ANNUAL REPORT 2019

for the year ended March 31, 2019

THE JAPAN STEEL WORKS, LTD.

Profile

In 1907, the Japanese government launched a joint venture for the purpose of domestic weapons production in Muroran, Hokkaido—later to become a major steel manufacturing center—consisting of two British firms (W.G. Armstrong and Vickers) and one Japanese company. That was the birth of The Japan Steel Works, Ltd. (JSW).

After World War II, the company turned its sophisticated technologies and considerable experience to meeting peacetime needs. Continuing to produce high-quality steel, it developed machinery making use of this steel and endeavored to open up new business fields. In addition to heavy and chemical industries such as electric power, steel, shipbuilding, and petrochemicals, the company broadened into areas from automobiles to electrical machinery and information equipment, earning a worldwide reputation as an integrated producer of steel materials and machinery.

Today, having grown into a comprehensive materials provider and manufacturer of mechatronics products, JSW is meeting society's needs at the forefront. In the steel and energy products business, we are serving the needs of the energy industry in areas such as electrical power generation, oil refining and natural gas. In the industrial machinery products business, we supply equipment for manufacturing and processing plastic materials, along with a diverse range of products in areas from information technology to defense.

Contents

Forward-looking statements

The performance forecasts included in this report are judgments based on the information that was available to the JSW Group at the time this report was prepared and the actual results may differ significantly from these forecasts due to a variety of factors.

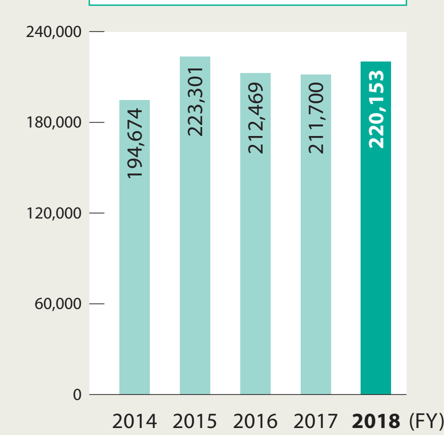
Financial Highlights (Consolidated)

The Japan Steel Works, Ltd. and Consolidated Subsidiaries
Years ended March 31, 2017, 2018, and 2019

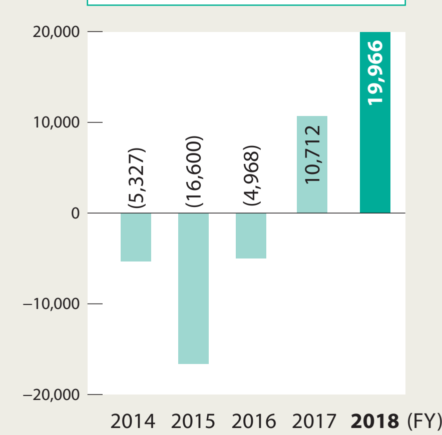
			Millions of yen	Thousands of U.S. dollars
	FY2016	FY2017	**FY2018**	**FY2018**
For the year				
Net sales	¥212,469	¥211,700	**¥220,153**	**$1,983,539**
Operating income	12,340	20,578	**24,290**	**218,849**
Profit (loss) attributable to owners of parent	(4,968)	10,712	**19,966**	**179,890**
At year-end				
Total assets	275,315	297,365	**305,471**	**2,752,239**
Total net assets	107,587	118,600	**129,827**	**1,169,718**
Ratios				
ROE	–4.6%	9.6%	**16.3%**	
Equity ratio	38.6%	39.4%	**42.0%**	
Amounts per share (yen and U.S. dollars)				
Profit (loss)	¥(67.61)	¥145.77	**¥271.69**	**$2.45**
Cash dividends applicable to the year	15.00	37.50	**55.00**	**0.50**

Notes 1: Amounts in U.S. dollars are presented solely for convenience and based on the rate of ¥110.99 = US$1.00, the rate of exchange on March 31, 2019.
2: The Company conducted a 1-for-5 reverse common stock split effective on October 1, 2016. For the sake of simplicity, the profit (loss) per share in the table above is calculated using the number of shares after the reverse stock split.

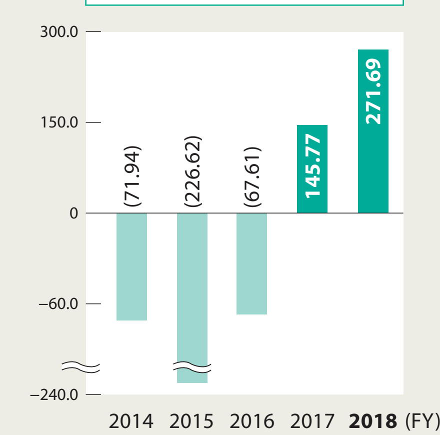
Net Sales
Millions of yen



Profit (loss) attributable to owners of parent
Millions of yen



Profit (loss)
Yen



Message from the President

Naotaka Miyauchi
Representative Director & President

Overview of Fiscal 2018

Business performance

In fiscal 2018, ended March 31, 2019, overseas economies continued to grow moderately. Despite concerns over an economic slowdown arising from such factors as escalating U.S.-China trade frictions, the decelerating Chinese economy, and Brexit, overall overseas economies grew because of the favorable employment situation and strong consumer spending in the United States, Europe, and other industrialized countries. Although somewhat impacted by a succession of natural disasters such as torrential rains and earthquakes, the Japanese economy also achieved mild growth underpinned by an improvement in the employment situation and an expansion in capital investment.

With respect to the JSW Group's operating environment, in the Industrial Machinery Products Business segment demand for plastic products was strong due in part to a shift toward reducing automobile weight; however, demand for materials for automobile-use lithium-ion batteries was temporarily stagnant. In addition, the operating condition became even tougher in the second half of the fiscal year as capital investment was impacted by the U.S.-China trade frictions and turned anemic. The Steel and Energy Products Business segment continued to face difficult operating circumstances due to a contraction in the market for large cast/forged steel products despite a sign of recovery in demand for clad steel plates and pipes on the back of expanding demand for natural gas.

Under these conditions, the JSW Group formulated a banner of "'Growth' in Industrial Machinery Products Business, 'Rebirth' in Steel and Energy Products Business" and promoted its business activities centered around three basic policies in accordance with the medium-term management plan entitled JGP2020, which was formulated in May 2018 to lay out strategies for the three years until the fiscal year ending March 31, 2021. These three basic policies are: 1) optimization of management resources and strengthening of alliances; 2) strengthening after-sales services (stock-based business); and 3) acceleration in exploration and development of new businesses.

For fiscal 2018, total orders amounted to ¥216,155 million (US$1,948 million), down 8.3% from the previous year, due to decreases in orders in both the Industrial Machinery Products Business and Steel and Energy Products Business segments. Net sales edged up 4.0% to ¥220,153 million (US$1,984 million), with higher sales in both the Industrial Machinery Products Business and Steel and Energy Products Business segments. With regard to profits, the JSW Group posted operating income of ¥24,290 million (US$219 million), up 18.0%; ordinary income of ¥27,925 million (US$252 million), up 26.3%; and profit attributable to owners of parent of ¥19,966 million (US$180 million), up 86.4%.

Looking ahead, the world economy is expected to continue growing moderately, driven mainly by ongoing improvements in employment and consumer spending in the United States and an anticipated economic recovery due to the effects of various measures in China. In Japan, we expect the economy to mildly grow on the back of improvements in employment and capital investment. On the other hand, uncertainties regarding trade issues, the impact on exporting companies due to the prolonged Brexit process, the effect of the consumption tax hike on the Japanese economy, and other factors require close monitoring.

Under these circumstances, the JSW Group formulated the medium-term management plan (JGP2020), which sets out strategies for the three years until the fiscal year ending March 31, 2021, and promoted business activities accordingly. However, more significant changes have arisen in the market trends in our mainstay Industrial Machinery Products Business than assumed at the time of the management plan formulation, including a stagnant market for materials for automobile-use lithium-ion batteries in China, uncertainties in the capital investment trend due to the impact of U.S.-China trade frictions, and other factors. As a result of such drastic changes in our business environment, we are revising the numerical targets in the medium-term management plan (net sales of over ¥260 billion (US$2,343 million) and consolidated operating income of ¥30 billion (US$270 million)). The new numerical targets will be disclosed as soon as possible after deliberate consideration. We are certain, however, that our basic strategies are still effective, so we will maintain the measures for implementing the plan.

June 2019

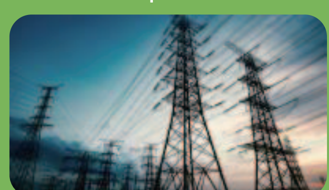
Value Creation Model of JSW, "Yompo-Yoshi (Benefits in all 4 stakeholders)"

Social Issues

Climate change,
Environment load issue,
Destruction of nature

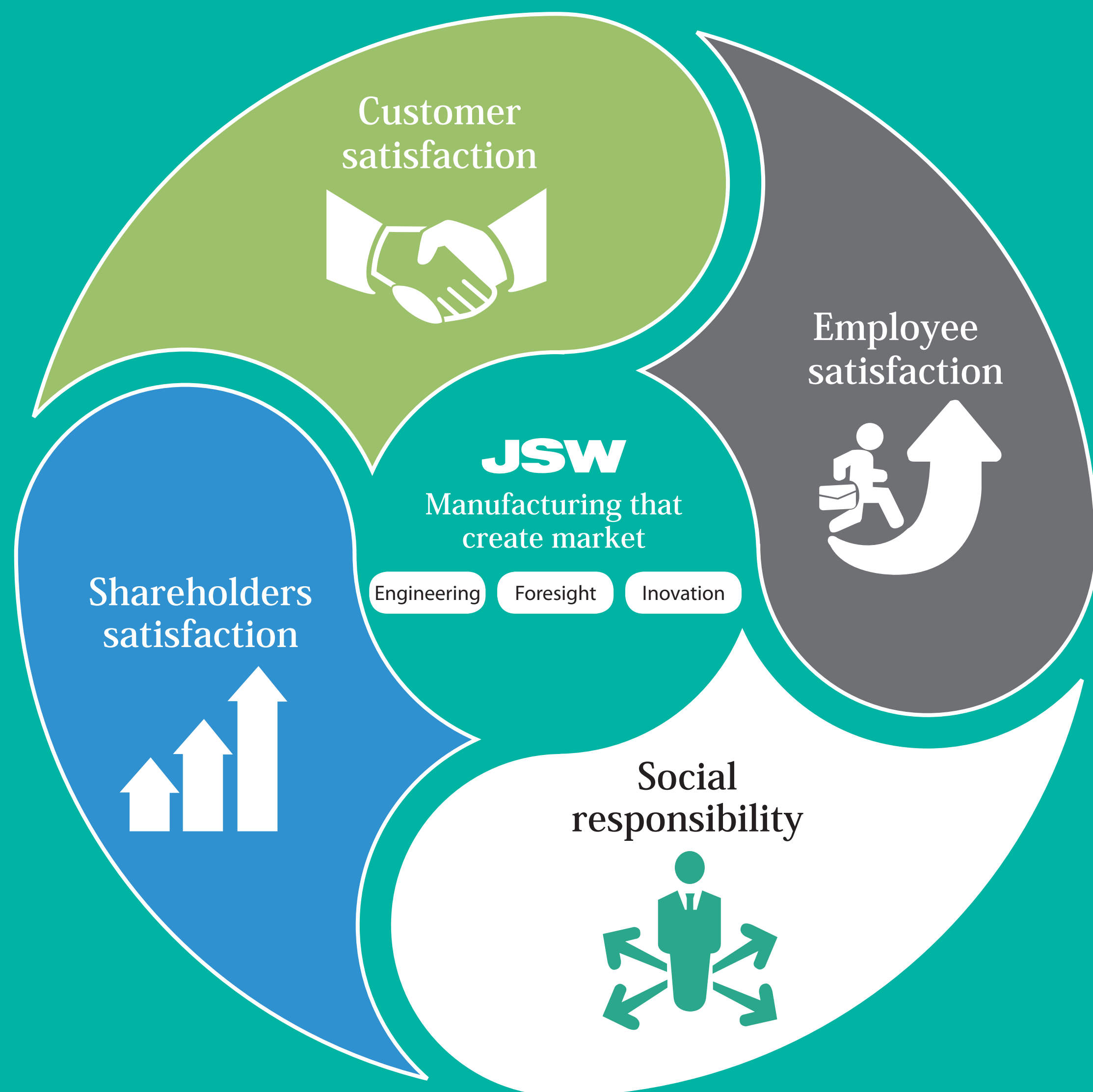
Corporate ethics

Energy-saving measures,
Resource Depletion,
Nuclear power issue



Work-life balance,
Aging and shrinking population,
Work style reforms

"Yompo-Yoshi (Benefits in 4 stakeholders)"



Steel and energy

Plastic production and processing

Molding machines

Defense equipment

FPD equipment

Stock Business | New Business

Effective corporate governance and appropriate information disclosure system

Value offered to society

13 CLIMATE ACTION

Social responsibility

Customer satisfaction

Products that contribute for reduction of CO_2

- Injection Molding Machines (Promotion of light-weight vehicle)
- Clad Steel Pipes (Spread of natural gas)

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Social responsibility

Customer satisfaction

Cutting-edge technologies and products that are indispensable for the next generation

- Film and sheet equipment (Separators for automotive batteries)
- FPD equipment (Spread of OLED panels)

7 AFFORDABLE AND CLEAN ENERGY

Social responsibility

Customer satisfaction

Products that help spread clean energy

- Clad steel pipes (Transport pipes for natural gas)
- Hydrogen station (Spread of hydrogen energy)

8 DECENT WORK AND ECONOMIC GROWTH

Employee satisfaction

Shareholder satisfaction

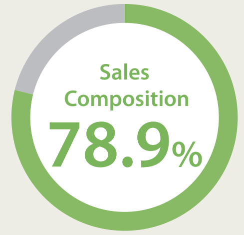
Accomplishment of transformation into an attractive firm and increase in stakeholders' satisfaction and corporate value

Our Business Domains

Industrial Machinery Products Business

Plastics Machinery Sector

Other Machinery Sector



Plastic Production and Processing Machinery

We manufacture and sell a variety of plastic production and processing machinery, which are highly regarded by users around the world, for a wide range of applications and purposes. Our product lineup in this field includes pelletizers that manufacture plastic pellets; twin-screw extruders for compounding, reactive processing, dewatering, and devolatilizing; film and sheet equipment; and spinning extruders for synthetic fibers. We will promote the establishment of a structure oriented toward the "stock-type" business (recurring revenue business model) through concerted efforts between manufacturing and sales departments in the areas of product delivery and regular maintenance services.

To respond to diverse market needs, we have established an integrated development structure for products spanning from plastic manufacturing machines to processing machines that address customers' various issues and respond to market changes.

Business Lines

Production, sale, and maintenance of plastic production and processing machinery (including pelletizers, compound extruders, film and sheet equipment, etc.)

Molding Machines

All of our standard plastic injection molding machines are provided as an electric type to improve the basic performance of the machines themselves, offer higher precision, and provide high productivity and energy saving.

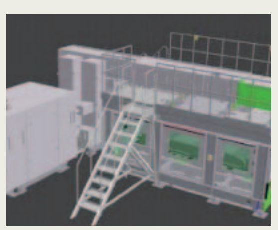
We promoted the development of a proprietary molding machine and process that utilize the thixomolding method (semi-solid injection molding technology). Currently, JSW is the only manufacturer of magnesium thixomolding machines in the world.

We have also supplied a diverse range of blow molders, which produce various tanks and bottles for automotive gas tanks, thereby receiving high praise.

Business Lines

Production, sale, and maintenance of plastic injection molding machines, blow molders, magnesium thixomolding machines

Flat Panel Display Devices



We have been designing and manufacturing excimer laser annealing (ELA) systems, which are used for mass production of high-quality liquid crystal displays (LCD), at the Yokohama Plant since 1995.

We also offer and market laser lift-off (LLO) systems for the production of flexible displays, which are anticipated as promising next-generation displays. Leveraging laser application technology as our core competence, we aim to expand into the fields of FPDs and semiconductors.

Business Lines

Electronic components and displays (laser annealing systems, thin-film deposition systems, etc.)

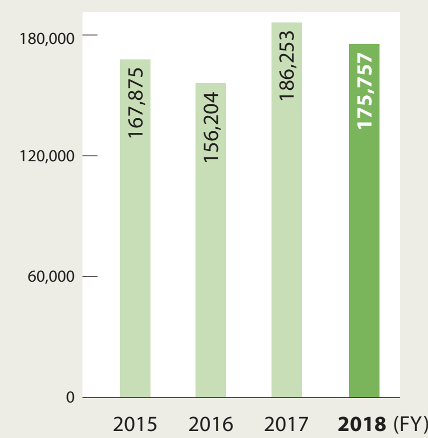
Performance in Fiscal 2018

Orders totaled ¥175,757 million (US$1,585 million), down 5.6% from the previous fiscal year, due mainly to decreases in plastic production and processing machinery as well as FPD equipment.

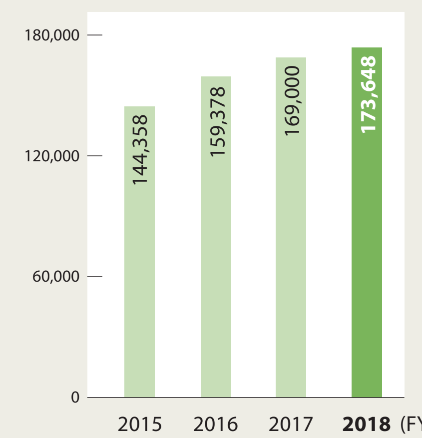
Sales rose 2.8%, to ¥173,648 million (US$1,565 million), attributable primarily to increases in sales of plastic production and processing machinery as well as molding machines.

Operating income was on par with the previous fiscal year, decreasing 0.4% to ¥23,599 million (US$213 million). The slight decline resulted from a change in product sales composition offsetting an increase in sales.

Orders Received
Millions of yen

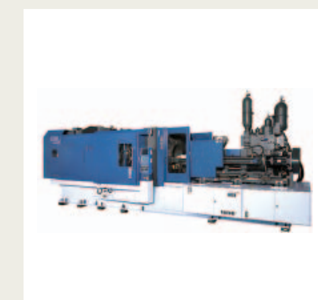


Sales
Millions of yen



Polyolefin extruder/pelletizer

Large-size all-electric injection molding machine



Magnesium alloy injection molding machine

Topic

Service and parts center for molding machines (Hiroshima Plant)

Strengthening After-Sales Services

We also provide a broad range of services such as equipment maintenance and parts supply through our extensive global network.

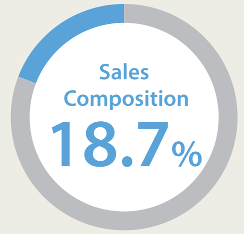
In the field of plastic production and processing machinery, we have enhanced customer support bases overseas. In the field of molding machines, we have expanded the service and parts center within the premises of the Hiroshima Plant while newly establishing a service and parts center in the Czech Republic.

Going forward, we will secure stable profits and further raise customer satisfaction by reinforcing the foundation for our service structure.

Steel and Energy Products Business

Steel Products Sector

Steel Plates and Structures Sector



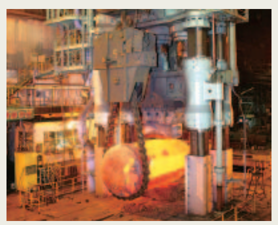
Clad Steel Plates and Pipes

The Muroran Plant possesses Japan's largest quadruple reversible plate rolling machine, which enables rolling of ultra-thick, wide and long steel plates of up to 350 millimeters thick, 4.8 meters wide, and 20 meters long. Using advanced manufacturing technology, we now mainly produce high-quality clad steel plates and clad steel pipes using clad steel plates. All of our products are used in a wide range of industrial applications in Japan and overseas, giving this business a unique profile.

Business Lines

Production and sale of clad steel plates, clad steel pipes, etc.

Cast and Forged Steel Products



In addition to being a leading global supplier of numerous extra-large cast and forged steel products, the Muroran Plant produces a wide range of high-quality small and medium-sized cast and forged steel products. Steel is manufactured in electric furnaces. In ingots for forgings, we not only have one of the world's largest production capacities of 670 tons but also strive to improve quality by utilizing the vacuum ingot-making method, ladle refinement method, vacuum melting method, and electro slag remelting method. We produce a diverse range of products corresponding to the individual and varying needs of customers.

We apply technological capabilities nurtured by meeting stringent specification requirements from customers in thermal, hydro-electric, and nuclear energy fields, and provide cast and forged steel products for a variety of applications not only in the existing energy fields but also in iron and steel, industrial machinery, and electronics industries while making proposals to customers as necessary.

In addition, the Muroran Plant integrates the various forged steel products it manufactures and leverages the Company's state-of-the-art welding technologies and facilities to produce very large welded structures, such as pressure vessels for oil refineries and petrochemical plants, in an integrated process extending from raw materials to finished products. Through after-sales services support, we are meeting demand both in Japan and overseas.

Business Lines

Production and sale of products for power generation; nuclear power-related equipment die materials; general cast and forged steel products such as rolled materials and dies; cast and forged steel materials such as functional materials; pressure vessels and related materials for oil refineries; and other areas

Note: At the meeting of the Board of Directors held on April 24, 2019, the JSW Group resolved to withdraw from the manufacture and sales of wind power generators, which were included in the Other Business. However, we will continue providing maintenance services for wind power generators.

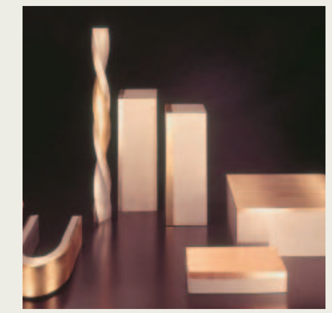
Performance in Fiscal 2018

Orders totaled ¥34,123 million (US$307 million), down 20.7% year on year, due mainly to a decrease in products for electronic devices and nuclear power plants.

Sales were up 13.7%, to ¥41,251 million (US$372 million). Despite a decrease in sales of products for electronic devices and nuclear power plants, sales rose thanks to an increase in clad steel plates and pipes.

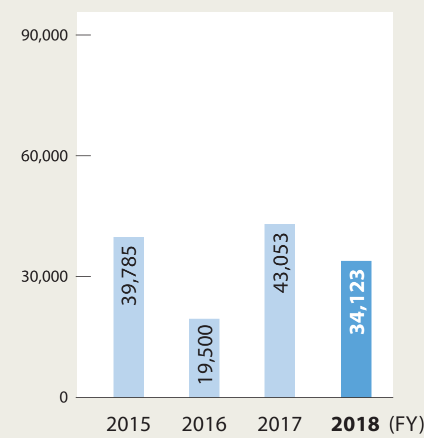
Operating income amounted to ¥2,676 million (US$24 million), compared with an operating loss of ¥1,019 million in the previous fiscal year, due mainly to an increase in sales and a reduction in fixed costs.

Back-up Roll for Plate Mill

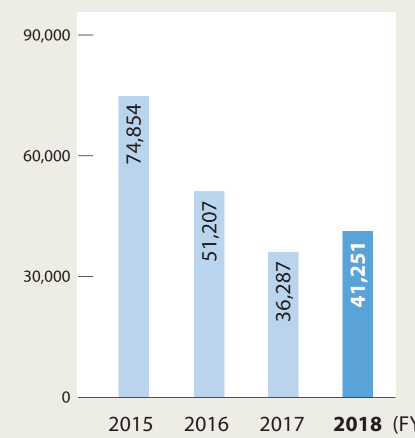


Clad steel plate

Orders Received
Millions of yen



Sales
Millions of yen



Topic

Muroran Plant

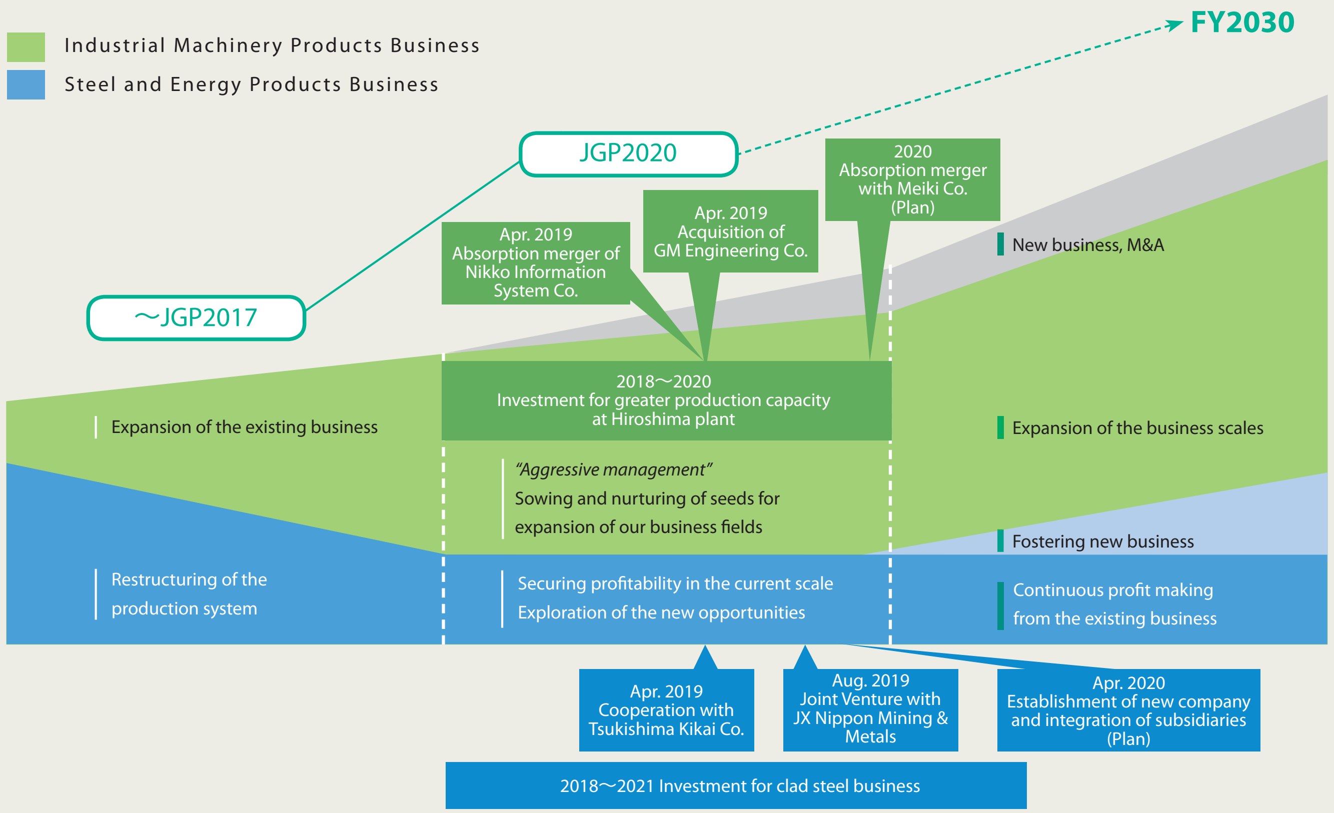
Rebuilding of Steel and Energy Products Business

Under the assumption that the current market environment will persist for a long period of time, the JSW Group's Steel and Energy Products Business is under consideration for establishing a new company centered around the Muroran Plant in April 2020. The move is aimed at securing profitability at the current business composition and scale while accelerating the profit structure reform and promoting efficiencies by eliminating redundant functions through a merger with an affiliated company.

Progress of Medium-Term Management Plan "JGP2020"

Developing Foundations for Growth

To establish the ground to realize our growth in the "Next 10 Years"



3 Basic Policies (Priority Issues) in "JGP2020"

Growth
Industry Machinery Products Business

Rebirth
Steel and Energy Products Business

Ⅰ. Optimization of Management Resources and Strengthening of Alliances
Optimization through rearrangement of the resources
→ Active investment for industry machinery product business, Rebuild of cost structure in the steel and energy products business that suits the current sales scale
Expansion of the businesses through alliance and M&A
→ Breaking free of adherence toward self-sufficient policies

Ⅱ. Strengthening After-Sales Services (Stock-Based Business)
Enhancement of service force mainly in industrial machinery
→ Securing stable profitability, improvement of customer satisfaction
Strengthening customer relationship through service business
→ Development of foundations for the next business

Ⅲ. Acceleration in Exploration and Development of New Businesses
Exploration of new businesses from the view point of mega trends
Fostering and commercialization in the 4 fields (aircrafts, hydrogen, crystals and thin films) + α

Revision of numerical targets in the JGP2020 medium-term management plan

Due to the drastic change in our business environment arising from the impact of U.S.-China trade frictions and other factors, we are revising the numerical targets in the medium-term management plan (net sales of over ¥260.0 billion (US$2,343 million) and consolidated operating income of ¥30.0 billion (US$270 million)). The new numerical targets will be disclosed as soon as possible after deliberate consideration.
We are certain, however, that our basic strategies are still effective, so we will maintain the measures for implementing the plan.

Industrial Machinery Products Business

● Expanding business scale for film and sheet manufacturing equipment

√ In response to medium- to long-term expansion in demand mainly for manufacturing separator films, we reinforced production capacity and established a structure for expanding the business scale.

√ In April 2018, we commenced a capital and business alliance with GM Engineering Co., Ltd., which possesses a strength in medium to small sheet manufacturing equipment mainly for food use. In April 2019, we acquired additional shares of GM Engineering and welcomed it as a subsidiary of the JSW Group. Through a synergistic effect with JSW's strength in large film manufacturing equipment, we intend to promote rapid business expansion.

● Enhancing Production Structure of Large Injection Molding Machines

√ Meiki Co., Ltd., a wholly owned subsidiary of the JSW Group, steadily engages in business centered around large injection molding machines for automobile-related products. In response to a trend toward the increasing use of plastic automotive components, an expansion in demand is expected for large injection molding machines in the automobile industry. To accommodate such expanding demand, we decided on a policy to absorb and merge Meiki on April 1, 2020. Taking this opportunity, we will reinforce production capacity through the optimal allocation of management resources.

Steel and Energy Products Business

● Strengthening competitiveness of clad steel plates and pipes

√ In step with an expansion in demand for natural gas, growth is anticipated for clad steel plates and pipes. To strengthen competitiveness of our products, we are proceeding with capital investment over four years from fiscal 2018 (fiscal year ended March 31, 2019) to fiscal 2021 (fiscal year ending March 31, 2022).

● Commencing cooperation in production activity with Tsukishima Kikai Co., Ltd.

√ Aimed at cooperation in production activity with Tsukishima, we transferred the manufacturing function of its Ichikawa Factory to the No. 4 steel factory and other factories within our Muroran Plant. The Muroran Factory of Tsukishima Kikai commenced operation in April 2019.

● Establishing Muroran Copper Alloy, Co., Ltd., a joint venture to melt and cast copper alloys

√ In August 2019, Japan Steel Works, Ltd. and JX Nippon Mining & Metals Corporation established Muroran Copper Alloy, Co., Ltd., a joint venture to melt and cast copper alloys. The establishment of the joint venture enables JSW to expand its business in the high-performance metal materials field in addition to existing steel products and accelerate the rebuilding of the Steel and Energy Products Business.

● Giving consideration into the establishment of a new company

√ To secure stable profitability at the current business composition and scale in the Steel and Energy Products Business, we are under consideration for reorganizing the Steel and Energy Products Business throughout the entire JSW Group and establishing a new company in April 2020.

Other Business

● Strengthening the information technology function

√ Aiming to strengthen the function for cutting-edge information technology such as machine learning, we absorbed and merged Nikko Information System Co., Ltd., our wholly owned subsidiary, on April 1, 2019. By keeping the information system department within the same organization, we will strive to solidify the structure related to utilizing the latest infor-mation technologies such as the Internet of Things (IoT) and to further improve the value of our products and services.

Special Feature

Enhancing Customized Injection Molding Machines

JSW Worldwide IoT Solutions of Enhancement

Based on the Mass Customization Strategy* of our injection molding machine business, we developed and commenced sales of three new customized products. The J's Drive System™ realizes both high-load and high-speed injection, while the SOFIT™ offers improvements in such issues as stable production and manufacturing costs of foaming molding technology, which is expected to contribute to the weight reduction of automotive parts. The third customized injection molding machine is the J-WiSe™, which helps realize turning existing facilities into smart factories through the utilization of Internet of Things (IoT) technologies.

We are committed to providing solutions using injection molding technology in such fields as automobiles, home appliances, office automation equipment, food containers, and daily goods.

* Using the common, standardized components as the foundation, providing customized machines in response to regional and customer needs to aim for product differentiation

Raising Production Capacity by 15% at the Hiroshima Plant

No. 6 assembly factory

No. 7 assembly factory

The Hiroshima Plant is our production base for industrial machinery products. In response to robust demand mainly for plastic machinery, in September 2018 we established the No. 6 and No. 7 assembly factories as well as a new service center for injection molding machine parts. Through these capital investments, the production capacity of the Hiroshima Plant has been increased by 15%.

To provide a pleasant and comfortable work environment for employees, a new welfare wing complete with a cafeteria, locker rooms, and showers has also been built.

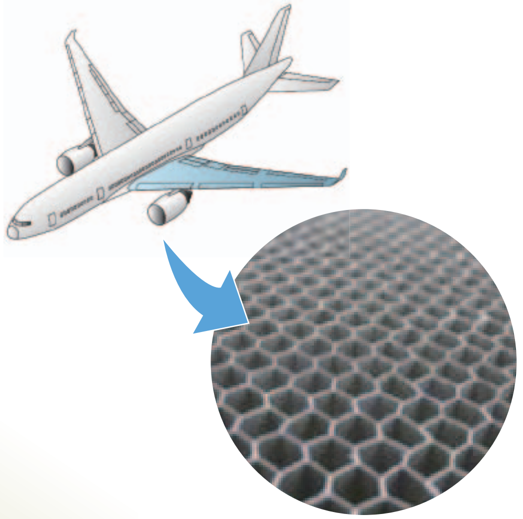
Full-Fledged Entry into the Aircraft Business

The aircraft business necessitates state-of-the-art technologies and extremely sophisticated quality management. Thinking the JSW Group could apply its advantages, it launched its own aircraft business.

In October 2018, we obtained JIS Q 9100 certification (2016), a quality management system, which is required by manufacturers to enter into the aerospace and defense industries in Japan (for the honeycomb core processing of aircraft rotor blades). We aim to firmly establish the mass-production structure of the product while at the same time strengthening activities toward obtaining certification for carbon fiber resin composite materials as well.

By making full-fledged entry into the aircraft business, for which abundant demand is expected mainly for commercial airplanes, we are dedicating earnest efforts into expanding our business.

* Honeycomb core refers to a structure with hexagonal cells pressed together. It is lightweight yet features such attributes as high strength, high rigidity, shock absorption, and heat resistance.



Aluminum honeycomb core

Policy Decided for Absorption-Type Merger of Meiki Co., Ltd.

Meiki Co., Ltd. is a pioneering company that developed an injection molding machine for the first time in Japan. Since concluding a capital and business alliance in October 2008, we have gradually forged a close relationship, culminating in 2016 to make Meiki into a JSW Group subsidiary.

Meiki has steadily performed well mainly in the area of large injection molding machines for automobile-related manufacturers. Aiming to pursue a future business expansion for the entire JSW Group, we decided on a policy to absorb and merge Meiki in April 2020 to optimally allocate management resources.

We are determined to link this merger to more efficient business operations, productivity improvements, and higher profitability.

Meiki Co., Ltd.

Research and Development

Research and development activities were almost entirely funded by the Company during fiscal 2018. Combined spending on research and development for the Industrial Machinery Products Business, the Steel and Energy Products Business, and the Other Business amounted to ¥4,506 million (US$41 million).

Aiming to become a company that contributes to the prosperity of society by generating changes through our innovative technologies, we strive to develop new products and production techniques using our proprietary technologies. To bring these products and techniques to market as soon as possible, we actively promote multidisciplinary and technological tie-ups and joint development.

Business divisions and Group companies collaborate to 1) improve the capabilities, performance, and reliability of core products; 2) develop and nurture offerings in new business fields based on core and differentiated technologies; and 3) promote the development and commercialization of new products through synergies with Group companies.

In order to facilitate R&D across the Group as well as further accelerate the R&D of existing products and the commercialization of products in new business fields, in April 2018 JSW implemented a partial reorganization of the Research and Development Headquarters. Details are as follows:

(1) The Technological Strategy Office, which was tasked with the planning of R&D-related themes and the commercialization of new business as well as the survey of market and technological trends, has been integrated into the New Business Promotion Headquarters with its functions transferred.

(2) Each research laboratory has been placed under the authority of the individual plants, and the research laboratories in Hiroshima and Yokohama have been reorganized into the Technological Development Department.

Basic Research and Development Policy

In terms of the promotion and commercialization of new businesses, the New Business Promotion Headquarters collaborates with each business division and prioritizes R&D on new energy and energy savings, information and telecommunications, nanotechnology and materials, aircraft components, and new production technologies, all of which are related directly to JSW's businesses. Through these efforts, we aim to focus on expanding and upgrading core technologies while cultivating and growing existing businesses.

We engage in basic research for future technologies and contemporary social needs and in researching component technologies for existing products. We will build on these efforts to undertake R&D projects that create new products and businesses and pursue innovations for existing products.

Muroran Research Laboratory

Hiroshima Plant
Technical Development Department

Yokohama Plant
Technical Development Department

The focuses in Machinery Products are to enhance plastics machinery, IT equipment, and other industrial machinery. We will allocate significant resources to such machinery by clarifying that our commercialization framework is open to mergers, acquisitions, and alliances. In Steel Products, we aim for improving profitability of existing products while commercializing new areas.

Activities by Business Segment

Industrial Machinery Products Business

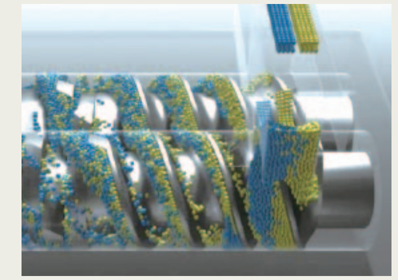
In machine-related product development, we are working to develop advanced processing technology for plastic molding machines; enhance the performance of plastic extruders; improve the functionality and performance of film and sheet equipment; enhance the performance and lower the cost of magnesium injection molding equipment and compressors; and develop manufacturing equipment for fiber-reinforced plastic composite components. We are also incorporating advanced technologies and systems to develop laser annealing equipment and other laser application equipment. R&D spending in this segment was ¥2,024 million (US$18 million) in fiscal 2018.

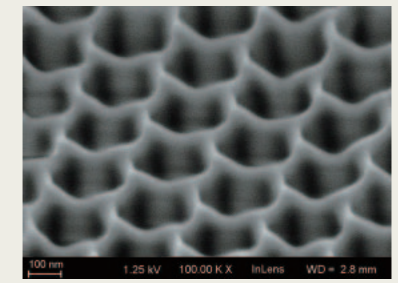
Steel and Energy Products Business

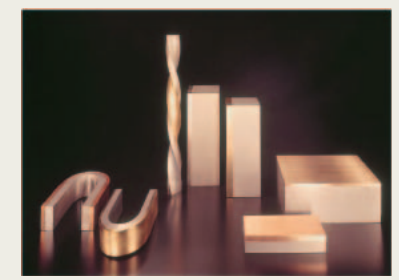
Product development centers on developing materials and manufacturing process technologies, notably for clad steel pipes for natural gas transportation pipelines as well as large steel castings and high alloys for high-efficiency thermal power generation. Our technological development focuses on improving materials and element technologies for existing products. Segment R&D spending totaled ¥685 million (US$6 million) in fiscal 2018.

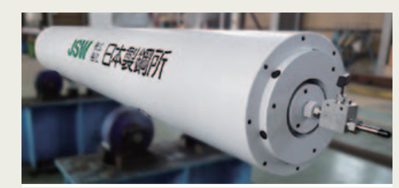
Other Business

In addition to establishing the structure for commercializing the aircraft business and developing and enhancing materials and element technologies to create lighter and more reliable pressure accumulators for hydrogen fueling stations, we also conduct research into practical application of composite substrates for surface acoustic wave (SAW) devices and development of plasma application equipment. Segment R&D spending totaled ¥1,796 million (US$16 million) in fiscal 2018.









Environmental Management

As a responsible member of society, JSW regards operating in harmony with the environment as an important corporate responsibility. In our pursuit of production activities and environmental technologies that respect environmental integrity, we engage in business activities that contribute to the ecologically sustainable development of society.

Ever since we formulated a medium-term environmental plan in fiscal 2001 for the first time, we have been proactively promoting environmental management activities throughout the company. In fiscal 2018, we formulated the Fifth Medium-Term Environmental Plan (fiscal 2018 to fiscal 2019) and widened the scope of environmental activities to include the entire JSW Group. Accordingly, we are engaged in activities to achieve the goals set out in the plan.

Action Plan

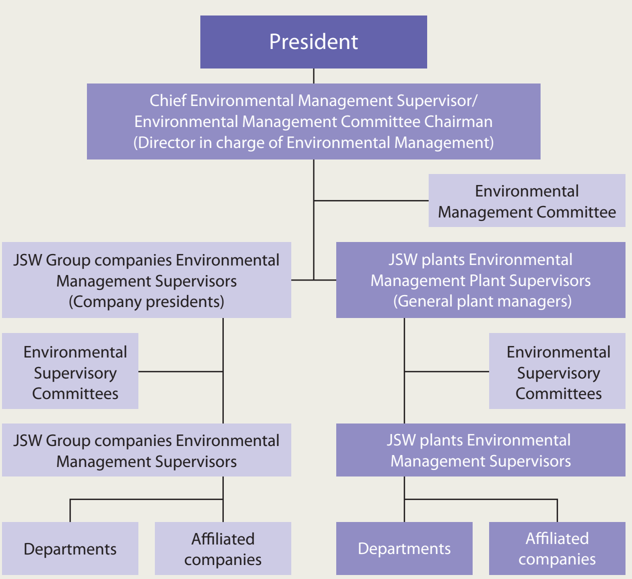
1. We aim to carry out environmental tasks in an organized way, and to implement environmental preservation activities continuously.
2. We will set appropriate objectives and targets for reducing the burden our activities impose on the environment with conserving biodiversity.
3. We aim to provide society with products and services that contribute to the preservation of the environment.

(1) We endeavor to increase the social value of our products in terms of environmental protection, safety and hygiene.

(2) We will provide products and services that reduce environmental loads by obtaining a clear grasp of environmental needs and developing technologies.

Environmental Management Structure

The Environmental Management Committee, headed by the director in charge of environmental management, determines matters such as annual environmental management policies and programs of environmental activities for the whole company. Each plant has its own Environmental Supervisory Committee, which promotes environmental management activities and works hand in hand with other Group companies including affiliates to reduce the environmental impact of the Company's activities.



ISO 14001 Certification Progress

The Company's Muroran, Hiroshima, and Yokohama plants and its Group companies, Meiki Co., Ltd., Fine Crystal Precision (S.Z.) Co., Ltd., and NIKKO-YPK SHOJI CO., LTD. (Head Office, Saitama Office, Kansai Branch, Kansai Sales District Office, Chubu Branch, Sendai Sales District Office, Nagano Sales District Office, Toyama Sales District Office, Kyushu Sales District Office), have obtained certification under ISO 14001, an international standard for environmental management systems.

We leverage third-party certification bodies and internal inspections to conduct checks at least once annually to ensure that ISO 14001-certified business sites are endeavoring to maintain and improve their environmental management systems.

The Company and Group companies have adhered strictly to laws and ordinances, and there were again no violations in fiscal 2018.

ISO 14001 Certifications of Business Sites

Business Site	Certification Date	Current Certification Body
Muroran Plant	December 18, 1998	Lloyd's Register Quality Assurance
Hiroshima Plant	December 18, 1998	Japan Quality Assurance Organization
Yokohama Plant	September 4, 2006	Lloyd's Register Quality Assurance
Meiki Co., Ltd.	March 4, 2005	ASR International Corporation
Fine Crystal Precision (S.Z.) Co., Ltd.	March 7, 2007	Intertek
NIKKO-YPK SHOJI CO., LTD.	February 7, 2005	Japan Value-Added Certification Co., Ltd.

Business activities and environmental impact

In the process of manufacturing activities related to our core business sectors, steel and energy products business and industrial machinery products business, the environmental impact status is shown below.

We measure both inputs (consumption of energy, water, and the like) and outputs (such as waste, carbon dioxide, and water resulting from manufacturing processes), and use the data in our environmental improvement activities.

INPUT

Materials
- Metals (including steel, non-ferrous metal)
- Plastics
- Rubber, timber, etc.

Energy
2,966 TJ

Chemical substances
7,315 t

Water
22.60 million m^3

MANUFACTURING

Industrial machinery products
- Twin-screw extruders
- Single-screw extruders
- Film and sheet equipment
- Electric servo drive molding machines
- Blow molding machines
- Magnesium alloy injection molding machines
- Excimer laser annealing systems

Steel and energy products
- Forged steel components for nuclear power reactors
- Monobloc rotor shafts
- Turbine casings for thermal power generation
- Reactors for petroleum refineries
- Clad steel plates/clad steel pipes

OUTPUT

Total waste volume
92,950 t

Waste emission volume
12,369 t

Recycling volume
80,581 t

87% of total waste volume is recycled

CO_2 (from electric power and fuel)
186,547 t-CO_2

CO_2 (from domestic transportation)
3,030 t-CO_2

Chemical substances (amounts emitted and transferred)
213 t

Waste water
16.37 million m^3

ECO Magnesium Alloy Injection Molding Machines

With emission regulations becoming ever more stringent all over the world to curb global warming, it has become a pressing issue to reduce body weight for both internal-combustion and electric vehicles. To achieve this goal, carmakers are considering the use of various lightweight materials. Among such materials, magnesium is drawing much attention as an eco-friendly material for its light weight and excellent recyclability. In particular, an increase in its applications in the automotive field is anticipated. Compared with aluminum alloy, which has been similarly drawing attention as a lightweight material, magnesium alloy weighs approximately one-third less. In addition, depending on the product design, magnesium alloy makes it possible to reduce the overall weight of the product even further, and thus is expected to bring significant effects.

JSW has been involved in the magnesium-related business for more than 25 years. Our core product, magnesium alloy injection molding machines, is the only machine in the world that enables the molding of magnesium. The machine melts magnesium in a sealed cylinder. This makes it unnecessary to use non-flammable gas (mainly sulfur hexafluoride, a potent greenhouse gas that has a high global warming potential), which was needed in the conventional die casting method to prevent molten metal in the furnace from being exposed to the atmosphere. In this way, magnesium alloy injection molding machines contribute to the protection of the environment in terms of the manufacturing method.

We have now commenced sales of large molding machines for the production of large magnesium parts, which are expected to achieve a greater effect on weight reduction. JSW will remain committed to developing eco-conscious products.

Corporate Governance

JSW recognizes that it must earn the trust of shareholders, customers, employees, and other stakeholders to aim to enhance enterprise value and thereby contribute to the economy and society as a whole.

We therefore created a corporate governance setup that encompasses a management organization and framework to implement essential measures and pursues fair disclosure to ensure business transparency.

On November 18, 2015, we formulated "Corporate Governance Policy of The Japan Steel Works, Ltd." based on a resolution of the Board of Directors. The aim of the Policy is to clarify our basic stance, initiatives, and approach with respect to corporate governance. The Policy can be found at the following website: https://www.jsw.co.jp/en/ir/governance.html

Overview of Corporate Governance Structure

We employ an audit & supervisor board member system comprising nine directors, two of whom are independent, and four audit & supervisory board members, two of whom are external.

The term of office of directors is one year. We maintain an executive officer system: separate decision-making and oversight from the executive functions of executive officers. The goal is to accelerate decision-making and enhance oversight and execution.

In principle, the Board of Directors convenes once monthly to decide and report on basic operational policies, legally stipulated matters, and other important management issues. Managing executive officers and above attend these meetings, positioning the Board as a vehicle for mutual oversight of directors and executive officers.

The Executive Board—consisting of two representative directors, executive officers nominated by the president, two outside directors, and an audit & supervisory board member (chosen by rotation)—meets once a week to deliberate and decide on important management matters and important business execution decisions made by directors and executive officers in addition to discussing, reporting on, and monitoring overall operational matters.

Our Management Council also convenes once monthly, in principle. Members include directors, audit & supervisory board members, divisional heads, general plant managers, headquarters managers, and executive officers. This body's tasks include assessing the business environment and monitoring the progress of the Company's business plan. Its goals are to share such knowledge throughout management and reflect it in their decisions as well as to ensure risk management and compliance.

The Audit & Supervisory Board comprises four audit & supervisory board members, two of whom are external as part-time. These members attend meetings of the Board of Directors, the Executive Board, the Management Council, and other important gatherings. In principle, they visit the Company's plants and offices as well as major subsidiaries once every six months. The members receive divisional reports as necessary and exchange opinions with directors, executive officers, and key employees. Based on these efforts, the members express their views to management from an objective and neutral perspective, and exercise strict oversight with regard to the execution of directors' duties.

Seeking to ensure fairness and transparency of decision-making processes related to executive nomination and remuneration, the Company established the Nomination Advisory Committee and the Remuneration Advisory Committee. Consisting of five members, including several outside executives, the committees serve as advisory bodies to the Board of Directors. The Nomination Advisory Committee deliberates on matters related to appointment and dismissal of directors, audit & supervisory board members, and executive officers and reports to the Board of Directors. Likewise, the Remuneration Advisory Committee deliberates on matters related to renumeration of directors and executive officers and reports to the Board of Directors.

The constituent members of each entity are as follows.

Constituent members

Name	Title	Board of Directors	Executive Board	Management Council	Audit & Supervisory Board	Nomination Advisory Committee	Remuneration Advisory Committee
Naotaka Miyauchi	Representative Director & President	○ (Chairman)	○ (Chairman)	○ (Chairman)	—	○ (Chairman)	○ (Chairman)
Yutaka Higashiizumi	Representative Director & Executive Vice President	○	○	○	—	—	—
Takashi Shibata	Director, Managing Executive Officer	○	○	○	—	—	—
Masao Oshita	Director, Managing Executive Officer	○	○	○	—	—	—
Toshio Matsuo	Director, Managing Executive Officer	○	○	○	—	—	—
Junichiro Deguchi	Director, Managing Executive Officer	○	○	○	—	○	○
Takashi Iwamoto	Director, Executive Officer	○	○	○	—	—	—
Nobuo Mochida	Director (Note 1)	○	○ (Notes 4)	○	—	○	○
Sadao Degawa	Director (Note 1)	○	○ (Notes 4)	○	—	○	○
Kenji Watanabe	Audit & Supervisory Board Members (full-time)	○	○ (Notes 3 & 4)	○	○ (Chairman)	—	—
Toru Nishiyama	Audit & Supervisory Board Members (full-time)	○	○ (Notes 3 & 4)	○	○	—	—
Itaru Masuda	Audit & Supervisory Board Members (Note 2)	○	—	○	○	○ (Notes 5)	—
Fumihiko Yazawa	Audit & Supervisory Board Members (Note 2)	○	—	○	○	—	○ (Notes 5)
Toyohiko Kagawa	Managing Executive Officer	○ (Notes 4)	—	○	—	—	—
Yoshitaka Sato	Executive Officer	—	—	○	—	—	—
Shingo Mito	Executive Officer	—	—	○	—	—	—
Hiroki Kikuchi	Executive Officer	—	—	○	—	—	—
Shigeki Inoue	Executive Officer	—	—	○	—	—	—
Other constituent members		—	—	Divisional heads, deputy director of heads, general plant managers, headquarters managers	—	—	—

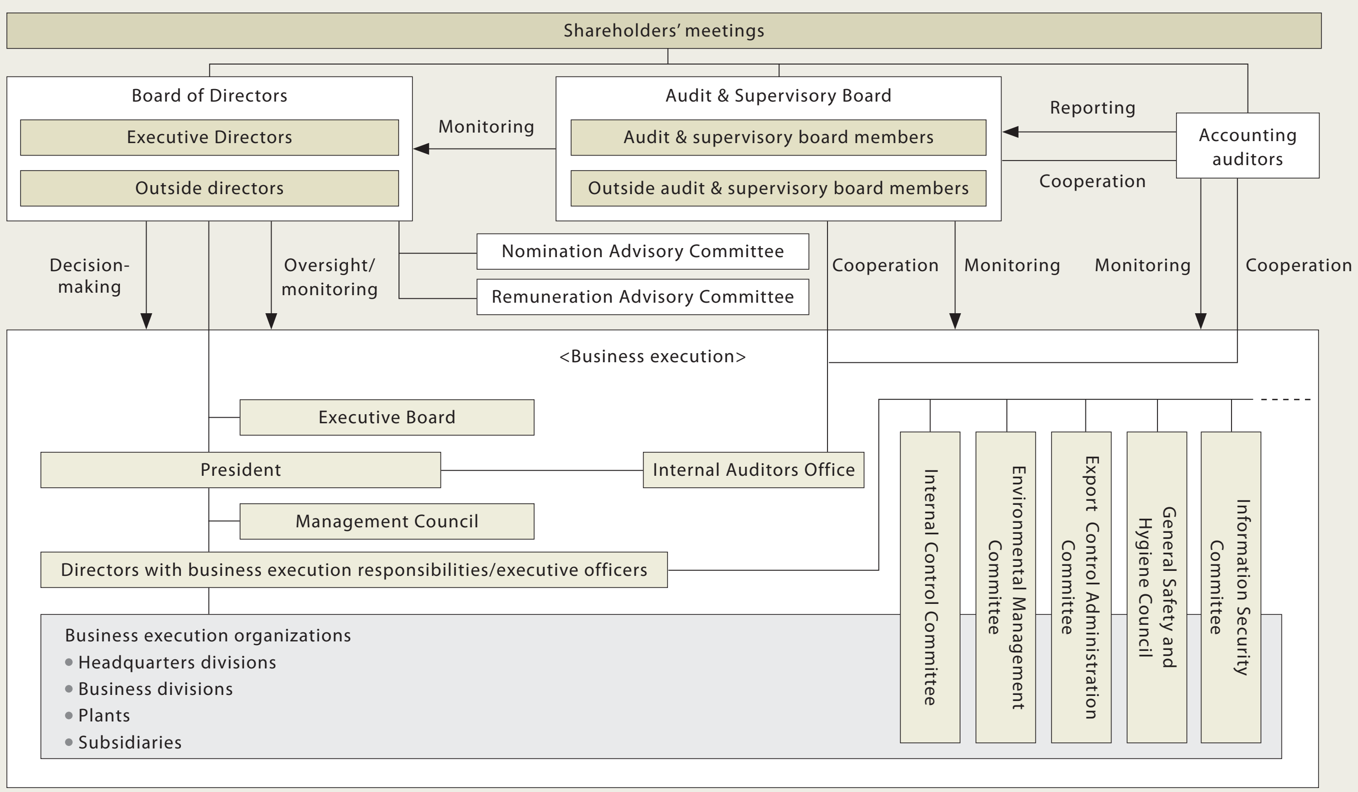
Notes: 1. Nobuo Mochida and Sadao Degawa are outside directors. 2. Itaru Masuda and Fumihiko Yazawa are outside audit & supervisory board members.
3. One audit & supervisory board member attends by rotation. 4. Attends as an observer. 5. Attends as an advisor.

Reason for Adopting the Corporate Governance Structure

Each director reports on the business execution status at important meetings of the Board of Directors, the Executive Board, the Management Council, and other bodies, which ensures mutual oversight of directors. Ten executive officers, five of which concurrently serve as directors, are appointed at the meeting of the Board of Directors. They execute business operations and make business-related decisions to the extent delegated, and report on the business execution status at meetings of the above-mentioned Executive Board, Management Council, and other bodies, thereby ensuring oversight of executive officers by directors. Outside directors also attend each of important meetings mentioned above, participating in the decision-making process of management as well as expressing opinions to management from an objective and neutral perspective.

In addition to attending aforementioned important meetings as well as other meetings, each audit & supervisory board member conducts audits of headquarters divisions, business divisions, subsidiaries, and other organizations on a regular basis. When deemed necessary, they receive reports on information related to risk management, compliance, and other matters from respective departments. By exchanging opinions with directors, executive officers, and key employees, they keep tabs on the business execution status of directors and express opinions to management from an objective and neutral perspective.

The Company believes these measures ensure the current corporate governance structure to fully exert the oversight function over management.



Status of Internal Control System

The Company recognizes the importance of its management responsibilities with respect to establishing and properly managing the necessary systems to ensure appropriate business operations. Based on this recognition, it has set up a specialist unit to supervise internal controls, and its Internal Control Committee also meets as necessary. The Company is working to improve its internal control system in line with its Basic Policy on Internal Control Systems, adopted by the Board of Directors, as described below.

1. Adhering to laws and regulations and the Articles of Incorporation relating to the execution of duties by directors and employees

- At the Company, compliance extends beyond preventing fraud and adhering to laws and regulations and in-house rules. It also encompasses the fulfillment of broad social responsibilities and establishment of various compliance-related rules. The essence of its compliance activities centers on directors and executive officers taking the lead and practicing integrity and raising employee awareness of compliance issues through education and training.
- The Company established the Internal Audit Division to ensure that all of its corporate operations comply with all laws and regulations and in-house rules. The Division conducts regular and spot audits and submits the results of its audits to the president and to other relevant parties as appropriate, including the Board of Directors, the Executive Board, the Management Council, and audit & supervisory board members.
- The Company ensures multiple ways, including internal and external channels, for reporting and discussing compliance-related problems uncovered by employees, based on a guarantee of protection for whistleblowers.
- The Company clearly stipulates in its Corporate Code of Behavior the thorough enforcement of organizational crisis management against anti-social forces, and firmly rejects unwarranted demands from them in accordance with the law and in collaboration with relevant authorities.

2. Safeguarding and managing information relating to the execution of duties by directors

- The Company appoints a director or an executive officer as the person responsible for safeguarding and managing information. Adhering to document and information management rules and regulations, the Company stores and manages important information relating to the execution of duties by directors and executive officers as printed or digital records. This information includes the minutes of important meetings and written requests for approvals. Further, directors and audit & supervisory board members may review or copy this information as needed.
- The Company discloses financial and important management information in an appropriate and timely manner.

3. Rules on managing risk of losses

- Directors, executive officers, and employees concurrently serving as general managers identify and evaluate risks arising in the course of business. They address these risks in keeping with regulations and the management approval system. The Board of Directors and the Executive Board deliberate on key risks.
- The Company maintains risk management rules and a Companywide risk management system. Divisions overseeing risks in such areas as safety and hygiene, environmental management, information security, and export control administration set up committees and create and administer rules for properly

managing such risks throughout the Company. The Company also appoints a director or an executive officer as the person responsible for risk management. In collaboration with the Internal Audit Division, that person monitors the progress of risk management and reports to the Board of Directors or the Executive Board as appropriate.
- At key headquarters divisions, business divisions, and plants, the Company has risk managers who evaluate measures and identify daily risks. It also has a crisis management headquarters to handle critical situations. Accordingly, the Company is prepared for both ordinary and emergency situations.

4. Ensuring the efficient execution of duties by directors
- The Company ensures rapid decision-making and flexible and efficient business execution by having the president act as chief executive officer, with directors overseeing key headquarters divisions and business units. Under this command and management structure, executive officers appointed by the Board of Directors perform the duties assigned to them. Directors and executive officers deliberate, decide, and report on important matters in meetings of the Board of Directors and the Executive Board.
- The Board of Directors formulates the medium-term management plan and annual business plans as Companywide objectives for directors, executive officers, and employees. Directors and executive officers plan and implement specific policies for reaching goals, segregating tasks in line with in-house rules. They also evaluate the results, review progress, and submit periodic and spot reports to the Board of Directors, the Executive Board, and the Management Council.

5. Ensuring appropriate conduct at Group companies
- The Company encourages Group subsidiaries to work to establish and build Companywide internal controls according to JSW's Vision, Management Philosophy, and Corporate Code of Behavior. The Company also supports Group subsidiaries to strive for efficient business execution and autonomous management by ensuring proper division of duties and clarification of decision-making authority based on their own in-house rules.
- The Company has formulated operational and management rules for subsidiaries and defined the related management responsibilities and leadership structures. The Company maintains a system for reporting, notifying, and gathering information about subsidiary decisions on important matters and important facts.
- In addition to dispatching directors and audit & supervisory board members to Group subsidiaries, the Company ensures that subsidiaries comply with all laws and regulations and in-house rules by mandating periodic and spot internal audits through relevant departments or the Internal Audit Division. It also audits operations directly and instructs subsidiaries on internal control improvements.
- The Company supports the efforts of Group subsidiaries to establish systems to identify and evaluate risks according to division of duties determined independently based on rules concerning risk management.

6. Appointing audit & supervisory board member assistants, securing their independence from directors, and ensuring the effectiveness of instructions given to them
- On request from audit & supervisory board members, the Company offers employees as assistants. The Company seeks the opinions and consent of these members for appointments, dismissals, evaluations, and other personnel treatment regarding these assistants to secure their independence from directors and executive officers.
- The Company ensures that employees assigned as assistants can perform their duties according to the directions and instructions of audit & supervisory board members.

7. Reporting to audit & supervisory board members by directors and employees of the Company and its subsidiaries, other structures for reporting to audit & supervisory board members, and preventing unfavorable treatment based on the content of what is reported
- Audit & supervisory board members are guaranteed the opportunity to attend meetings of the Board of Directors, the Executive Board, the Management Council, and other managerial meetings that deliberate, decide, and report on important matters.
- Based on its management approval system, the Company presents approval records to audit & supervisory board members. Audit & supervisory board members can at any time request reports from directors, executive officers, and employees of the Company and Group subsidiaries. Also, persons who have received reports from directors, executive officers, and employees of the Company and Group subsidiaries can convey such reports to audit & supervisory board members.
- The Company guarantees that persons making reports to audit & supervisory board members are not subject to unfavorable treatment based on the content of such reports.

8. Policies on advance payment and compensation pertaining to costs and obligations incurred in the execution of duties by audit & supervisory board members
- The Company assumes responsibility for any necessary costs incurred in the execution of duties by audit & supervisory board members.

9. Ensuring the effectiveness of audits conducted by audit & supervisory board members
- The Company encourages directors, executive officers, and employees to recognize the importance and value of audits conducted by audit & supervisory board members and to accord them their fullest cooperation. These members can request assistance from the Internal Audit Division, headquarters divisions, and all other divisions for auditing tasks.
- The Company enables audit & supervisory board members to collaborate closely with the accounting auditor and the Internal Audit Division.
- Audit & supervisory board members have the discretion to employ the services of legal advisors and other outside experts.

10. Ensuring reliable financial reporting
- The Company evaluates the effectiveness of internal controls for financial reports in keeping with basic policies for such controls. The Board of Directors and the Executive Board deliberate and report on the findings of such evaluations.

Outline of Liability Limitation Agreement

In accordance with Article 427, Paragraph 1 of the Companies Act as well as Articles 28 and 36 of the Articles of Incorporation, the Company has concluded a Liability Limitation Agreement with two outside directors and four audit & supervisory board members as stipulated in Article 423, Paragraph 1 of the Companies Act. The liability limit based on this agreement shall be the amount stipulated in the act.

Liability limitation will be applicable only when the execution of duties by outside directors and audit & supervisory board members giving rise to such liabilities is recognized to have been carried out in good faith and with no gross negligence.

Number of Directors

The Articles of Incorporation stipulates the number of directors to be 10 or less.

Requirements for Resolution for Election of Directors

The Articles of Incorporation stipulates that the resolution for the election of directors shall require the presence of shareholders holding one-third or more of the voting rights of shareholders who can exercise voting rights as well as a majority vote of such shareholders, and that no cumulative voting shall be accepted for the resolution.

Special Resolution Requirements of the Meeting of Shareholders

The Articles of Incorporation stipulates that the resolution stipulated by Article 309, Paragraph 2 of the Companies Act shall require the presence of shareholders holding one-third or more of the voting rights of shareholders who can exercise voting rights as well as a two-thirds majority of such voting rights. The aim for the requirement is to smoothly lead the meeting of shareholders by relaxing the quorum for special resolutions at shareholder meetings.

Shareholder Meeting Resolutions That Can Be Resolved at Meetings of the Board of Directors

1. **Acquisition of treasury stock**
   - To execute a flexible capital policy, the Articles of Incorporation allows the acquisition of treasury stock by a resolution of the Board of Directors in accordance with Article 165, Paragraph 2 of the Companies Act.
2. **Interim dividends**
   - The Articles of Incorporation stipulates the payment of interim dividends with September 30 as the record date by a resolution of the Board of Directors in accordance with Article 454, Paragraph 5 of the Companies Act. The aim is to enable the swift return of profits to shareholders.

Board of Directors, Audit & Supervisory Board Members, and Executive Officers

Board of Directors

As of September 1, 2019

Representative Director & President	Naotaka Miyauchi
Representative Director & Executive Vice President	Yutaka Higashiizumi
Directors, Managing Executive Officers	Takashi Shibata Masao Oshita Toshio Matsuo Junichiro Deguchi
Directors, Executive Officers	Takashi Iwamoto
Directors	Nobuo Mochida (Outside) Sadao Degawa (Outside)

Audit & Supervisory Board Members

As of September 1, 2019

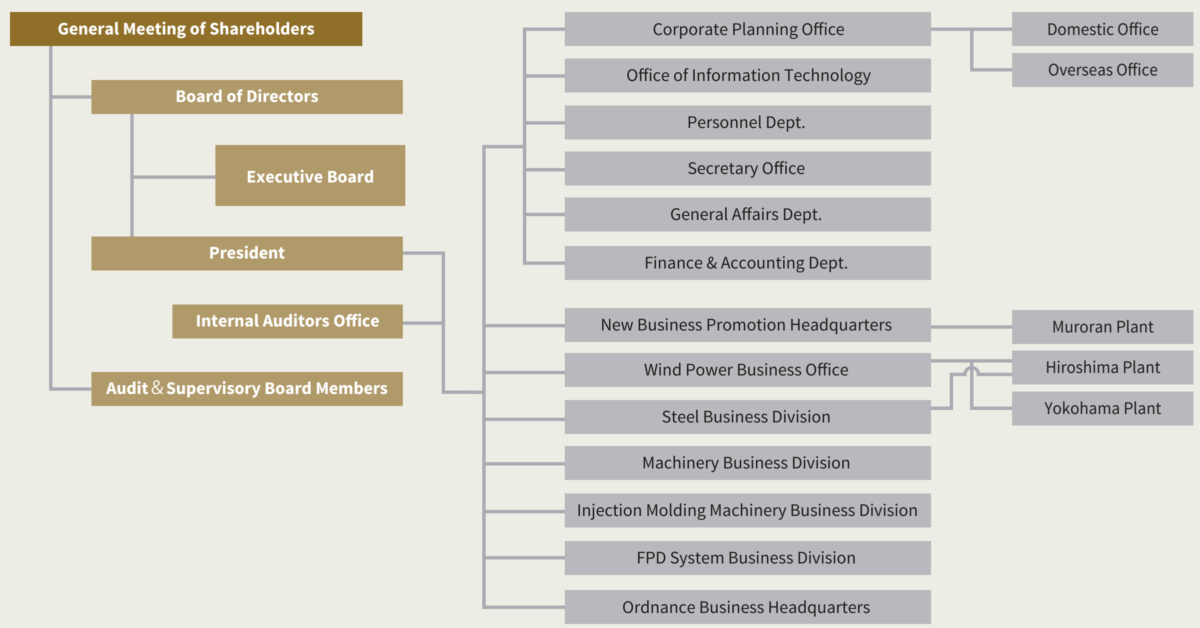
Audit & Supervisory Board Members	Kenji Watanabe Toru Nishiyama Itaru Masuda (Outside) Fumihiko Tanizawa (Outside)

Executive Officers

As of September 1, 2019

Managing Executive Officer	Toyohiko Kagawa
Executive Officers	Yoshitaka Sato Shingo Mito Hiroki Kikuchi Shigeki Inoue

Organization



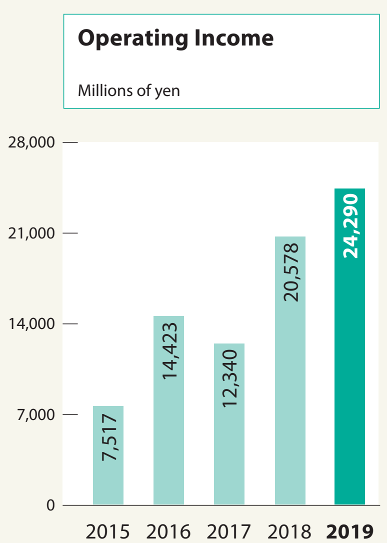
Six-Year Summary

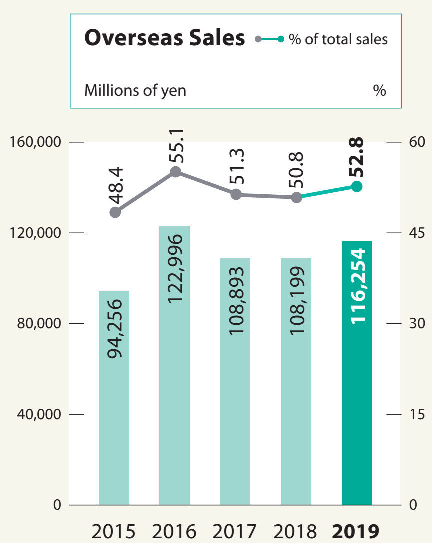
Years ended March 31

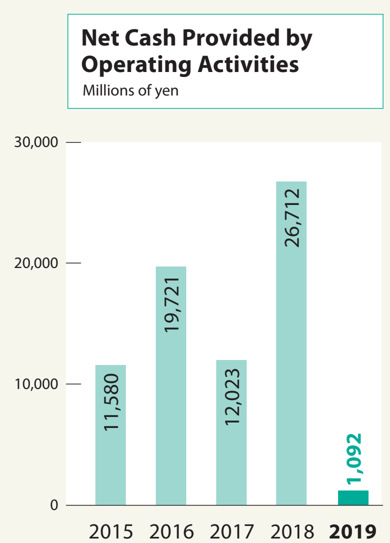
Millions of yen

	2014	2015	2016	2017	2018	2019
Consolidated						
Net sales	¥188,719	¥194,674	¥223,301	¥212,469	¥211,700	**¥220,153**
Profit (loss) attributable to owners of parent	5,527	(5,327)	(16,600)	(4,968)	10,712	**19,966**
Total assets	293,139	319,667	293,138	275,315	297,365	**305,471**
Total net assets	139,268	138,234	111,340	107,587	118,600	**129,827**
Amounts per share (yen):						
Profit (loss)	¥74.58	¥(71.94)	¥(226.62)	¥(67.61)	¥145.77	**¥271.69**
Non-Consolidated						
Net sales	¥155,211	¥153,455	¥176,116	¥166,722	¥160,787	**¥165,624**
Profit (loss)	6,645	(5,658)	(18,719)	(8,260)	8,559	**17,129**
Total assets	267,241	291,793	263,112	242,353	259,342	**263,005**
Total net assets	127,416	124,381	97,107	88,837	96,596	**106,055**
Amounts per share (yen):						
Profit (loss)	¥89.67	¥(76.41)	¥(255.55)	¥(112.40)	¥116.48	**¥233.08**
Cash dividends applicable to the year	¥5.00	¥4.00	¥5.00	¥15.00	¥37.50	**¥55.00**

Note: The Company conducted a 1-for-5 reverse common stock split effective on October 1, 2016. For the sake of simplicity, the profit (loss) per share in the table above are calculated using the number of shares after the reverse stock split.







Financial Performance (Consolidated)

Operating Results

Net Sales

Net sales totaled ¥220,153 million (US$1,984 million), up ¥8,452 million, or 4.0%, year on year. This was due to higher sales in both the Industrial Machinery Products Business and the Steel and Energy Products Business.

Operating Income

Operating income increased ¥3,711 million, or 18.0%, to ¥24,290 million (US$219 million), and the operating income margin increased 1.3 percentage points to 11.0%.

Profit Attributable to Owners of Parent

Profit attributable to owners of parent was ¥19,966 million (US$180 million), up ¥9,253 million, or 86.4%, over the previous fiscal year. This equates to profit per share of ¥271.69 for the year.

Sales by Region

The Japanese market accounted for sales of ¥103,898 million (US$936 million) and the Chinese market for ¥54,318 million (US$489 million), with all other markets accounting for ¥61,936 million (US$558 million).

Cash Flow

At year-end, cash and cash equivalents stood at ¥73,820 million (US$665 million), a decrease of ¥4,059 million from a year earlier.

Cash Flow from Operating Activities

Net cash provided by operating activities amounted to ¥1,092 million (US$10 million) compared with ¥26,712 million in the previous fiscal year. Despite posting profit before income taxes, the primary contributing factors for the decrease included provision for operating funds and an increase in provision for loss on wind power generator business.

Cash Flow from Investing Activities

Net cash used in investing activities totaled ¥1,334 million (US$12 million) compared with ¥5,077 million in the previous fiscal year. This was due mainly to real estate held for sale offsetting an increase in tangible and intangible assets.

Cash Flow from Financing Activities

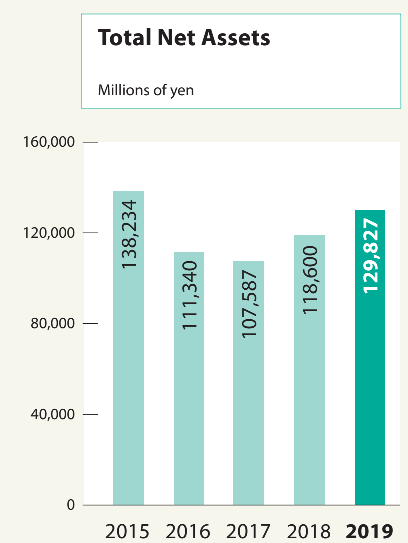
Net cash used in financing activities was ¥3,758 million (US$34 million) compared with ¥2,457 million in the previous fiscal year. This was attributable primarily to cash dividends paid and repayments of finance lease obligations.

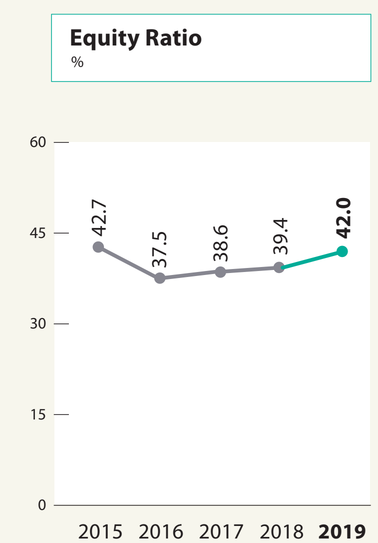
Financial Position

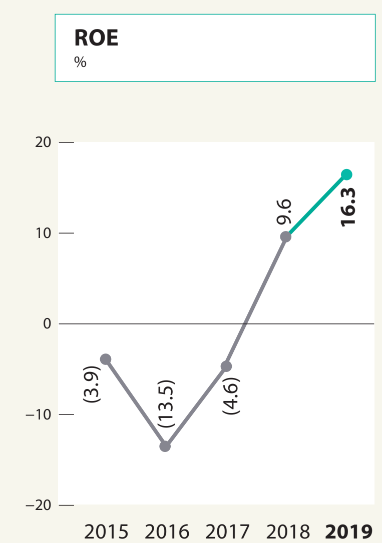
As of March 31, 2019, total assets amounted to ¥305,471 million (US$2,752 million), up ¥8,105 million from a year earlier. This was due primarily to an increase in such current assets as notes and accounts receivable and work in process.

Total liabilities stood at ¥175,643 million (US$1,583 million), down ¥3,121 million from a year earlier. This was due mainly to a decrease in current liabilities, including advances received for products and provision for loss on wind power generator business.

Net assets amounted to ¥129,827 million (US$1,170 million), up ¥11,227 million, due mainly to an increase in retained earnings.







The Japan Steel Works, Ltd. and Consolidated Subsidiaries

Consolidated Balance Sheet

March 31, 2018 and 2019

Assets	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars (Note 4) 2019
Current assets:			
Cash on hand and in banks (Notes 6 and 18)	¥ 79,032	**¥ 74,304**	**$ 669,466**
Notes and accounts receivable:			
Unconsolidated subsidiaries and affiliates	485	**1,009**	**9,091**
Trade (Note 18)	54,061	**63,916**	**575,872**
Other	757	**223**	**2,009**
Less allowance for doubtful accounts	(142)	**(137)**	**(1,234)**
Inventories (Note 5)	61,882	**69,447**	**625,705**
Other current assets	4,947	**6,316**	**56,906**
Total current assets	201,024	**215,080**	**1,937,832**
Property, plant and equipment, at cost (Notes 7 and 9):			
Land	10,335	**8,250**	**74,331**
Buildings and structures	71,541	**70,519**	**635,364**
Machinery and equipment	134,319	**135,423**	**1,220,137**
Leased assets	2,701	**2,458**	**22,146**
Construction in progress	288	**1,764**	**15,893**
	218,905	**218,416**	**1,967,889**
Less accumulated depreciation	(185,868)	**(183,901)**	**(1,656,915)**
Property, plant and equipment, net	33,317	**34,514**	**310,965**
Intangible assets	1,774	**2,226**	**20,056**
Investments and other assets:			
Investments in unconsolidated subsidiaries and affiliates	1,144	**1,268**	**11,424**
Investment securities (Notes 18 and 19)	34,129	**28,412**	**255,987**
Long-term loans receivable	293	**333**	**3,000**
Retirement benefit asset (Note 21)	2,736	**2,374**	**21,389**
Deferred tax assets (Note 22)	20,216	**18,566**	**167,276**
Other assets	3,131	**3,091**	**27,849**
Less allowance for doubtful accounts	(402)	**(397)**	**(3,577)**
Total investments and other assets	61,249	**53,650**	**483,377**
Total assets	¥ 297,365	**¥ 305,471**	**$ 2,752,239**

Liabilities and net assets	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars (Note 4) 2019
Current liabilities:			
Short-term borrowings (Notes 11 and 18)	¥ 12,004	**¥ 12,088**	**$ 108,911**
Current portion of long-term debt (Notes 11 and 18)	625	**696**	**6,271**
Notes and accounts payable:			
Unconsolidated subsidiaries and affiliates	137	**205**	**1,847**
Trade (Note 18)	54,819	**55,374**	**498,910**
Other	1,184	**3,685**	**33,201**
Advances received for products	18,843	**16,619**	**149,734**
Accrued income taxes (Note 22)	2,296	**3,326**	**29,967**
Provision for loss on wind power generator business	3,365	**1,887**	**17,002**
Provision for business restructuring	6,389	**5,295**	**47,707**
Other current liabilities	15,752	**13,290**	**119,741**
Total current liabilities	115,418	**112,469**	**1,013,326**
Long-term liabilities:			
Long-term debt (Notes 11 and 18)	40,016	**40,004**	**360,429**
Accrued retirement benefits			
For directors and corporate auditors	75	**73**	**658**
Retirement benefit liability (Note 21)	10,046	**10,494**	**94,549**
Deferred tax liabilities (Note 22)	100	**90**	**811**
Other long-term liabilities	13,107	**12,511**	**112,722**
Total long-term liabilities	63,346	**63,174**	**569,186**
Net assets:			
Shareholders' equity (Note 15)			
Common stock:			
Authorized — 200,000,000 shares			
Issued — 74,309,108 shares	19,694	**19,716**	**177,638**
Capital surplus	5,467	**5,362**	**48,311**
Retained earnings	86,256	**102,915**	**927,246**
Treasury stock, at cost (803,082 shares in 2019 and 802,503 shares in 2018)	(2,310)	**(2,312)**	**(20,831)**
Total shareholders' equity	109,107	**125,682**	**1,132,372**
Accumulated other comprehensive income:			
Unrealized holding gain (loss) on securities	7,269	**3,290**	**29,642**
Unrealized gain (loss) from hedging instruments	305	**(226)**	**(2,036)**
Translation adjustments	(21)	**(222)**	**(2,000)**
Remeasurement of retirement benefit plans	370	**(115)**	**(1,036)**
Total accumulated other comprehensive income	7,923	**2,725**	**24,552**
Non-controlling interests	1,569	**1,419**	**12,785**
Total net assets	118,600	**129,827**	**1,169,718**
Total liabilities and net assets	¥297,365	**¥305,471**	**$2,752,239**

See notes to consolidated financial statements.

The Japan Steel Works, Ltd. and Consolidated Subsidiaries

Consolidated Statement of Income

For the years ended March 31, 2018 and 2019

	Millions of yen		Thousands of U.S. dollars (Note 4)
	2018	2019	2019
Net sales	¥211,700	**¥220,153**	**$1,983,539**
Cost of sales (Note 12)	162,995	**166,622**	**1,501,234**
Gross profit	48,705	**53,531**	**482,305**
Selling, general and administrative expenses (Note 12)	28,126	**29,240**	**263,447**
Operating income	20,578	**24,290**	**218,849**
Other income (expenses):			
Interest and dividend income	827	**903**	**8,136**
Interest expense	(258)	**(246)**	**(2,216)**
Impairment loss (Note 9)	(1,352)	**(1,623)**	**(14,623)**
Other, net (Note 13)	(4,902)	**5,992**	**53,987**
	(5,686)	**5,027**	**45,292**
Income before income taxes	14,892	**29,317**	**264,141**
Income taxes (Note 22):			
Current	3,633	**5,335**	**48,067**
Deferred	307	**3,791**	**34,156**
Income (Note 28)	10,951	**20,190**	**181,908**
Profit attributable to non-controlling interests	238	**223**	**2,009**
Income attributable to shareholders of The Japan Steel Works, Ltd.	¥ 10,712	**¥ 19,966**	**$ 179,890**

See notes to consolidated financial statements.

The Japan Steel Works, Ltd. and Consolidated Subsidiaries

Consolidated Statement of Comprehensive Income

For the years ended March 31, 2018 and 2019

	Millions of yen		Thousands of U.S. dollars (Note 4)
	2018	2019	2019
Income	¥10,951	**¥20,190**	**$181,908**
Other comprehensive income:			
Unrealized holding gain (loss) on securities	887	**(3,978)**	**(35,841)**
Unrealized gain (loss) from hedging instruments	606	**(532)**	**(4,793)**
Translation adjustments	203	**(232)**	**(2,090)**
Remeasurement of retirement benefit plans	597	**(478)**	**(4,307)**
Total other comprehensive income (Note 14)	2,295	**(5,221)**	**(47,040)**
Comprehensive income	¥13,246	**¥14,968**	**$134,859**
Total comprehensive income attributable to:			
Shareholders of The Japan Steel Works, Ltd.	¥12,937	**¥14,768**	**$133,057**
Non-controlling interests	¥ 308	**¥ 200**	**$ 1,802**

See notes to consolidated financial statements.

The Japan Steel Works, Ltd. and Consolidated Subsidiaries

Consolidated Statement of Changes in Net Assets

For the years ended March 31, 2018 and 2019

Millions of yen

	Shareholders' equity					Accumulated other comprehensive income						
	Common stock	Capital surplus	Retained earnings	Treasury stock (Note 15)	Total shareholders' equity	Unrealized holding gain (loss) on securities	Unrealized gain (loss) from hedging instruments	Translation adjustments	Remeasurement benefit plans adjustments (Note 21)	Total accumulated other comprehensive income	Non-controlling interest	Total net assets
Balance at April 1, 2017	¥ 19,694	¥ 5,467	¥ 77,748	¥ (2,308)	¥ 100,601	¥ 6,381	¥ (301)	¥ (170)	¥ (211)	¥ 5,698	¥ 1,287	¥ 107,587
Changes during the year												
Cash dividends paid			(2,204)		(2,204)							(2,204)
Income attributable to shareholders of The Japan Steel Works, Ltd.			10,712		10,712							10,712
Purchases of treasury stock				(2)	(2)							(2)
Disposal of treasury stock		(0)		0	0							0
Transfer of loss on disposal of treasury shares		0	(0)		—							—
Net changes in items other than those in shareholders' equity						887	606	149	581	2,225	282	2,507
Total changes during the year	—	—	8,508	(2)	8,505	887	606	149	581	2,225	282	11,013
Balance at March 31, 2018	¥19,694	¥ 5,467	¥ 86,256	¥ (2,310)	¥ 109,107	¥ 7,269	¥ 305	¥ (21)	¥ 370	¥ 7,923	¥ 1,569	¥ 118,600
Balance at April 1, 2018	**¥19,694**	**¥5,467**	**¥ 86,256**	**¥ (2,310)**	**¥109,107**	**¥7,269**	**¥ 305**	**¥ (21)**	**¥ 370**	**¥7,923**	**¥1,569**	**¥118,600**
Changes during the year												
Issuance of new shares	**22**	**22**			**44**							**44**
Cash dividends paid			**(3,307)**		**(3,307)**							**(3,307)**
Income attributable to shareholders of The Japan Steel Works, Ltd.			**19,966**		**19,966**							**19,966**
Purchase of shares of consolidated subsidiaries		**(127)**			**(127)**							**(127)**
Purchases of treasury stock				**(1)**	**(1)**							**(1)**
Net changes in items other than those in shareholders' equity						**(3,978)**	**(532)**	**(200)**	**(486)**	**(5,197)**	**(150)**	**(5,348)**
Total changes during the year	**22**	**(104)**	**16,659**	**(1)**	**16,575**	**(3,978)**	**(532)**	**(200)**	**(486)**	**(5,197)**	**(150)**	**11,227**
Balance at March 31, 2019	**¥19,716**	**¥5,362**	**¥102,915**	**¥ (2,312)**	**¥125,682**	**¥3,290**	**¥(226)**	**¥(222)**	**¥(115)**	**¥2,725**	**¥1,419**	**¥129,827**

Thousands of U.S. dollars (Note 4)

	Shareholders' equity					Accumulated other comprehensive income						
	Common stock	Capital surplus	Retained earnings	Treasury stock (Note 15)	Total shareholders' equity	Unrealized holding gain (loss) on securities	Unrealized gain (loss) from hedging instruments	Translation adjustments	Remeasurement benefit plans adjustments (Note 21)	Total accumulated other comprehensive income	Non-controlling interest	Total net assets
Balance at April 1, 2018	**$177,439**	**$49,257**	**$777,151**	**$(20,813)**	**$ 983,035**	**$65,492**	**$ 2,748**	**$ (189)**	**$ 3,334**	**$71,385**	**$14,136**	**$1,068,565**
Changes during the year												
Issuance of new shares	**198**	**198**			**396**							**396**
Cash dividends paid			**(29,795)**		**(29,795)**							**(29,795)**
Income attributable to shareholders of The Japan Steel Works, Ltd.			**179,890**		**179,890**							**179,890**
Purchase of shares of consolidated subsidiaries		**(1,144)**			**(1,144)**							**(1,144)**
Purchases of treasury stock				**(9)**	**(9)**							**(9)**
Net changes in items other than those in shareholders' equity						**(35,841)**	**(4,793)**	**(1,802)**	**(4,379)**	**(46,824)**	**(1,351)**	**(48,185)**
Total changes during the year	**198**	**(937)**	**150,095**	**(9)**	**149,338**	**(35,841)**	**(4,793)**	**(1,802)**	**(4,379)**	**(46,824)**	**(1,351)**	**101,153**
Balance at March 31, 2019	**$177,638**	**$48,311**	**$927,246**	**$(20,831)**	**$1,132,372**	**$29,642**	**$(2,036)**	**$(2,000)**	**$(1,036)**	**$24,552**	**$12,785**	**$1,169,718**

See notes to consolidated financial statements.

The Japan Steel Works, Ltd. and Consolidated Subsidiaries

Consolidated Statement of Cash Flows

For the years ended March 31, 2018 and 2019

	Millions of yen		Thousands of U.S. dollars (Note 4)
	2018	2019	2019
Operating activities			
Income before income taxes	¥14,892	**¥ 29,317**	**$ 264,141**
Depreciation and amortization	4,308	**4,639**	**41,797**
Impairment loss	1,352	**1,623**	**14,623**
Interest and dividend income	(827)	**(903)**	**(8,136)**
Interest expense	258	**246**	**2,216**
Equity in losses of affiliates	0	**(89)**	**(802)**
(Gain) loss on valuation of investment securities	2	**51**	**460**
(Gain) loss on sales of investment securities	(789)	**(263)**	**(2,370)**
Loss on disposal of tangible and intangible assets	273	**228**	**2,054**
Gain on sales of property, plant and equipment and intangible assets	(1)	**(3,900)**	**(35,138)**
Increase (decrease) in provision for warranties for completed construction	(1,027)	**(1,409)**	**(12,695)**
Increase (decrease) in provision for loss on construction contracts	(2,184)	**(553)**	**(4,982)**
Decrease in provision for loss on wind power generator business	(1,289)	**(1,478)**	**(13,317)**
Increase in provision for business restructuring	6,389	**(1,093)**	**(9,848)**
Changes in operating assets and liabilities:			
Trade assets (Note 18)	(2,848)	**(13,217)**	**(119,083)**
Trade liabilities	6,101	**(1,155)**	**(10,406)**
Inventories (Note 5)	3,994	**(7,618)**	**(68,637)**
Other	(252)	**376**	**3,388**
Subtotal	28,351	**4,797**	**43,220**
Interest and dividends received	827	**893**	**8,046**
Interest paid	(257)	**(265)**	**(2,388)**
Income taxes paid	(2,207)	**(4,334)**	**(39,049)**
Net cash provided by operating activities	26,712	**1,092**	**9,839**
Investing activities			
Investments into time deposits	(607)	**(56)**	**(505)**
Proceeds from withdrawal of time deposits	657	**544**	**4,901**
Increase in tangible and intangible assets	(6,549)	**(7,347)**	**(66,195)**
Decrease in tangible and intangible assets	76	**6,057**	**54,572**
Proceeds from sale of investment securities	1,869	**272**	**2,451**
Purchases of investment securities	(12)	**(43)**	**(387)**
Reimbursement of long-term deposits on contracts	(89)	**(177)**	**(1,595)**
Payments of long-term loans receivable	(300)	**(50)**	**(450)**
Collection of long-term loans receivable	50	**10**	**90**
Purchase of investments in subsidiaries	(147)	**(497)**	**(4,478)**
Payments for asset retirement obligations	(15)	**(71)**	**(640)**
Other	(8)	**25**	**225**
Net cash used in investing activities	(5,077)	**(1,334)**	**(12,019)**
Financing activities (Notes 11 and 18)			
Net increase (decrease) in short-term borrowings	96	**83**	**748**
Increase in long-term debt	4,500	**250**	**2,252**
Decrease in long-term debt	(4,215)	**(242)**	**(2,180)**
Cash dividends paid	(2,204)	**(3,307)**	**(29,795)**
Acquisition of treasury stock	(2)	**(1)**	**(9)**
Repayments of finance lease obligations	(621)	**(550)**	**(4,955)**
Other	(9)	**9**	**81**
Net cash provided by (used in) financing activities	(2,457)	**(3,758)**	**(33,859)**
Effect of exchange rate changes on cash and cash equivalents	30	**(58)**	**(523)**
(Decrease) increase in cash and cash equivalents	19,208	**(4,059)**	**(36,571)**
Cash and cash equivalents at beginning of the year	58,671	**77,879**	**701,676**
Cash and cash equivalents at end of the year (Notes 16 and 18)	¥77,879	**¥ 73,820**	**$ 665,105**

See notes to consolidated financial statements.

The Japan Steel Works, Ltd. and Consolidated Subsidiaries

Notes to Consolidated Financial Statements

1. Basis of Presentation

The Japan Steel Works, Ltd. (the "Company") and its domestic subsidiaries maintain their books of account in conformity with the financial accounting standards of Japan, and its foreign subsidiaries maintain their books of account in conformity with those of their respective countries of domicile.

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of IFRS, and have been compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Law of Japan.

As permitted by the Financial Instruments and Exchange Law of Japan, amounts of less than one million yen have been omitted. As a result, the totals shown in the accompanying consolidated financial statements (both in yen and in U.S. dollars) do not necessarily agree with the sums of the individual amounts.

Certain amounts in the prior year's consolidated financial statements have been reclassified to conform to the current year's presentation.

2. Summary of Significant Accounting Policies

(a) Principles of consolidation and accounting for investments in unconsolidated subsidiaries and affiliates

The accompanying consolidated financial statements include the accounts of the Company and any significant companies controlled directly or indirectly by the Company.

Companies over which the Company exercises significant influence in terms of their operating and financial policies have been accounted for by the equity method. All significant intercompany balances and transactions have been eliminated in consolidation.

As of March 31, 2019, the numbers of consolidated subsidiaries, and subsidiaries and affiliates accounted for by the equity method were 31 and 2 (31 and 1 in 2018), respectively.

As a result of the acquisition of additional shares of GM Engineering Co., Ltd., has been included as equity method affiliates from the current fiscal year.

Certain foreign subsidiaries are consolidated on the basis of fiscal years ended December 31, which differ from that of the Company. However, the necessary adjustments have been made if the effect of the difference is material.

Investments in subsidiaries and affiliates which are neither consolidated nor accounted for by the equity method are carried at cost or less. Where there has been a permanent decline in the value of such investments, the Company has written them down.

Differences between the cost and the underlying net equity at fair value of investments in consolidated subsidiaries and in companies accounted for by the equity method have been amortized by the straight-line method over five years after acquisition and are included in selling, general and administrative expenses.

(b) Foreign currency translation

The balance sheet accounts of the foreign consolidated subsidiaries are translated into yen at the rates of exchange in effect at the balance sheet date, except for the components of net assets excluding Non-controlling interests which are translated at their historical exchange rates. Revenue and expense accounts are translated at the average rates of exchange in effect during the year. Differences arising from the translation are presented as translation adjustments and Non-controlling interests in the consolidated financial statements.

Revenue and expense items arising from transactions denominated in foreign currencies are generally translated into yen at the rates of exchange in effect at the respective transaction dates.

All monetary assets and liabilities denominated in foreign currencies are translated into yen at the rates of exchange in effect at the balance sheet date and differences arising from the translation are included in the consolidated statements of income.

(c) Cash equivalents

Short-term investments with a maturity of three months or less when purchased which can easily be converted to cash and are subject to little risk of change in value are considered to be cash equivalents.

(d) Inventories

Real estate held for sale, finished products and work in process are stated at the lower of cost or net realizable value determined principally by the specific identification method. Raw materials are stated at the lower of cost or replacement cost determined principally by the moving average method.

(e) Investment securities

Marketable securities classified as other securities are carried at fair value with changes in unrealized holding gain or loss, net of the applicable income taxes, included directly in net assets. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

(f) Allowance for doubtful accounts

The allowance for doubtful accounts is provided for possible bad debts at an amount estimated based on the historical experience with bad debts on normal receivables plus an additional allowance for specific uncollectible amounts determined by reference to the collectability of individual doubtful accounts.

(g) Provision for warranties for completed construction

The Company provides a provision for warranties for completed construction by estimating losses on possible future claims.

(h) Provision for loss on construction contracts

The Company provides a provision for loss on construction contracts, which has not been delivered by the fiscal year end, by estimating the amount of total losses anticipated in the following fiscal year and thereafter to be incurred, when the amounts can be reasonably estimated.

(i) Provision for loss on wind power generator business
The Company provides a provision for loss on wind power generator business by estimating the amount of total losses caused by the defects of certain parts used in wind power generators.

(j) Provision for business restructuring
The Company provides a provision for the anticipated losses on wind power generators sold in previous years in order to restructure the wind power generator business.

(k) Property, plant and equipment and depreciation
Depreciation of property, plant and equipment is calculated by the declining-balance method based on the estimated useful lives and the residual value determined by the Company, except for certain buildings which are depreciated by the straight-line method.

Significant renewals and additions are capitalized at cost. Maintenance and repairs are charged to profit. The estimate useful lives of the assets are as follows:

Buildings and structures: 6 to 65 years
Machinery, equipment and vehicles: 3 to 20 years

(l) Intangible fixed assets
Amortization of intangible fixed assets is calculated using the straight-line method.

Software products for internal use are amortized mainly over the estimated useful lives of five years.

(m) Leases and depreciation
Finance lease transactions which do not stipulate the transfer of ownership of the leased assets to the lessee are accounted for as purchase and sales transactions.

With regard to the depreciation method of leased assets, the straight-line method is applied using the lease period as the estimated useful life and a residual value of zero.

(n) Retirement benefit
The retirement benefit obligation for employees is attributed to each period by the benefit formula method.

Prior service cost is being amortized as incurred by the straight-line method over ten years, which is shorter than the average remaining years of service of the eligible employees.

Actuarial gain or loss is amortized in the year following the year in which the gain or loss is recognized by the straight-line method over ten years, which is shorter than the average remaining years of service of the employees participating in the plans.

Certain subsidiaries use a simplified method in the calculation of their retirement benefit obligation.

(o) Income taxes
Deferred tax assets and liabilities have been recognized in the consolidated balance sheets with respect to the differences between financial reporting and the tax bases of the assets and liabilities, and are measured using the enacted tax rates and laws which will be in effect when the differences are expected to reverse.

(p) Research and development expenses
Research and development expenses are charged to income when incurred.

(q) Revenue and cost recognition
Revenues on sales of products are generally recognized at the time of shipment.

Revenues and costs, of which the percentage of completion can be reliably estimated, are recognized by the percentage-of-completion method. The percentage of completion is calculated at the cost incurred as a percentage of the estimated total cost. The completed-contract method is applied to contracts for which the percentage of completion cannot be reliably estimated.

(r) Derivative financial instruments
Derivative financial instruments are carried at fair value. Gain or loss on derivatives designated as hedging instruments is deferred as a component of net assets until the loss or gain on the underlying hedged items is recognized. Foreign currency receivables and payables are translated at the applicable forward foreign exchange rates when certain conditions are met. In addition, the related interest differential paid or received under interest-rate swaps utilized as hedging instruments is recognized over the terms of the swap agreements as an adjustment to the interest expense of the underlying hedged items when certain conditions are met.

(s) Consumption tax
Accounting treatment of consumption tax is the tax exclusion method.

(t) Provision for directors' bonuses
Provision for directors' bonuses is provided based on estimated amounts to be paid in the subsequent period that are applicable to the current year.

(u) Provision for directors' retirement benefits
Provision for directors' retirement benefits is provided based on estimated amounts determined by internal rules.

(v) Standards issued but not yet effective
Accounting Standard and Implementation Guidance on Revenue Recognition
On March 30, 2018, the ASBJ issued "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29) and "Implementation Guidance on Accounting Standard for Revenue Recognition" (ASBJ Guidance No. 30).

(1) Overview
This is a comprehensive accounting standard for revenue recognition. Specifically, the accounting standard establishes the following five-step model that will apply to revenue from customers:
1. Identify the contract(s) with a customer
2. Identify the performance obligations in the contract
3. Determine the transaction price
4. Allocate the transaction price to the performance obligations in the contract
5. Recognize revenue when (or as) the entity satisfies a performance obligation

(2) Scheduled date of adoption
The Company expects to adopt the accounting standard and implementation guidance from the beginning of the fiscal year ending March 31, 2022.

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

3. Accounting Changes
(Disclosure for the year ended March 31, 2019)

(a) Partial Amendments to Accounting Standard for Tax Effect Accounting
The Company and its consolidated subsidiaries have adopted "Partial Amendments to Accounting Standard for Tax Effect Accounting"(ASBJ Statement No. 28, February 16, 2018) (hereinafter, the "Partial Amendments") from the beginning of the fiscal year ended March 31, 2019. As such, deferred tax assets and deferred tax liabilities are included within investments and other assets and long-term liabilities, respectively, and related income tax disclosures have been expanded.

As a result, ¥7,376 million of deferred tax assets in current assets previously presented in consolidated balance sheet as of March 31, 2018 have been reclassified and included within ¥20,216 million of deferred tax assets in investments respectively. In addition, deferred tax liabilities of fixed liabilities of ¥168 million decreased by ¥68 million.

Also, "Note 22 Income Taxes" in the Notes to the consolidated financial statements has been expanded in accordance with Article 8 and Article 9 of Interpretive Notes to Accounting for Tax Effect Accounting. However, comparative information for the year ended March 31, 2018 has not been disclosed in Note 22 in accordance with the transitional provisions set forth in Article 7 of the Partial Amendments.

(b) Consolidated balance sheet
In the previous consolidated fiscal year, the assets related to the real estate leasing business, which were included in inventory of current assets, were changed to buildings and structures of fixed assets due to a change in management method accompanying the contraction of the real estate leasing business. It is reclassified as a building and a structure land.

To reflect this change in presentation, the consolidated financial statements for the previous fiscal year have been reclassified.

As a result, in the consolidated balance sheet of the previous consolidated fiscal year, inventory of current assets of ¥62,160 million, buildings and structures of fixed assets of ¥71,536 million, and land of ¥10,059million Although the figure is stated at ¥10,000 million, it has been reclassified as Inventory of ¥61,882 million, Buildings and structures of ¥71,541 million, and Land of ¥10,335 million.

(c) Consolidated statement of income
The income and expenses related to the real estate leasing business, which were included in sales, cost of sales, and selling, general and administrative expenses in the previous consolidated fiscal year, are managed according to the contraction of the real estate leasing business. Due to the change, Gain on fixed assets in Non-operating income has been reclassified.

To reflect this change in presentation, the consolidated financial statements for the previous fiscal year have been reclassified.

As a result, in the consolidated statement of income for the previous consolidated fiscal year, sales of ¥212,957 million, cost of sales of ¥163,455 million, Selling, and general administrative expenses of ¥6,290 million Sales of ¥211,700 million, Cost of sales ¥162,995 million, Selling , and general administrative expenses of ¥6,236 million, Non-operating income: Rent income on non-current assets of ¥851 million.

4. U.S. Dollar Amounts
The translation of yen amounts into U.S. dollars is included solely for convenience, as a matter of arithmetic computation only, at ¥110.99 = U.S.$1.00, the approximate rate of exchange prevailing on March 31, 2019. This translation should not be construed as a representation that all amounts shown could be converted into U.S. dollars at such rate.

5. Inventories
Inventories at March 31, 2019 and 2018 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2018	**2019**	**2019**
Finished products	¥ 2,027	**¥ 2,767**	**$ 24,930**
Work in process	54,663	**61,004**	**549,635**
Raw materials and supplies	5,191	**5,675**	**51,131**
Total	¥61,882	**¥69,447**	**$625,705**

Work in process related to construction contracts of which a loss is anticipated to be incurred was offset with a provision for loss on construction contracts of ¥852 million ($7,676 thousand) at March 31, 2019 and ¥750 million at March 31, 2018.

6. Assets Pledged as Collateral
The assets pledged as collateral for derivative transactions etc., at March 31, 2019 and 2018 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	**2019**	**2019**
Time deposit	¥106	**¥99**	**$892**

Note: The assets pledged as collateral have no corresponding obligations at March 31, 2019.

7. Advanced Depreciation

Accumulated advanced depreciation related to government grants received has been deducted directly from the acquisition costs of certain tangible fixed assets (plant, machinery and equipment). Such accumulated depreciation at March 31, 2019 and 2018 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Accumulated advanced depreciation expense	¥1,306	¥1,455	$13,109

8. Notes Receivable and Notes Payable Maturing at Fiscal Year-End

Although March 31, 2019 was a bank holiday, notes maturing on that date were accounted for as if they were settled on their maturity date. The corresponding amounts of notes receivable and notes payable maturing on March 31, 2019 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Trade notes and accounts receivable	¥ 293	¥ 435	$ 3,919
Trade notes and accounts payable	¥1,592	¥1,836	$16,542
Other current liabilities	¥ 242	¥ 941	$ 8,478
Endorsed trade notes receivable	¥ 3	¥ 1	$ 9

9. Impairment Loss

Current fiscal year (From April 1, 2018 to March 31, 2019)

The Group recorded an impairment loss on the following groups of assets in the current fiscal year:

Use	Asset type	Location
Property for rent	Land	Fuchu, Tokyo
Other Businesses: Business assets at investee subsidiary	Machinery, equipment and vehicles, etc.	Muroran, Hokkaido and Guangdong, China

(1) Grouping of assets
The Company and its consolidated subsidiaries (hereinafter collectively known as the "Group") determine whether to recognize an impairment loss and measure the loss by grouping assets based on the smallest units used in management accounting that generate cash flows which are largely independent and whose revenue and expenditures are identified on an ongoing basis. Property for rent is grouped by the individual properties. However, the Group determines whether to recognize impairment and measures the impairment on an individual asset basis if the asset is idle and not expected to be used in the future.

(2) Circumstances that led to the recognition of the impairment loss
Carrying amounts of non-current assets were reduced to recoverable amounts and the reduced amounts were recognized in extraordinary losses as impairment loss because investment amounts were no longer expected to be recovered due to a decrease in profitability.
Breakdown of the impairment loss is as follows:

Machinery, equipment and vehicles	¥ 19 million	$ 171 thousand
Land	1,597	14,389
Other	6	54
Total	¥1,623	$14,623

(3) Calculation method for recoverable amounts
The property for lease is measured by the net selling price and is evaluated by the real estate appraisal value. For business-use assets, the recoverable value is measured based on the value in use, and is assessed based on the memorandum value.

Prior fiscal year (From April 1, 2017 to March 31, 2018)

The Group recorded an impairment loss on the following groups of assets in the prior fiscal year:

Use	Asset type	Location
Steel and Energy Products: Business assets	Buildings and structures, Machinery, equipment and vehicles, Tools, furniture and fixture, Construction in progress, etc.	Muroran, Hokkaido
Other Businesses: Business assets	Machinery, equipment and vehicles, Tools, furniture and fixture	Muroran, Hokkaido
Other Businesses: Business assets at investee subsidiary	Machinery, equipment and vehicles, Construction in progress, etc.	Muroran, Hokkaido and Guangdong, China

(1) Grouping of assets
The Group determines whether to recognize an impairment loss and measures the loss by grouping assets based on the smallest units used in management accounting that generate cash flows which are largely independent and whose revenue and expenditures are identified on an ongoing basis.
However, the Group determines whether to recognize impairment and measures the impairment on an individual asset basis if the asset is idle and not expected to be used in the future.

(2) Circumstances that led to the recognition of the impairment loss
Carrying amounts of non-current assets were reduced to recoverable amounts and the reduced amounts were recognized in extraordinary losses as impairment loss because investment amounts were no longer expected to be recovered due to a decrease in profitability.
Breakdown of the impairment loss is as follows:

Buildings and structures	¥ 145 million
Machinery, equipment and vehicles	718
Tools, furniture and fixtures	129
Construction in progress	174
Other	184
Total	¥1,352

(3) Calculation method for recoverable amounts
Recoverable amounts of the groups of assets are calculated at value in use. It is evaluated by memorandum value.

10. Contingent Liabilities

Contingent liabilities at March 31, 2019 and 2018 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
As endorsers of trade notes receivable:			
Endorsed to other	¥ 92	¥ 68	$ 613
As guarantors of loans:			
Muroran Environmental Plant Service Co., Ltd.	305	243	2,189
Obligation to guarantee uncollected receivables of leasing companies	8	—	—
Gotsu Wind Power Co., Ltd	849	720	6,487
Employees and other	13	4	36

11. Short-Term Borrowings and Long-Term Debt

All short-term borrowings, with interest at annual rates ranging from 0.2690% to 1.4750% at March 31, 2019 and 0.2454% to 1.4750% at March 31, 2018, were unsecured.

Long-term debt at March 31, 2019 and 2018 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Loans from banks and insurance companies with interest at annual rates ranging from 0.1934% to 0.9609%	¥39,401	¥39,408	$355,059
Less those maturing within one year	(132)	(199)	(1,793)
Lease obligations	1,241	1,292	11,641
Less those maturing within one year	(493)	(496)	(4,469)
Long-term indebtedness reflected in the consolidated balance sheets	¥40,016	¥40,004	$360,429

The aggregate annual maturities of long-term debt and lease obligations subsequent to March 31, 2019 are summarized as follows:

	Millions of yen	Thousands of U.S. dollars	Millions of yen	Thousands of U.S. dollars
Year ending March 31,	Long-term loans		Lease obligations	
2020	¥ 199	$ 1,793	¥496	$4,469
2021	5,000	45,049	346	3,117
2022	1,800	16,218	234	2,108
2023	15,700	141,454	148	1,333
2024	2,208	19,894	63	568
2025 and thereafter	14,500	130,642	2	18

12. Research and Development Expenses

Research and development expenses included in manufacturing costs, and selling, general and administrative expenses for the years ended March 31, 2019 and 2018 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	**2019**	**2019**
Research and development expenses	¥4,369	**¥4,506**	**$40,598**

13. Other Income (Expenses)—Other, Net

The details of "Other, net" in "Other income (expenses)" for the years ended March 31, 2019 and 2018 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	**2019**	**2019**
Foreign exchange gain (loss)	¥ (115)	**¥ 38**	**$ 342**
Equity in gain (losses) of affiliates	(0)	**89**	**802**
Gain on sales of property, plant and equipment	30	**3,933**	**35,436**
Gain on sales of investment securities	791	**263**	**2,370**
Rent income on non-current assets	851	**786**	**7,082**
Cancellation fee received	33	**1,186**	**10,686**
Loss on sales or disposal of property, plant and equipment	(302)	**(260)**	**(2,343)**
Provision for business restructuring	(6,389)	**(711)**	**(6,406)**
Other, net	197	**666**	**6,001**
Total	¥(4,902)	**¥5,992**	**$53,987**

14. Other Comprehensive Income

The following table presents reclassification adjustments and tax effects allocated to each component of other comprehensive income for the years ended March 31, 2019 and 2018:

	Millions of yen		Thousands of U.S. dollars
	2018	**2019**	**2019**
Unrealized holding gain (loss) on securities:			
Amount arising during the year	¥2,050	**¥(5,750)**	**$(51,806)**
Reclassification adjustments for gains and losses realized in net income	(793)	**51**	**460**
The amount of unrealized holding gain (loss) on securities before tax effect	1,257	**(5,699)**	**(51,347)**
Tax effect	(369)	**1,720**	**15,497**
Unrealized holding gain (loss) on securities	887	**(3,978)**	**(35,841)**
Unrealized gain (loss) from hedging instruments:			
Amount arising during the year	874	**(765)**	**(6,892)**
Tax effect	(267)	**233**	**2,099**
Unrealized gain (loss) from hedging instruments	606	**(532)**	**(4,793)**
Translation adjustments:			
Amount arising during the year	203	**(232)**	**(2,090)**
Translation adjustments	203	**(232)**	**(2,090)**
Remeasurement benefits plans adjustments:			
Amount arising during the year	767	**(951)**	**(8,568)**
Reclassification adjustments for gains and losses realized in net income	95	**261**	**2,352**
The amount of unrealized holding gain (loss) on securities before tax effect	863	**(689)**	**(6,208)**
Tax effect	(265)	**210**	**1,892**
Remeasurement benefits plans adjustments	597	**(478)**	**(4,307)**
Total other comprehensive income	¥2,295	**¥(5,221)**	**$(47,040)**

15. Supplementary Information for Consolidated Statement of Changes in Net Assets

Year ended March 31, 2019

(a) Information regarding the number and type of shares issued and treasury stock:

	Number of shares			
	Year ended March 31, 2018	**Increase during the year**	**Decrease during the year**	**Year ended March 31, 2019**
Shares issued: Common stock	**74,292,607**	**16,501**	**—**	**74,309,108**
Treasury stock: Common stock (Notes 1 and 2)	**802,503**	**579**	**—**	**803,082**

Notes: 1. The increase in shares issued – common stock of 16,501 was due to issuance of new shares as restricted stock.
2. The increase in treasury stock – common stock of 579 was due to the acquisition of fractional shares of less than one unit.

(b) Dividends

(i) Dividends paid to shareholders

① Resolution: Annual general meeting of shareholders held on June 26, 2018
Type of shares: Common stock
Total amount of dividends: ¥1,469 million ($13,235 thousand)
Dividends per share: ¥20.0 ($0.180)
Cut-off date: March 31, 2018
Effective date: June 27, 2018

Note: Dividends per share include ¥2.5 of commemorative 110th anniversary dividend.

② Resolution: Meeting of Board of Directors held on November 5, 2018
Type of shares: Common stock
Total amount of dividends: ¥1,837 million ($16,551 thousand)
Dividends per share: ¥25.0 ($0.225)
Cut-off date: September 30, 2018
Effective date: December 5, 2018

(ii) Dividends of which the cut-off date was in the year ended March 31, 2019, but the effective date is in the following fiscal year

Resolution: Annual general meeting of shareholders held on June 21, 2019
Type of shares: Common stock
Total amount of dividends: ¥2,205 million ($19,867 thousand)
Dividends per share: ¥30.0 ($0.270)
Cut-off date: March 31, 2019
Effective date: June 24, 2019
Source of dividends: Retained earnings

Year ended March 31, 2018

(a) Information regarding the number and type of shares issued and treasury stock:

	Number of shares			
	Year ended March 31, 2017	**Increase during the year**	**Decrease during the year**	**Year ended March 31, 2018**
Shares issued: Common stock	74,292,607	—	—	74,292,607
Treasury stock: Common stock (Notes 1 and 2)	801,480	1,055	32	802,503

Notes: 1. The increase in treasury stock – common stock of 1,055 was due to the acquisition of fractional shares of less than one unit.
2. The decrease in treasury stock – common stock of 32 was due to sales of fractional shares of less than one unit.

(b) Dividends

(i) Dividends paid to shareholders

① Resolution: Annual general meeting of shareholders held on June 27, 2017
Type of shares: Common stock
Total amount of dividends: ¥918 million
Dividends per share: ¥12.5
Cut-off date: March 31, 2017
Effective date: June 28, 2017

② Resolution: Meeting of Board of Directors held on November 6, 2017
Type of shares: Common stock
Total amount of dividends: ¥1,286 million
Dividends per share: ¥17.5
Cut-off date: September 30, 2017
Effective date: December 6, 2017

(ii) Dividends of which the cut-off date was in the year ended March 31, 2018, but the effective date is in the following fiscal year

Resolution: Annual general meeting of shareholders held on June 26, 2018
Type of shares: Common stock
Total amount of dividends: ¥1,469 million
Dividends per share: ¥20.0
Cut-off date: March 31, 2018
Effective date: June 27, 2018
Source of dividends: Retained earnings

Note: Dividends per share include ¥2.5 of commemorative 110th anniversary dividend.

16. Cash Flow Information

(a) Cash and cash equivalents

The reconciliation between cash and cash equivalents in the accompanying consolidated statements of cash flows and cash on hand and in banks in the accompanying consolidated balance sheets at March 31, 2019 and 2018 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Cash on hand and in banks in the consolidated balance sheet	¥79,032	¥74,304	$669,466
Other current assets	156	283	2,550
Time deposits with maturities of more than three months	(1,309)	(768)	(6,920)
Cash and cash equivalents in the consolidated statement of cash flows	¥77,879	¥73,820	$665,105

(b) Significant transactions without cash flows

Assets and liabilities corresponding to finance lease transactions that have been recorded by the Company and its domestic consolidated subsidiaries at March 31, 2019 and 2018 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Lease assets	¥402	¥557	$5,018
Lease obligations	433	601	5,415

17. Leases

Year ended March 31, 2019

Future minimum lease payments subsequent to March 31, 2019 under non-cancelable operating leases are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2020	**¥110**	**$ 991**
2021 and thereafter	**179**	**1,613**
Total	**¥289**	**$2,604**

Year ended March 31, 2018

Future minimum lease payments subsequent to March 31, 2018 under non-cancelable operating leases are summarized as follows:

Year ending March 31,	Millions of yen
2019	¥ 72
2020 and thereafter	145
Total	¥217

18. Financial Instruments

Overview

(a) Policy for financial instruments

In consideration of plans for operations and capital investment, the Group utilizes funds provided by operating cash flows first. The Group uses bond issuances and bank borrowings in order to raise additional funds, if needed. The Company manages temporary cash surpluses through low-risk financial assets. The Company uses derivatives for the purpose of reducing risks and does not enter into derivative contracts for speculative or trading purposes.

(b) Types of financial instruments and related risk

Trade receivables – trade notes and accounts receivable – are exposed to credit risk in relation to customers. In addition, the Company is exposed to foreign currency exchange risk arising from receivables denominated in foreign currencies. The foreign currency exchange risks deriving from the trade receivables denominated in foreign currencies are hedged by forward foreign exchange contracts, if needed.

Investment securities are exposed to market risk. These securities are mainly composed of the shares of common stock of companies with which the Company has business relationships.

Trade payables – trade notes and accounts payable – have payment due dates within one year. Since the Company is exposed to foreign currency exchange risk arising from those payables denominated in foreign currencies, forward foreign exchange contracts are arranged to reduce the risk, if needed.

Loans payable are used to raise funds mainly in connection with capital investments. The repayment dates of the long-term debts extend up to nine years from the balance sheet date. Long-term debt with variable interest rates is exposed to interest rate fluctuation risk and foreign currency exchange risk. However, to reduce such risk and fix the interest payments for long-term debt with variable rates, the Company utilizes interest rate swap transactions and interest-rate currency swaps as hedging instruments.

Regarding derivatives, the Company enters into forward foreign exchange contracts to reduce the foreign currency exchange risk arising from the receivables and payables denominated in foreign currencies. The Company also enters into interest rate swap transactions and interest-rate currency swaps to reduce the fluctuation risk of interest payments for long-term debt with variable rates.

Information regarding the method of hedge accounting, hedging instruments and hedged items, hedging policy, and the assessment of the effectiveness of hedging activities is found in Note 2 (p).

(c) Risk management for financial instruments

(i) Monitoring of credit risk (the risk that customers or counterparties may default)

In accordance with the internal policies of the Company for managing credit risk arising from receivables, each related division monitors credit worthiness of their main customers periodically, and monitors due dates and outstanding balances by individual customer. In addition, the Company is making efforts to identify and mitigate risks of bad debts from customers who are having financial difficulties. The consolidated subsidiaries also manage credit risk using the Company's internal policies and methods.

The Company also believes that the credit risk of derivatives is insignificant as it enters into derivative transactions only with financial institutions which have a high credit-rating.

(ii) Monitoring of market risk (the risk arising from fluctuations in foreign exchange rates, interest rates and others)

For trade receivables and payables denominated in foreign currencies, the Company identifies the foreign currency exchange risk for each currency on a monthly basis and enters into forward foreign exchange contracts to hedge such risk. In order to mitigate the interest rate risk for loans payable bearing interest at variable rates, the Company may also enter into interest rate swap transactions and interest-rate currency swaps.

For investment securities, the Company periodically reviews the fair values of such financial instruments and the financial position of the issuers. In addition, the Company continuously evaluates whether securities should be maintained taking into account their fair values and relationships with the issuers.

In conducting derivative transactions, the division in charge of each derivative transaction follows the internal policies, which set forth delegation of authority. Monthly reports including actual transaction data are submitted to top management for their review. The consolidated subsidiaries also conduct derivative transactions using the Company's internal policies.

(iii) Monitoring of liquidity risk (the risk that the Company may not be able to meet its obligations on scheduled due dates)

Based on the report from each division, the Company prepares and updates its cash flow plans on a timely basis to manage liquidity risk. The consolidated subsidiaries manage the liquidity risk using cash flow plans and report to the Company periodically.

(d) Supplementary explanation of the estimated fair value of financial instruments

The fair value of financial instruments is based on their quoted market price, if available. When there is no available quoted market price, fair value is reasonably estimated. Since various assumptions and factors are reflected in estimating the fair value, different assumptions and factors could result in different fair value. In addition, the notional amounts of derivatives in Note 20 Derivative Transactions are not necessarily indicative of the actual market risk involved in derivative transactions.

Estimated Fair Value of Financial Instruments

Carrying value of financial instruments on the consolidated balance sheet as of March 31, 2019 and estimated fair value are shown in the following table. The following table does not include financial instruments for which it is extremely difficult to determine the fair value (Please refer to Note (ii) below).

Year ended March 31, 2019

	Millions of yen		
	Carrying amount	Estimated fair value	Difference
Assets			
Cash on hand and in banks	¥ 74,304	¥ 74,304	¥ —
Trade notes and accounts receivable	64,921	64,921	(0)
Securities:			
Other securities	26,852	26,852	—
Total assets	¥166,078	¥166,077	¥ (0)
Liabilities			
Trade notes and accounts payable	¥ 55,579	¥ 55,579	¥ —
Short-term borrowings	12,088	12,088	—
Current portion of long-term debt	199	199	0
Long-term debt	39,208	39,723	514
Total liabilities	¥107,076	¥107,590	¥514
Derivatives (*)	¥ (326)	¥ (326)	—

	Thousands of U.S. dollars		
	Carrying amount	Estimated fair value	Difference
Assets			
Cash on hand and in banks	$ 669,466	$ 669,466	$ —
Trade notes and accounts receivable	584,927	584,927	(0)
Securities:			
Other securities	241,932	241,932	—
Total assets	$1,496,333	$1,496,324	$ (0)
Liabilities			
Trade notes and accounts payable	$ 500,757	$ 500,757	$ —
Short-term borrowings	108,911	108,911	—
Current portion of long-term debt	1,793	1,793	0
Long-term debt	353,257	357,897	4,631
Total liabilities	$ 964,736	$ 969,367	$4,631
Derivatives (*)	$ (2,937)	$ (2,937)	—

(*) The value of assets and liabilities arising from derivatives is shown at net value, with the amount in parentheses representing net liability position.

Year ended March 31, 2018

	Carrying amount	Estimated fair value	Difference
			Millions of yen
Assets			
Cash on hand and in banks	¥ 79,032	¥ 79,032	¥ —
Trade notes and accounts receivable	54,542	54,541	(0)
Securities:			
Other securities	32,589	32,589	—
Total assets	¥166,164	¥166,163	¥ (0)
Liabilities			
Trade notes and accounts payable	¥ 54,957	¥ 54,957	¥ —
Short-term borrowings	12,004	12,004	—
Current portion of long-term debt	132	145	12
Long-term debt	39,268	39,860	591
Total liabilities	¥106,362	¥106,967	¥604
Derivatives (*)	¥ 436	¥ 436	—

(*) The value of assets and liabilities arising from derivatives is shown at net value, with the amount in parentheses representing net liability position.

(i) Method to determine the estimated fair value of financial instruments and other matters related to securities and derivative transactions

Assets

Cash on hand and in banks

The carrying amount is used for bank deposits without maturities, because the fair value approximates the carrying value. The fair value of time deposits in banks with maturities is calculated based on the present value of the total principal and interest discounted at a rate supposing a newly made deposit.

Trade notes and accounts receivables

The fair value is calculated by categories of the remaining periods of the receivables based on the present value using discount rates determined by the period to maturity and credit risk.

Securities

The carrying amount is used for other securities with maturities, because the fair value approximates the carrying amount.

Quoted market price is used for other securities.

Liabilities

Trade notes and accounts payable and short-term borrowings

The carrying amount is used for these items because the fair value approximates the carrying amount.

Current portion of long-term debt and long-term debt

The fair values are calculated by applying a discount rate, based on the assumed interest rate if a similar new debt is issued, to the total of the principal and interest. The current portion of long-term debt and long-term debt with variable interest rates are subject to the special treatment of interest rate swaps or the integral treatment of interest rate currency swaps and is calculated by applying a discount rate, based on the assumed interest rate if a similar new debt is issued, to the total of the principal and interest including that of the interest rate swap.

Derivative transactions

Please refer to Note 20 Derivative Transactions, of the notes to the consolidated financial statements.

(ii) Financial instruments for which it is extremely difficult to determine the fair value

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Unlisted stocks	¥2,081	¥2,226	$20,056

Because the fair values of these financial instruments are extremely difficult to determine, given that they do not have quoted market prices and future cash flows cannot be estimated, they are not included in "Securities" in the preceding table.

(iii) Redemption schedule for receivables and securities with maturities at March 31, 2019 and 2018

Year ended March 31, 2019

	Due in one year or less	Due after one year through five years	Due after five years
			Millions of yen
Cash on hand and in banks	¥ 74,304	¥ —	—
Trade notes and accounts receivable	64,593	327	—
Total	¥138,898	¥327	—

	Due in one year or less	Due after one year through five years	Due after five years
			Thousands of U.S. dollars
Cash on hand and in banks	$ 669,466	$ —	—
Trade notes and accounts receivable	581,971	2,946	—
Total	$1,251,446	$2,946	—

Year ended March 31, 2018

	Due in one year or less	Due after one year through five years	Due after five years
			Millions of yen
Cash on hand and in banks	¥ 79,032	¥ —	—
Trade notes and accounts receivable	53,980	561	—
Total	¥133,012	¥561	—

(iv) The redemption schedule for long-term debt

Year ended March 31, 2019

	Long-term loans	Lease obligations
		Millions of yen
Due in 1 year or less	¥ 199	¥496
Due after 1 year through 2 years	5,000	346
Due after 2 years through 3 years	1,800	234
Due after 3 years through 4 years	15,700	148
Due after 4 years through 5 years	2,208	63
Due after 5 years	14,500	2

	Long-term loans	Lease obligations
		Thousands of U.S. dollars
Due in 1 year or less	$ 1,793	$4,469
Due after 1 year through 2 years	45,049	3,117
Due after 2 years through 3 years	16,218	2,108
Due after 3 years through 4 years	141,454	1,333
Due after 4 years through 5 years	19,894	568
Due after 5 years	130,642	18

Year ended March 31, 2018

	Long-term loans	Lease obligations
		Millions of yen
Due in 1 year or less	¥ 132	¥493
Due after 1 year through 2 years	60	366
Due after 2 years through 3 years	5,000	218
Due after 3 years through 4 years	1,800	114
Due after 4 years through 5 years	15,700	43
Due after 5 years	16,708	4

19. Securities

(a) Other securities

March 31, 2019

	Acquisition cost	Carrying amount	Unrealized gain (loss)
			Millions of yen
Carrying amount exceeding the acquisition cost:			
Stocks	¥14,079	¥21,598	¥ 7,519
Carrying amount not exceeding the acquisition cost:			
Stocks	8,041	5,253	(2,787)
Total	¥22,120	¥26,852	¥ 4,731

	Acquisition cost	Carrying amount	Unrealized gain (loss)
			Thousands of U.S. dollars
Carrying amount exceeding the acquisition cost:			
Stocks	$126,849	$194,594	$ 67,745
Carrying amount not exceeding the acquisition cost:			
Stocks	72,448	47,329	(25,110)
Total	$199,297	$241,932	$ 42,625

March 31, 2018

	Acquisition cost	Carrying amount	Unrealized gain (loss)
			Millions of yen
Carrying amount exceeding the acquisition cost:			
Stocks	¥13,441	¥25,824	¥12,382
Carrying amount not exceeding the acquisition cost:			
Stocks	8,721	6,765	(1,956)
Total	¥22,163	¥32,589	¥10,425

When their fair values have declined by 50% or more, impairment losses are recorded on those securities. When their fair values have declined by 30% up to 50%, impairment losses are recorded on those securities on an individual basis to the values considered to be recoverable.

(b) Impairment of investment securities

For the year ended March 31, 2019	Millions of yen	Thousands of U.S. dollars
Other securities		
Stock	¥51	$460

20. Derivative Transactions

(a) Derivatives not subject to hedge accounting

Year ended March 31, 2019
None applicable

Year ended March 31, 2018
None applicable

(b) Derivatives subject to hedge accounting
The contract amounts or the amount corresponding to principal as specified by the contract as of the date of the closing of the consolidated accounts is shown below by type of hedge accounting method.

(i) Currency-related transactions

Year ended March 31, 2019

Millions of yen

Hedge accounting method	Type of derivative		Principal items hedged	Contract amount	Over one year	Fair value
Allocation method	Foreign exchange forward contracts		Accounts receivable			
	Sell:	U.S. dollars		¥17,161	¥2,670	¥(266)
		Euros		1,557	131	30
		JPY		41	—	(0)
	Foreign exchange forward contracts		Accounts payable			
	Buy:	U.S. dollars		¥ 853	¥ —	¥ 8
		Euros		2,661	682	(84)
		Sterling pound		124	—	(14)

Thousands of U.S. dollars

Hedge accounting method	Type of derivative		Principal items hedged	Contract amount	Over one year	Fair value
Allocation method	Foreign exchange forward contracts		Accounts receivable			
	Sell:	U.S. dollars		$154,618	$24,056	$(2,397)
		Euros		14,028	1,180	270
		JPY		369	—	(0)
	Foreign exchange forward contracts		Accounts payable			
	Buy:	U.S. dollars		$ 7,685	$ —	$ 72
		Euros		23,975	6,145	(757)
		Sterling pound		1,117	—	(126)

Note: Calculation of fair value is based on the forward exchange rates.

Year ended March 31, 2018

Millions of yen

Hedge accounting method	Type of derivative		Principal items hedged	Contract amount	Over one year	Fair value
Allocation method	Foreign exchange forward contracts		Accounts receivable			
	Sell:	U.S. dollars		¥10,853	¥1,258	¥473
		Euros		1,688	185	11
		Canadian dollars		75	—	5
		Thai baht		33	—	(1)
		JPY		31	—	2
	Foreign exchange forward contracts		Accounts payable			
	Buy:	U.S. dollars		¥ 617	¥ —	¥ (22)
		Euros		852	—	(5)
		Sterling pound		255	125	(27)

Note: Calculation of fair value is based on the forward exchange rates.

(ii) Interest-related transactions

Year ended March 31, 2019

Millions of yen

Hedge accounting method	Type of derivative	Principal items hedged	Contract amount	Over one year	Fair value
Special treatment for interest rate swaps	Receive/floating and pay/fixed	Long-term borrowings	¥25,000	¥25,000	(*)
Integral treatment for interest rate currency swaps: (Special treatment and allocation method)	Receivable USD and floating rate/ payable JPY and fixed rate	Long-term borrowings	708	708	(*)

Thousands of U.S. dollars

Hedge accounting method	Type of derivative	Principal items hedged	Contract amount	Over one year	Fair value
Special treatment for interest rate swaps	Receive/floating and pay/fixed	Long-term borrowings	$225,246	$225,246	(*)
Integral treatment for interest rate currency swaps: (Special treatment and allocation method)	Receivable USD and floating rate/ payable JPY and fixed rate	Long-term borrowings	6,379	6,379	(*)

(*) Interest rate swaps subject to the special treatment for interest rate swaps and interest rate currency swaps subject to integral treatment for interest rate currency swaps are accounted for together with the long-term debt, accordingly the fair value of the interest rate swaps is included in the fair value of the corresponding long-term debt.

Note: Calculation of fair value is based on the stated price by financial institutions.

Year ended March 31, 2018

Hedge accounting method	Type of derivative	Principal items hedged	Contract amount (Millions of yen)	Over one year (Millions of yen)	Fair value (Millions of yen)
Special treatment for interest rate swaps	Receive/floating and pay/fixed	Long-term borrowings	¥25,000	¥25,000	(*)
Integral treatment for interest rate currency swaps: (Special treatment and allocation method)	Receivable USD and floating rate/ payable JPY and fixed rate	Long-term borrowings	708	708	(*)

(*) Interest rate swaps subject to the special treatment for interest rate swaps and interest rate currency swaps subject to integral treatment for interest rate currency swaps are accounted for together with the long-term debt, accordingly the fair value of the interest rate swaps is included in the fair value of the corresponding long-term debt.

Note: Calculation of fair value is based on the stated price by financial institutions.

21. Retirement Benefit Plans

The Company and its consolidated subsidiaries have either funded or unfunded defined benefit plans and/or defined contribution plans.

The Company and its domestic consolidated subsidiaries have defined benefit plans, i.e. lump-sum payment plans, defined benefit plans, welfare pension fund and tax-qualified pension plans, covering substantially all employees who are entitled to lump-sum or annuity payments, the amounts of which are determined by reference to their basic rates of pay, length of service, and the conditions under which termination occurs.

The changes in the retirement benefit obligation for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Balance at the beginning of the year	¥20,128	¥19,792	$178,322
Service cost	1,119	996	8,974
Interest cost	120	112	1,009
Actuarial gain and loss	(237)	438	3,946
Retirement benefit paid	(1,338)	(1,328)	(11,965)
Prior service cost	—	20	180
Balance at the end of the year	¥19,792	¥20,031	$180,476

The changes in plan assets for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Balance at the beginning of the year	¥14,969	¥15,517	$139,805
Expected return on plan assets	299	310	2,793
Actuarial gain and loss	529	(493)	(4,442)
Contributions by the Company	479	475	4,280
Retirement benefits paid	(760)	(885)	(7,974)
Balance at the end the year	¥15,517	¥14,924	$134,463

The changes in retirement benefit liability accounted for using the simplified method for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Balance at the beginning of the year	¥2,989	¥3,034	$27,336
Retirement benefit expenses	592	642	5,784
Retirement benefits paid	(361)	(473)	(4,262)
Contributions	(185)	(191)	(1,721)
Balance at the end the year	¥3,034	¥3,012	$27,138

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheets as of March 31, 2019 and 2018 for the Company's and the consolidated subsidiaries' defined benefit plans:

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Funded retirement benefit obligation	¥ 19,587	¥ 19,804	$ 178,430
Plan assets at the value	(16,717)	(16,180)	(145,779)
	2,869	3,623	32,643
Unfunded retirement benefit obligation	4,439	4,496	40,508
Net liability for retirement benefits in the balance sheet	7,309	8,119	73,151
Retirement benefit liability	10,046	10,494	94,549
Retirement benefit assets	(2,736)	(2,374)	(21,389)
Net liability for retirement benefits in the balance sheet	¥ 7,309	¥ 8,119	$ 73,151

The components of retirement benefit expense for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Service cost	¥1,119	¥ 996	$ 8,974
Interest cost	120	112	1,009
Expected return on plan assets	(299)	(310)	(2,793)
Amortization of actuarial gain and loss	95	261	2,352
Amortization of prior service cost	—	2	18
Simplified method for retirement benefit expenses	592	642	5,784
Other	45	42	378
Retirement benefit expense	¥1,674	¥1,747	$15,740

The components of retirement benefits plans adjustments included in other comprehensive income (before tax effect) for the years ended March 31, 2019 and 2018 are as follows:

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Prior service costs	¥ —	¥ (18)	$ (162)
Actuarial gain and loss	863	(670)	(6,037)
Total	¥863	¥(689)	$(6,208)

The components of retirement benefits plans adjustments included in accumulated other comprehensive income (before tax effect) as of March 31, 2019 and 2018 are as follows:

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Unrecognized prior service costs	¥ —	¥ (18)	$ (162)
Unrecognized actuarial gain and loss	531	(138)	(1,243)
Total	¥531	¥(157)	$(1,415)

The fair value of plan assets, by major category, as a percentage of total plan as of March 31, 2019 and 2018 is as follows:

March 31,	2018	2019
Bonds	29%	30%
Stocks	44	44
Cash on hand and in banks	0	0
General account	16	17
Other	11	9
Total	100%	100%

Retirement benefit trust set for the lump-sum and corporate pension plans accounts for 20% and 20% of the total plan assets, for the years ended March 31, 2019 and 2018, respectively.

The expected return on assets has been estimated based on the anticipated allocation to each asset class and the expected long-term returns on assets held in each category.

The assumptions used in accounting for the above plans are as follows:

March 31,	2018	2019
Discount rates	0.62%	0.51%
Expected rates of return on plan assets	2.00	2.00

Contributions made to defined contribution plans for the years ended March 31, 2019 and 2018 were ¥64 million ($577 thousand) and ¥68 million, respectively.

22. Income Taxes

The significant components of the Company's deferred tax assets and liabilities at March 31, 2019 and 2018 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Deferred tax assets:			
Accrued enterprise taxes	¥ 184	¥ 245	$ 2,207
Accrued bonuses	955	1,105	9,956
Depreciation	938	890	8,018
Amortization of long-term prepaid expenses	105	105	946
Loss on revaluation of inventory items	1,656	1,216	10,956
Loss on revaluation of financial instruments	189	184	1,658
Impairment loss	13,589	12,383	111,569
Retirement benefit liability	4,381	4,468	40,256
Provision for warranties for completed construction	528	137	1,234
Provision for loss on construction contracts	239	86	775
Provision for loss on wind power generator business	1,026	575	5,181
Provision for business restructuring	1,948	1,615	14,551
Less allowance for doubtful accounts	133	131	1,180
Asset retirement obligations	416	397	3,577
Percentage-of-completion method	16	280	2,523
Tax loss carry forwards	2,189	1,630	14,686
Unrealized loss on investment securities	596	849	7,649
Deferred loss on hedges	26	120	1,081
Unrealized gain on intercompany transactions	499	624	5,622
Other	1,158	1,113	10,028
Gross deferred tax assets	30,782	28,163	253,744
Valuation allowance for tax loss carryforwards	—	(1,465)	(13,199)
Valuation allowance for the total of future deductible temporary differences etc.	—	(2,584)	(23,281)
Total valuation allowance	(4,132)	(4,049)	(36,481)
Total deferred tax assets	26,650	24,113	217,254
Deferred tax liabilities:			
Reserve for advanced depreciation	1,220	2,051	18,479
Net defined benefit asset	839	712	6,415
Disposal cost with asset retirement obligations	233	230	2,072
Unrealized gain on investment securities	3,764	2,296	20,687
Deferred gain on hedges	160	20	180
Other	316	326	2,937
Total deferred tax liabilities	6,534	5,637	50,788
Net deferred tax assets	¥20,116	¥18,475	$166,456

Tax loss carry forward and its deferred tax asset carry forward due date at March 31, 2019 were as follows:

Millions of yen

	Tax loss carry forwards	Valuation allowance	Deferred tax assets
Due in 1 year or less	¥ 234	¥ (74)	¥159
Due after 1 year through 2 years	—	—	—
Due after 2 years through 3 years	33	(33)	—
Due after 3 years through 4 years	358	(357)	0
Due after 4 years through 5 years	569	(569)	—
Due after 5 years	434	(430)	3
Total	¥1,630	¥(1,465)	¥164

Thousands of U.S. dollars

	Tax loss carry forwards	Valuation allowance	Deferred tax assets
Due in 1 year or less	$ 2,108	$ (667)	$1,433
Due after 1 year through 2 years	—	—	—
Due after 2 years through 3 years	297	(297)	—
Due after 3 years through 4 years	3,226	(3,217)	0
Due after 4 years through 5 years	5,127	(5,127)	—
Due after 5 years	3,910	(3,874)	27
Total	$14,686	$(13,199)	$1,478

Change in deferred tax assets and deferred tax liabilities due to reduction in corporate income tax rate

	2018	2019
Statutory tax rates	30.7%	Notes are omitted because the difference between the statutory effective tax rate and the tax burden rate after application of tax effect accounting is less than 5% of the statutory effective tax rate.
Effect of:		
Permanent differences (Expense)	0.9	
Permanent differences (Benefits)	(0.5)	
Tax credit	(2.1)	
Evaluation reserve amount	(5.3)	
Retained earnings of overseas subsidiaries	1.0	
Tax effect not recognized on unrealized income	0.5	
Other	1.3	
Effective tax rates	26.5%	

23. Business Combinations

None applicable

24. Asset Retirement Obligations

The following table presents the changes in asset retirement obligations for the years ended March 31, 2019 and 2018:

	Millions of yen		Thousands of U.S. dollars
	2018	2019	2019
Balance at beginning of year	¥1,320	¥1,364	$12,289
Liabilities incurred due to the acquisition of property, plant and equipment	35	2	18
Accretion expense	22	22	198
Liabilities settled	(15)	(71)	(640)
Other	2	(9)	(81)
Balance at end of year	¥1,364	¥1,308	$11,785

25. Investment and Rental Properties

The Company has omitted the disclosure of investment and rental properties due to immateriality for the years ended March 31, 2019 and 2018.

26. Segment Information

Beginning this current period, the management system has been reviewed in line with the organizational revision and together with the reduction of the real estate leasing business, As a result, "Real Estate and Other Business" has been changed to "Other Businesses".

In conjunction with this change, the business segment of the consolidated subsidiary that handles the film deposition business previously included in the "Industrial Machinery Products Business" has been changed to "Other Businesses". Wind power generators and crystals that were included in the "Steel and Energy Products Business". Change the business segment of the consolidated subsidiary that handles the business to "Other business". Sales and cost of sales for the real estate leasing business previously included in "real estate and other business" were reclassified to non-operating income and non-operating expenses previously.

The segment information for the previous consolidated fiscal year has been reclassified to the reportable segment classification for the current consolidated fiscal year.

The reportable segments of the Group are components for which discrete financial information is available and whose operating results are regularly reviewed by the Executive Committee to make decisions about resource allocation and to assess performance.

The Steel and Energy Products segment includes steel castings and forgings, steel plates, pressure vessels and steel structures. The Industrial Machinery Products segment includes injection molding machines, film and sheet machinery, blow molding machines, magnesium injection molding machines, waste treatment equipment and manufacturing equipment for electronic products. The Other Businesses segment includes crystal business and wind power generation equipment.

Millions of yen

	Reportable segments					
Year ended March 31, 2019	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Total	Adjustments and Eliminations	Consolidated
Sales and operating income:						
Sales to third parties	¥173,648	¥41,251	¥5,252	¥220,153	¥ —	¥220,153
Intra-segment sales and transfers	1,038	4,159	3,740	8,938	(8,938)	—
Total sales	174,687	45,410	8,993	229,091	(8,938)	220,153
Operating income	¥ 23,599	¥ 2,676	¥ 343	¥ 26,618	¥ (2,328)	¥ 24,290
Assets, depreciation, and capital expenditures:						
Total assets	¥149,979	¥39,347	¥8,041	¥197,369	¥108,102	¥305,471
Depreciation and amortization	3,450	239	477	4,166	257	4,424
Capital expenditures	7,171	2,033	520	9,725	219	9,945

Thousands of U.S. dollars

Year ended March 31, 2019	Reportable segments: Industrial Machinery Products	Reportable segments: Steel and Energy Products	Reportable segments: Other Businesses	Total	Adjustments and Eliminations	Consolidated
Sales and operating income:						
Sales to third parties	$1,564,537	$371,664	$47,320	$1,983,539	$ —	$1,983,539
Intra-segment sales and transfers	9,352	37,472	33,697	80,530	(80,530)	—
Total sales	1,573,899	409,136	81,025	2,064,069	(80,530)	1,983,539
Operating income	$ 212,623	$ 24,110	$ 3,090	$ 239,823	$ (20,975)	$ 218,849
Assets, depreciation, and capital expenditures:						
Total assets	$1,351,284	$354,509	$72,448	$1,778,259	$973,980	$2,752,239
Depreciation and amortization	31,084	2,153	4,298	37,535	2,316	39,859
Capital expenditures	64,609	18,317	4,685	87,621	1,973	89,603

Notes: 1. Adjustments and eliminations for segment profit of ¥2,328 million ($20,975 thousand) include elimination of inter-segment profit on inventories and corporate general administration expense which are not allocable to a reportable segment.
2. Adjustments and eliminations for segment assets of ¥108,102 million ($973,980 thousand) include offset of inter-segment debt and credit, and corporate assets which are not allocable to a reportable segment.
3. Adjustments and eliminations for depreciation and amortization of ¥257 million ($2,316 thousand) include depreciation and amortization for corporate assets. Adjustments and eliminations for capital expenditures of ¥219 million ($1,973 thousand) include capital expenditures for corporate assets.

Millions of yen

Year ended March 31, 2018	Reportable segments: Industrial Machinery Products	Reportable segments: Steel and Energy Products	Reportable segments: Other Businesses	Total	Adjustments and Eliminations	Consolidated
Sales and operating income:						
Sales to third parties	¥169,000	¥36,287	¥ 6,412	¥211,700	¥ —	¥211,700
Intra-segment sales and transfers	1,002	4,215	3,691	8,909	(8,909)	—
Total sales	170,002	40,503	10,104	220,610	(8,909)	211,700
Operating income	¥ 23,691	¥ (1,019)	¥ (310)	¥ 22,360	¥ (1,782)	¥ 20,578
Assets, depreciation, and capital expenditures						
Total assets	¥125,768	¥35,500	¥ 8,689	¥169,958	¥127,407	¥297,365
Depreciation and amortization	3,248	176	359	3,785	312	4,097
Capital expenditures	3,244	1,549	1,519	6,313	123	6,436

Notes: 1. Adjustments and eliminations for segment profit of ¥1,782 million ($16,773 thousand) include elimination of inter-segment profit on inventories and corporate general administration expense which are not allocable to a reportable segment.
2. Adjustments and eliminations for segment assets of ¥127,407 million ($1,199,238 thousand) include offset of inter-segment debt and credit, and corporate assets which are not allocable to a reportable segment.
3. Adjustments and eliminations for depreciation and amortization of ¥312 million ($2,937 thousand) include depreciation and amortization for corporate assets. Adjustments and eliminations for capital expenditures of ¥123 million ($1,158 thousand) include capital expenditures for corporate assets.

(a) Product and service information

Millions of yen

Year ended March 31, 2019	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Total
Sales to third parties	¥173,648	¥41,251	¥5,252	¥220,153

Thousands of U.S. dollars

Year ended March 31, 2019	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Total
Sales to third parties	$1,564,537	$371,664	$47,320	$1,983,539

Millions of yen

Year ended March 31, 2018	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Total
Sales to third parties	¥169,000	¥36,287	¥6,412	¥211,700

(b) Geographical information
(i) Sales

	Millions of yen 2018	Millions of yen 2019	Thousands of U.S. dollars 2019
Japan	¥103,501	¥103,898	$ 936,102
China	48,043	54,318	489,395
Others	60,156	61,936	558,032
Consolidated	¥211,700	¥220,153	$1,983,539

Note: Net sales information above is based on customer location.

(ii) Tangible assets
The Company has omitted the disclosure of tangible assets by country or region as of March 31, 2019 and 2018 because the amount of tangible assets in Japan accounted for more than 90% of the carrying amount in the consolidated balance sheet.

(c) Significant customer information
The Company has omitted the disclosure of significant customer information for the years ended March 31, 2019 and 2018 because no individual customer accounted for more than 10% of net sales in the consolidated statement of income.

(d) Information on loss on impairment of fixed assets
Impairment losses on fixed assets by reportable segment for the years ended March 31, 2019 and 2018 are summarized as follows:

Millions of yen

Year ended March 31, 2019	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Adjustments and Eliminations	Total
Impairment loss	—	—	¥25	¥1,597	¥1,623

Thousands of U.S. dollars

Year ended March 31, 2019	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Adjustments and Eliminations	Total
Impairment loss	—	—	$225	$14,389	$14,623

Millions of yen

Year ended March 31, 2018	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Adjustments and Eliminations	Total
Impairment loss	—	¥1,331	¥21	—	¥1,352

(e) Amortization and balance of goodwill
The following table presents the amortization and balance of negative goodwill arising from business combinations on or prior to March 31, 2010 as of and for the years ended March 31, 2019 and 2018 by reportable segment:

Millions of yen

Year ended March 31, 2019	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Adjustments and Eliminations	Total
Amortization	¥215	—	—	—	¥215
Balance as of March 31	268	—	—	—	268

Thousands of U.S. dollars

Year ended March 31, 2019	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Adjustments and Eliminations	Total
Amortization	$1,937	—	—	—	$1,937
Balance as of March 31	2,415	—	—	—	2,415

Millions of yen

Year ended March 31, 2018	Industrial Machinery Products	Steel and Energy Products	Other Businesses	Adjustments and Eliminations	Total
Amortization	¥211	—	—	—	¥211
Balance as of March 31	509	—	—	—	509

(f) Information on gain on negative goodwill

Year ended March 31, 2019
None applicable

Year ended March 31, 2018
None applicable

27. Shareholders' Equity
The Corporation Law of Japan provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the meeting of shareholders, or by the Board of Directors if certain conditions are met.

28. Amounts per Share

Profit (loss) attributable to owners of parent per share is calculated based on the Profit (loss) attributable to owners of parent available for distribution to shareholders of common stock and the weighted-average number of shares of common stock outstanding during the year. Net assets per share are calculated based on the number of shares of common stock outstanding at year end. Amounts per share at March 31, 2019 and 2018 and for the years then ended were as follows:

	Yen		U.S. dollars
	2018	**2019**	**2019**
Profit (loss) attributable to owners of parent	¥ 145.77	**¥ 271.69**	**$ 2.45**
Net assets	1,592.47	**1,746.91**	**15.74**

29. Subsequent Events

(Significant subsequent events)

1. Mergers and acquisitions of consolidated subsidiaries

Based on a resolution of the board of directors meeting held on January 29, 2019, the company absorbed its consolidated subsidiary, Nikko Information Systems Co., Ltd. on April 1, 2019.

(1) Overview of transactions

(a) The names and business details of the Constituent Enterprises

Name of the Company: Nikko Information Systems Co., Ltd.

Business details: Computer system consulting, contract development, technical guidance, etc.

(b) Date of business combination

April 1, 2019

(c) Legal form of business combination

An absorption-type merger where the Company becomes the surviving company and Nikko Information Systems Co., Ltd. becomes the marged company

(d) The name of the Combined Enterprise

The Japan Steel Works, Ltd.

(e) Matters concerning the outline of other transactions

Since its establishment in April 1990 as a wholly-owned subsidiary of the company, Nikko Information Systems Co., Ltd. has been in charge of the Company's information system operation and management as well as the entrusted development business. However, given that advanced information technology (Machine learning, etc.) is an important element for the enhancement of the Company's product and service values, Nikko Information Systems Co., Ltd. has decided to merge with Our Company to strengthen its functions.

(2) Overview of accounting

Accounting will be conducted as a transaction under common control in accordance with "Accounting Standard for Business Combinations" (ASBJ Statement No. 21 of January 16, 2019) and "Application Guidelines for Accounting Standards for Business Combinations and Accounting Standards for Business Divestitures" (ASBJ Guidance No. 10 of January 16, 2019).

2. Making an affiliate a subsidiary by acquiring additional equity interests

At the meeting of the Board of Directors held on March 19, 2019, Our Group resolved to make GM Engineering Co., Ltd., a former affiliate, a subsidiary. As a result, shares were acquired on April 1, 2019.

(1) Overview of business combinations

(a) The name of the Acquired Enterprise and the nature of its business

Name of recipient company: GM Engineering Co., Ltd.

Nature of business: Design, manufacture, and sale of plastic sheet equipment, extruders, etc.; design, manufacture, and sale of dies and auxiliary equipment

(b) The main reasons for the business combination

Strengthen and expand sheet equipment business

(c) Date of business combination

April 1, 2019

(d) Legal form of business combination

Stock acquisition in exchange for cash

(e) The name of the Combined Enterprise

There is no change in the name of the combined company.

(f) Percentage of voting rights acquired

21.75% of the voting rights held immediately before the business combination

60.5% of the voting rights additionally acquired on the date of the business combination

82.25% of total voting rights after acquisition

(g) Main basis for determining acquiring companies

Our Company acquired the shares in exchange for cash.

(2) Acquisition costs of acquired enterprises and their breakdown

Consideration for acquisition: ¥131 million in cash

Acquisition cost: ¥131 million

(3) Details and amounts of major acquisition-related expenses

¥5 million for advisory expenses

(4) The difference between the acquisition cost of the Acquired Enterprise and the total amount of the acquisition cost for each transaction leading to the acquisition

Loss on phased acquisition: ¥89 million

(5) The amount of negative goodwill that occurred, and the cause for the occurrence

(a) The amount of negative goodwill that occurred

¥360 million

(b) Cause of occurrence

This was because the net assets at market value of GM Engineering Co., Ltd. exceeded the acquisition cost.

(6) The amount of assets accepted and liabilities assumed on the date of the Business Combination, and the major breakdown thereof

Current assets:	¥1,722 million
Fixed assets:	¥654 million
Total assets:	¥2,377 million
Current liabilities:	¥1,275 million
Fixed liabilities:	¥503 million
Total liabilities:	¥1,778 million

Independent Auditor's Report

Ernst & Young ShinNihon LLC
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Building a better working world

Independent Auditor's Report

The Board of Directors
The Japan Steel Works, Ltd.

We have audited the accompanying consolidated financial statements of The Japan Steel Works, Ltd. and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2019, and the consolidated statements of income, comprehensive income, changes in net assets, and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. The purpose of an audit of the consolidated financial statements is not to express an opinion on the effectiveness of the entity's internal control, but in making these risk assessments the auditor considers internal controls relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of The Japan Steel Works, Ltd. and its consolidated subsidiaries as at March 31, 2019, and their consolidated financial performance and cash flows for the year then ended in conformity with accounting principles generally accepted in Japan.

Convenience Translation

We have reviewed the translation of these consolidated financial statements into U.S. dollars, presented for the convenience of readers, and, in our opinion, the accompanying consolidated financial statements have been properly translated on the basis described in Note 3.

June 25, 2019
Tokyo, Japan

Ernst & Young ShinNihon LLC

A member firm of Ernst & Young Global Limited

Corporate Directory

Corporate Data

Trade Name	The Japan Steel Works, Ltd.
Head Office	Gate City Ohsaki-West Tower, 11-1, Osaki 1-chome,Shinagawa-ku, Tokyo, Japan
Foundation	November 1, 1907
Paid-in Capital	¥19,716 million
Employees	2,222 (Consolidated 5,174)
Auditor	Ernst & Young ShinNihon LLC Hibiya Kokusai Bldg., 2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, Japan

(as of March 31, 2019)

Stock Information

Authorized Shares	200,000,000 shares
Issued and Outstanding Shares	74,309,108 shares
Shareholders	21,589
Stock Listings	Tokyo
Transfer Agent and Registrar	Sumitomo Mitsui Trust Bank, Ltd. 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan

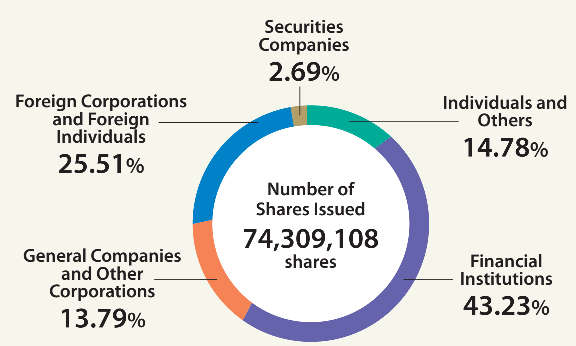
(as of March 31, 2019)

Major Shareholders
(shareholding ratio)

The Master Trust Bank of Japan, Ltd. (Trust Account)	10.91%
Japan Trustee Services Bank, Ltd. (Trust Account)	8.33%
Mitsui Life Insurance Co., Ltd.	3.85%
Sumitomo Mitsui Banking Corp.	2.99%
Sumitomo Mitsui Trust Bank, Ltd.	2.22%
Mitsui Sumitomo Insurance Co., Ltd.	2.13%
RBC IST-OMNIBUS 10 LENDING AC - CLIENT ACCOUNT	1.98%
Nippon Steel & Sumitomo Metal Corp.	1.78%
Japan Trustee Services Bank, Ltd. (Trust Account 5)	1.60%
Mitsubishi Heavy Industries, Ltd.	1.37%

(as of March 31, 2019)

Classification of Shareholders by Percentage of Shares Held (As of March 31, 2019)



Notes 1: The shareholding ratios are calculated after deducting 803,082 treasury shares from the total number of shares issued.
2: Mitsui Life Insurance Company Limited changed its name to Taiju Life Insurance Company Limited as of April 1, 2019.
3: Nippon Steel & Sumikin Corporation changed its name to Nippon Steel Corporation as of April 1, 2019.

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