated in foreign currencies, are exposed to foreign exchange fluctuation risks and are hedged by utilizing forward exchange contracts.

Loans and bonds are principally intended to finance operating funds and equipment funds necessary for business transactions. For some of the long-term loans payable, the Company utilizes derivative transactions (interest rate swap transactions) as hedge instruments for each individual contract. As interest swap transactions satisfies the requirements for simplified accounting treatment, assessment of the effectiveness is not carried out. Foreign currency-denominated loans are exposed to foreign exchange fluctuation risks.

Derivative transactions consist of forward exchange contracts designed for hedge transactions in preparation for foreign exchange fluctuation risks for foreign currency-denominated trade accounts receivable and payable, and interest rate swap transactions designed to hedge fluctuation risks involving interests payable on loans and foreign exchanges. For details of hedge accounting instruments and hedged transactions, hedge policy, and methods of assessment of the effectiveness, please refer to "Method of significant hedge accounting" in "Accounting policies" above.

(3) Risk management structure for financial instruments

(i) Management of credit risk (risk from the default, etc. of counterparties)

For domestic transactions and export transactions in excess of certain levels of amounts, the Company endeavors to mitigate its concerns about the recoverability of trade accounts receivable, for example, by conducting credit examinations prior to accepting orders. In addition, each business division manages due dates and balances of trade accounts receivable for each counterparty in accordance with the credit management regulations, thereby trying to identify concerns about recoverability as early as practicable.

In using derivative transactions, the Company enters into transactions only with highly rated financial institutions to mitigate counterparty risks.

The Company maintains term deposits only with highly rated financial institutions with which the Company has loan transactions to mitigate repayment risks. Therefore, the Company is subject to an insignificant level of credit risks.

(ii) Management of market risk (risk from the fluctuation of foreign currency exchange rates, interest rates or other factors)

The Company hedges the net positions of foreign currency-denominated trade accounts receivable and payable in accordance with the Market Risk Management Policy, which stipulates, among others, hedge ratios and unhedged volumes of foreign exchange transactions, and submits a report on how those positions are hedged to the Board of Directors on a monthly basis. Major consolidated subsidiaries with foreign currency-denominated trade accounts receivable and payable also manage their foreign exchange fluctuation risks through currency hedging in accordance with the exchange hedging policy, which stipulates, among others, hedge ratios or unhedged volumes of foreign exchange transactions.

Moreover, the Company monitors interest expenses on loans and submits a report to the Board of Directors in a timely manner. The Company utilizes interest rate swap transactions to control interest expense fluctuation risks.

For investment securities, the Company monitors market values and financial conditions of issuers in a timely manner. The Company also reviews its holdings position considering its relationships with business partners.

SHI and its major consolidated subsidiaries have a policy to utilize derivative transactions for the sole purpose of hedging the foreign exchange and interest fluctuation risks mentioned above and reconcile balances with each counterparty on a monthly basis.

(iii) Management of liquidity risk for financing (risk of becoming unable to pay debts when they become due and payable)

The Company has introduced the cash management systems for major consolidated subsidiaries, under which SHI centrally manages the Company's funds. The Company prepares and updates financing plans on a timely basis based on reports from the business divisions and major affiliated companies, and manages the liquidity risk.

2 Market values for financial instruments

The carrying amounts and market values of financial instruments on the consolidated balance sheets and their difference are presented below. The following table does not include financial instruments that are not practicable to identify market value (see Note 2).

For the year ended March 31, 2019

	Millions of yen		
	Carrying amount	Market value	Difference
(1) Cash and deposits	¥ 73,589	¥ 73,589	¥ —
(2) Notes and accounts receivable—trade	291,578	288,901	(2,677)
(3) Investment securities	11,993	11,993	—
(4) Long-term loans receivable	3,812	3,203	(609)
Total	¥380,973	¥377,687	¥(3,286)
(1) Notes and accounts payable—trade	¥188,069	¥188,069	¥ —
(2) Short-term loans payable	23,444	23,444	—
(3) Bonds payable	20,000	20,024	24
(4) Long-term loans payable	12,867	13,064	196
Total	¥244,380	¥244,601	¥ 221
Derivative transactions ^{(*)1}	¥ (624)	¥ (625)	¥ (1)

(*)1 Receivables and payables generated from derivative transactions are presented on a net basis, and net payables are presented in brackets.

For the year ended March 31, 2020

	Millions of yen		
	Carrying amount	Market value	Difference
(1) Cash and deposits	¥ 87,067	¥ 87,067	¥ —
(2) Notes and accounts receivable—trade	271,406	268,826	(2,580)
(3) Investment securities	8,258	8,258	—
(4) Long-term loans receivable	3,213	2,974	(239)
Total	¥369,944	¥367,125	¥(2,819)
(1) Notes and accounts payable—trade	¥158,489	¥158,489	¥ —
(2) Short-term loans payable	28,139	28,139	—
(3) Bonds payable	30,000	30,037	37
(4) Long-term loans payable	31,531	31,677	147
Total	¥248,159	¥248,343	¥ 184
Derivative transactions ^{(*)1}	¥ (824)	¥ (890)	¥ (66)

(*)1 Receivables and payables generated from derivative transactions are presented on a net basis, and net payables are presented in brackets.

Note 1: Method of calculation of the market values of financial instruments and matters regarding securities and derivative transactions

Assets

(1) Cash and deposits

The carrying amount of the cash and deposits approximates the market value because of its short-term nature.

(2) Notes and accounts receivable—trade

The market value of notes and accounts receivable is calculated at present value obtained by discounting the amounts of receivables after categorizing each receivable by duration, by interest rate that reflects the duration to maturity and credit risk.

(3) Investment securities

Investment securities consist of shares, and their market value is based on prices on the exchanges they are listed or traded.

(4) Long-term loans receivable

The market value of long-term loans receivable is calculated at present value obtained by discounting future cash flows by interest rates, such as yields on government bonds/notes or other appropriate indices, plus credit spread.

Liabilities

(1) Notes and accounts payable—trade, and (2) Short-term loans payable

The carrying amounts of the notes and accounts payable—trade and short-term loans payable approximate the market values because of their short-term nature.

(3) Bonds payable

The market value of bonds issued by SHI is calculated at present value obtained by discounting total amount of principal and interest by interest rate that reflects the durations of those bonds to maturity and credit risk.

(4) Long-term loans payable

The market value of long-term loans payable is calculated at present value obtained by discounting the total amount of principal and interest by interest rates assumed at the time of new similar borrowing.

Derivative transactions

Refer to notes to “Derivative transactions.”

Note 2: The carrying amounts of financial instruments on the consolidated balance sheets that are not practicable to identify market value are shown as below.

Category	Millions of yen	
	March 31, 2019	March 31, 2020
Shares of subsidiaries and associates	¥3,810	¥9,212
Unlisted shares	2,462	2,296
Equity securities	5	5

Those financial instruments have not been included in “(3) Investment securities” because they have no active market price and it is not practicable to identify their market values.

Note 3: Amounts of financial assets expected to be redeemed after the end of the year

For the year ended March 31, 2019

	Millions of yen		
	Within 1 year	Over 1 year but within 5 years	Over 5 years
Cash and deposits	¥ 73,589	¥ —	¥ —
Notes and accounts receivable—trade	282,781	8,666	130
Long-term loans receivable	9	3,799	5
Total	¥356,380	¥12,464	¥136

For the year ended March 31, 2020

	Millions of yen		
	Within 1 year	Over 1 year but within 5 years	Over 5 years
Cash and deposits	¥ 87,067	¥ —	¥ —
Notes and accounts receivable—trade	261,787	9,484	136
Long-term loans receivable	134	3,068	11
Total	¥348,988	¥12,551	¥147

Note 4: Amounts of bonds payable and long-term loans payable to be repaid after the end of the year

For the year ended March 31, 2019

	Millions of yen					
	Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years	Over 5 years
Bonds payable	¥10,000	¥ —	¥ —	¥10,000	¥ —	¥ —
Long-term loans payable	1,956	2,814	178	4,400	2,900	621
Total	¥11,956	¥2,814	¥178	¥14,400	¥2,900	¥621

For the year ended March 31, 2020

	Millions of yen					
	Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years	Over 5 years
Bonds payable	¥ —	¥ —	¥10,000	¥ —	¥10,000	¥10,000
Long-term loans payable	4,499	1,408	4,612	19,308	1,475	228
Total	¥4,499	¥1,408	¥14,612	¥19,308	¥11,475	¥10,228

(Securities)

1 Available-for-sale securities

For the year ended March 31, 2019

Category	Millions of yen		
	Carrying amount on the consolidated balance sheets	Acquisition cost	Difference
Securities for which the carrying amount on the consolidated balance sheets is in excess of the acquisition cost			
Shares	¥ 9,706	¥4,022	¥5,684
Securities for which the carrying amount on the consolidated balance sheets is not in excess of the acquisition cost			
Shares	2,287	2,815	(528)
Total	¥11,993	¥6,837	¥5,156

Note: The shares of subsidiaries and associates (carrying amount on the consolidated balance sheets: ¥3,810 million), unlisted shares (carrying amount on the consolidated balance sheets: ¥2,462 million) and equity securities (carrying amount on the consolidated balance sheets: ¥5 million) are not included in “Available-for-sale securities” in the table above, as those shares and securities have no active market price and it is not practicable to identify their market values.

For the year ended March 31, 2020

Category	Millions of yen		
	Carrying amount on the consolidated balance sheets	Acquisition cost	Difference
Securities for which the carrying amount on the consolidated balance sheets is in excess of the acquisition cost			
Shares	¥6,900	¥3,316	¥3,585
Securities for which the carrying amount on the consolidated balance sheets is not in excess of the acquisition cost			
Shares	1,358	1,654	(296)
Total	¥8,258	¥4,969	¥3,289

Note: The shares of subsidiaries and associates (carrying amount on the consolidated balance sheets: ¥9,212 million), unlisted shares (carrying amount on the consolidated balance sheets: ¥2,296 million) and equity securities (carrying amount on the consolidated balance sheets: ¥5 million) are not included in “Available-for-sale securities” in the table above, as those shares and securities have no active market price and it is not practicable to identify their market values.

2 Available-for-sale securities sold during the year

For the year ended March 31, 2019

Type	Millions of yen		
	Amount sold	Total amount of selling profits	Total amount of selling losses
Shares	¥407	¥216	¥—

For the year ended March 31, 2020

Type	Millions of yen		
	Amount sold	Total amount of selling profits	Total amount of selling losses
Shares	¥829	¥144	¥306

3 Recognition of impairment loss on securities

An impairment loss of ¥1,041 million on securities (shares of ¥1,041 million among available-for-sale securities) has been recognized in the year ended March 31, 2020.

Impairment loss on investment securities is recognized when there has been a significant decline in the market value. Investment securities for which the market value as of the end of the fiscal year has fallen to below 50% of the acquisition costs are deemed to have no recovery potential and to be impaired. Investment securities for which the market value has fallen to between 30% and 50% of the acquisition costs are deemed to be partially impaired by an amount that takes into consideration the likelihood of recovery and other factors.

(Derivative Transactions)

1 Derivative transactions to which hedge accounting is not applied

Foreign currency-related transactions

For the year ended March 31, 2019

Category	Type	Millions of yen			
		Contract amount	Over 1 year	Market value	Valuation gains (losses)
Forward exchange contracts					
Selling					
	USD	¥30,291	¥—	¥(184)	¥(184)
	EUR	3,751	—	28	28
Off-market transactions	CNY	772	—	(9)	(9)
	IDR	336	—	(20)	(20)
	THB	86	—	(1)	(1)
	GBP	50	—	(0)	(0)
Buying					
	USD	796	—	(5)	(5)
Total		¥36,082	¥—	¥(190)	¥(190)

Note: Method of calculation of market value
Forward exchange contracts: calculated using forward exchange rates.

For the year ended March 31, 2020

Category	Type	Millions of yen			
		Contract amount	Over 1 year	Market value	Valuation gains (losses)
Forward exchange contracts					
Selling					
	USD	¥29,914	¥—	¥(189)	¥(189)
	EUR	9,316	—	23	23
Off-market transactions	CNY	1,671	—	28	28
	NTD	133	—	(15)	(15)
	THB	59	—	(4)	(4)
	GBP	52	—	(2)	(2)
Buying					
	USD	515	—	1	1
Total		¥41,660	¥—	¥(159)	¥(159)

Note: Method of calculation of market values
Forward exchange contracts: calculated using forward exchange rates.

2 Derivative transactions to which hedge accounting is applied

(1) Foreign currency-related transactions

For the year ended March 31, 2019

Method of hedge accounting	Type	Major hedged items	Millions of yen		
			Contract amount	Over 1 year	Market value
Forward exchange contracts					
Selling					
	USD	Accounts receivable—trade	¥32,770	¥11,913	¥(778)
	SEK	receivable—trade	2,806	567	81
Basic accounting method	EUR		747	—	20
Buying					
	USD		7,818	3,463	277
	EUR	Accounts payable—trade	1,068	369	(21)
	PLN		1,036	—	(2)
	JPY		130	—	(6)
	CNY		108	—	1
Forward exchange contracts					
Selling					
Allocation of forward exchange contracts	USD	Accounts receivable—trade	47	—	(3)
	EUR		5	—	0
Buying					
	JPY	Accounts payable—trade	946	—	18
Total			¥47,481	¥16,312	¥(413)

Note: Method of calculation of market values
Forward exchange contracts: calculated using forward exchange rates.

For the year ended March 31, 2020

Method of hedge accounting	Type	Major hedged items	Millions of yen		
			Contract amount	Over 1 year	Market value
Forward exchange contracts					
Basic accounting method	Selling				
	USD	Accounts receivable—trade	¥27,755	¥ 9,030	¥(880)
	SEK		579	—	5
	EUR		634	—	2
	Buying				
	USD	Accounts payable—trade	7,949	4,007	273
	EUR		3,710	212	(39)
	PLN		740	—	(21)
CNY	237		—	2	
Forward exchange contracts					
Allocation of forward exchange contracts	Selling				
	USD	Accounts receivable—trade	22	—	(1)
	EUR		1	—	(0)
Total			¥41,627	¥13,249	¥(660)

Note: Method of calculation of market values
Forward exchange contracts: calculated using forward exchange rates.

(2) Interest-related transactions

For the year ended March 31, 2019

Method of hedge accounting	Type	Major hedged items	Millions of yen		
			Contract amount	Over 1 year	Market value
Simplified accounting treatment of interest swaps	Interest rate swap transactions payable at fixed rate and receivable at floating rate	Long-term loans payable	¥3,022	¥2,220	¥(22)
Total			¥3,022	¥2,220	¥(22)

Note: Method of calculation of market values
Swap transactions: calculated using the amounts presented by financial institutions with which the Company has a swap contract.

For the year ended March 31, 2020

Method of hedge accounting	Type	Major hedged items	Millions of yen		
			Contract amount	Over 1 year	Market value
Simplified accounting treatment of interest swaps	Interest rate swap transactions payable at fixed rate and receivable at floating rate	Long-term loans payable	¥2,710	¥2,220	¥(72)
Total			¥2,710	¥2,220	¥(72)

Note: Method of calculation of market value
Swap transactions: calculated using the amounts presented by financial institutions with which the Company has a swap contract.

(Retirement Benefits)

1 Outline of the retirement benefit plans adopted

SHI and its major domestic consolidated subsidiaries have adopted a combination of the lump-sum retirement allowance plan and the defined contribution pension plan, while certain overseas consolidated subsidiaries have defined benefit-type plans.

A retirement benefit trust has been created for SHI's lump-sum retirement allowance plans.

Some consolidated subsidiaries with the lump-sum retirement allowance plans calculate net defined benefit liability and retirement benefit costs based on the simplified method.

2 Defined benefit plans (excluding the plans to which the simplified method is applied)

(1) Movements in retirement benefit obligations

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Balance at the beginning of the year	¥90,855	¥85,189
Service cost	3,651	3,502
Interest cost	973	1,059
Actuarial loss (gain)	(1,082)	4,086
Benefit paid	(3,784)	(3,593)
Increase due to change from the simplified method to the principle method	288	—
Increase due to newly consolidated subsidiaries	566	—
Loss on settlement following buyout of pension plan	(4,932)	—
Others	(1,346)	(414)
Balance at the end of the year	¥85,189	¥89,828

(2) Movements in plan assets

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Balance at the beginning of the year	¥53,934	¥43,800
Expected return on plan assets	1,504	1,429
Actuarial loss (gain)	(5,784)	(1,006)
Contributions paid by the employer	1,256	61
Benefit paid	(1,122)	(1,218)
Loss on settlement following buyout of pension plan	(5,427)	—
Others	(562)	(132)
Balance at the end of the year	¥43,800	¥42,936

(3) Reconciliations from retirement benefit obligations and plan assets to net defined benefit liability (asset)

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Funded retirement benefit obligations	¥ 60,198	¥ 63,348
Plan assets	(43,800)	(42,936)
	16,398	20,413
Unfunded retirement benefit obligations	24,992	26,479
Total net defined benefit liability	¥ 41,390	¥ 46,892
Defined benefit asset	¥ (1,181)	¥ (2,911)
Defined benefit liability	42,571	49,803
Total net defined benefit liability	¥ 41,390	¥ 46,892

(4) Retirement benefit expenses

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Service cost	¥ 3,651	¥ 3,502
Interest cost	973	1,059
Expected return on plan assets	(1,504)	(1,429)
Net actuarial loss amortization	1,483	3,099
Past service costs amortization	143	37
Increase due to transition from the simplified method to the principle method	162	—
Others	29	20
Total retirement benefit expenses	¥ 4,938	¥ 6,287

(5) Remeasurements of defined benefit plans

Items recognized in remeasurements of defined benefit plans (before tax effect) are as follows.

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Past service costs	¥ 58	¥ 37
Actuarial gains and losses	(3,218)	(1,992)
Loss on settlement following buyout of pension plan	2,105	—
Others	58	(16)
Total	¥ (998)	¥(1,971)

(6) Remeasurements of defined benefit plans

Items recognized in accumulated remeasurements of defined benefit plans (before tax effect) are as follows.

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Past service costs that are yet to be recognized	¥ (118)	¥ (144)
Actuarial gains and losses that are yet to be recognized	(6,008)	(7,953)
Total	¥(6,126)	¥(8,097)

(7) Plan assets

(i) Major components of plan assets

Percentages by major category of total plan assets are as follows.

	%	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Shares	79	73
Cash and deposits	7	1
Others	14	26
Total	100	100

Note: Total plan assets include the retirement benefit trust created for SHI's lump-sum retirement allowance plan. The retirement benefit trust has been included as a percentage of total plan assets, which was 54% (¥23,835 million) at the end of the previous year and is 44% (¥18,851 million) at the end of the current year.

(ii) Method of setting a long-term expected rate of return on plan assets

In order to determine a long-term expected rate of return on plan assets, the present and predicted allocation of plan assets, and the present and expected long-term rate of return on various assets comprising plan assets are considered.

(8) The basis of actuarial assumptions

Basis for major actuarial assumptions

	%	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Discount rate	0.0 to 7.8	0.0 to 7.8
Long-term expected rate of return on plan assets	0.0 to 8.0	0.0 to 8.0

3 Defined benefit plans to which the simplified method is applied

(1) Movements in net defined benefit liability

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Balance at the beginning of the year	¥3,514	¥3,479
Decrease due to change from the simplified method to the principle method	(126)	—
Retirement benefit expenses	557	631
Benefit paid	(397)	(241)
Contributions paid by the employer	(69)	(69)
Balance at the end of the year	¥3,479	¥3,800

(2) Reconciliations from retirement benefit obligations and plan assets to net defined benefit liability

	Millions of yen	
	March 31, 2019	March 31, 2020
Funded retirement benefit obligations	¥ 912	¥ 882
Plan assets	(944)	(908)
	(32)	(26)
Unfunded retirement benefit obligations	3,511	3,825
Total net defined benefit liability	¥3,479	¥3,800
Defined benefit asset	¥ (32)	¥ (26)
Defined benefit liability	3,511	3,825
Total net defined benefit liability	¥3,479	¥3,800

(3) Retirement benefit expenses

Retirement benefit expenses calculated using the simplified method: ¥557 million for the previous year and ¥631 million for the current year

4 Defined contribution plans

The amounts required to be contributed to the defined contribution plans of the Company are ¥873 million for the previous year and ¥931 million for the current year.

(Tax Effect Accounting)

1 Major components of deferred tax assets and deferred tax liabilities

	Millions of yen	
	March 31, 2019	March 31, 2020
Deferred tax assets		
Accrued bonuses	¥ 3,664	¥ 3,693
Amount exceeding the limit on deductible allowance for doubtful accounts	1,252	898
Provision for construction warranties	3,473	3,612
Defined benefit liability	14,416	15,937
Unrealized profit on inventories	1,934	1,833
Loss on valuation of investment securities	1,336	949
Excess of depreciation	1,561	1,945
Tax loss carryforward	4,821	5,439
Loss on valuation of inventories	2,615	2,619
Impairment loss	2,199	1,919
Provision for loss on construction contracts	1,942	1,417
Others	7,656	8,345
Subtotal	46,868	48,606
Valuation allowance for tax loss carryforward (Note 2)	(3,069)	(4,367)
Valuation allowance for deductible temporary differences	(6,865)	(7,406)
Subtotal of valuation allowance (Note 1)	(9,934)	(11,773)
Total	36,933	36,833
Deferred tax liabilities		
Unrealized gains on full market value valuation of consolidated subsidiaries	(2,850)	(3,270)
Extra depreciation in overseas subsidiaries	(2,856)	(3,101)
Retained earnings of overseas subsidiaries	(4,116)	(4,650)
Intangible assets identified by business combinations	(4,848)	(4,424)
Valuation difference on available-for-sale securities	(1,274)	(802)
Others	(1,034)	(1,080)
Total	(16,978)	(17,327)
Net deferred tax assets	¥ 19,955	¥ 19,506

Notes: 1 There is no material change in the valuation allowance.
2 Tax loss carryforward and its deferred tax assets by expiration periods

For the year ended March 31, 2019

	Millions of yen						
	Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years	Over 5 years	Total
Tax loss carryforward (a)	¥126	¥90	¥ 450	¥110	¥ 120	¥ 3,924	¥ 4,821
Valuation allowance	—	—	(316)	(34)	(120)	(2,599)	(3,069)
Deferred tax assets	¥126	¥90	¥ 134	¥ 76	¥ —	¥ 1,325	(b) ¥ 1,752

(a) Tax loss carryforward shown in the above table is after multiplying the statutory tax rate.
(b) The Company recognizes deferred tax assets of ¥1,752 million in relation to tax loss carryforward of ¥4,821 million (amount multiplied by the statutory tax rate). These deferred tax assets were recognized mainly for tax loss carryforward at SHI's consolidated subsidiaries. The tax loss carryforward which resulted in the recognition of such deferred tax assets were generated from previously recognized loss before income taxes; however, no valuation allowance was recognized for the portions that were determined to be recoverable based on expected future taxable income and other factors.

For the year ended March 31, 2020

	Millions of yen						
	Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years	Over 5 years	Total
Tax loss carryforward (a)	¥109	¥ 396	¥229	¥ 120	¥160	¥ 4,425	¥ 5,439
Valuation allowance	(56)	(353)	(79)	(120)	(40)	(3,718)	(4,367)
Deferred tax assets	¥ 53	¥ 43	¥149	¥ —	¥120	¥ 707	(b) ¥ 1,073

(a) Tax loss carryforward shown in the above table is after multiplying the statutory tax rate.
(b) The Company recognizes deferred tax assets of ¥1,073 million in relation to tax loss carryforward of ¥5,439 million (amount multiplied by the statutory tax rate). These deferred tax assets were recognized mainly for tax loss carryforward at SHI's consolidated subsidiaries. The tax loss carryforward which resulted in the recognition of such deferred tax assets was generated from previously recognized loss before income taxes; however, no valuation allowance was recognized for the portions that were determined to be recoverable based on expected future taxable income and other factors.

2 SHI and its consolidated domestic companies are subject to corporate, inhabitant and enterprise taxes, which constitute, in the aggregate, a statutory tax rate in Japan of approximately 30.6% for the years ended March 31, 2019 and 2020, respectively. Major items causing the differences between the statutory effective tax rate and the effective income tax rate after application of tax effect accounting are as follows.

	March 31, 2019	March 31, 2020
Statutory effective tax rates (adjustments)	30.6	30.6
Items not deductible permanently, such as entertainment expenses	0.6	1.1
Inhabitant tax on a per capita basis	0.4	0.5
Items not taxable permanently, such as dividend income	(0.1)	(0.4)
Valuation allowance	(0.8)	3.2
Tax credit	(2.7)	(3.2)
Share of profit of entities accounted for using the equity method	(0.0)	(0.1)
Retained earnings of overseas subsidiaries	1.1	1.0
Tax rate differences of overseas subsidiaries	(4.3)	(1.8)
Amortization of goodwill	1.0	1.3
Impairment loss on goodwill	1.2	—
Others	0.5	1.7
Effective income tax rates after application of tax effect accounting	27.5	33.9

(Business Combination)

Business combination through acquisition

On September 27, 2019, Board of Directors of SHI adopted a resolution for the acquisition of shares in Invertek Drives Ltd., a British inverter manufacturer ("Invertek"), and SHI entered into a share transfer agreement. The share transfer executed on November 7, 2019.

(1) Outline of the acquisition

(i) Name and nature of business of the acquired company

Name of the acquired company: Invertek Drives Ltd.

Nature of business: Research and development, manufacture, sale and distribution of inverter products

(ii) Main reason for the business combination

The acquisition of the technology and production capabilities of Invertek's control devices will allow SHI to extend its product portfolio in the motor control industry which is becoming increasingly important as demand for IoT, automation, labor productivity and energy-saving technology and applications grows.

Furthermore, the combination with the motor technology of Lafert S.p.A., an Italian industrial motor manufacturer that became a consolidated subsidiary of SHI in 2018, will enable SHI to respond to the advanced needs of the customer, as it aims to create an integrated platform centered in Europe, the technology hub of its target market, with capabilities to provide a comprehensive range of products including gears, motors and controls.

(iii) Business combination date

November 7, 2019

(iv) Legal form of business combination

Acquisition of shares

(v) Company name after the business combination

No change of name after the business combination

(vi) Percentage of the voting rights acquired

Percentage of voting rights held immediately before the business combination:—%

Percentage of voting rights acquired on the business combination date: 100.0%

Percentage of voting rights after acquisition: 100.0%

(vii) Major grounds leading to the determination of the acquiring entity

Due to the fact that SHI acquired the shares in cash.

(2) Financial performance period of the acquired company included in the consolidated financial statements

From October 1, 2019 to December 31, 2019

(3) Acquisition cost of the acquired company and breakdown by kind of consideration

	Millions of yen
Consideration for acquisition: Cash	¥12,631
Acquisition cost:	¥12,631

(4) Details and amount of major acquisition-related expenses

Advisory fees and other: ¥295 million

(5) Amount of goodwill generated, cause of generation, and method and period of amortization

(i) Amount of goodwill generated

¥10,320 million

The amount of goodwill is a provisionally calculated amount since the allocation of the acquisition cost has yet to be completed as of the end of the current consolidated fiscal year.

(ii) Cause of generation

Generated because the acquisition cost exceeded the net amount of assets acquired and liabilities assumed

(iii) Method and period of amortization

To be amortized equally over 16 years

(6) Amounts and major components of assets acquired and liabilities assumed on the date of acquisition

	Millions of yen
Current assets	¥2,290
Non-current assets	1,019
Total assets	¥3,309
Current liabilities	¥ 736
Non-current liabilities	576
Total liabilities	¥1,312

(7) Details of contingent consideration for acquisition set forth in the business consolidation contracts and the accounting policy for the current and subsequent years

SHI will make additional payments depending on the future level of financial performance of the acquired company. For an increase in goodwill resulting from the payment of contingent consideration for the acquisition, the total acquisition cost would be adjusted as if the contingent consideration was paid at the time of acquisition of the shares and the amount of goodwill and goodwill amortization would be adjusted accordingly.

(8) If the business combination had been completed at the beginning of the current year, the estimated financial effects on the consolidated statement of income for the current year would have been as follows.

	Millions of yen
Sales	¥3,982
Operating profit	50
Ordinary profit	47
Profit before income taxes	47
Profit attributable to owners of parent	(7)

Method of calculating estimated financial effects

The estimated financial effects are the differences between net sales and profit/loss information calculated assuming that the business combination had been completed at the beginning of the current year, and net sales and profit/loss information in SHI's consolidated statement of income. The amount of amortization is calculated assuming that goodwill had been the recognized at the beginning of the current consolidated fiscal year.

This note is unaudited.

(Asset Retirement Obligations)

No further disclosure is made as those obligations are immaterial in terms of amount.

(Segment Information))

[Segment Information]

1 Summary of reporting segments

(1) Method for determining reporting segments

The reporting segments of the Company are based on the business units for which financial information is separately available and are periodically reviewed by the Board of Directors to determine the allocation of management resources and assess their operating performance.

(2) Type of finished goods and services belonging to each reporting segment

The Company formulates comprehensive domestic and global strategies for its products and services handled by the head office and each consolidated subsidiary and develops business activities. Thus, the reporting segments consist of the following six segments for each of the products and services handled by the head office and each consolidated subsidiary: "Machinery Components," "Precision Machinery," "Construction Machinery," "Industrial Machinery," "Ships," and "Environmental Facilities & Plants."

Businesses	Main finished goods
Machinery Components	Power transmissions, control equipment, inverters
Precision Machinery	Plastics machinery, film forming machines, semiconductor production equipment, laser processing systems, cryogenic equipment, precision positioning equipment, precision forgings, control components, defense equipment, machine tools
Construction Machinery	Hydraulic excavators, mobile cranes, road machinery
Industrial Machinery	Ion accelerators, medical machines and equipment, forging press machines, material handling systems, logistics systems, automated parking systems, turbines, pumps
Ships	Ships
Environmental Facilities & Plants	Private power generation facilities, boilers, industrial waste treatment facilities, air pollution control equipment, water and sewage treatment systems, process equipment, pressure vessels, mixing vessels, air-conditioning equipment, food processing machinery

2 Method of calculating net sales, profits or losses, assets and other items of each reporting segment

The method of accounting treatment of the business segments reported is almost identical to the descriptions in "Notes to the Consolidated Financial Statements."

Internal sales and transfers among the segments are based on market prices in effect.

3 Information on the amounts of sales, profits or losses, assets and other items by reporting segment

For the year ended March 31, 2019

	Reporting Segments									Adjustments (Note 2)	Carrying amount on the consolidated financial statements (Note 3)
	Machinery Components	Precision Machinery	Construction Machinery	Industrial Machinery	Ships	Environmental Facilities & Plants	Total	Others (Note 1)	Total		
Sales											
Sales to external customers	¥133,426	¥185,688	¥290,472	¥93,737	¥41,443	¥150,951	¥895,716	¥ 7,335	¥903,051	¥ —	¥903,051
Inter-segment sales	2,191	318	8	1,651	8	882	5,058	3,642	8,700	(8,700)	—
Total	135,617	186,006	290,480	95,387	41,451	151,832	900,774	10,976	911,750	(8,700)	903,051
Segment profit	11,069	17,682	21,957	8,955	830	12,565	73,058	2,180	75,238	6	75,244
Segment assets	165,368	195,393	245,701	73,346	68,081	134,094	881,984	47,627	929,611	24,440	954,051
Other categories											
Depreciation	5,603	5,395	9,442	1,744	1,149	2,083	25,416	559	25,975	—	25,975
Amortization of goodwill	664	537	414	122	—	460	2,197	—	2,197	—	2,197
Investments in companies accounting for using the equity method	204	2,351	—	—	—	—	2,555	—	2,555	—	2,555
Increase in tangible and intangible assets	29,167	8,588	7,564	2,446	3,726	3,494	54,985	1,220	56,205	—	56,205

Notes: 1 "Others" is a business segment which is not included in the reporting segments, and contains real estate business, software-related business and other businesses.

2 Adjustments are as follows.

(1) Adjustments of segment profit (¥6 million) include inter-segment eliminations of ¥6 million.

(2) Adjustments of segment assets (¥24,440 million) include assets of ¥24,440 million relating to surplus investment funds (cash and deposits) and long-term investment funds (investment securities) of SHI.

3 Segment profits have been adjusted in relation to operating profit in the consolidated statements of income.

For the year ended March 31, 2020

	Reporting Segments									Adjustments (Note 2)	Carrying amount on the consolidated financial statements (Note 3)
	Machinery Components	Precision Machinery	Construction Machinery	Industrial Machinery	Ships	Environmental Facilities & Plants	Total	Others (Note 1)	Total		
Sales											
Sales to external customers	¥130,501	¥185,010	¥272,805	¥86,981	¥32,946	¥149,009	¥857,252	¥ 7,238	¥864,490	¥ —	¥864,490
Inter-segment sales	2,061	232	33	1,601	6	1,262	5,197	3,655	8,851	(8,851)	—
Total	132,562	185,243	272,839	88,582	32,952	150,271	862,449	10,892	873,341	(8,851)	864,490
Segment profit or loss	5,522	14,931	17,144	7,073	(2,102)	11,862	54,430	2,391	56,820	0	56,821
Segment assets	189,933	187,526	258,542	77,383	63,880	131,933	909,197	63,053	972,250	22,904	995,154
Other categories											
Depreciation	6,588	5,553	9,192	1,632	1,283	2,965	27,213	652	27,865	—	27,865
Amortization of goodwill	985	32	414	134	—	621	2,186	—	2,186	—	2,186
Investments in companies accounting for using the equity method	256	2,495	—	—	—	—	2,751	—	2,751	—	2,751
Increase in tangible and intangible assets	27,928	6,032	10,234	1,967	1,451	2,816	50,428	803	51,231	—	51,231

Notes: 1 "Others" is a business segment which is not included in the reporting segments, and contains real estate business, software-related business and other businesses.

2 Adjustments are as follows.

(1) Adjustments of segment profit or loss (¥0 million) include inter-segment eliminations of ¥0 million.

(2) Adjustments of segment assets (¥22,904 million) include assets of ¥22,904 million relating to surplus investment funds (cash and deposits) and long-term investment funds (investment securities) of SHI.

3 Segment profit or loss has been adjusted in relation to operating profit in the consolidated statements of income.

[\[Related Information\]](#)

For the year ended March 31, 2019

1 Information by finished goods and services

No further disclosure is made because the finished goods and services categories are identical to those of the reporting segments.

2 Information by region

(1) Sales

					Millions of yen
Japan	United States	China	Others	Total	
¥390,469	¥142,509	¥99,445	¥270,628	¥903,051	

Note: Sales are based on the locations of customers and are divided into countries or regions.

(2) Property, plant and equipment

			Millions of yen
Japan	Others	Total	
¥187,382	¥60,894	¥248,276	

3 Information by major customer

There is no description because the Company has no single external customer that accounts for at least 10% of net sales in the consolidated statements of income.

For the year ended March 31, 2020

1 Information by finished goods and services

No further disclosure is made because the finished goods and services categories are identical to those of the reporting segments.

2 Information by region

(1) Sales

					Millions of yen
Japan	United States	China	Others	Total	
¥402,426	¥126,654	¥87,034	¥248,376	¥864,490	

Note: Sales are based on the locations of customers and are divided into countries or regions.

(2) Property, plant and equipment

			Millions of yen
Japan	Others	Total	
¥197,189	¥70,877	¥268,066	

3 Information by major customer

There is no description because the Company has no single external customer that accounts for at least 10% of net sales in the consolidated statements of income.

[\[Information on Impairment Loss of Non-current Assets by Reporting Segment\]](#)

For the year ended March 31, 2019

	Reporting segments							Others	Corporate/ Eliminations (Note)	Total
	Machinery Components	Precision Machinery	Construction Machinery	Industrial Machinery	Ships	Environmental Facilities & Plants	Total			
Total	¥—	¥2,946	¥—	¥265	¥—	¥—	¥3,211	¥—	¥238	¥3,448

Note: All the amounts of corporate/eliminations relate to idle assets, such as residential land or corporate assets.

For the year ended March 31, 2020

Not applicable

[\[Amortization and Unamortized Balance of Goodwill by Reporting Segment\]](#)

For the year ended March 31, 2019

	Reporting segments							Others	Corporate/ Eliminations	Total
	Machinery Components	Precision Machinery	Construction Machinery	Industrial Machinery	Ships	Environmental Facilities & Plants	Total			
Amortization during the year	¥ 664	¥537	¥414	¥122	¥—	¥ 460	¥ 2,197	¥—	¥—	¥ 2,197
Balance at the end of the current period	11,212	256	414	200	—	11,967	24,049	—	—	24,049

For the year ended March 31, 2020

	Reporting segments							Others	Corporate/ Eliminations	Total
	Machinery Components	Precision Machinery	Construction Machinery	Industrial Machinery	Ships	Environmental Facilities & Plants	Total			
Amortization during the year	¥ 985	¥ 32	¥414	¥134	¥—	¥ 621	¥ 2,186	¥—	¥—	¥ 2,186
Balance at the end of the current period	22,297	220	—	67	—	10,921	33,505	—	—	33,505

[\[Information on Gain on Negative Goodwill by Reporting Segment\]](#)

Not applicable

[\[Information on Related Parties\]](#)

Not applicable

(Per-share Information)

	Yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Net assets per share	¥3,701.01	¥3,790.99
Earnings per share	372.56	267.77

Notes: 1 There is no disclosure for diluted earnings per share information after adjustments of dilutive potential shares, because there are no dilutive potential shares.

2 The basis for calculation of earnings per share is presented below.

	Millions of yen	
	For the year ended March 31, 2019	For the year ended March 31, 2020
Profit attributable to owners of parent	¥ 45,650	¥ 32,807
Value not attributable to common shareholders	—	—
Profit attributable to common shareholders of parent	45,650	32,807
Average number of outstanding shares for the term (in thousand shares)	122,530	122,520

(Significant Subsequent Events)

On September 23, 2020, SHI issued the following unsecured bonds and received the proceeds on the same date.

(1) Name

Sumitomo Heavy Industries Limited Series 7 Unsecured Bond (with Inter-Bond Pari Passu Clause)

(2) Total issuance amount

¥20,000 million

(3) Issuance price

¥100 per ¥100 of face value

(4) Interest rate

0.170% per annum

(5) Redemption value

¥100 per ¥100 of face value

(6) Maturity date and repayment method

September 22, 2025 (bullet maturity amortization)

(7) Purpose of loan

Planned to be allocated as funds for redemption of commercial papers which mature on or before October 31, 2020.

(Consolidated Supplementary Schedules)

[Bonds Schedule]

Company name	Name of issue	Issue date	Millions of yen		Interest rate (%)	Security	Redemption date
			Balance at the beginning of the current period	Balance at the end of the current period			
Sumitomo Heavy Industries, Ltd.	3rd unsecured bond	October 28, 2014	¥10,000	¥ —	0.26	Unsecured	October 28, 2019
Sumitomo Heavy Industries, Ltd.	4th unsecured bond	March 15, 2018	10,000	10,000	0.17	Unsecured	March 15, 2023
Sumitomo Heavy Industries, Ltd.	5th unsecured bond	July 24, 2019	—	10,000	0.13	Unsecured	July 24, 2024
Sumitomo Heavy Industries, Ltd.	6th unsecured bond	January 24, 2020	—	10,000	0.29	Unsecured	January 24, 2030
Total	—	—	¥20,000	¥30,000	—	—	—

Note: Annualized amounts to be redeemed within five years after the end of the current year are as follows.

Millions of yen				
Within 1 year	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years
¥—	¥—	¥10,000	¥—	¥10,000

[Loans Schedule]

Category	Millions of yen		Average interest rate (%)	Repayment date
	Balance at the beginning of the current period	Balance at the end of the current period		
Short-term loans payable	¥23,444	¥28,139	2.22	—
Current portion of long-term loans payable	1,956	4,499	2.72	—
Lease obligations due within 1 year	2,105	3,607	—	—
Long-term loans payable (excluding long-term debts due within 1 year)	10,912	27,032	0.50	From January 10, 2021 to June 30, 2031
Lease obligations (excluding lease obligations due within 1 year)	7,108	8,440	—	—
Total	¥45,524	¥71,717	—	—

Notes: 1 For "Average interest rate," a weighted average interest rate to the balance of the loan at the end of the year is presented.

2 The table below is the maturity profile of long-term loans payable and lease obligations at the end of the current year, which are due after one year.

Category	Millions of yen			
	Over 1 year but within 2 years	Over 2 years but within 3 years	Over 3 years but within 4 years	Over 4 years but within 5 years
Long-term loans payable	¥1,408	¥4,612	¥19,308	¥1,475
Lease obligations (long-term)	2,483	1,878	1,013	1,508

3 No interest rate information is available because lease obligations are measured by including interest expenses, except for certain consolidated subsidiaries.

[Asset Retirement Obligations Schedule]

No further disclosure has been made because the amount of asset retirement obligations was 1% or less of the total balance of the liabilities and net assets at the beginning of the current consolidated fiscal year and at the end of the current consolidated fiscal year, respectively.



Independent auditor's report

To the Board of Directors of Sumitomo Heavy Industries, Ltd.:

Opinion

We have audited the accompanying consolidated financial statements of Sumitomo Heavy Industries, Ltd. ("the Company") and its consolidated subsidiaries (collectively referred to as "the Group"), which comprise the consolidated balance sheets as at March 31, 2020 and 2019, the consolidated statements of income, comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies, other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2020 and 2019, and its consolidated financial performance and cash flows for the years then ended in accordance with accounting principles generally accepted in Japan.

Basis for Opinion

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

Responsibilities of Management and Corporate auditors and the board of corporate auditors for the Consolidated Financial Statements

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

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

Corporate auditors and the board of corporate auditors are responsible for overseeing the directors' performance of their duties including the design, implementation and maintenance of the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

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

As part of our audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, while the objective of the audit is not to express an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate whether the presentation and disclosures in the consolidated financial statements are in accordance with accounting standards generally accepted in Japan, the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with corporate auditors and the board of corporate auditors regarding, among other matters, the planned scope and timing of the audit, significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

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

Interest required to be disclosed by the Certified Public Accountants Act of Japan

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

Takemitsu Nemoto

Designated Engagement Partner

Certified Public Accountant

Yutaka Matsuki

Designated Engagement Partner

Certified Public Accountant

Yoshinori Saito

Designated Engagement Partner

Certified Public Accountant

KPMG AZSA LLC

Tokyo Office, Japan

September 28, 2020

Notes to the Reader of Independent Auditor's Report:

This is a copy of the Independent Auditor's Report and the original copies are kept separately by the Company and KPMG AZSA LLC.

Major Subsidiaries and Affiliates (As of June 30, 2020)

Machinery Components Segment

Power Transmission & Controls

- Sumitomo Heavy Industries PTC Sales Co., Ltd.
- Sumitomo Heavy Industries Gearbox Co., Ltd.
- SUMITOMO MACHINERY CORPORATION OF AMERICA
- SM Cyclo de Mexico S.A. de C.V.
- SM Cyclo Redutores do Brasil Com. Ltda.
- SM Cyclo de Chile, Ltda.
- SM-Cyclo de Argentina S.A.
- SM-Cyclo de Colombia Ltda.
- SM Cyclo de Guatemala Ensambladora, Limitada
- SM CYCLO OF CANADA, LTD.
- SM Cyclo de Peru S.A.C
- Sumitomo Industrias Pesadas do Brasil Ltda.
- Sumitomo (SHI) Cyclo Drive Germany GmbH
- SM-Cyclo France S.A.S.
- SM-Cyclo UK Ltd.
- SM-Cyclo Italy Srl
- SM-Cyclo Turkey Ltd. Sti.
- Sumi-Cyclo Drive India Private Limited
- Hansen Industrial Transmissions NV
- Sociedad Industrial de Transmisiones S.A.
- Lafert S.p.A.
- ICME S.p.A.
- Lafert (Suzhou) Co., Ltd.
- Lafert Elektromotorji D.o.o.
- Lafert Servo Motors S.p.A.
- Lafert Servo Drives S.r.l.
- Invertek Drives Ltd.
- Invertek Drives (Shenyang) Ltd.
- Invertek Drives GmbH
- Invertek Drives Polska Sp. z.o.o.
- Invertek Drives USA LLC
- Sumitomo (SHI) Cyclo Drive Korea, Ltd.
- Sumitomo (SHI) Cyclo Drive China, Ltd.
- SM-Cyclo of Hong Kong Co., Ltd.
- Sumitomo (SHI) Cyclo Drive Logistics, Ltd.
- Sumitomo Heavy Industries (Tangshan), Ltd.
- Tatung SM-Cyclo Co., Ltd.
- Sumitomo (SHI) Cyclo Drive Asia Pacific Pte. Ltd.
- SM-CYCLO (Malaysia) SDN. BHD.
- SM-CYCLO (Thailand) CO., LTD.
- Sumitomo (SHI) Hansen Australia Pty. Ltd.
- PT SM-Cyclo Indonesia
- SM-Cyclo (Vietnam) Co., Ltd.
- Sumitomo Heavy Industries (Vietnam) Co., Ltd.

Precision Machinery Segment

Plastics Machinery

- Sumiju Platec Co., Ltd.
- Sumiju Logitech Co., Ltd.
- Sumitomo Heavy Industries Modern, Ltd.
- Izumi Seiki Co., Ltd.
- SUMITOMO (SHI) DEMAG PLASTICS MACHINERY NORTH AMERICA, INC.
- Sumitomo (SHI) Demag Plastics Machinery GmbH
- Sumitomo (SHI) Demag Plastics Machinery (Italia) S.r.l.
- Sumitomo (SHI) Demag Plastics Machinery (France) S.A.S.
- Sumitomo (SHI) Demag Plastics Machinery (UK) Ltd.
- Demag Plastics Machinery (Ningbo) Co., Ltd.
- Sumitomo (SHI) Demag DO BRASIL COMERCIO DE MAQUINAS PARA PLASTICOS LTDA.
- Sumitomo (SHI) Demag Plastics Machinery Sp. z.o.o.
- JSC Sumitomo (SHI) Demag Plastics Machinery
- Sumitomo (SHI) Demag Plastics Machinery Hungaria Kft.
- Sumitomo (SHI) Demag Plastics Machinery Espana S.L.
- Ningbo Sumiju Machinery, Ltd.
- SHI PLASTICS MACHINERY (SHANGHAI) CO., LTD.
- SHI PLASTICS MACHINERY (HONG KONG) LTD.
- S.H.I. Plastics Machinery (S) Pte. Ltd.

Cryogenic Equipment

- Sumitomo (SHI) Cryogenics of America, Inc.
- Sumitomo (SHI) Cryogenics of Europe GmbH
- SUMITOMO (SHI) CRYOGENICS OF EUROPE, LTD.
- SUMITOMO (SHI) CRYOGENICS SHANGHAI, LTD.
- SHI MANUFACTURING & SERVICES (PHILIPPINES), INC.

Precision Equipment and Components

- Sumitomo Heavy Industries Himatex Co., Ltd.
- SUMIJU BUSINESS, LTD.
- Sumiju Precision Forging Co., Ltd.
- Persimmon Technologies Corporation

Semiconductor Equipment

- Sumitomo Heavy Industries Ion Technology Co., Ltd.
- SENSE Co., Ltd.
- SHI Ion Technology Taiwan Co., Ltd.

Machine Tools

- Sumitomo Heavy Industries Finetech, Ltd.

Defense Equipment

- Sumiju Tokki Service Co., Ltd.

Construction Machinery Segment

Hydraulic Excavators and Road Machinery

- SUMITOMO CONSTRUCTION MACHINERY SALES CO., LTD.
- SUMITOMO CONSTRUCTION MACHINERY CO., LTD.
- Kenki Engineering Chiba Co., Ltd.
- Kenki Support Chiba Co., Ltd.
- Parks Koushinetsu Co., Ltd.
- Esukei Ishisho Co., Ltd.
- Osaka Sumijukenki Co., Ltd.
- SCM (AMERICA), INC.
- LBX Company, LLC
- LBX do Brasil Comércio de Equipamentos Industriais Ltda.
- LBX International LLC

Major Subsidiaries and Affiliates

- Sumiju SCE (Xiamen) Construction Machinery Co., Ltd.
- SUMITOMO CONSTRUCTION MACHINERY (TANGSHAN) CO., LTD.
- Sumitomo Heavy Industries (China) Financial Leasing, Ltd.
- PT. SUMITOMO CONSTRUCTION MACHINERY INDONESIA
- PT. SUMITOMO CONSTRUCTION MACHINERY SOUTHEAST ASIA
- SCMSEA (Thailand) Co., Ltd.

Mobile Cranes

- Sumitomo Heavy Industries Construction Cranes Co., Ltd.
- LBCE Holdings, Inc.
- Link-Belt Cranes, L.P., LLLP
- LBCE Services, Inc.
- TRIAD MACHINERY, INC.

Industrial Machinery Segment

Material Handling Systems

- Sumitomo Heavy Industries Material Handling Systems Co., Ltd.
- Sumimec Engineering Inc.

Turbines and Pumps

- Shin Nippon Machinery Co., Ltd.
- Shin Nichizo Engineering Co., Ltd.

Quantum Equipment and Cyclotron Accelerators

- SHI-ATEX Co., Ltd.
- SHI Accelerator Service Ltd.

Ships Segment

Ships

- Sumitomo Heavy Industries Marine & Engineering Co., Ltd.
- Sumiju Yokosuka Kogyo Co., Ltd.

Environmental Facilities & Plants Segment

Energy-Related and Environmental Protection Systems

- Sumiju Environmental Technologies, Ltd.
- Sumitomo SHI FW Energie B.V.
- Sumitomo SHI FW Energia Polska Sp. z.o.o.
- Sumitomo SHI FW Energia Oy
- SHI FW FAKOP Sp. z.o.o.
- Sumitomo SHI FW International Trading (Shanghai) Co., Ltd.
- Sumitomo SHI FW Energy Management (Shanghai) Co., Ltd.
- Sumitomo SHI FW Power Group Asia Ltd.
- FW Europe B.V.
- Sumitomo SHI FW Energy North America Corporation
- Sumitomo SHI FW Energie GmbH
- Sumitomo SHI FW Energia Aktiebolag
- Sumitomo SHI FW Power Vietnam Ltd.
- OOO Foster Wheeler Energia
- Graf-Wulff US Corp.
- Sumitomo SHI FW Service (Thailand) Ltd.
- Sumitomo SHI FW Brasil Gerenciamento e Gestão Empresarial Ltda.
- Sumitomo SHI FW Turkey Enerji Ekipman Hizmetleri Anonim Şirketi
- Sumitomo SHI FW Power Service Philippine Corporation
- SHI FW Power Machinery Co., Ltd.

Water Treatment Systems

- Sumitomo Heavy Industries Environment Co., Ltd.
- SHI Airport System Co., Ltd.

Pressure Vessels, Chemical Processing Equipment and Plants

- Sumitomo Heavy Industries Process Equipment Co., Ltd.

Food Processing Machinery

- Izumi Food Machinery Co., Ltd.

Industrial and Environment Equipment

- Nihon Spindle Manufacturing Co., Ltd.
- SFK Co., LTD.
- Dalian Spindle Environmental Facilities Co., Ltd.
- NIHON SPINDLE COOLING TOWERS SDN. BHD.
- Leifeld Metal Spinning AG

[Equity-method affiliates]

Precision Machinery Segment

Forklift Trucks

- Sumitomo NACCO Forklift Co., Ltd.

Five other companies

Others

Others

- Lightwell Co., Ltd.
- Izumi Support Corporation
- Sumitomo Heavy Industries Business Associates, Ltd.
- SUMITOMO HEAVY INDUSTRIES (USA), INC.
- Sumitomo Heavy Industries (China), Ltd.

History

1888	The Company was launched as a machinery production and repair shop for the Besshi Copper Mine	2002	Split the Company's Paper Manufacturing Machinery and Press Machine Divisions and established Sumitomo Heavy Industries Techno-Fort Co., Ltd. Establishment of Hitachi Sumitomo Heavy Industries Construction Crane Co., Ltd. (currently, Sumitomo Heavy Industries Construction Cranes Co., Ltd.) jointly with Hitachi Construction Machinery Co., Ltd.
1897	Incorporated as Uruga Dock Co., Ltd.	2003	Acquired 100% ownership of Shin Nippon Machinery Co., Ltd. after a stock swap Split the Shipbuilding Division and subsequently established Sumitomo Heavy Industries Marine & Engineering Co., Ltd. Merged the film processing equipment business and Sumitomo Heavy Industries Modern Machinery, Ltd. to form Sumitomo Heavy Industries Modern, Ltd.
1928	Name changed to Sumitomo Besshi Copper Mine, Ltd.—Niihama Works	2006	Acquired 100% ownership of SEISA Gear, Ltd. (currently, Sumitomo Heavy Industries Gearbox Co., Ltd.)
1934	Incorporated as Sumitomo Machinery Co., Ltd.	2007	Established Sumitomo Heavy Industries Environment Co., Ltd. Made Nihon Spindle Manufacturing Co., Ltd. a subsidiary Established Sumitomo Heavy Industries (Tangshan), Ltd. Established Sumitomo Construction Machinery (Tangshan) Co., Ltd.
1940	Name changed to Sumitomo Machinery Industries Co., Ltd.	2008	Acquired 100% ownership of Demag Plastics Group (currently, Sumitomo (SHI) Demag Plastics Machinery GmbH)
1945	Name changed to Shikoku Machinery Industries Co., Ltd.	2009	Made SEN-SHI and Axcelis Company, a joint venture between SHI and Axcelis Company, a wholly owned subsidiary (currently known as Sumitomo Heavy Industries Ion Technology Co., Ltd.) Established Sumitomo Heavy Industries Process Equipment Co., Ltd.
1949	Listing of company stock on both the Tokyo and Osaka Stock Exchanges	2010	Established Sumitomo Heavy Industries Business Associates Ltd. Acquired 100% ownership of Nihon Spindle Manufacturing Co., Ltd. Established Sumitomo Heavy Industries (China), Ltd.
1952	Renamed Sumitomo Machinery Industries Co., Ltd.	2011	Acquired 100% ownership of Hansen Industrial Transmissions NV in Belgium Established Sumitomo Heavy Industries Gearmotors Co., Ltd.
1961	Established Nagoya Works	2012	Establishment of Sumitomo Heavy Industries (China) Financial Leasing, Ltd.
1962	Opened Hiratsuka Laboratory Uruga Dock Co., Ltd. merged with Uruga Tamashima Diesel Co., Ltd. to form Uruga Heavy Industries Co., Ltd.	2013	Establishment of Sumitomo Heavy Industries Material Handling Systems Co., Ltd., by integrating the logistics system and automated parking lot businesses and Sumitomo Heavy Industries Engineering & Services Co., Ltd. Establishment of the Industrial Equipment Division by integrating the Quantum Equipment Division and Sumitomo Heavy Industries Techno-Fort Co., Ltd.
1965	Established Chiba Works	2015	Sumitomo Heavy Industries Material Handling Systems Co., Ltd. takes over the industrial crane business from Mitsubishi Heavy Industries Machinery Technology Corporation
1966	Establishment of Sumitomo Machinery Corporation of America (SMA)	2016	Sumitomo Heavy Industries Environment Co., Ltd. merged with Sumiju Environmental Engineering Co., Ltd.
1969	Merged Sumitomo Machinery Industries Co., Ltd. and Uruga Heavy Industries Co., Ltd. to form Sumitomo Heavy Industries, Ltd.	2017	Acquired 100% ownership of Persimmon Technologies in the U.S. Hitachi Sumitomo Heavy Industries Construction Crane Co., Ltd. (currently, Sumitomo Heavy Industries Construction Cranes Co., Ltd.) became a consolidated subsidiary Acquired the CFB boiler business of Amec Foster Wheeler plc (currently, Sumitomo SHI FW Energie B.V.)
1972	Established Oppama Shipyard (currently known as Yokosuka Works) Establishment of Sumitomo Yale Co., Ltd. (currently, Sumitomo NACCO Material Handling Co., Ltd.) jointly with Yale Corporation in the U.S.	2018	Acquired 100% ownership of Italian industrial motor manufacturer, the Lafert Group
1973	Established Toyo Factory (currently known as Ehime Works—Saijo Factory)	2019	Invertek Drives Ltd. became a wholly owned subsidiary
1974	Equity investment made into Cyclo Getriebebau Lorenz Braren GmbH (currently, Sumitomo (SHI) Cyclo Drive Germany GmbH)		
1980	Established Sumitomo Heavy Industries Casting and Forging Co., Ltd. (currently known as Sumitomo Heavy Industries Himatex Co., Ltd.)		
1982	Merged with Nittoku Metal Industry Co., Ltd. to form the Precision Equipment Division (currently known as the Precision Equipment Group)		
1983	Establishment of Sumitomo Eaton Nova Corporation (currently, Sumitomo Heavy Industries Ion Technology Co., Ltd.) jointly with Eaton Corporation in the U.S.		
1986	Established Sumitomo (S.H.I.) Construction Machinery Co., Ltd.		
1988	Separation of the Diesel Engine Division to form Diesel United Ltd. jointly with IHI (current SHI stockholding ratio 0%)		
1995	Establishment of the naval shipbuilder Marine United jointly with IHI (current SHI stockholding ratio 0%)		
1999	Acquired Osaka Chain and Machinery, Ltd. (currently known as Sumitomo Heavy Industries Gearbox Co., Ltd.) Established Sumitomo Heavy Industries Engineering & Services Co., Ltd. (currently known as Sumitomo Heavy Industries Material Handling Systems Co., Ltd.)		
2000	Separated the precision forging business from the Company and established Sumiju Precision Forging Co., Ltd. Established Sumitomo Heavy Industries Finetech, Ltd. Acquired CBC Tech Co., Ltd., a manufacturer of extrusion molding machines, and renamed it as Sumitomo Heavy Industries Modern Machinery, Ltd. (currently known as Sumitomo Heavy Industries Modern, Ltd.)		
2001	Split Sumitomo (S.H.I.) Construction Machinery Co., Ltd. into two companies: Sumitomo Construction Machinery Co., Ltd., which focuses on roadwork equipment and excavators, and Sumiju Construction Crane Co., Ltd., which focuses on the crane business Transfer of the Research and Development Center (currently, Technology Research Center) from Hiratsuka Works to Yokosuka Works		

Corporate Data (As of March 31, 2020)

Corporate Data

Head Office	Sumitomo Heavy Industries, Ltd. 1-1, Osaki 2-chome, Shinagawa-ku, Tokyo 141-6025, Japan
Tel	+81-3-6737-2331
URL	http://www.shi.co.jp/english/index.html
Founded	1888
Incorporated	November 1, 1934
Paid-In Capital	¥30,871,651,300
Number of Employees	23,635 (Consolidated) 3,068 (Non-consolidated)

Domestic Offices

Chubu Office	10-24, Higashi-sakura 1-chome, Higashi-ku, Nagoya-shi, Aichi 461-0005, Japan	Tel: 81-52-971-3063
Kansai Office	3-33, Nakanoshima 2-chome, Kita-ku, Osaka-shi, Osaka 530-0005, Japan	Tel: 81-6-7635-3610
Kyushu Office	8-30, Tenyamachi, Hakata-ku, Fukuoka-shi, Fukuoka 812-0025, Japan	Tel: 81-92-283-1670
Tanashi Works	1-1, Yato-cho 2-chome, Nishitokyo-shi, Tokyo 188-8585, Japan	Tel: 81-42-468-4104
Chiba Works	731-1, Naganumahara-machi, Inage-ku, Chiba-shi, Chiba 263-0001, Japan	Tel: 81-43-420-1351
Yokosuka Works	19, Natsushima-cho, Yokosuka-shi, Kanagawa 237-8555, Japan	Tel: 81-46-869-1842
Nagoya Works	1, Asahi-machi 6-chome, Obu-shi, Aichi 474-8501, Japan	Tel: 81-562-48-5111
Okayama Works	8230, Tamashima-Otoshima, Kurashiki-shi, Okayama 713-8501, Japan	Tel: 81-86-525-6101
Ehime Works —Niihama Factory	5-2, Sobiraki-cho, Niihama-shi, Ehime 792-8588, Japan	Tel: 81-897-32-6211
Ehime Works —Saijo Factory	1501, Imazaikae, Saijo-shi, Ehime 799-1393, Japan	Tel: 81-898-64-4811
Technology Research Center	19, Natsushima-cho, Yokosuka-shi, Kanagawa 237-8555, Japan	Tel: 81-46-869-2300

Evaluations by External Organizations

SHI received the following evaluations from external organizations during FY2019.

Target	Index/Sponsoring Organization	2018 (FY2017 result)	2019 (FY2018 result)	Announced
Overall	Toyo Keizai CSR Ranking	118	126	Feb. 2020
	Nikkei SDGs Management Survey	—	3.5★	Dec. 2019
Environment	S&P/JPX Carbon Efficient Index	—	First-time inclusion in ESG index	Mar. 2019
	CDP Climate Change Score	B-	B	Jan. 2020
	Sompo Sustainability Index	—	—	Jun. 2020
Society	Nikkei Smart Work Management Survey	3.5★	3★	Nov. 2019

Note: Third-party certification of Scope 1 and 2 CO₂ emissions is on page 53.

Stock-Related Information (As of March 31, 2020)

Stock Information

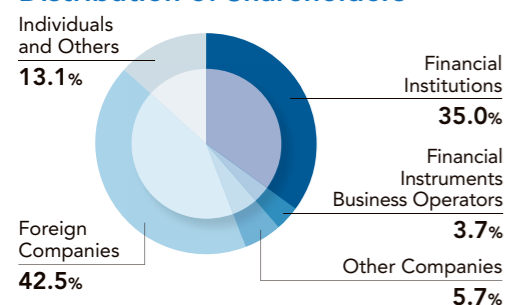
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited
Stock Exchange Listing	Tokyo
Shares Outstanding	122,905,481
Number of Shareholders	35,189

Major Shareholders

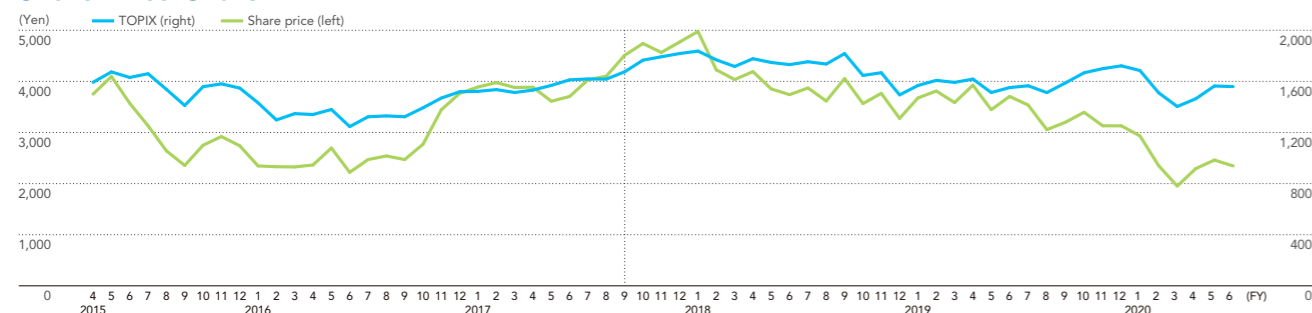
Name of shareholder	Number of shares held (thousands of shares)	Ownership ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust account)	10,880	8.9
Japan Trustee Services Bank, Ltd. (Trust account)	6,367	5.2
NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	5,092	4.2
Sumitomo Life Insurance Company	4,333	3.5
NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	2,972	2.4
Sumitomo Heavy Industries, Ltd. Kyoaikai	2,826	2.3
Japan Trustee Services Bank, Ltd. (Trust account 5)	2,329	1.9
Sumitomo Mitsui Banking Corporation	2,000	1.6
JP MORGAN CHASE BANK 385151	1,999	1.6
Japan Trustee Services Bank, Ltd. (Trust account 9)	1,982	1.6

Note: Ownership ratios are calculated less treasury stock (389,592 shares). The Company's name is listed as the shareholder of record for treasury stock, but this figure includes 200 shares that the Company in effect does not own.

Distribution of Shareholders



Share Price Chart



* The Company carried out a 5-to-1 reverse stock split for its common shares with an effective date of October 1, 2017. Figures for FY2015–2016 have been retroactively adjusted as if the stock split had occurred at the beginning of each fiscal year.

 Sumitomo Heavy Industries, Ltd.

