JFE GROUP REPORT 2019

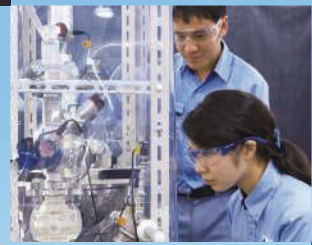
— Integrated Report —

The JFE Group will contribute to society with the world's most innovative technology.

Corporate Vision

Challenging Spirit, Flexibility & Sincerity

Corporate Values



Contents

Value Creation

Strategies to Realize Value Creation

Management for Value Creation

Corporate Data

Editorial Policy

The JFE GROUP REPORT 2019 (Integrated Report) has been created and published with the aim of having all stakeholders, including shareholders and investors, understand the medium- to long-term value creation narratives within JFE Group.

While providing a consolidated overview of the medium- to long-term growth strategy together with financial information (such as results and management strategies) and non-financial information such as ESG (Environment, Society, and Governance), from this year's report, we have included special feature articles focused on specific strategic themes, clearly presenting the company's unique initiatives. Through this report, we hope to foster a better understanding of JFE Group's approach toward sustainable enhancement of corporate value.

This report is utilized to communicate comprehensively with all our stakeholders, and our intention is to use your feedback to provide even better content in future reports.

Reporting period	FY 2018 (April 1, 2018, to March 31, 2019). Reports on some activities undertaken outside this period are included.
Organizations covered	The holding company JFE Holdings, Inc. and its three operating companies JFE Steel Corporation, JFE Engineering Corporation and JFE Shoji Trade Corporation. Additionally, some reports may include the equity-method affiliate Japan Marine United Corporation and Group companies under the operating companies (consolidated subsidiaries and equity-method affiliates).

Guidelines

- International Integrated Reporting Council (IIRC) Guidelines: International Integrated Reporting Framework
- Ministry of Economy, Trade and Industry: Guidance for Collaborative Value Creation
- GRI: Sustainability Reporting Guidelines GRI Standards
- Financial Stability Board: the final report of the Task Force on Climate-related Financial Disclosures (TCFD)

Environment
Social
Governance
Guidance for Collaborative Value Creation

Tool map

JFE Group Report
(Integrated report)

Financial Information

- Financial results and investors' meeting documents
- Securities report

● IR Library
https://www.jfe-holdings.co.jp/en/investor/library/index.html

Non-financial Information

- CSR report
- Corporate governance report
- IT REPORT

● CSR Report 2019
https://www.jfe-holdings.co.jp/en/csr/data/index.html
● Corporate governance report
https://www.jfe-holdings.co.jp/en/company/info/pdf/corporate-governance.pdf
○ IT REPORT
https://www.jfe-holdings.co.jp/en/investor/library/itreport/index.html

Publication date

November 2019
(Next issue (planned): November 2020)

Disclaimer

All current plans, strategies and beliefs published in this report that are not historical facts contain forecasts about future performance, which are subject to risks and uncertainties. Actual results may greatly differ from those forecast due to various factors including future trends in the global and Japanese economies, and in related industries. Accordingly, please note that we do not guarantee the reliability of such forward-looking information.

Standards of Conduct

All JFE Group personnel are required to faithfully adhere to the following Standards of Conduct in all corporate activities. These standards embody the JFE Group's Corporate Vision and go hand-in-hand with its Corporate Values. Senior managers are responsible for communicating these standards to employees of Group companies and their supply chain partners, and creating effective systems and mechanisms to ensure adherence to ethical standards. Senior managers are also responsible for measures to prevent the recurrence of any violation of these standards. Additionally, they must report violations promptly and accurately to internal and external stakeholders, determine the persons of relevant authority and accountability, and resolve matters rigorously.

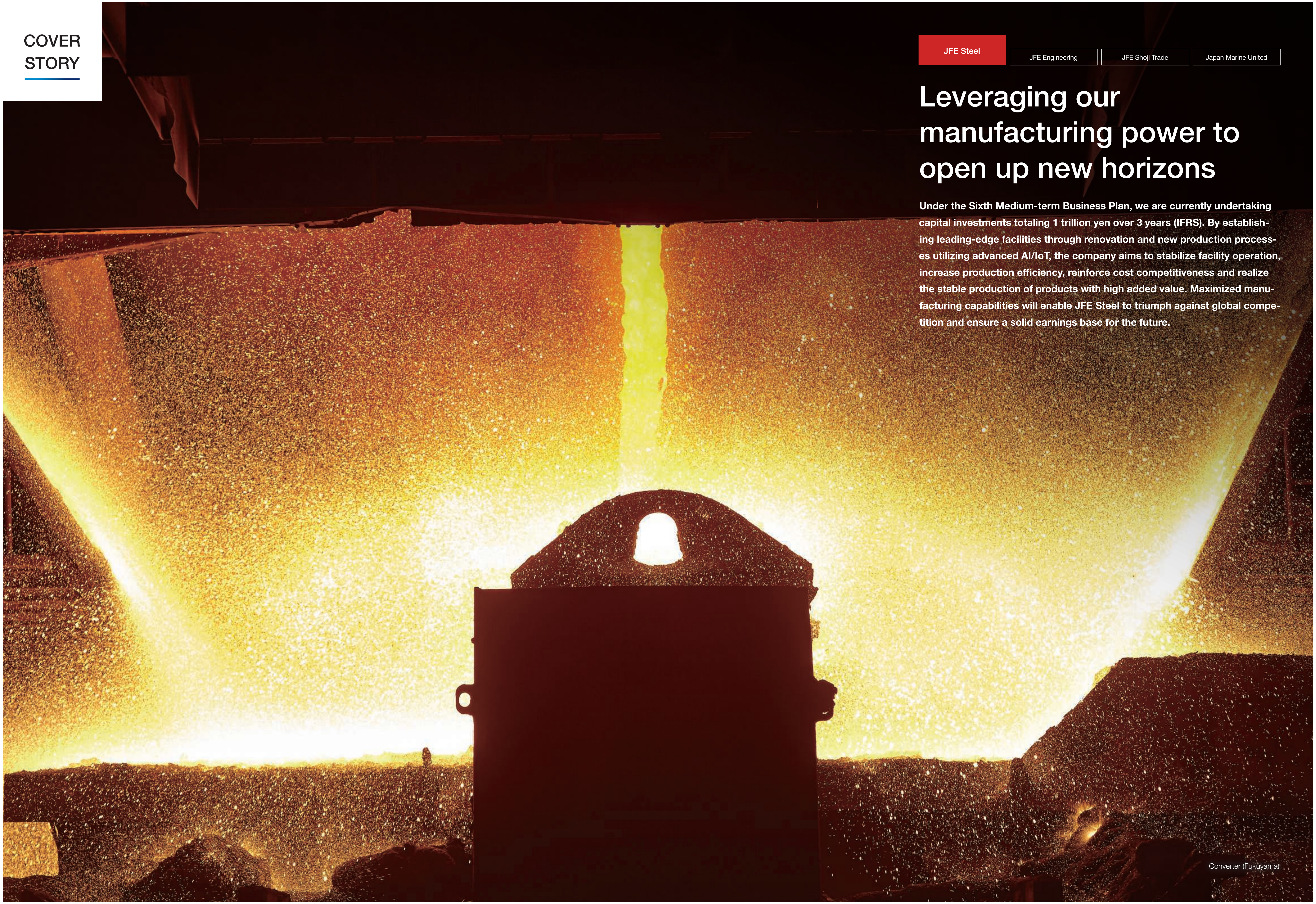
1. Provide quality products and services
2. Be open to society
3. Work with communities
4. Globalize
5. Exist harmoniously with the global environment
6. Maintain proper relations with governments and political authorities
7. Maintain crisis readiness
8. Respect human rights
9. Provide challenging work environments
10. Comply with laws and ordinances

COVER STORY

JFE Steel | JFE Engineering | JFE Shoji Trade | Japan Marine United

Leveraging our manufacturing power to open up new horizons

Under the Sixth Medium-term Business Plan, we are currently undertaking capital investments totaling 1 trillion yen over 3 years (IFRS). By establishing leading-edge facilities through renovation and new production processes utilizing advanced AI/IoT, the company aims to stabilize facility operation, increase production efficiency, reinforce cost competitiveness and realize the stable production of products with high added value. Maximized manufacturing capabilities will enable JFE Steel to triumph against global competition and ensure a solid earnings base for the future.



Converter (Fukuyama)

Expanding the engineering business that “Ni·na·u*” the foundations for life, from planning to operation.

The geothermal power plant in Matsuo-Hachimantai constructed by JFE Engineering Corporation has started full-scale operations. JFE Engineering has participated in the project from the survey stage, and remains responsible for the construction of the entire set of ground facilities including steam production facilities and power generation facilities, while engaging in operations management as an investor. The generated electricity is supplied to local customers via Urban Energy Corporation, a new electric power company wholly owned by JFE Engineering. We aim to expand a stable source of earnings by proposing integrated services that cover business planning to management.

Geothermal power plant in Matsuo-Hachimantai (Iwate Prefecture)

* “Ni·na·u” is a Japanese word meaning supporting and remaining responsible. We aim to provide solutions with our engineering and manufacturing know-how.

COVER STORY

JFE Steel | JFE Engineering | JFE Shoji Trade | Japan Marine United

Developing steel processing centers globally with a focus on Asia

Every day we strive to improve our technology and quality with a great sense of pride in the important role of connecting each JFE Group's steel-works with customers.
In 2010, we established the Steel Alliance Service Center in Thailand to process steel materials for automotive steel sheets. National staff, who initially had no experience, have become reliable on-site employees. They are the power behind the scene supporting the frontline of our business.

National staff at Steel Alliance Service Center

COVER STORY

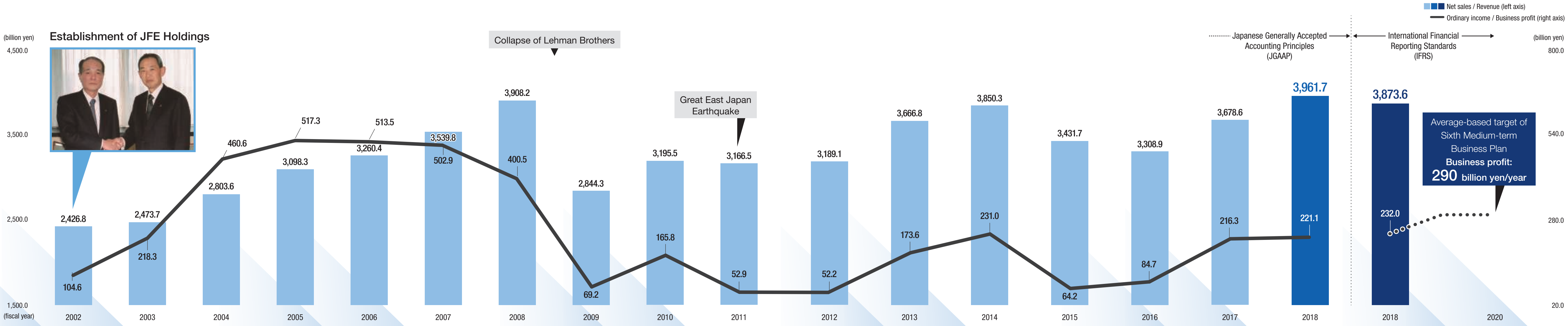
JFE Steel | JFE Engineering | JFE Shoji Trade | Japan Marine United

Meeting all needs using the latest environmental and energy-saving technologies

This Suezmax tanker, developed by Japan Marine United after the merger, is the largest crude oil carrier that can transit the Suez Canal. Born out of a combination of long-amassed expertise and cutting-edge technologies in tanker development, this next-generation Suezmax tanker is energy efficient and environmentally friendly, and is optimally designed to satisfy the entry conditions of the world's major ports and meet the current mainstream market requirements.

Suezmax tanker PATRIOTIC

Meeting Challenges throughout JFE's History



First Medium-term Business Plan (2003-2005)

Realizing our merger's full potential

The primary aim behind the establishment of JFE was to secure stable profitability early on and to strengthen its business foundation through active investment and financing. We consolidated facilities, reorganized and integrated Group companies, formed an optimal production system and strengthened the competitiveness of our core businesses in steel and engineering.

Second Medium-term Business Plan (2006-2008)

Expanding high-value-added products

JFE shifted to establishing a highly profitable business structure based on the production and sale of high-quality, high-value-added products and the provision of sophisticated services. We also invested actively to establish systems for stable production and expanded sales of high-value-added products.

Third Medium-term Business Plan (2009-2011)

Targeting future-oriented technological development

Despite a harsh business environment brought on by events including the collapse of Lehman Brothers in 2008 and the Great East Japan Earthquake in 2011, we pursued development of innovative technologies to accelerate our leap forward into the future, with a focus on envisioned developments in the following 10 years. We also reinforced our corporate structure to increase profitability as the No.1 supplier of high-value-added products.

Fourth Medium-term Business Plan (2012-2014)

Expanding into growing markets overseas

We further strengthened our profit base for growth by investing overseas and developing innovative new products. Corporate resources were allocated intensively in emerging markets where significant growth was expected over the medium- to long-term. We also reinforced production abroad and strengthened overseas sales and technical functions for further growth.

Fifth Medium-term Business Plan (2015-2017)

Capturing global demand to the fullest extent

We formulated a manufacturing and sales system to maximize opportunities for capturing demand in Japan stemming from government initiatives to upgrade disaster resilience and prepare for the Olympic and Paralympic Games in 2020. Overseas, we focused on capturing demand related to infrastructure reinforcement in emerging countries and initiatives for energy savings and environmental protection. Also, we continued to invest in new business in fields and geographic regions showing strong potential for future growth.

Sixth Medium-term Business Plan (2018-2020)

Boosting competitiveness with advanced technology

Our current focus is strengthening competitiveness through the application of data science and other advanced technologies to meet sophisticated and diversifying needs throughout society. Having made sustainable societies one our priorities, we are pursuing a number of environmental, social and governance (ESG) initiatives, including environmental protection, development of human resources and establishment of a governance system.

JFE Holdings ■ JFE Steel ■ JFE Engineering ■ JFE Shoji Trade ■ Japan Marine United

Overseas Business

December 2003 ■ Established Guangzhou JFE Steel Sheet Co, Ltd.

August 2004 ■ Basic agreement concluded with BHP Billiton, an Australian mining company, on the establishment of a joint venture for iron ore development

Others

September 2002 ■ Established JFE Holdings, Inc.

April 2003 ■ Established operating companies
Steel business: JFE Steel Corporation
Engineering business: JFE Engineering Corporation
Urban development business: JFE Urban Development Corporation (merged into JFE Steel Corporation in 2011)
LSI business: Kawasaki Microelectronics, Inc. (sold to MegaChips Corporation in 2012)
R&D operations: JFE R&D Corporation (consolidated with JFE Steel in 2009)

April 2004 ■ Started operation of Fukuyama Recycle Power Co.,Ltd.

Overseas Business

March 2007 ■ Basic agreement concluded on the cold rolling mill project in Guangzhou, China (new construction of cold rolling line (PL-TCM), continuous annealing line (CAL), and second continuous galvanizing line (2CGL))

January 2009 ■ Urban environmental plants expanded overseas, and received the first order from China in Qingdao

Others

September 2006 ■ Started plant tours for shareholders

January 2007 ■ Construction of APR (waste plastic pulverization plant)

March 2008 ■ Universal Shipbuilding Corporation became an operating company of JFE Holdings

Overseas Business

November 2009 ■ Strategic collaboration agreement concluded with JSW in India (capital participation and technical cooperation agreement concluded in July 2010)

June 2010 ■ Construction of SkyPark in Singapore completed

Others

July 2010 ■ Delivery of steel pipes for Tokyo Skytree completed

November 2010 ■ Number of participants in plant tours for shareholders reached 10,000

May 2011 ■ Coral spawning observed on "Marine Blocks" (artificial base blocks for seaweed bed and coral reefs made of iron-steel slag) in Miyako Island

Overseas Business

June 2013 ■ Decision reached on construction of Indonesia's first zinc-coated plating line for automobiles in Bekasi, West Java

November 2013 ■ Opening ceremony held for JFE Steel Galvanizing (Thailand) Ltd.

December 2014 ■ Agreement reached on acquisition of U.S. pipe distributor Kelly Pipe Co., LLC

December 2014 ■ Standardkessel Power Systems Holding GmbH in Germany acquired

March 2015 ■ Decision reached on establishment of joint venture company to manufacture and sell large-diameter welded steel pipes in Abu Dhabi, UAE (Established May 2015)

Others

October 2012 ■ JFE Shoji Trade Corporation became an operating company of JFE Holdings, Inc.

January 2013 ■ Japan Marine United Corporation established

September 2014 ■ Started remote assistance for urban environmental plants in each region

Overseas Business

September 2015 ■ Contract concluded on participation in integrated steelworks project in Vietnam

April 2016 ■ Groundbreaking ceremony held at the planned construction site of the large-diameter welded steel pipe plant in Abu Dhabi, UAE

June 2016 ■ Decision reached on joint venture for automotive steel sheets in Mexico with Nucor Corporation

March 2017 ■ Joint venture for steel powder business with China BaoWu Steel Group Corporation Limited established

April 2017 ■ Started developing Byerwen mine in Australia

October 2017 ■ Zinc-coated plating and colored sheets operations for construction materials launched in Myanmar

Others

March 2016 ■ Verification tests on waste collection through waste-to-energy power generation started with Kawasaki City

April 2017 ■ Delivered the first ship, "SUNFLOWER FURANO", a large passenger/car ferry

October 2017 ■ Kesennuma Oshima Bridge completed

Overseas Business

June 2019 ■ Australian Commonwealth Scientific and Industrial Research Organization (CSIRO) agreed to collaborate on joint research activities in characterization and agglomeration techniques for ironmaking raw materials (iron ore and coal)

Others

March 2018 ■ Global Remote Center established in Yokohama Head Office

June 2018 ■ JFE Welding Research Alliance Laboratories established in Joining and Welding Research Institute, Osaka University

November 2018 ■ Started operation of AI-utilizing tool "Pla'cello"

March 2019 ■ Adopted control failure recovery support system utilizing IBM's Watson in all manufacturing lines

July 2019 ■ JFE East Japan Baseball Team crowned the winner of the 90th Intercity Baseball Tournament

(Photo: The Mainichi Newspapers Co., Ltd)

The Value of Steel

Since there are rich reserves of steel, which composes approximately 30% of Earth's mass, it can also be mass produced at low cost. Steel has an extremely low impact on the environment at the manufacturing stage when compared to other materials, and has an excellent recyclability. Steel with the low environmental impact is reborn as anything over and over again (closed-loop recycling), contributing to the sustainable development of our society.

Steel's LCA (Life Cycle Assessment)

Steel establishes a highly sophisticated value chain of Produce-Use-Recycle thanks to its excellent recyclability, and is reborn as anything over and over again. Therefore, it is important to evaluate steel's environmental impact by encompassing the entire life cycle including recycling. JFE Steel participated in the initiative to quantify the lifecycle environmental impact of steel products, which is led by the Japan Iron and Steel Federation, as one of the core members, and developed an ISO/JIS Standard* for the calculation. The results provided through the use of this standard has shown that the more superior the recyclability of material is, the less environmental impact such as global warming becomes.

* ISO 20915 : Life Cycle Inventory Calculation Methodology for Steel Products (2018.11)
JIS Q 20915: Life Cycle Inventory Calculation Methodology for Steel Products (2019.6)

Recycle — Excellent recyclability

Steel is a material with an excellent recyclability such as its property enabling magnetic separation and retrieval. Even after a final product made of steel ends its life in society, it is reborn over and over again into a high-quality, high-functional product through highly efficient separation and retrieval technologies (closed-loop recycling).

■ Example of recycling rate by material (%)

Steel cans (FY2017)	Aluminum cans (FY2017)	PET bottles (FY2016)	Glass bottles (FY2016)	Cartons (FY2016)
93	92	84	71	44

Source: Japan Steel Can Recycling Association

Produce — High economic efficiency and low environmental impact

Earth is a steel planet (rich resources)

As much as 85% (190 billion tons) of the Earth's metal resources are iron ore.

Source: Mineral Commodity Summaries (2016)

■ Recoverable reserves of iron ore on the Earth

Approximately 190 billion tons 85%

Mass production at low cost

Steel is a material with rich reserves and a long history of development. It can be stably mass produced at a reasonable price, contributing to the sustainable development of society.

■ Global demand (2017) ■ Price*

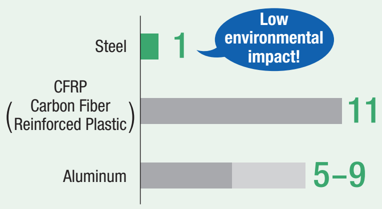
Created by JFE Holdings with documents from Mizuho Bank Industry Research Division and economic forecasts by Fuji Keizai Co., Ltd.

Internal investigation
* Comparisons with other materials' prices per unit weight, with steel as 1

Extremely low environmental impact at the manufacturing stage when compared to other materials

The GHG (greenhouse gas) emission of steel at the manufacturing stage*1 is 1/5 to 1/9 of that of aluminum, and approximately 1/11 of that of carbon fiber.

■ GHG emissions at manufacturing stage*2

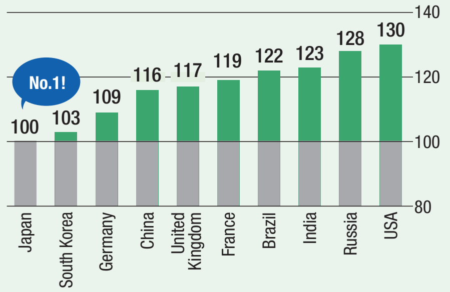


Source: Steel Recycling Institute
*1 From mining raw materials to factory shipment
*2 Comparisons with other materials' GHG emissions per unit weight, with steel as 1

Japan's steel industry keeps the top energy efficiency in the world

Japanese Steel Industry (converter furnace steel) produces steel with the lowest environmental impact when compared to other major countries in the world as a result of its long-standing efforts towards environmental conservation, including developing and spreading the use of energy-saving technologies.

■ The world's quotient, with Japan as 100 (2015)



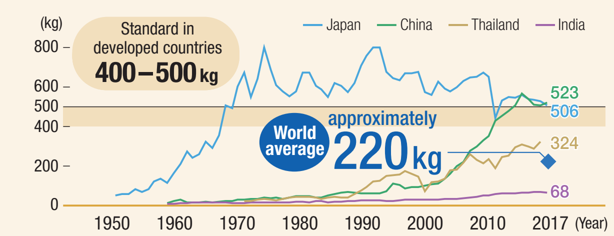
Source: Research Institute of Innovative Technology for the Earth (RITE)

Use — Foundation for life and society

The potential to grow on a global level

The world average of the annual consumption of steel currently stands at around 220 kg per capita. Going forward, the long-term global demand for steel is expected to keep growing alongside the economic development of emerging countries.

■ Trends in annual steel consumption per capita by country (kg per capita, year)

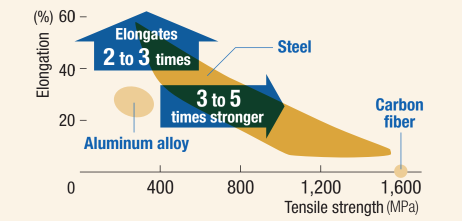


Source: World Steel Association

Potential for evolution

Steel can be elongated two to three times more than aluminum at the same strength, and is three to five times stronger at the same extended rate, making it the optimal material for the world-class structures of the times, such as Tokyo Skytree. Steel still has considerable potential for evolution. Growing needs of society will make steel evolve, and contribute to a productive future.

■ Comparison of strength and elongation between steel, aluminum and carbon fiber



Internal investigation

Putting Corporate Vision into Practice

Contributing to Society with the World's Most Innovative Technology

Input

Intellectual capital

World-class technologies that have been developed and accumulated in long-term relationships with our customers

- Domestic patent publications (FY2018): **1,140** patents (entire Group)

*Total patents published in Japan and patents published under PCT, designated to be transferred to Japan

- R&D expenses (FY2018): **37.2** billion yen (Group consolidated)

Manufacturing capital

Two major, consolidated and highly efficient steelworks and bases for production and process engineering across the globe

- Consolidated crude steel production (FY2018): **27.88** million tons (consolidated JFE Steel)
- Manufacturing bases (as of April 2019): **109** bases in **22** countries and regions (entire Group)

Natural capital

Realizing a recycling-oriented society and reduction of negative environmental impact through leading-edge, energy-saving and resource conservation technologies

Comparison with FY1990

- Energy consumption intensity (FY2018): **19**% reduction (23.2 GJ/t)
- Recycling of water resources (FY2018): **93.5**% (steelmaking process)

Social and other related capital

Relationships of trust established over many years with our customers and stakeholders

- Number of customers (delivery destinations) (FY2018): Approximately **24,000** customers

*Total of JFE Steel, JFE Engineering and JFE Shoji Trade (FY2018)

Human capital

Diverse human resources with abundant experience and a high levels of knowledge and expertise that support our wide range of operations

- Number of employees (as of the end of March 2019): **62,083** persons (Group consolidated)
- Annual training hours (FY2018): **1.08** million hours a year (total of operating companies: 52 hours a year per employee)

Financial capital

A sound financial base that enables further investment for growth

- Ratio of equity attributable to owners of parent (IFRS) (as of the end of March 2019): **40.9**%
- Total equity (IFRS) (as of the end of March 2019): **1,991.7** billion yen

Management resources accumulated over time

Business growth drivers / Business model

Business development with the Group as one

Steel Business

We possess two major integrated steelworks in Japan along with global manufacturing and processing bases, which allow us to incorporate world-class technologies to supply products with the high-added value that meets our customers' evolving requirements.

P.33

Engineering Business

In addition to the urban environment and steel structure sectors, we also focus on renewable energy and resource recycling solutions to support a sustainable society.

P.37

Trading Business

Supplying steel products with added value globally, this business operates in a broad range of sectors, including food and electronics, as well as handling iron and steel raw materials.

P.39

Shipbuilding Business

(Equity-method affiliate)

Building a wide range of vessels, this business possesses advanced technologies and one of the strongest construction capabilities in Japan.

P.40

Building a foundation for sustainable growth (ESG Management) P.49

Creating new value by providing solutions that meet the needs of society in general, and also of our customers

Output into market

Steel sheets for automobiles

Bridges and steel for bridges

Steel sheets for tableware and kitchenware

Urban environmental plants

Biomass power generation facilities

Very large crude oil carrier (VLCC)

Improving medium- to long-term corporate value

Outcome

Making sustainable efforts to resolve social issues

Using our operations to make progress possible in diverse industries and lifestyles

- Realizing comfortable lifestyles through supply of automobiles, ships, and household appliances with advanced functions
- Constructing a strong infrastructure through development in the civil engineering and construction fields
- Ensuring a stable energy supply and spreading the use of renewable energy toward a sustainable society
- Developing and supplying environmentally friendly products and promoting resource recycling
- Securing excellent human resources and enhancing job satisfaction
- Creating a prosperous coexistence with local communities

Creating economic value from sustainable growth

Returning the economic value created through business operations into investments and to shareholders

- Sustainable cash flow growth
- Continued further business investment in growth sectors and regions
- Return of profit to shareholders Dividend payout ratio of approximately 30%

Foundations supporting our businesses

Compliance P.83 Corporate Governance P.77 Human Resources P.65 Stakeholder Relationships P.85

A business model that creates a JFE brand associated with high-added value

The competitive advantages of our steel and trading businesses have three fundamental sources: **(1) leading-edge technological development capabilities mobilized by customer needs, (2) production capabilities constantly developed and enhanced at production sites,** and **(3) sales capabilities underpinned by firm relationships of trust with customers** established over years by JFE Steel and JFE Shoji Trade. We have created new value tailored to customer needs and provided optimized solutions based on these three factors. Our competitive advantages are treasured assets created through many years of effort. They are also the driving force behind our sustainable growth and cannot easily be matched by other companies.

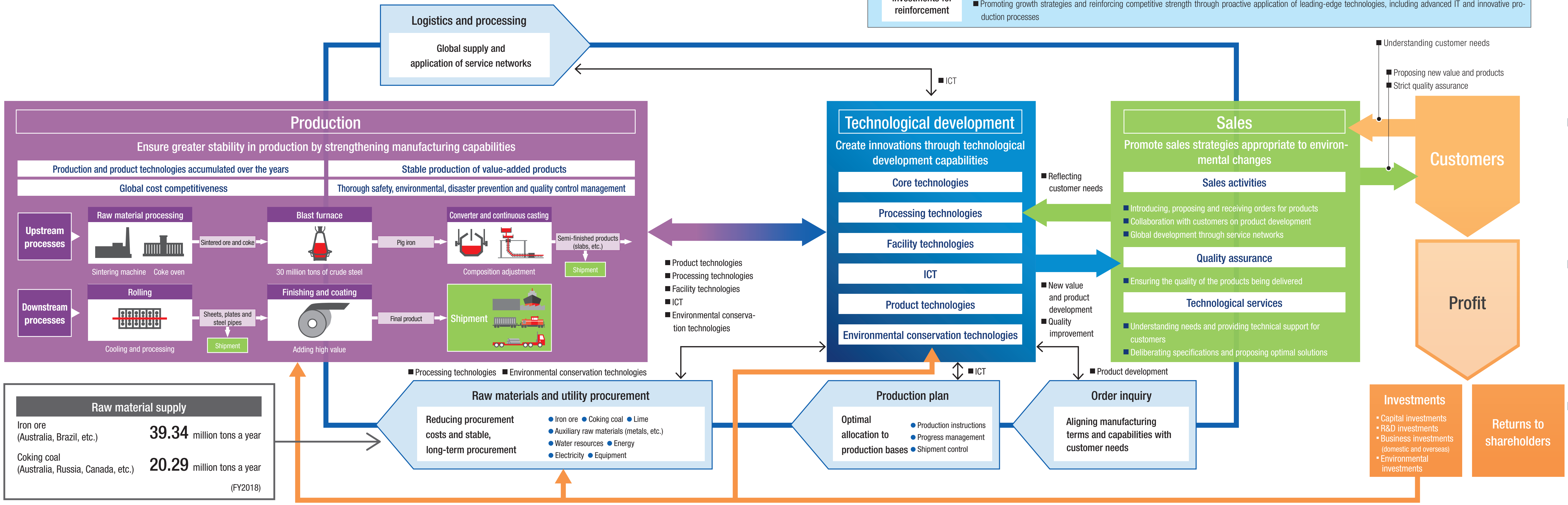
The source of competitive advantages that reinforce our business model

Technological development capabilities that make new value creation a reality

We have fine-tuned and accumulated world-class technological capabilities by responding to the requests of Japanese customers, who are the most demanding in the world in terms of quality standards. Creating new value through the development and supply of high function, quality products and services in a wide array of fields, we contribute to the development of industries and societies around the world and to evolving lifestyles. Our excellent environmental, resource, and energy conservation technologies allow us to manufacture steel with the lowest environmental impact in the world. These technologies are put to use for environmental measures all over the world and are utilized as opportunities for growth.

Initiatives and investments for reinforcement

- Promoting product development and provision of solutions, including for technological innovations for automobiles and according to changes in social needs
- Further global development and evolution of world-class technologies for conservation of energy, reduction of environmental impact and environmentally-friendly products
- Promoting growth strategies and reinforcing competitive strength through proactive application of leading-edge technologies, including advanced IT and innovative production processes



The source of competitive advantages that reinforce our business model

Two major, integrated steelworks with excellent competitive strength

The primary source of our competitive strength in the steel business are two major steelworks located in east and west Japan, both with world-class production scale. Consolidating manufacturing bases reduces fixed costs and enables highly-efficient production. West Japan Works can produce 20 million tons of steel materials annually and, by international standards, is among the best in terms of cost, product lineup and technological capabilities. Leading production and product technologies, intellectual property, expertise and other strengths accumulated over many years in service provide the company with a unique source of competitive strength.

Initiatives and investments for reinforcement

- Major renovation of facilities to reinforce manufacturing capabilities, along with strategic capital investment and development of innovative production processes
- Application of advanced IT and development of diverse human resources so that skills and technologies are effectively handed down, and dramatic increases in productivity can be realized
- Investment for overseas growth to expand global production systems using technologies and skills constantly developed and enhanced at domestic steelworks
- Stable procurement of raw materials and cost reduction utilizing technologies for low-cost raw materials and networks, including JFE Shoji Trade

The source of competitive advantages that reinforce our business model

Ability to respond to customer needs and a stable customer base

We have established relationships of trust through two-way communications with many customers during our long years in business. We have created new value by closely communicating with customers to accurately meet their evolving requirements and through other activities, including cooperation from the initial development stage which helps us to contribute to the resolution of customer issues. As a result, we have created a solid customer base that cannot be easily or quickly built by other companies and, at the same time, gained global competitive strength (non-price competition).

Initiatives and investments for reinforcement

- Consolidating product development and sales as well as understanding the needs of customers in an appropriate way and in a timely manner through close communication with them
- EVI (Early Vendor Involvement): Fine-tuning technologies with customers from the initial stage of new product development, to create the finest products possible with the available technologies
- Accurately responding to customer expectations and creating a global network that can deliver products and services in a timely manner

Business models that support society and create the future

The main focus of the engineering business is infrastructure construction that supports people's lives and society, providing products and services based on the Group's comprehensive strengths and advanced technologies. As long as people in the world long for more comfortable and abundant lives, there will never be an end to our mission. We will provide optimal solutions for society and strive to realize a sustainable society to "create" and continue to "Ni·na·u*" the foundations for life.

* "Ni·na·u" is a Japanese word meaning supporting and remaining responsible. We aim to provide solutions with our engineering and manufacturing know-how.

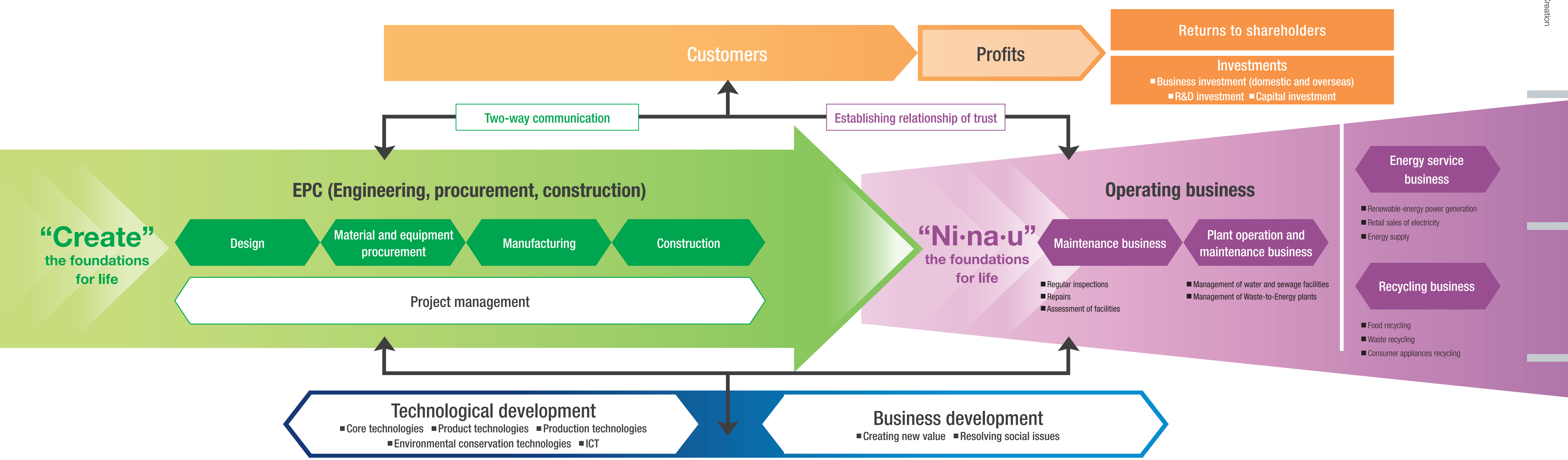
The source of competitive advantages that reinforce our business model

Advanced core technologies and diverse product technological capabilities

We have conducted business in diverse fields such as energy, environment and bridges, taking advantage of our advanced technological capabilities, which were developed by combining and advancing the following technologies; processing and assembly technologies based on our shipbuilding business and the material and combustion technologies based on our steel business. We especially possess many technologies that support society, including those for the creation of next-generation energy and solutions for environmental issues. We will make every possible effort to plan, design and promote new business models and develop new technologies based on these technologies.

Initiatives and investments for reinforcement

- Enhancing existing products with a focus on the energy and environment fields, along with developing new products that meet the needs
- Accelerating the creation and expansion of new businesses by consolidating existing businesses toward a recycling-oriented and sustainable society
- Continued investment and reinforcement of human resources to accelerate the enhancement of products and services, including through application of AI and IoT technologies



The source of competitive advantages that reinforce our business model

Proven track record and project execution capabilities enabled by diverse human resources

We have constructed many high-performance, high-quality facilities that meet customer needs in fields such as energy, environment and bridges, from design to completion. Furthermore, we possess Japan's largest steel structure manufacturing plant and other production bases, allowing us to provide high-quality products at low cost. We also have built global engineering structure in overseas bases, centered in Asia, to further reinforce our competitive strength.

Initiatives and investments for reinforcement

- Enhancing quality and productivity through active application of advanced IT at construction and manufacturing sites
- A global engineering structure that enables the supply of optimal products for each country
- Further enhancement of project management systems to ensure projects are thoroughly implemented and earnings is secured

The source of competitive advantages that reinforce our business model

Business management capabilities with strengths in manufacturing expertise

We have nurtured our expertise in operation and maintenance over the years at environmental and water and sewage plants, and conduct various projects collaborating with public and private sectors in the civil service field. Our plants undertake recycling and renewable energy generation businesses for a recycle-oriented and sustainable society. We will strive to further expand our operating business, including public and private sector collaborations and energy service operations, applying our strengths in manufacturing and management expertise.

Initiatives and investments for reinforcement

- Active investment toward expanding operating business, such as public and private sector collaborations in the civil service field, energy services, and recycling
- Establishing a system that provides management solutions with remote monitoring of various plants using AI and IoT technologies
- Active business investment, including collaborations with local overseas partners, to enhance our overseas business

Message from the CEO

We are committed to building a firm position in the global market by moving swiftly and turning change into opportunity.

JFE Holdings, Inc.
Representative Director,
President and CEO

Koji Kakigi

I am Koji Kakigi, appointed as Representative Director, President and CEO of JFE Holdings as of April 1, 2019. JFE's vision of "contributing to society with the world's most innovative technology" has served as our foundation, enabling us to maximize our highly refined technologies, human resources and other corporate resources for growth as we adapt to the changing times. Yet the sheer pace of change is expected to increase even more rapidly in the future.

We must become more adaptable to change to continue providing society with value by underpinning people's lives with our superior products and services geared to the needs of customers and society. One of my most important roles as CEO is to ensure we build systems that can actively cope with new changes. Allow me therefore to talk about our vision for the future and the action we will take to solve challenges in light of the business environment that faces us.

Evolving business environment

Changing supply chains and intensifying global competition

Japan faces a decline in population due to its low birth rate and aging society, which will lead to stagnation in domestic demand over the long term. Yet on a global level the world population continues to climb and the economies of many emerging countries centered on Asia are expected to grow. A key issue going forward will be how we will tap into this global growth across the entire Group.

Last year, approximately 1.8 billion tons of steel was produced worldwide and the figure is expected to reach approximately 2.7 billion tons by 2050. Demand for steel will continue to increase on a global basis, driven by the growth of emerging countries, but I believe that global supply/demand and protective trade policies will be major causes for concern in the steel business.

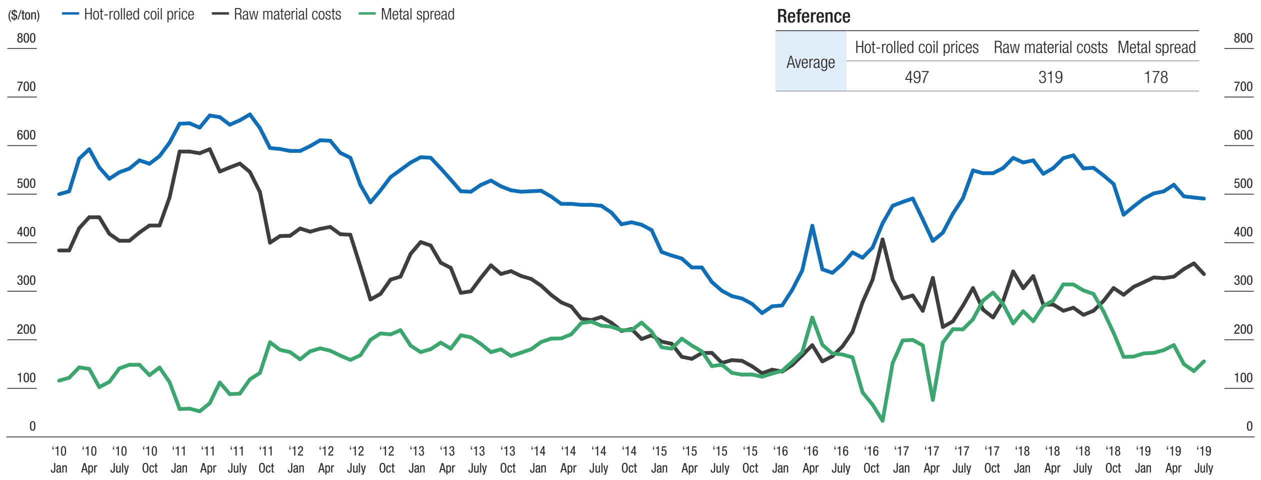
Currently, almost half the world's crude steel is produced in China, but the Chinese government has reduced capacity in the last few years, producing some results. In the process, however, Chinese steel manufacturers have scrapped old equipment in inland production areas and instead are building a number of advanced blast-furnace-integrated steelworks on the coast of China or in Southeast Asia. Such manufacturers may become powerful competitors to JFE, forcing us to prepare for even harsher global competition.

At the same time, protective trade, including U.S.-Chinese trade friction, may cause major changes to our current supply chain. JFE's steel materials, which are produced by combining various advanced technologies, are extremely difficult to manufacture and process, so a sudden fall in demand seems highly unlikely. For customers that procure steel materials to create components in Japan which are then assembled into products in China for export to the USA, shifting assembly out of China is an urgent issue, so moves to speed up local procurement are expected to accelerate. This may eventually result in the procurement of steel materials from local manufacturers. Such a change in the demand structure must be monitored very closely in light of the general trend toward greater local procurement of steel materials.

Steel, a globally traded commodity, is easily affected by international business fluctuations and raw materials market conditions in various industrial fields. It is inescapable that these factors impinge on our earnings. Moreover, we expect even more dramatic transformations in several aspects of our business in the future. The pressure is increasing on us to help resolve issues such as environmental protection, resource and energy conservation and other environmental concerns common to all humanity. Such issues will exert a powerful influence on corporate management in multiple ways.

To overcome these harsh changes in our business environment, our operating companies must maximize their respective competitive advantages while the JFE Group exerts its combined power on a broader scale.

Sales conditions outside Japan (data trends on hot-rolled coil prices, raw material costs, and metal spread since 2010)



Metal spread = hot-rolled coil prices – main raw material costs
*Hot-rolled coil prices: the average price of 21 Chinese cities *Main raw material costs: international spot market base for fine ore and hard coking coal

Future vision

Creating sustained economic value while resolving global issues

Steel is the core material of JFE's business. A wide range of our products, technologies and services spawned from steel underpin the daily lives of people as well as contribute to industrial and social development.

While there are many materials available in the world, each with their particular superior properties, steel is an essential element forming the foundation of civilized society. Abundant iron deposits not only allow mass production of steel at low supply costs. Steel is strong and easily processed, its environmental impact during manufacturing is lower than that of other materials, and it is very recyclable. It maintains its high quality while being recycled again and again into new products. No other material possesses all of these qualities.

In recent years, attention has focused on materials such as aluminum, carbon fiber and resin for their weight reduction, but comparisons with these features once again reveal the value of steel. Though steel may be partly replaced with other materials, it will continue to underpin our everyday lives and serve as an indispensable material for the development of industry and society.

Our mission is to manufacture—with minimal environmental impact—high-quality steel offering superior properties and to sustainably and stably provide products and solutions employing world-class technologies, including engineering technologies, to customers through sales networks built on relationships of trust. This is how we support people's lives and contribute to the development of society.

Every JFE employee is committed to building a strong-willed company able to comply with rapidly changing needs over the decades, leveraging the technologies, service networks, human and other resources we have developed over many years. I fully believe that JFE ultimately must provide sustainable value over the long run by flexibly adapting to change—no matter how great—in its business environment.

This goal may sound obvious, yet it is no easy thing to adapt to rapid changes while steadily creating value to meet customer needs. To achieve this, we need to combine two types of sustainability.

The first is **creating economic value through sustainable growth** (economic sustainability). To generate new corporate value and contribute to people's lives and the development of industry and society, the company must continuously invest in each operating company's equipment, human resources, R&D operations, environmental conservation, etc., while also steadily securing funds to return profits to shareholders, remunerate employees and pay taxes. We must enhance our **earning power** (profitability) by adapting to the rapidly changing business environment and accurately monitoring diversifying needs and market trends.

The second type of necessary sustainability is **making sustainable efforts to resolve problems in society through business** (environmental and societal sustainability). As our corporate vision states, we wish to contribute solutions through our business. While this opens up business opportunities, it also exposes our business to various environmental and societal risks. Properly managing these risks is unavoidable for sustainable development.

The blast-furnace steel industry uses coal for the reduction of iron ore. Present-day manufacturing technology cannot avoid emitting CO_2, so environmental measures, such as using advanced technology to conserve energy and reduce CO_2, are at the core of our business. We must also secure and train talented human resources, ensure safety and disaster prevention, and respect human rights throughout our supply chain. Furthermore, the fact that we operate large facilities requires us to seek prosperous coexistence with our local communities. All of these are indispensable themes for sustainable growth.

Realizing our future vision

The entire JFE Group is making a concerted effort to achieve our vision, but there are numerous obstacles to be overcome. I will enumerate the main issues and how we intend to solve them.

Economic value through sustainable growth (Securing stable profitability)

A business must secure funds by creating economic value through its operations to maintain necessary investments and appropriately return profits to shareholders. As our financial target is set at an ROE of 10% or higher and total equity of approximately 2 trillion yen, this means we must have the profitability to steadily secure annual profits of around 200 billion yen. This ROE target is something we must achieve not just during our current Medium-term Business Plan but also beyond this period and into the future. We need to generate stable profits at a sufficient level by enhancing our earning power (profitability and ability to generate cash flow) **to gain a steady flow of revenue even in a harsh business environment**.

To look at this in greater detail, I will focus on the steel business, the core of our Group's operations.

Profit in the steel business is generated from sales (production) volume multiplied by profit margin, meaning that we have to secure a steady volume while expanding our margin.

To secure a steady volume requires 1) **highly stable production of high-quality products for on-time delivery to customers**, and 2) **accurate identification of needs in growth areas (either business fields or geographic regions) to capture demand**.

To expand margins, we need to lower manufacturing costs while raising sale prices. This means we need to create **differentiation by rolling out products that offer a high level of technological advantage** and also **by strengthening cost competitiveness in the mass market and other segments and pursuing sales strategies suited to environmental changes**.

While growth in demand for steel materials in Japan will be sluggish, we can expect demand to expand in emerging countries, particularly in Asia. We have cemented firm relationships of trust with many customers both inside and outside Japan through our steel and trading businesses. To secure a steady sales volume, we will firmly maintain and build on these relationships, while also meeting new infrastructure needs in rapidly growing emerging countries and the automobile field, which is undergoing a once-in-a-century technological transformation.

To make this happen, **we will strengthen our manufacturing capabilities in Japan to ensure greater stability in production, and then leverage this as a base to secure the profits required for investment.** Additionally, **by investing profits to expand overseas, and also by developing product and manufacturing technologies for increased sales of highly value-added products, we expect to secure a steady sales volume as we also expanding our margin of profit**.

Our engineering business is actively expanding its operation and maintenance of constructed plants, in addition to its current EPC (engineering, procurement and construction) business, endeavoring to strengthen its base to secure steady profits over the long term.

Stable production through strengthened manufacturing

To achieve stable production, we are enhancing the capabilities of our manufacturing bases in Japan. The key points for this are equipment and people.

Japan's blast furnace steel industry, which established integrated steelworks after the Second World War, has been operating much of its existing equipment for several decades, requiring upgrading. If no action is taken, equipment deterioration will lead to lower productivity, increased costs and operational problems, thereby destabilizing production and lowering cost competitiveness.

JFE Steel is investing 1.8 trillion yen in mostly capital investment during the six years of its fifth and sixth medium-term business plan, aiming to establish a manufacturing base in Japan capable of sustainably ensuring stable production and cost competitiveness over the next several decades. Approximately half of the investment is for upgrading aged equipment and systems, but this involves more than just replacement because newer equipment also will be upgraded to incorporate advanced functions and technologies to boost productivity, enhance operations and reduce environmental impact. The other half of the investment is for strategic rationalization aimed at increasing capacity via new continuous casting machines and sintering machines at our mainstay West Japan Works, and increasing our manufacturing productivity for highly value-added products, which are difficult to manufacture. At the same time, we also will invest to enhance our cost competitiveness in offering steel materials of medium quality or higher at lower prices for the mass-market segment to secure sales volume. Our plan is to thoroughly reduce expenses, ensure the world's highest level of cost competitiveness and firmly raise profits in the global market inclusive of our mass-market products.

These endeavors also tie in with our people. The training of and transfer of skills to younger workers as part of the age shift in our workforce is already under way. But this is not enough in itself, so we are also building technology infrastructure not dependent on personal skills or individual intuition, experience or judgment. Making use of the latest ICT, we are working to fully automate certain operations and mechanize certain skills requiring special experience, such as temperature control. In the engineering business, we are also developing and utilizing advanced technologies for interactive operational-support systems. These efforts are both huge challenges and great growth opportunities for our engineers.

While these initiatives require expenses in the short term, they will be implemented resolutely to create sustainable value. Over the next few years, our intention is to focus on building and completing a solid foundation to cement our position as a competitive company worldwide.

See page 35 for details on strengthening our manufacturing capabilities in the steel business.

Sales strategies suited to change

We are committed to implementing sales strategies centered on a technologically advanced global supply system that enables us to respond flexibly to changes in demand structure, customer needs and so on.

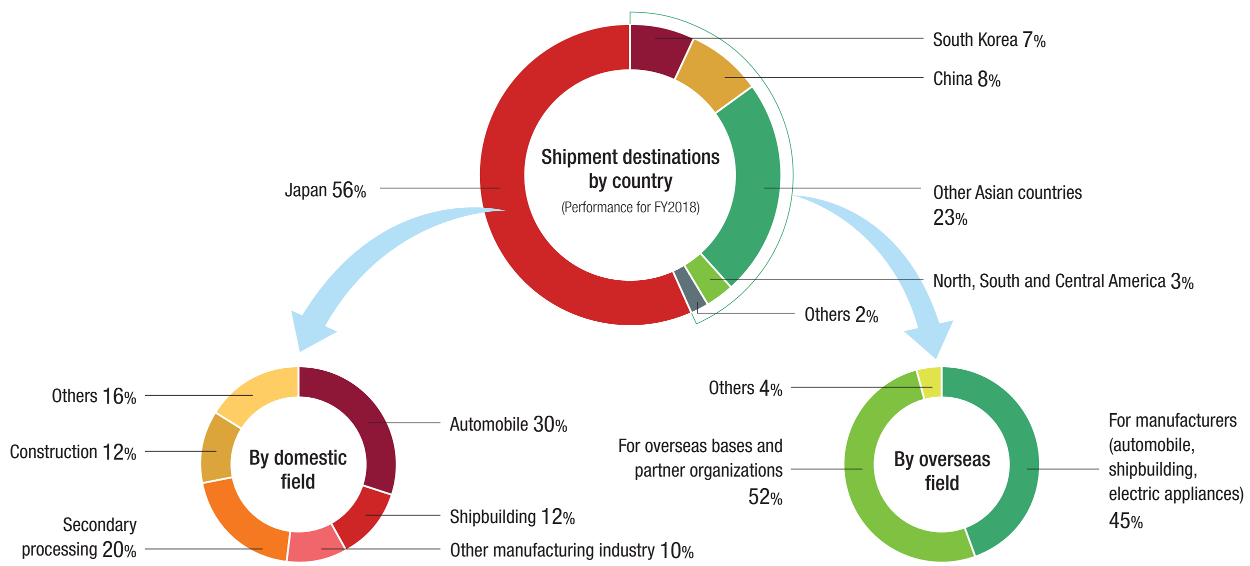
Among steel manufacturing costs, those for iron ore and coking coal have a particularly big impact on profit. In recent years, the markets for raw materials have once again become increasingly unstable. Costs for auxiliary raw materials, general materials and logistics have risen to very high levels, placing pressure on profit. We are developing technology to use lower-priced raw materials and also are leveraging our JFE Shoji Trade network for more stable, lower-cost procurements, although covering all cost rises unilaterally will be difficult. Implementing sales strategies and providing new value to customers incurs significant costs. We work to reduce costs as far as possible internally, but we also set sales prices that reflect the cost of providing products of value, which helps to ensure our business sustainability.

Investment in growth for overseas expansion

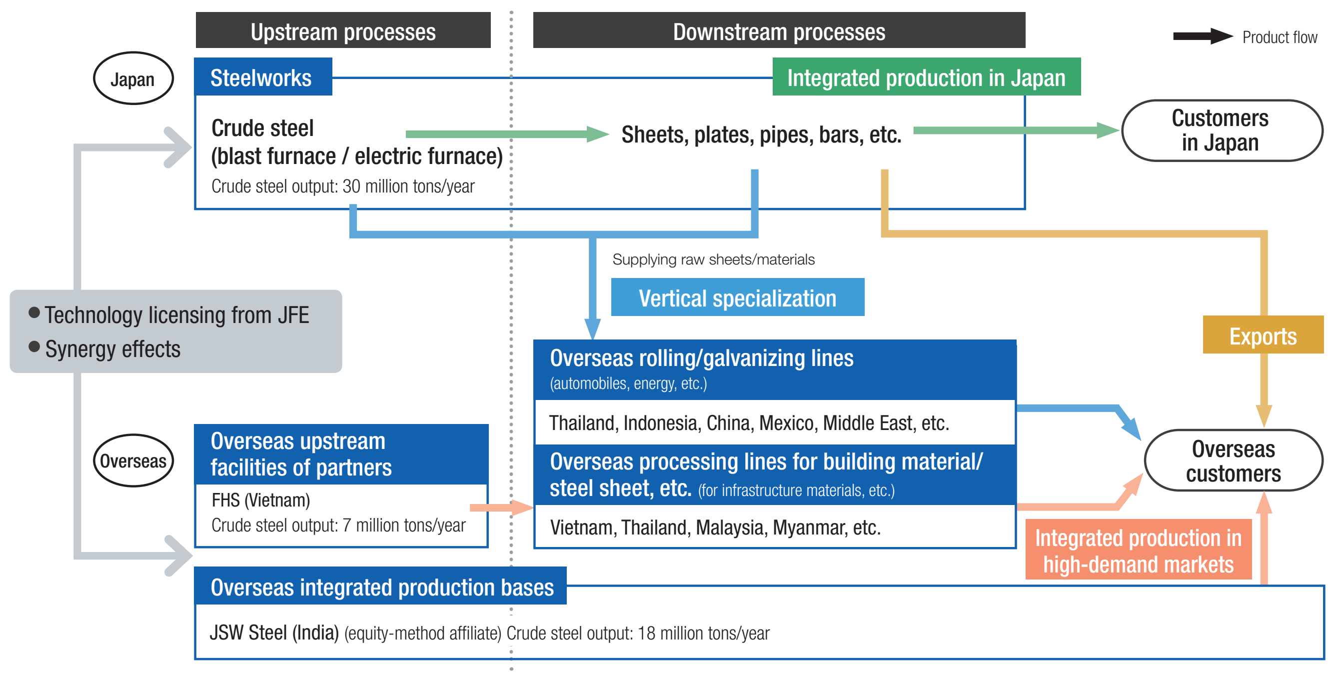
To maintain long-term growth, we plan to steadily grasp demand centered on emerging countries and also respond to the shift to local procurement of steel materials. The entire Group is engaged in transforming the JFE supply chain and enhancing the JFE brand, including by making full use of JFE Shoji Trade networks.

Our strategy is divided into two parts. For highly value-added products used in automotive steel, we are improving the vertical specialization of our production system. We manufacture steel in Japan, galvanize and process it overseas and then deliver it to customers. In galvanizing lines for automotive steel sheets, we plan to start commercial manufacturing in Mexico in FY2019. Al Gharbia Pipe Company of the UAE, which processes high-quality plates into line pipes near high-demand markets, will work to expand our supply of high-class steel materials for energy. We will continue to enhance our production systems for supplying high-class steel materials globally to a wide range of customers, including Japanese manufacturers.

Main steel business customers (by shipment destinations/fields)



Global steel supply strategy



Another strategy is to enhance our infrastructure-development business in emerging countries centered on Southeast Asia. The demand in this field is strong and expected to grow. For added competitiveness, we are increasing our local procurement of steel materials. Steel materials not from JFE Steel, such as those from our capital affiliate FHS in Vietnam, are processed into construction material products at JFE processing companies in Vietnam, Myanmar or elsewhere. By establishing this integrated production system in high-demand markets, we intend to secure cost competitiveness. At the same time, bases in Japan will specialize in highly value-added products to maximize profit.

In India, which has much hidden potential for growth, we invested as early as 2009 in steel manufacturer JSW Steel and then provided technology support for 10 years, enabling JSW Steel become a top-class company in India. JSW Steel is expected to grow further and contribute to JFE's profit as an equity-method affiliate.

Concerning infrastructure development in emerging countries, JFE Engineering is foreseen expanding its global business centering on Southeast Asia, where it will actively develop general and environmental infrastructure by leveraging expertise in waste treatment, water processing, power generation and bridge building.

Technologies to unleash steel's diversity

One of our mainstays is world-leading technological development. Although steel is blessed with the diversity to be shaped into many different forms, it still has untapped potential. Indeed, it is thought to have many unexplored properties. For us to strategically prosper amid intense global competition, we must maximize the diversity of steel through our robust technological capabilities and continue to provide customers with highly value-added products that competitors in China, South Korea and elsewhere cannot equal.

In the automotive industry, now on the verge of a major transformation, the overarching theme is adapting to technological innovation for electric vehicles (EV) and lighter cars. To offer more highly value-added products, we will focus more sharply on exact customer needs, improve our cutting-edge technological capabilities and actively pursue new solutions. Only a limited number of companies worldwide can manufacture products such as high-tensile steel for automobile bodies, electrical steel sheets for EV motors, construction materials for skyscrapers or steel materials for large bridges, all of which demand the highest levels of technology. These are among the areas where JFE offers high-level technological superiority. Going forward, we are confident that we can secure firm profit margins in global markets by raising our proportion of these highly value-added products.

See page 41 for more details on our strategies in the automobile field.

Sustainable efforts to resolve issues through business

Amid growing global awareness of environmental protection, ESG compliance, SDGs achievement and other issues, taking action in these areas has become vitally important. JFE's Board of Directors deliberates and oversees important matters relating to promoting ESG throughout the Group, including by setting KPIs.

We are presently pursuing the "Three Ecos" as part of the Japan Iron and Steel Federation's Low-Carbon Society Implementation Plan, and the industry as a whole is working to reduce CO_2. In addition, last year we formulated a long-term vision for climate-change mitigation through the year 2100. Steel and other industries are working to develop extra-innovative technologies that are totally divergent from previous approaches, such as the use of new reducing agents like ferro-coke, hydrogen-reduction steelmaking, CO_2 storing and utilization technologies, and power sources with zero-carbon emissions.

Japan's blast furnace manufacturers have maintained the lowest energy consumption per ton among worldwide production. However, in recent times electric furnaces have gained attention for recycling scrap, leading some to doubt the sustainability of the blast furnace business. But the continuing expansion of global demand for steel can only be met by increasing the number of blast and electric furnaces. Steel materials that eventually become scrap are first created from iron ore. As the volume of scrap increases with the growth of the global economy, climate-change issues will have to be addressed in all systems, including through new techniques to utilize scrap.

In May 2019, JFE became a signatory to the Task Force on Climate-related Financial Disclosures (TCFD) and consequently began analyzing global-warming risks. The results are included in this report. JFE is committed to appropriate disclosure regarding activities related to climate change.

See page 59 for more details of the scenario analysis.

In engineering business, we are working to minimize impact by developing environmental infrastructure, such as using biomass and waste for power generation as well as social infrastructure such as construction of bridges. In trading business, we are expanding biomass fuel sales and scrap trading. Business in these areas will be expanded in emerging countries currently centered on Southeast Asia but later other regions as well.

Environmental challenges can be viewed not only as risks but also as major opportunities for sustainable growth, for which we aim to leverage JFE's powerful technological capabilities and thereby contribute to the lives of people as well as the overall economy.

Another challenge is to help solve issues that are impacting global society. The key priorities in our internal operations are securing talented human resources and creating rewarding work environments.

Though steelworks once might have been considered workplaces primarily for men, much improvement has been made to offer women-friendly environments. Female employees have been actively employed in our manufacturing frontlines for about five years and now exceed 500. We are developing jigs and equipment to reduce the workload on women, but we also have found that women can significantly lessen the burden on older male workers, leading to improved workplaces. The company also sets up onsite childcare facilities in each region to allow employees with children to work with peace of mind.

Amid increasing labor fluidity in recent years, JFE is actively employing foreign workers and mid-career hires. To enhance our corporate value, it is extremely important to create environments where human resources representing diverse values and skills can flourish.

Similarly, operating steelworks with massive equipment would not be possible without the understanding of local people, so we are committed to coexisting and prospering with our regional communities. To maintain good communication with members of our local communities and to develop together sustainably, we strive to provide employment and regional economic stimulation.

See pages 57 to 66 for our initiatives on environmental and social issues.

Swift and active response to change
Corporate culture for accepting challenges fearlessly

To implement the many initiatives explained in this report, it is essential to maintain a corporate culture that encourages people to take on challenges. My impression is that we have allowed the challenging spirit component of our corporate values—Challenging Spirit, Flexibility & Sincerity—to gradually weaken with the growing scale of our business. It will be up to the management team to remind all employees that in an age of rapid change, we must have a corporate culture that encourages people to willingly accept challenges and a corporate DNA that is rich in such spirit and the value of freedom. To give one example, JFE Steel has devolved specific authorities and expanded the scope of discretion for each department and steelworks. Success is achieved by taking on challenges, experiencing failure and then drawing on lessons learned to move forward once again. JFE management is working to create an atmosphere in which a degree of failure is tolerated and employees are encouraged to try again.

To build a corporate culture resilient to change, JFE is striving to better anticipate change and react more swiftly. Instead of passively accepting needs before us, we are encouraging employees to constantly take the initiative to ask how they can contribute to the company through change. We also are encouraging them to face problems and propose solutions with confidence.

Engaging diverse outside executives

A corporate governance system that is fair, just and transparent helps to underpin corporate value. JFE has three Outside Directors, amounting to at least a third of total Directors, and three Outside Audit & Supervisory Board Members. These six Outside Directors and Audit & Supervisory Board Members comprise four persons with experience in business management, one with experience in academia and a lawyer. Their diverse backgrounds help to facilitate extremely robust exchanges of opinions. For further diversity, we appointed a full-time female Audit & Supervisory Board Member in June 2019. We are working to realize ever-more effective governance by taking advantage of new perspectives within our JFE team.

See pages 67 to 82 for the effectiveness in the company's governance system.

To all our stakeholders

FY2018 saw a major fall in our production due to the shutdown of a blast furnace, the core of steelmaking operations. Especially in light of our Sixth Medium-term Business Plan's call for strengthened manufacturing capabilities, we have treated the shutdown as a very serious matter. We have already implemented permanent new measures incorporating advanced IT to prevent a recurrence. As part of our new leap forward, we are sharing the lessons learned throughout the Group to establish an organizational structure void of major incidents.

The many initiatives we are undertaking, including the strengthening of our manufacturing capabilities, must be implemented with great effectiveness to ensure that we realize our future vision. By doing so, we expect to put JFE in a strong position as a globally competitive company.

We hope for the continued understanding and support of our stakeholders as we strive to create sustainable value over the long term.

Message from the CFO

Focusing on the cash flow, our goal is to maintain both sound financial standing and investment for sustainable growth.

Representative Director, Executive Vice President and CFO, JFE Holdings, Inc.

Masashi Terahata

FY2018 Results

In FY2018, the first year of the Medium-term Business Plan, revenue was 3,873.6 billion yen, while business profit* was 232.0 billion yen, an increase in both revenue and profit compared to the previous year. Profit attributable to owners of the parent company after tax and other expenses was 163.5 billion yen. ROE also improved to 8.6% compared to the previous year.

As for cash flow, the investment cash flow exceeded the operating cash flow due to active capital investments in Japan to strengthen the manufacturing capabilities of the steel business. The balance of interest-bearing liabilities at the end of March 2019 was 1,523.8 billion yen, an increase of 132.6 billion yen compared to the previous year. As a result, debt/EBITDA ratio, a key indicator of sound financial standing for the company, increased from the previous year to 3.6 times.

* Business profit is profit before tax excluding financial income and one-time items of materially significant value.

Major financial indicators

	JGAAP (Japanese Generally Accepted Accounting Principles)			IFRS (International Financial Reporting Standards)
	FY2015	FY2016	FY2017	FY2018
ROE (%)	1.8	3.7	7.6	8.6
Ordinary income / Business profit (billion yen)	64.2	84.7	216.3	232.0
Capital investment (billion yen; construction basis)	212.5	234.7	257.2	329.5
Debt/EBITDA ratio (times)	5.4	4.9	3.4	3.6
D/E ratio (%)	56.9	51.4	58.1	68.2
Net income per share / earnings per share (yen)	58	118	251	284
Payout ratio (%)	51.4	25.5	31.9	33.5

Initiatives for sustainable growth

The JFE Group strives to maintain a sound financial standing together with investments, emphasizing its ability to generate profits and cash flow in order to continue investing toward future sustainable growth. The steel business that is our core business requires significant funds in order to maintain and upgrade the massive equipment and machinery we possess. Strengthening our manufacturing capabilities in the steel business is a key initiative of our Sixth Medium-term Business Plan. We plan to invest a total of 1 trillion yen over three years to achieve stable production and world-class cost competitiveness. From the second half of FY2019 and onward, large machinery and equipment are set to go into operation primarily in upstream processes at the West Japan Works, raising production output while reducing costs (at a cumulative total of 105.0 billion yen for three years in the Medium-term Business Plan).

In our engineering business, we will steadily expand our operating businesses to build up profit. Our trading business is progressing toward the medium-term profit targets as planned, continuously working to build a stable profit base through both trading and other business activities. We maintain a balance between ongoing investments and sound financial standing through an array of initiatives by each operating company to build up sales profits and improve the debt/EBITDA ratio. Our target is to achieve ROE of 10%, which matches our estimated shareholders' equity cost. As for fund procurement, we aim to achieve stability and low costs, using diverse means including loans from financial institutions, corporate bonds and commercial papers. Additionally, the company made a decision in FY2016 to reduce its strategic shareholdings by approximately 100.0 billion yen, and since then has sold a cumulative total of 140.0 billion yen of shares (on a market value basis).

Financial measures against risk of business environment deterioration

The steel industry requires vast amount of funding yet is subject to comparatively large swings in profits, necessitating the establishment of stable shareholders' equity and cash flow. The Medium-term Business Plan has a target of achieving the three-year average of 290.0 billion yen in business profit in order to secure stable cash flow. However, a substantial fall in profits is expected in the business forecast for FY2019 (announced in August) due to the steel business affected by the heavy negative impact from factors such as rising prices of primary raw materials, despite the positive impact of the increase in production and shipping volume and reduced cost compared to the previous year. The business profit is forecasted at 140.0 billion yen (down 92.0 billion yen year-on-year), and profit attributable to owners of the parent company at 90.0 billion yen (down 73.5 billion yen year-on-year). As a result, the two-year average of business profit based on actual FY2018 results and forecasted FY2019 results is projected to be approximately 190.0 billion yen, unfortunately falling short of our targeted profit level, while interest-bearing liabilities are also increasing. The main reasons for this shortfall were natural disasters and operational trouble in the steel business in FY2018, as well as the impact of increased costs due to the substantial price increase in auxiliary raw materials such as metals and other materials, and logistics costs over what could be expected when formulating the Medium-term Business Plan. Regarding the operational trouble, we are engaging in capital investments on a scale of 10 billion yen, involving the use of AI and IoT technologies for permanent measures to stabilize the blast furnace operations. To combat the price increase in primary raw materials as well as auxiliary raw materials and other materials, logistics costs, and other costs, we are continuing with cost reductions and other efforts on our part. For price increases we can not absorb ourselves, we are continuing with sales activities to gain the understanding of our customers. Through these efforts we aim to secure a profit level capable of sustainable growth.

Though demand for steel in Japan is expected to stay firm in general for the time being, the level of demand is beginning to vary depending on the field. Overseas, a slowdown in demand for steel and market situation in certain fields can be observed due to the impact of the US-China trade friction. As the business environment for the steel industry is becoming severe, the company will maintain a sound financial standing while limiting the increase in interest-bearing liabilities through measures including improvement of CCC* by reducing inventory, asset reductions such as further disposal of shareholdings, and reexamination of priorities for capital investment and loans and investments.

Major figures for the Sixth Medium-term Business Plan (IFRS basis*)

Business profit	290 billion yen/year
Profit attributable to owners of the parent company	200 billion yen/year
Debt/EBITDA ratio	Approx. 3 times
Total Group investments	1.2 trillion yen/3 years
Of which, domestic capital investment, steel business	1 trillion yen/3 years

* The company voluntarily adopted the IFRS from financial results for the fiscal year ended March 2019 to improve the international comparability of financial statements in the capital markets as Group business operations expand globally, and to raise the level of the Group's business management by standardizing our accounting procedures.

* Cash Conversion Cycle (CCC) refers to the number of days from investment such as for purchasing materials or products to the final point of cash inflow, and serves as an indicator of fund efficiency.

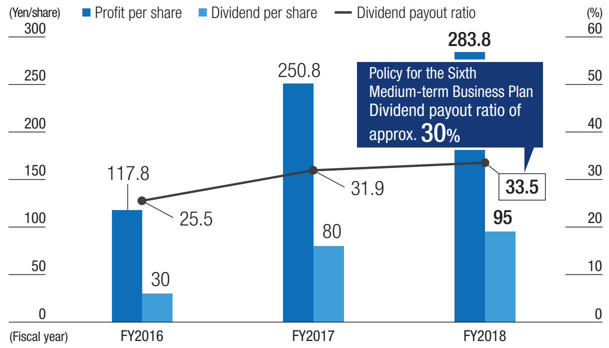
Returns to shareholders

Returns to our shareholders are positioned as one of the most important aspects of our business management. The Sixth Medium-term Business Plan adopts a shareholder return policy of a consolidated payout ratio of approximately 30%, taking into account a balance between sound financial standing and investment for growth.

The FY2018 annual dividend was 95 yen per share, and the consolidated payout ratio was 33.5%.

In light of the current profit/loss status, the company plans to pay an interim dividend for FY2019 of 20 yen per share (announced in August). The annual dividend will be decided by closely observing trends in business performance.

Trends in dividend payout



Financial Highlights

The JFE Group adopted International Financial Reporting Standards (IFRS) from FY2018, in place of the generally accepted accounting principles in Japan (JGAAP).

(Billions of yen)

	JGAAP											IFRS
	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2018
Operating results												
Net sales (JGAAP) / Revenue (IFRS)	3,908	2,844	3,195	3,166	3,189	3,666	3,850	3,431	3,308	3,678	3,961	3,873
Ordinary income (JGAAP) / Business profit*1 (IFRS)	400	69	165	52	52	173	231	64	84	216	221	232
Income before income taxes (JGAAP) / Profit before tax (IFRS)	331	70	115	(71)	75	160	226	74	105	213	209	209
EBITDA*2 (JGAAP) / EBITDA*3 (IFRS)	670	337	428	306	260	368	421	254	279	388	405	428
Profit attributable to owners of parent	194	45	58	(36)	39	102	139	33	67	144	164	163
Capital expenditures (construction basis)	289	225	180	197	179	175	225	212	234	257	287	329
Depreciation and amortization	247	248	246	238	194	181	176	177	182	159	172	196
Research and development expenses	41	36	33	34	33	31	32	35	35	34	37	37
Financial position												
Total assets	4,328	3,918	3,976	4,007	4,107	4,241	4,639	4,234	4,336	4,440	4,648	4,709
Property, plant and equipment	1,843	1,800	1,712	1,644	1,606	1,599	1,629	1,627	1,650	1,702	1,782	1,835
Shareholders' equity (JGAAP)/ Equity attributable to owners of parent (IFRS)	1,335	1,422	1,437	1,414	1,558	1,702	1,938	1,804	1,865	1,949	2,012	1,926
Net assets (JGAAP) / Equity (IFRS)	1,378	1,465	1,478	1,456	1,596	1,745	1,990	1,857	1,921	2,009	2,079	1,991
Debt outstanding (JGAAP)/ Interest-bearing debt outstanding (IFRS)	1,768	1,468	1,496	1,593	1,596	1,534	1,501	1,379	1,375	1,330	1,449	1,523
Cash flows												
Cash flows from operating activities	243	389	302	110	287	254	297	267	185	298	235	268
Cash flows from investing activities	(350)	(236)	(302)	(205)	(163)	(164)	(216)	(137)	(163)	(194)	(284)	(313)
Free cash flow*4	(106)	152	0	(95)	123	90	81	129	21	103	(48)	(45)
Cash flows from financing activities	260	(321)	23	96	(147)	(105)	(78)	(144)	(18)	(90)	56	51
Per share data												
Profit attributable to owners of parent (yen/share)	356	86	111	(69)	71	177	242	58	118	251	285	284
Net assets (JGAAP)/ Equity attributable to owners of parent (IFRS) (yen/share)	2,526	2,690	2,709	2,628	2,701	2,951	3,362	3,128	3,236	3,382	3,495	3,345
Dividends (yen/share)	90	20	35	20	20	40	60	30	30	80	95	95
Payout ratio (%)	25.3	23.2	31.6	—	28.1	22.5	24.8	51.4	25.5	31.9	33.3	33.5
Financial indicators												
Debt/EBITDA ratio*5 (JGAAP) / Debt/EBITDA ratio*6 (IFRS) (times)	2.6	4.4	3.5	5.2	6.1	4.2	3.6	5.4	4.9	3.4	3.6	3.6
ROE*7 (JGAAP) / ROE*8 (IFRS) (%)	13.7	3.3	4.1	(2.6)	2.7	6.3	7.7	1.8	3.7	7.6	8.3	8.6
ROA*9 (JGAAP) / ROA*10 (IFRS) (%)	10.0	2.2	4.6	1.7	1.6	4.5	5.5	1.7	2.3	5.2	5.1	5.0
Equity ratio (%)	30.9	36.3	36.2	35.3	37.9	40.1	41.8	42.6	43.0	43.9	43.3	40.9
D/E ratio*11 (JGAAP) / D/E ratio*12 (IFRS) (%)	98.9	75.5	76.5	83.5	76.9	67.9	59.0	56.9	51.4	58.1	62.0	68.2
Year-end share price (yen/share)	2,145	3,765	2,434	1,778	1,767	1,943	2,654	1,516	1,909	2,144	1,879	1,879
Segment information												
Net sales (JGAAP) / Revenue (IFRS)												
Steel	3,423	2,281	2,747	2,714	2,499	2,691	2,873	2,445	2,349	2,715	2,808	2,830
Engineering	338	294	265	278	267	284	367	397	426	391	485	485
Trading					785	1,781	1,934	1,756	1,671	1,907	2,060	1,125
Ordinary income (JGAAP) / Segment profit*13 (IFRS)												
Steel	412	32	134	25	15	126	188	27	40	198	164	161
Engineering	9	13	12	14	16	18	18	20	26	19	20	20
Trading					7	21	24	15	21	33	35	35
Others												
Crude steel production (JFE Steel on a non-consolidated basis) (million t)	26.55	25.83	28.80	26.90	27.97	28.67	28.44	27.36	28.14	28.46	26.31	26.31
Crude steel production (JFE Steel on a consolidated basis) (million t)	29.28	28.35	31.47	29.24	30.69	31.58	31.04	29.75	30.41	30.06	27.88	27.88
Shipment (JFE Steel on a non-consolidated basis) (million t)	25.06	23.18	26.25	24.67	25.23	25.52	26.07	25.39	25.70	25.30	23.78	23.78
Average selling price (JFE Steel on a non-consolidated basis) (thousand yen/t)	100.8	70.2	77.9	82.0	70.6	75.7	77.1	66.8	62.8	75.3	81.5	81.5
Export ratio on a value basis (JFE Steel on a non-consolidated basis) (%)	41.6	45.6	46.5	45.0	49.9	48.4	48.1	45.8	44.0	44.4	41.7	41.7
Employees (JFE Holdings on a consolidated basis) (persons)	56,547	53,892	54,400	54,133	57,044	57,210	58,856	59,460	60,439	61,234	62,076	62,083

*1 Business profit: Profit before tax excluding finance income and one-time items of a materially significant value
*2 EBITDA (JGAAP): Ordinary income + Interest expenses + Depreciation and amortization
*3 EBITDA (IFRS): Business profit + Depreciation and amortization
*4 Free cash flow: Cash flows from operating activities + Cash flows from investing activities
*5 Debt/EBITDA ratio (JGAAP): Debt outstanding / EBITDA
*6 Debt/EBITDA ratio (IFRS): Interest-bearing debt outstanding / EBITDA
*7 ROE (JGAAP): Profit attributable to owners of parent / Shareholders' equity
*8 ROE (IFRS): Profit attributable to owners of parent / Equity attributable to owners of parent
*9 ROA (JGAAP): (Ordinary income + Interest expenses) / Total assets (average)
*10 ROA (IFRS): Business profit / Total assets
*11 D/E ratio (JGAAP): Debt outstanding / Shareholders' equity
For debt having a capital component, a portion of its issue price is deemed to be capital, as assessed by rating agencies.
*12 D/E ratio (IFRS): Interest-bearing debt outstanding / Equity attributable to owners of parent
For debt having a capital component, a portion of its issue price is deemed to be capital, as assessed by rating agencies.
*13 Segment profit: Profit including finance income in business profit

Steel Business

Responding to new needs with advanced steel and an evolving workforce

We refine steel with advanced technologies and respond flexibly to changing needs as a company valued by society.

President and CEO, JFE Steel Corporation
Yoshihisa Kitano

Steel's power to respond

Steel has supported the development of civilization with its unparalleled advantages, including relatively low manufacturing costs, suitability for mass production, tremendous strength, easy processing, and easy recycling. Going forward, I believe that expectations for steel will increase as the world continues to undergo dramatic changes. Steel's power to respond is evident, for example, in thin but strong high strength steel that is helping to reduce the weight of electric vehicles and construction materials that are enabling customers to save labor in response to Japan' shrinking workforce. JFE will continue to provide new value and respond flexibly to ever-changing needs by developing products and technologies that leverage steel's infinite potential.

The driving force behind such initiatives is our highly competitive production system, which is consolidated into two large-scale steelworks in east and west Japan. By continuing to make strategic investments in our domestic manufacturing bases, we aim to dramatically increase our productivity and enhance our cost competitiveness. Furthermore, the technological and quality capabilities that we nurture in Japan are also being applied to our overseas operations. We promote our global strategy of new investment and use of raw materials from overseas sources to ensure our sustainable growth in the face of declining demand in Japan. We acknowledge the serious concern we caused to our stakeholders due to a series of problems in our blast furnaces in FY2018. We are thoroughly investigating the root causes, and taking permanent measures in response utilizing cutting-edge AI, IoT technologies, and other advanced IT.

Flexible workforce and a willingness to accept challenges

To bring out the full potential of steel and contribute to society, diverse human resources are essential. In order to respond to dramatic global changes with flexibility and speed, JFE aims to be a dynamic company where employees can energetically take on new challenges. Technologies are being passed down to younger workers through the application of AI and IoT, which is facilitating the transfer of on-site skills and expertise, one of the sources of our strength in manufacturing.

① Night view of steelworks (Fukuyama district) ② Blast furnace (Chiba district)
③ Converter (Fukuyama district) ④ Continuous casting machine (Kurashiki district) ⑤ Completed steel products (Chiba district)

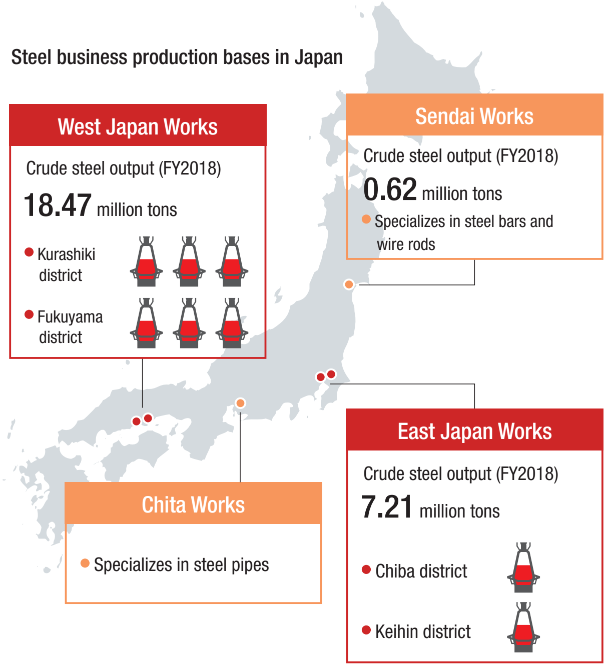
Business Overview

JFE Steel is an integrated steel manufacturer that possesses world-class production scale and advanced capabilities for technological development. The company supplies steel products that meet the diverse needs of global customers.

■ Competitive production centered on two large-scale steelworks

The production bases of JFE Steel consist of two large coastal steelworks—the East Japan Works comprising the Chiba and Keihin districts and the West Japan Works comprising the Kurashiki and Fukuyama districts. The company also operates the Chita Works specializing in steel pipes and the Sendai Works to produce steel bars and wire rods. JFE Steel's highly efficient and competitive production system makes extensive use of leading-edge technologies for the manufacture and sale of high-quality steel products. The Steel Research Laboratory adjoining each production base develops new products to bring out the potential of steel as well as innovative production processes with consideration to the global environment, while also researching core technologies to support such works.

Steel business production bases in Japan



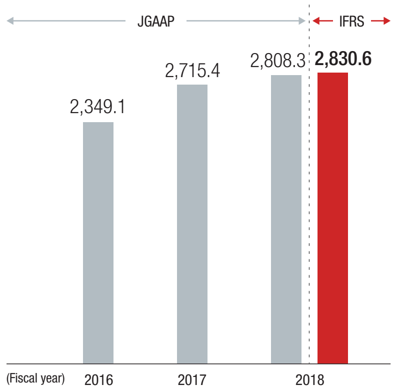
■ Global supply system that fully responds to worldwide steel demand

JFE Steel has actively built up a global supply system in response to growing demands for steel, especially in Asia. In recent years, the company has prioritized automobiles, energy and infrastructure materials and has expanded operations into Mexico (steel sheets for automobiles), the UAE (pipes for pipelines) and Myanmar (thin steel sheets for construction material). JFE Steel leverages its advanced technologies and expertise cultivated in Japan to sell high-quality steel materials that respond to local needs, further expanding the presence and reach of the JFE brand.

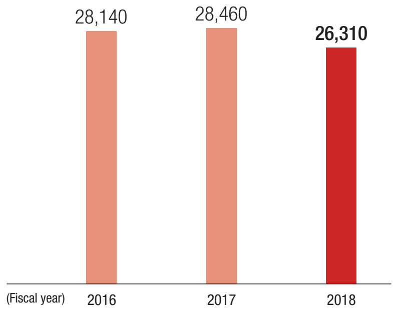
The manufacturing base for pipes for UAE pipelines (AL GHARBIA PIPE COMPANY)

FY2018 Results

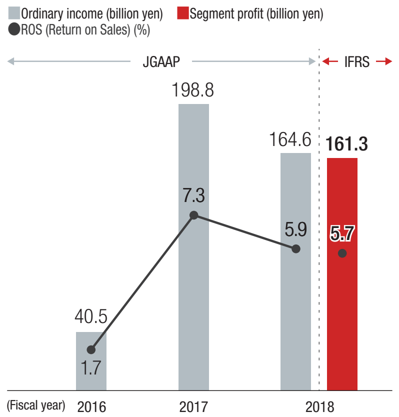
Net sales / Revenue (billion yen)



Non-consolidated crude steel output (1,000 tons)



Ordinary income / Segment profit (billion yen) **and ROS (Return on Sales)** (%)



*From FY2018, the JFE Group adopted the International Financial Reporting Standards (IFRS) in place of the generally accepted accounting principles (JGAAP) adopted previously.

Strengthening manufacturing capabilities

As a part of the company's focus in FY2019, we will continue to develop manufacturing bases for steelworks and other works in Japan, which is one of the core strategies for the Sixth Medium-term Business Plan. Through measures to increase capabilities and optimize performance centering around West Japan Works, the company will drastically strengthen its manufacturing capabilities. Upgrading our facilities with a view to future growth, we will establish stable production and reduce costs, and secure even greater competitiveness, while making greater progress in increasing our capabilities and developing/manufacturing high-grade steel.

Strengthening initiatives to ensure stable operation

The previous Medium-term Business Plan invested in large-scale facility upgrades including renovation of coke ovens. These enhancements of manufacturing bases bring stability to production, promoting an early recovery of the company's manufacturing capabilities. The Sixth Medium-term Business Plan continues to develop manufacturing bases while planning and implementing capital investments in even greater scale than the previous Medium-term Business Plan.

The West Japan Works and the Kurashiki district aim to increase capabilities and optimize performance through initiatives such as the installation of a new continuous casting machine. Development of innovative production processes will also be expedited, focusing on upstream processes such as use of lower-priced raw materials. Furthermore, superiority in total costs will be thoroughly pursued by improving the productivity of both people and machinery through active use of advanced IT such as AI and IoT technologies, as well as core system renovations at steelworks as implemented from the previous Medium-term Business Plan, which will be brought into operation in phases.

These initiatives will achieve stable production of 30 million tons of crude steel while reducing costs on the scale of 105.0 billion yen over three years. The greater stability in production will put the recovery on track and will enhance our manufacturing capabilities, making it stronger and more solid.

Furthermore, as a key initiative for this fiscal year following the problem with blast furnace operations in the previous fiscal year, we have established a system to prevent troubles by identifying hidden risks and applying preventive measures to all districts. In terms of machinery and equipment, sensing technology is steadily being introduced in order to quickly detect and promptly respond to any faults during blast furnace operations. In addition, work is also progressing on the creation of an operator assistance system utilizing AI, concurrent with thoroughgoing training of operators, to support any lack of experience.

Domestic capital investment for the Sixth Medium-term Business Plan

IFRS: **1 trillion yen level**/3 years (Japanese standards: **850.0 billion yen**)

*Difference between the Japanese standards and the IFRS is the wider scope of non-current assets.

Major initiatives

Investment to increase capabilities and optimize performance

- Installation of a new continuous casting machine in Kurashiki, etc.

⇒Achieve a non-consolidated 30 million ton production of crude steel

Strategic investments pursuing cost advantages

- Increase capability of the sintering machine in Fukuyama, etc.

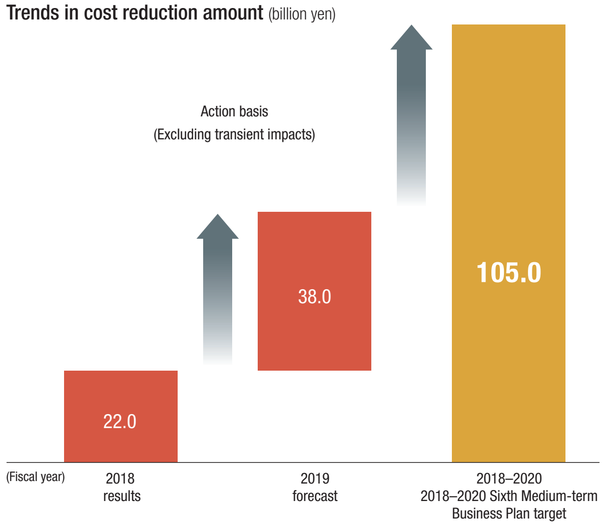
Systematic investments in upgrades

- Upgrade of coke ovens and energy facilities, etc.

Implement permanent measures to ensure blast furnace stability

- Installation of new facilities for stability, and active use of AI and IoT technologies

Trends in cost reduction amount (billion yen)



Steadily implementing systematic investments in upgrades and increasing capabilities

Large-scale renewal works are still ongoing from the previous Medium-term Business Plan, such as upgrade of coke ovens in the Chiba and Fukuyama districts, upgrade of the sintering machine in the Fukuyama district, and renovation of the thermal power plant in the Keihin district. Meanwhile, systematic investments will accommodate facilities requiring upgrades in the medium- to long-term, to enable sustainable growth. Further efforts are aimed at increasing capabilities and enhancing competitiveness, including a new continuous casting machine in the Kurashiki district introducing the latest technology to achieve both quality and efficiency.

Progress on major capital investment projects

District	Facility	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Chiba	No. 6 Coke oven (Battery B)	Operational in June 2018	Establish self-sufficient structure for coke			Establish 30 million ton production	
Fukuyama	No. 3 Coke oven (Battery A)			Second half of FY2019 (to be operational)			
Fukuyama	No. 3 Coke oven (Battery B)				Second half of FY2021 (to be operational)		
Fukuyama	No. 3 Sintering Machine		Second half of FY2019 (to be operational)				
Kurashiki	No. 7 Continuous Casting Machine (New continuous casting machine)			Second half of FY2020 (to be operational)			
Keihin	Renovation of the Ohgishima thermal power plant		Second half of FY2019 (to be operational)				

In operation / To be operational

Initiatives for stable operation of blast furnaces

Progressively undertaking development of manufacturing bases including measures to enhance the stability of blast furnaces on the scale of 10 billion yen.

Cause of the Problem

Damage to blast furnace auxiliary equipment

- Partial handling failure in deterioration diagnostics and upgrades of blast furnace auxiliary equipment, and increased load on machinery and equipment during non-irregular operations

Inadequate operational procedure in case of equipment failure

- Lack of operational experience due to generational change, and non-standardized handling procedure in response to equipment failure depending on blast furnaces and districts

Response to the problem (Completed)

Repair of damaged parts and implementation of countermeasures

Reexamination of standards of countermeasures to equipment failures

Reinforced operation monitoring (monitoring of operators for early detection of anomalies and reinforced automated sensing)

All blast furnaces returned to normal operation
Recurrence prevention system for a similar problem is implemented in all districts

Major permanent measures (Ongoing)

Taking measures for deterioration of blast furnace auxiliary equipment

Detecting anomalies early and shortening recovery time

- Promote "visualization" of blast furnaces via sensors
- Introduce temperature control and furnace diagnostics using IoT technologies
- Develop an operator assistance system using AI

Engineering Business

Evolving the engineering business with the mission to “Create” and “Ni·na·u*” the foundation for life

The company is steadily making progress on achieving the key initiatives of the Sixth Medium-term Business Plan, to expand our operating businesses and increase earnings of our overseas businesses. We will transform and strengthen our business structure, focusing on the development of infrastructure that supports people’s lives as the core of our business.

President and CEO, JFE Engineering

Hajime Oshita

* “Ni·na·u” is a Japanese word meaning supporting and remaining responsible. We aim to provide solutions with our engineering and manufacturing know-how.

Establish a stable profits base

JFE Engineering has expanded its operating businesses to “Ni·na·u” the foundation for life, through traditional EPC (engineering, procurement, and construction) as well as Public and Private Partnership (PPP) business, recycling business, and power generation and electric power businesses. In January this year, we began full-scale operation as an energy service provider to supply power and heat to factories in private sectors. In April, as a joint venture with the TEPCO Group, we launched the biggest waste treatment and recycling company in the Tokyo metropolitan area. Thus our operating businesses are steadily expanding. During the current Medium-term Business Plan, we will increase the volume of incoming orders in operating businesses including O&M (operation and maintenance) to 50% of the total, establishing a business structure whose performance is largely unaffected regardless of whether or not major project orders are obtained.

Expanding overseas business and strengthening profitability

JFE Engineering has as its mission expanded the development of infrastructure deeply rooted in everyday life, building its business in areas such as waste-to-energy and water treatment plants, and bridge construction. For JFE Engineering to grow even more, we must make the most of our technologies honed in Japan, decisively making inroads into overseas markets, particularly in the growth region of Asia. In order to achieve this, we have built up a structure capable of expanding our business, actively engaging in M&As and reinforcement of our overseas bases. As a result, the number of local staff has expanded to approximately 1,600 employees. Each overseas base has grown to take over not only design work but also engineering work like procurement and project management.

Such efforts have been rewarded with success, as overseas orders in FY2018 reached the highest ever figure since our founding of over 70.0 billion yen, including a water treatment plant in Vietnam and bridge construction in India. By making the maximum use of our global engineering structure and thoroughly strengthening pre- and post-order project management via the new project management unit established in April last year, we will ensure that profit is generated from the steady inflow of orders.

1 Waste management and recycling business are merged with Tokyo Waterfront Recycle Power Corporation of TEPCO Group. The photo shows Tokyo Waterfront Eco Clean.
2 The Global Remote Center monitors plants at 66 bases. It is the central hub for operating business. 3 Local staff in charge of engineering operations 4 A bridge being built in Bangladesh
5 A water treatment plant ordered by Vietnam. It is currently in the trial operation stage.

Business Overview

JFE Engineering’s core business is the construction of essential infrastructure, including waste-to-energy plants, water treatment plants and bridges. By focusing on these business fields, we propose integrated services that include business planning, and operating business covering from EPC (engineering, procurement, construction) to the O&M (operation and maintenance) stage.

Environment
- Waste-to-energy plants
- Recycling industrial waste, food and consumer appliances

Aqua
- Water treatment plants (water and sewage)
- Water pipelines

Energy
- Natural gas treatment plants
- LNG bases
- Pipelines

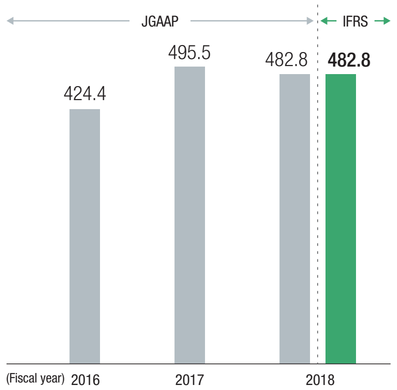
Infrastructure
- Transportation and logistics infrastructure (bridges, ports and harbor facilities)
- Disaster-prevention infrastructure (seawalls and breakwaters)

Machinery and systems
- Industrial machinery (cranes and steam turbines)
- Environmental equipment for ships
- Logistics systems

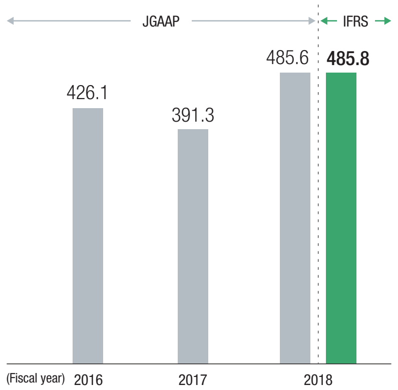
Power generation and electricity
- Retail sales of electricity and regional new power systems
- Renewable-energy power generation
- Energy service provider

FY2018 Results

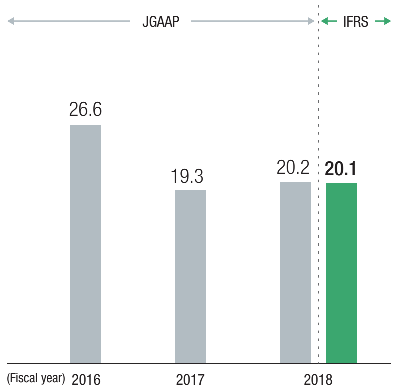
Orders received (billion yen)



Net sales / Revenue (billion yen)



Ordinary income / Segment profit (billion yen)



*From FY2018, the JFE Group adopted the International Financial Reporting Standards (IFRS) in place of the generally accepted accounting principles (JGAAP) adopted previously.

Trading Business

President & CEO, JFE Shoji Trade Corporation

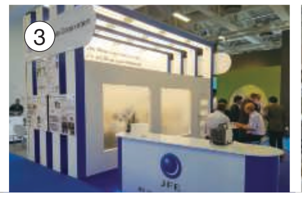
Naosuke Oda

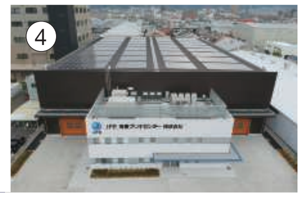
Increasing our abilities to offer proposals and convey information, aiming to be a trading company with presence

As the JFE Group's core trading company, we constantly consider the overall optimum, sharing strategies with other Group companies to work on strengthening functions. Furthermore, we seek to increase our abilities to offer proposals and convey information, growing sustainably with our customers to be a company with strong market presence.

Striving for even greater profits in the next Medium-term Business Plan, in addition to achieving the current targets

JFE Shoji Trade, based on its policy of "maintaining a solid footing while aggressively pursuing future growth," is driving forward with "the establishment of a four-pillar system (Japan, the Americas, China, and ASEAN)" and "expansion of trading income and business income." The company aims to boost income to still higher levels by plying management based on the regional division system, expanding sales of JFE Group products, strengthening the downstream fields inside and outside Japan, improving the structure of processing and distribution functions, and expanding the scope of our activities.

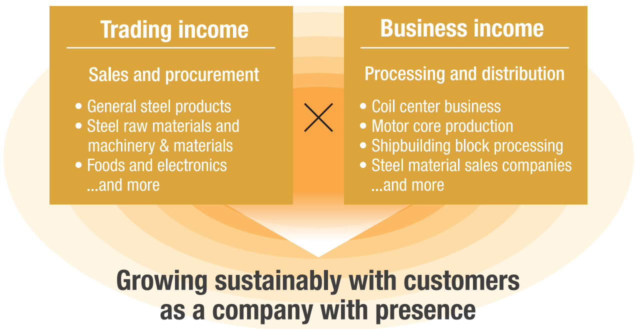




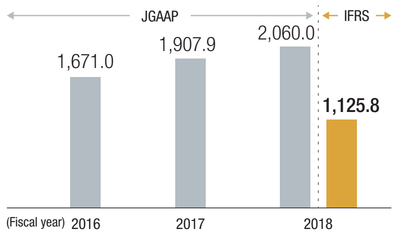
1. Diverse human resources leveraging global networks and enhanced functionality. Cooperating on a global perspective to pioneer new businesses worldwide.
2. The "rolled-mat" construction method which uses steel bars pre-assembled in the factory to form flooring, as opposed to the standard method of placing each single bar onsite. This method reduces construction times by 50%, combating frontline workforce shortages and helping achieve the workstyle reforms the construction industry is promoting.
3. CWIEME, the world's leading event for electrical steel sheets and magnetic material, held in Berlin. Actively promoting to customers from countries worldwide our motor cores, mitre cores, and works in secondary and tertiary processing.
4. JFE Shoji Tinplate Center Corporation held a completion ceremony for a new plant. Reinforcing processing and distribution operations to improve quality further.

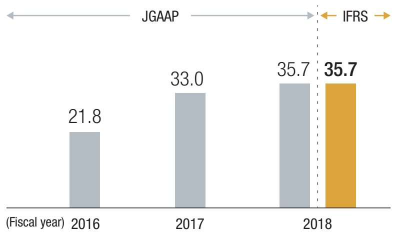
Business Overview

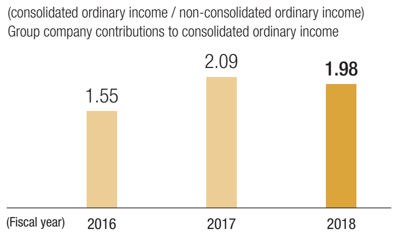
The JFE Shoji Group is engaged in a broad range of businesses, from steel materials, machinery, nonferrous metals, chemicals and ships to food and electronics, with our focus on steel products. The company provides services that add value to supply chain operations with a global network encompassing 95 companies.



FY2018 Results







*From FY2018, the JFE Group adopted the International Financial Reporting Standards (IFRS) in place of the generally accepted accounting principles (JGAAP) adopted previously.

Shipbuilding Business

(equity-method affiliate)

President & CEO, Japan Marine United Corporation

Kotaro Chiba

Contributing to the ship and offshore field with the finest products and services

As a leading company in Japan's shipbuilding industry, we leverage our world-class environmental and energy conservation technologies in the fields of merchant vessels, naval ships and other offshore undertakings, with the aim of being the most powerful shipyard capable of meeting every need.

Winning the customers' trust with technological capabilities, human resources, and performance

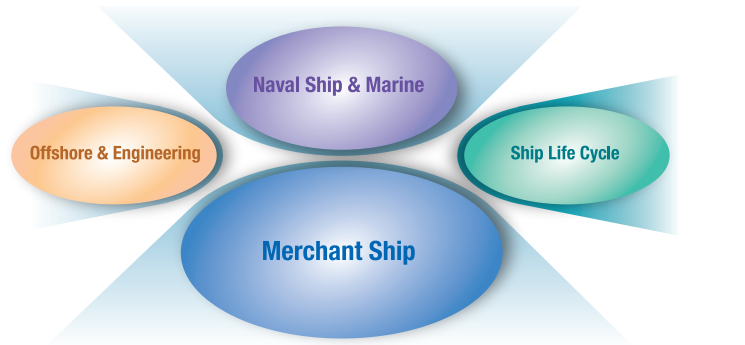
In order to meet the expectations of our customers for "vessels with superior performance at the market price," in April this year we established a new division Production Center, aiming to integrate the management of all the fabrication line in separate locations.

Leveraging these, in combination with our environmental and energy conservation technologies honed over many years, to boost competitiveness in terms of both performance and costs, we are adding higher value for merchant vessels such as tankers, bulk carriers, and container ships. We will also aggressively take up the challenge of new fields in ocean development, such as the manufacture of self elevating platform (SEP) for offshore wind power turbines.

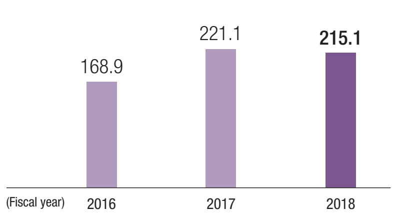
1. 14,000-TEU container ship "ONE COLUMBA"
2. Large passenger/car ferry "SUNFLOWER KIRISHIMA"
3. Hakone Sightseeing Cruise "Queen Ashinoko"
4. Floating Offshore Substation "FUKUSHIMA KIZUNA"

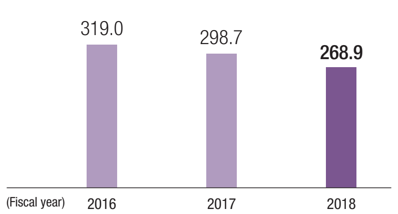
Business Overview

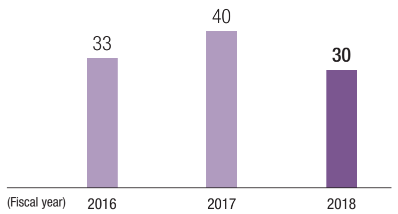
Japan Marine United was launched in 2013 on the merging of two leading companies in the Japanese shipbuilding industry, Universal Shipbuilding Corporation and IHI Marine United. The company is active in four fields: merchant vessels, naval ships, marine engineering, and ship's life cycle, with powerful development and design capabilities backed by a wide-ranging track record in shipbuilding.



FY2018 Results







Feature

01

Business Strategy for the Automobile Market

Establish a strong presence through leading-edge technology and global supply network in the face of changing market needs

The JFE Group's medium-term business plan is regarding automobiles, infrastructure materials and energy as the three major fields, and forging ahead with technological development and global expansion in these areas. In particular, taking this substantial changes in market needs occurring in the automobile industry, described as being in a once-in-century transformation, as a major opportunity, we are expanding our business for the automobile industry. The company further differentiates ourselves by rolling out cutting edge technology and services globally.

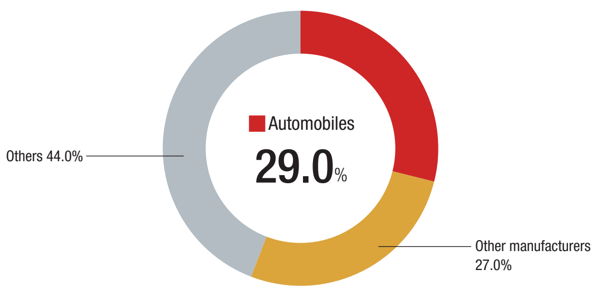
CONTENTS

Business overview of the automobile market

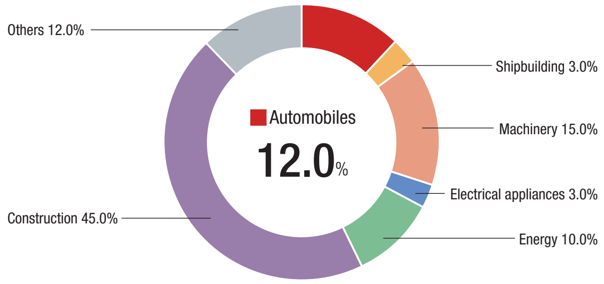
JFE Steel, as a force supporting car manufacturing, has expanded its business globally by focusing on developing products and application technologies for automobile steel, based on its consistent quality and supply. As the environmental regulations in various countries become increasingly tougher, JFE Steel is now promoting to develop products to match changes in society, such as ultra-high strength steel for weight reduction, and electrical steel sheets for drive or dynamo motors in electric vehicles.

Use of ultra-high strength steel requires advanced processing and welding technologies. JFE Steel, ahead of other steel manufacturers, has pioneered the development of application technologies for customers, establishing its Customers' Solution Lab. in the Chiba district in 2005 and the Customer Center Fukuyama in the Fukuyama district in 2014. JFE Steel's ability to create new value with its customers is truly one of its leading strengths.

JFE steel sales percentage for automotive industry



Breakdown of world steel consumption (estimates)

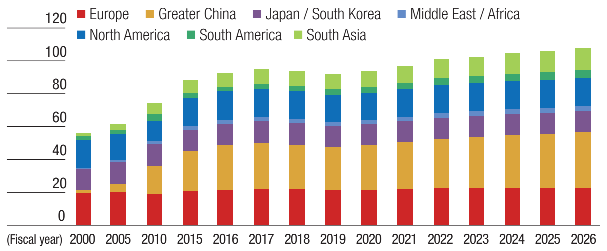


Estimates taken from the Japan Iron and Steel Federation's 2017 Survey Overview on Market Trends for Major Countries and Regions.

The percentage of the company's sales for automotive industry is more than double the demand rate for general automobile steel.

The business environment for the automobile market

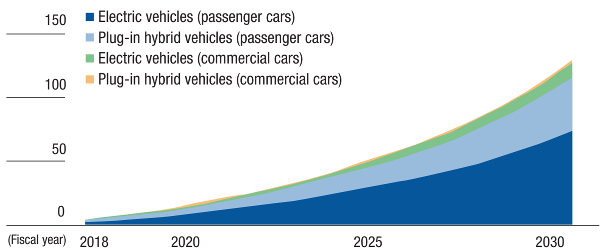
Trends in global production (millions of vehicles)



Source: IHS Markit

Production numbers of vehicles are expected to continue to grow, primarily outside Japan. The company is expanding its local supply systems in growing markets.

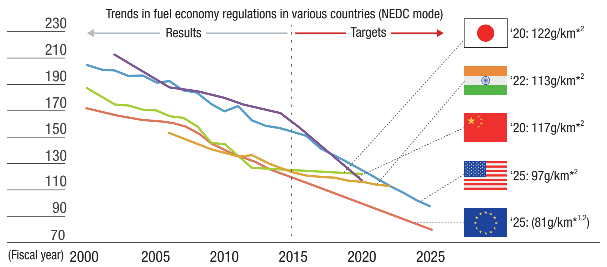
Global ownership of electric vehicles (millions of vehicles)



Source: Global EV Outlook 2019, IEA

Increasingly tougher environmental regulations in various countries will cause changes to the drive system and powertrains of cars, centering on electric vehicles.

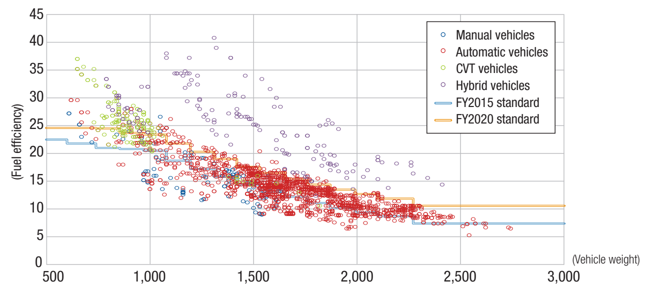
CO_2 emissions regulations (g/km)



Source: data prepared by the Ministry of Economy, Trade and Industry based on CO_2 emissions from new passenger cars in the EU : Car manufacturers' performance in 2018, The International Council On Clean Transportation

The EU has taken the lead in toughening fuel consumption regulations, and is expected to make them even stricter in order to meet the goal of keeping global warming under two degrees until 2050 under COP 21's Paris Agreement.

The relationship between fuel efficiency and vehicle weight
(fuel efficiency: km/L; vehicle weight: kg)



Source: Ministry of Land, Infrastructure, Transport and Tourism

In the search for better fuel efficiency, demand for high strength steel which help lighten vehicle weight is expanding.

*1: Calculated as a 15% reduction vs. 2021 (95g/km) in the draft proposal.
*2: Actual figures up to 2014 for Japan and the USA, and up to 2015 for India, China, and the EU. Figures are in NEDC mode.

Strategy 1 Expanding sales of high strength steel via unique solutions combining materials and application technologies

The use of high strength steel in vehicle parts is an effective measure to increase their collision safety while also improving fuel efficiency at a low cost through weight reduction. However, high strength steel, is difficult to form or weld under standard automobile parts manufacturing methods and conditions. In some cases the required quality or performance as parts cannot be attained, limiting the materials strength and applicable parts that can be used.

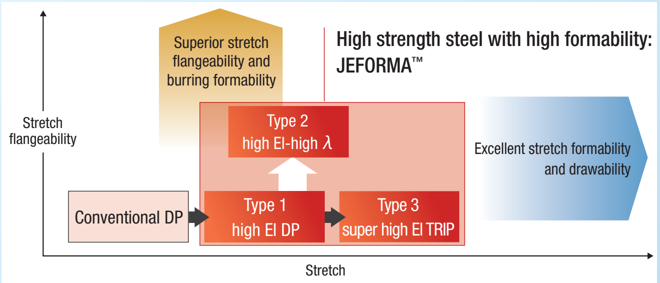
JFE Steel independently researches and develops the so-called “application technology” to process and weld the steel sheets from its perspective as a materials manufacturer, which leads to the development of the best materials to suit the diverse needs of its customers. We intend to expand the scope for use of high strength steel through leveraging the accurate materials designs and application technology solutions that other manufacturers would struggle to match.

A broad lineup of steel sheets for automobiles in pursuit of usability

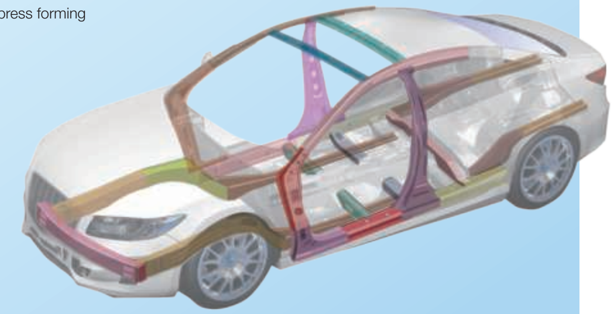
JFE Steel maintains strong competitiveness and expands profitability by rapidly brings to the market high strength steel that the company has developed and manufactured by leveraging the most advanced technology in response to the needs of weight reduction of automobiles. Our high strength steel is suited for weight reduction of any kinds of parts, including for frames contributing to collision safety, for panels with superior flexibility and ease of processing, as well as for the suspension. We also develop GI-JAZ, which provides a better friction coefficient for galvanized iron (GI) coating used widely by US and European automobile manufacturers, and expand its sales.

1 JEFORMA™

JEFORMA™ stands for JFE Excellent FORMAbility: steel sheets for automobile frames with superior processability. To provide the optimum materials matched to the forms and processing methods of parts aiming at the basic forming characteristics (elongation and stretch flangeability*) required for press forming of high strength steel, we offer a line-up of three types of high formability steel sheets, with the tensile strength grades of 590, 780, 980 and 1180MPa for cold rolled and galvannealed (GA) steel sheets.



* Stretch flangeability: formability of the edge of steel sheets during press forming



2 UNIHITEN™

UNIHITEN™ is high strength steel with a tensile strength grade of 440 MPa for thinner outer sheets like for doors and hoods achieving both superior surface quality and dent resistance for formed panel parts, thanks to low yield strength, high work-hardenability, and bake-hardenability. It is in mass production for cold rolling and GA, and is employed as hood outer material for Toyota's JPN-TAXI.

3 GI JAZ™

This product applies the lubrication facilitating technology developed with JAZ™ (JFE Advanced Zinc) high-lubricity hot-dip galvannealed (GA) steel sheets to galvanized (GI) steel sheets, which are commonly used by US and European manufacturers. More stable press formability is gained through the excellent slidability.

4 1470MPa-grade cold-rolled/GA high strength steel

1470 MPa-grade cold-rolled high strength steel, formed through cold forming at room temperature, has the world's highest tensile strength for automobile parts. Commercialized for bumper reinforcement, it has future potential for use in frame parts.

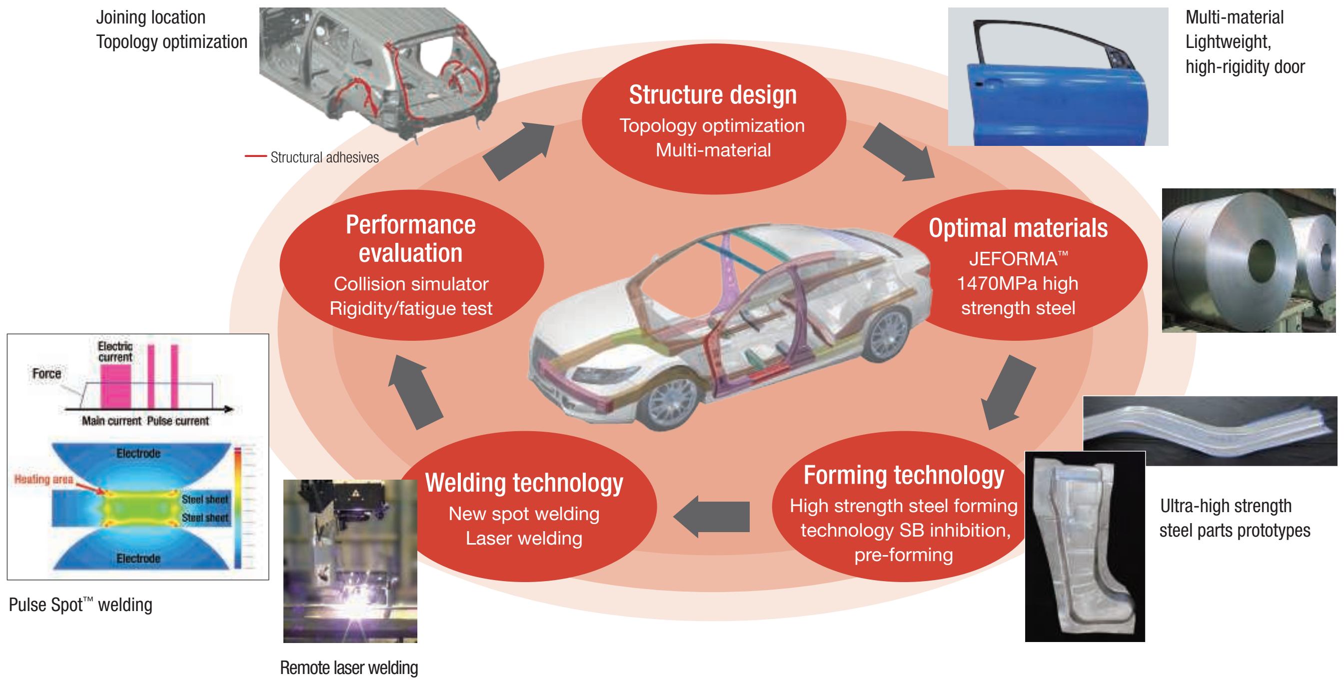
We have also completed development of GA high strength steel with the same tensile strength. Several automobile companies are looking to make use of this material.

Web JFE Steel Product information (automobiles)
https://www.jfe-steel.co.jp/products/car/index.html (only in Japanese)

Providing solutions applying high strength steel (EVI)

JFE Steel has been developing its own application technologies to make the best use of high strength steel for manufacturing automobile parts. Application technologies, used for manufacturing parts for automobile manufacturers, are categorized into design, forming, welding, and other categories. The company accurately understands the needs of customers to supply our development technologies to them via a process called Early Vendor Involvement (EVI*). The result is a win-win relationship where the company secures and expands sales of newly developed products centering on high strength steel, while its customers achieve further weight reduction and stability in manufacturing processes.

*EVI means participating in the joint development of new vehicles from the early stage and making technical suggestions to automobile manufacturers at each stage of vehicle design, parts processing, assembly and so on.



System supporting business for the automotive industry

CSL·CCF

The CSL (Customers' Solution Lab.) is an exhibit and experiment combined study center established in the Chiba district in order to conduct joint research working as a team with customers and researchers of the Steel Research Laboratory. Over the total of 5,000 people from 1,200 companies have visited since its establishment in August 2005, leading to new joint development on multiple themes.

The Customers' Center Fukuyama was established in the Fukuyama district in October 2014 so that customers in west Japan in diverse sectors including automobiles, shipbuilding, construction and energy can interact directly with the JFE Group's latest technologies. JFE Steel leverages these bases to offer powerful support to our customers employing high strength steel.

Development of processing technologies and capital investment

Developing the best processing technologies and building facilities to manufacture high strength steel is essential for highly efficient manufacturing and a stable supply. JFE Steel plans to renew old facilities into the latest operations to manufacture high strength steel in Japan, while constructing state-of-the-art manufacturing lines for high strength steel in China, Thailand, Indonesia, and Mexico. We aim to secure further growth by capturing the global demand for automobiles.

Quality assurance system

JFE Steel has adopted the quality management system in accordance with ISO 9001, and has obtained the international standard IATF 16949 certification for the West Japan Works, a JFE Steel's primary manufacturing base for automotive steel sheet. With this as the foundation, we respond to the needs of customers. The company has built a solid quality assurance system through use of its independently developed manufacturing technology and sensors for process monitoring, as well as through product testing utilizing high-precision testing and inspection equipment.

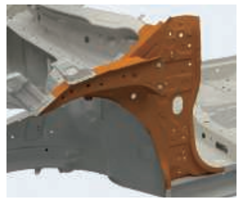
JFE Steel's newly developed proprietary technologies serve various needs, from reducing vehicle weight to improving vehicle comfort and design qualities while reducing manufacturing man-hours for our customers, continuing to be "JFE — the company always chosen by our customers." Shifting to new materials such as aluminum and carbon fiber is gaining attention in recent years, but steel retains its place as the primary material. JFE Steel has accumulated the vast store of knowledge about automobile structure, and this has enabled us to combine steel with other materials (multi-material), creating new value to steel sheets.

Examples of development with JFE's proprietary application technology

1 Topology optimization

Topology optimization technology is an analytical method that retains the necessary elements to satisfy the characteristics required in the given design space, to find the most efficient distribution of materials. JFE's topology optimization technology incorporates the design space (the space where the particular part will be allocated) into a section of the vehicle for analysis, to form the optimum shape for the parts which effectively improve the collision safety with less weight.

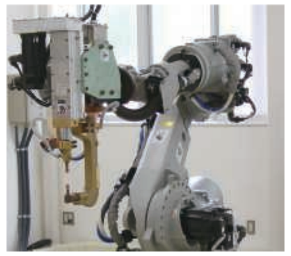
This technology was used as a design method for the shaping of parts for SUZUKI MOTOR's Swift Sport, and to determine the areas to apply structural adhesives for MITSUBISHI MOTORS' OUTLANDER PHEV S Edition and other cars.



2 New spot welding technology

Spot welding joins overlapping steel sheets placed between two electrodes by applying heavy current to melt them together at that point. It is most commonly used in the assembly of automobiles. However, the more widespread use of ultra-high strength steel in cars in recent years has brought difficulties to construction management of spot welding, placing limits on the design of vehicle structures.

In order to solve these technological challenges, JFE Steel developed J-MAC Spot™ welding, Pulse Spot™ welding, Single-Side Spot™ welding, and Intelligent Spot™ welding. Such technologies are contributing to greater use of ultra-high strength steel.



3 New forming technology (stretch preforming)

We are developing new forming technologies employable for parts difficult to process. Among these, the stretch preforming technology makes it possible to process difficult shapes by optimizing the shape in the first stage of the standard two-stage press working. It can be applied to, regardless of the strength of the steel, from soft steel to ultra-high strength steel, helping to improve the performance and design qualities of all types of parts while also reducing the weight.

This forming technology has successfully been employed to create an air spoiler integrated back door, demonstrating the potential for manufacturing low cost parts with high design qualities.

4 Supporting multi-material

We propose multi-material structures incorporating lightweight materials like resins so that customers can achieve the goals of further reduction in vehicle weight, and thus we are contributing to weight reduction of vehicles.

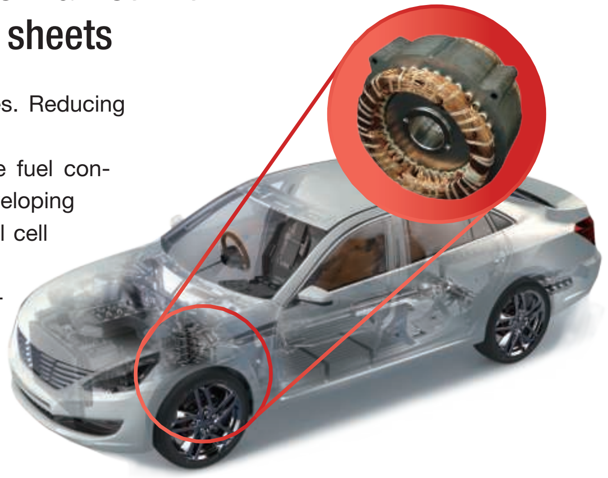
Newly developed doors were designed using our independently developed topology optimization technology. Optimal arrangement of Mitsubishi Chemical's fiber-reinforced resin inside the steel sheet door panel has made it possible to achieve both the improved panel rigidity and substantial light weight due to the thinner panels. By combining steel with other materials in this way, we work to offer even greater performance and ways to reduce weight, and maintain and expand the applicability of steel sheets.

Strategy 2 Capturing the electric vehicle market with cutting-edge electrical steel sheets

About 20% of Japan's CO_2 emissions come from automobiles. Reducing such emissions has been a vital issue.

Automobile companies are working urgently to improve the fuel consumption of gasoline-fueled cars while at the same time, developing hybrid electric vehicles (HEVs), electric vehicles (EVs), and fuel cell vehicles (FCVs).

JFE Steel's non-oriented electrical steel sheet is used by major automobile manufacturers as a core material in these motors that are the central element of electric vehicles, helping to make them more compact and efficient.



Core strategies

1. The adoption of electric vehicles will expand the demand for high-grade electrical steel sheets that allow smaller yet more efficient motors.
2. The ultra-thin electrical steel sheets developed by JFE Steel are designed to achieve low iron loss, and so making motors more efficient. Working together with JFE Shoji Trade, JFE Steel has established a broad global supply network and a high-powered service system.
3. By using our strengths to capture more and more of the growing electric vehicle market, we are expanding our business and contributing both to our customers and to a sustainable society.

1. Market trends

- Stricter laws and environmental regulations
- Rapidly expanding demand for electric vehicles
- Rapidly increasing demand for ultra-thin electrical steel sheets for motor cores

2. JFE's strengths

- A comprehensive supply network covering major Japanese, US, and European automobile and parts manufacturers
- Ultra-thin electrical steel sheets with top-class, worldwide competitiveness

3. Core strategies

- Leveraging our strengths to capture these growing markets
- Maintaining a high share and working for a higher one

Characteristics required for electrical steel sheets

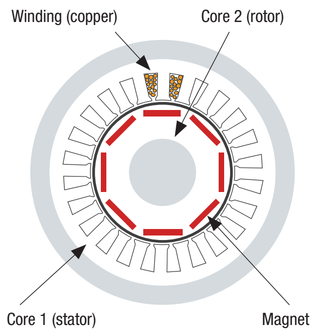
Characteristics	Performance: High efficiency	Performance: High torque
Low iron loss	Reduction of heat generation ● Reduction of iron loss ● High efficiency	—
High magnetic flux density	High power at low current ● Reduction of copper loss ● High efficiency	Strongly magnetizing core ● Generate strong rotational force

Electric motors work through an electrical current which flows through the copper wire wound around the edge of the first core (the stator) which rotates the second core (the rotor), causing the motor to rotate.

The problem is that the motor efficiency decreases due to the generation of heat caused by the current flow through the copper wire (copper loss) and the magnetic flux through the iron core (iron loss).

If magnetic flux is easily generated in the core (high magnetic flux density), the core becomes a powerful magnet, generating a strong rotary force (high torque).

From this, the two characteristics that are required for electrical steel sheets used in motor cores are low iron loss and high magnetic flux density.



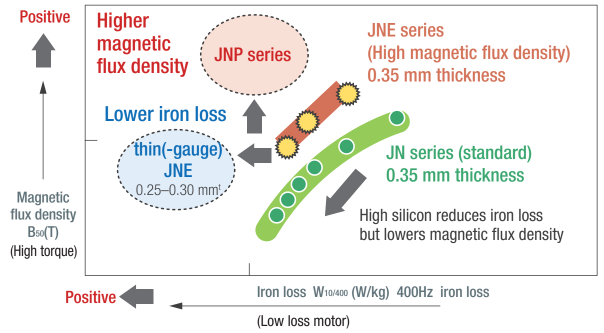
A product lineup satisfying diverse needs

For lower iron loss of non-oriented electrical steel sheets suited to motors, adding silicon (Si) is effective, but it has the disadvantage of lowering the magnetic flux density.

JFE's JNE series solves this problem with a higher magnetic flux density than our previous JN series, and so has achieved a fine balance between the magnetic flux density and iron loss, greatly contributing to a much more technically challenging.

The characteristics required for motors for electric vehicles in recent years have consistently become more and more advanced.

In order to meet all these demands, JFE Steel works to differentiate itself from the competitors by commercializing the JNP series with an even higher magnetic flux density, as well as the thin-gauge JNE series which gives even lower iron loss, to meet the requirements of electric vehicles with world-class performance.



Strategy 3 Global rollout matched to customer needs and market expansion

Basic policy

The JFE Group has actively expanded its business to other countries, centering on Asia in particular, to capture the growing demand for steel. We will also establish a base in Mexico in order to tap into the vast North American market.

The advanced technologies and expertise cultivated in Japan allow us to provide high quality steel materials matched to local needs at the right times.

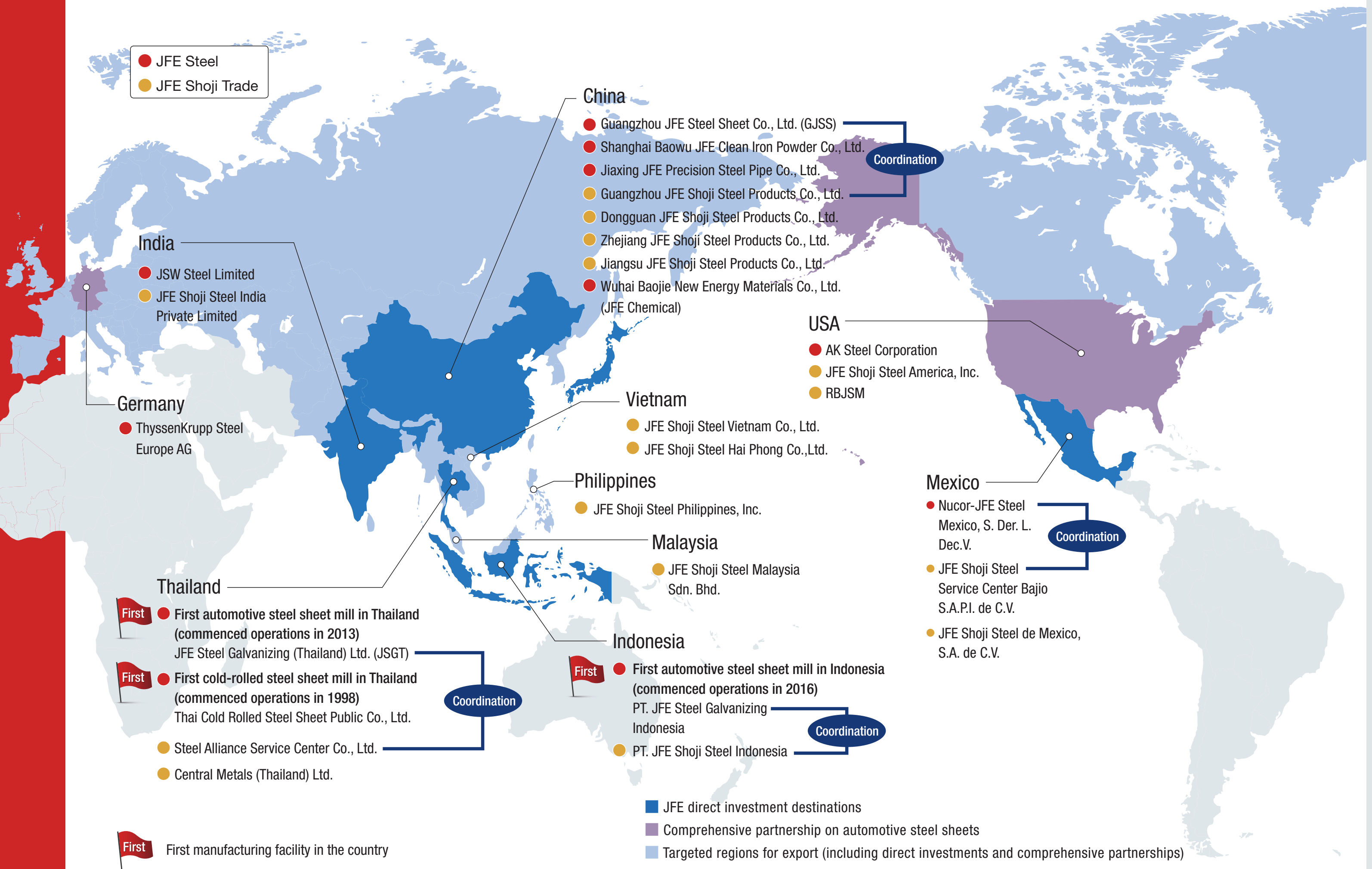
Main measures

Asia — We are capturing growing markets by actively constructing new manufacturing lines and capital participation in local mills.
In the ASEAN region in particular we have established footholds ahead of our competitors.

Mexico — New lines are going into operation in 2019, to gain access to the growing North American and Mexican markets.

USA/ Europe — JFE Steel has entered into a comprehensive partnership for automobile steel sheets with AK Steel and ThyssenKrupp AG, to bring JFE's cutting edge technologies to customers in the U.S. and Europe.

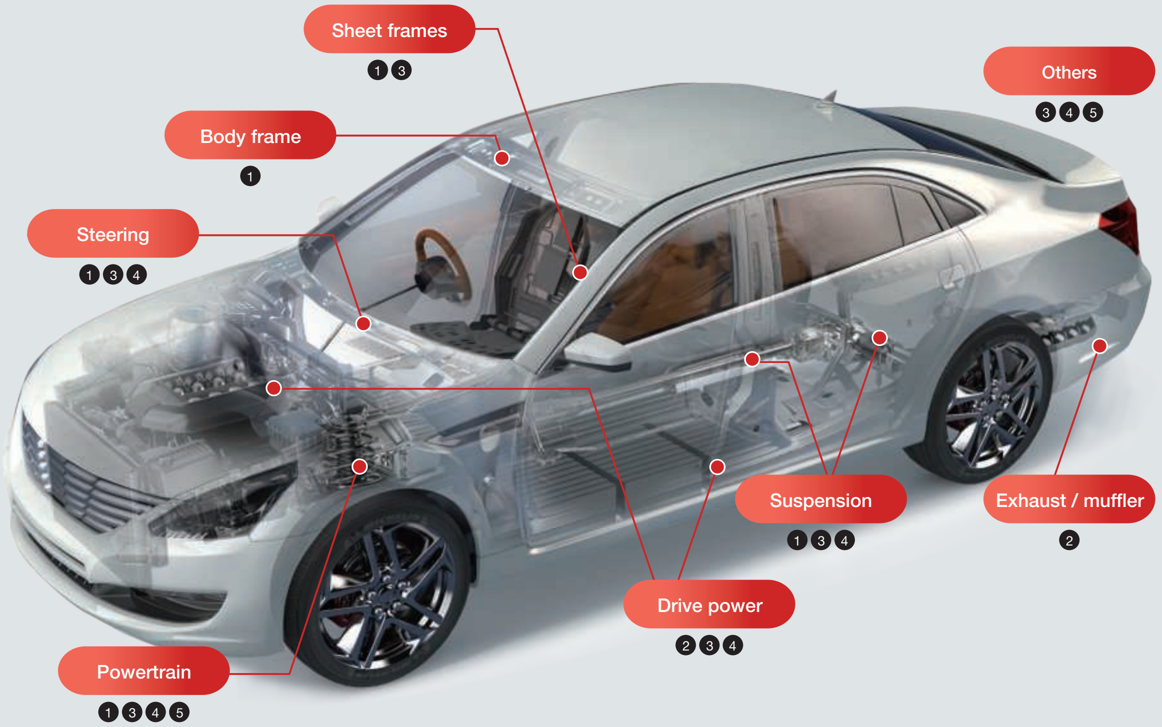
Group coordination — Through coordination with JFE Shoji Trade, JFE Steel has established an integrated supply chain from production to distribution.
Group companies are also accelerating their expansion overseas, with various merchandise such as iron powder, steel pipes, and more.



* Coverage of automobile production output reaches over 50% of areas in "direct investment destinations" and 70% of areas in "comprehensive partnership on automotive steel sheets."

Strategy 4 Satisfying multiple needs via a broad product lineup and collective Group power

With access to product lineup of not just high strength steel sheets and electrical steel sheets but also steel pipes, stainless steel, steel bars and wire rods and iron powder, as well as the non-ferrous products and components of other Group companies, JFE Steel meets various needs including greater performance such as car's ride quality, reduced costs and greater productivity in the manufacturing processes of our customers.



Product type	Characteristics / main products
1 Steel pipes	The combination of developing materials (steel pipes) plus secondary processing, developing evaluation and testing technology allows closed-sectional structures particular to steel pipes, contributing to (1) high rigidity, (2) lighter weight, and (3) reduced costs. Product example: HISTORY™ steel pipes
2 Stainless steel	Contributing to lower fuel efficiency and reduced exhaust gas emissions of internal combustion vehicles with highly heat-resistant and highly processable stainless steel sheets. Product example: TF1™ (received the Minister of Economy, Trade and Industry's Award at the Monodzukuri Nippon Grand Awards 2015)
3 Steel bars and wire rods	Contributing to longer product life via advanced cleanliness technology*1 and reduction of processes resulting from better cold forming properties through controlled rolling and deposition control.*2 Product example: *1 Long-lasting bearing wire rod, *2 JECF™

Product type	Characteristics / main products
4 Iron powder	A lineup covering a wide range of powder metallurgy applications, such as pure iron powder with excellent compressibility and forming properties, or various types of alloy steel powders for high-strength parts, contributing to lighter weight and better productivity. Product example: FM series of nickel-free high-strength alloy steel powder
5 Non-ferrous/ components	Proposing new materials through the comprehensive resources of the JFE Group Product example: High performance electrode material, KP sheet (JFE Chemical) Hydrogen station tank, high pressure gas cylinder (JFE Container)

Web For more details:
https://www.jfe-steel.co.jp/products/car/index.html (only in Japanese)

With customers

Flexibly adapting to changing markets with years of experience and cutting edge technological capabilities
The JFE Group—Always chosen by our customers

The automobile industry is in an age of transformation. Both stricter environmental regulations and the shift to electric vehicles are making vehicles lighter, with smaller and more efficient power sources required particularly in the shift. Yet the automobile industry is expected to continue to grow worldwide, including for conventional engine-powered cars. JFE Steel is committed to meeting diverse needs and maintaining its role as a partner always chosen by our customers by leveraging our wide-ranging product lineup of steel materials, from high-strength steel with superior processability like JEFORMA™ to high performance electrical steel sheets together with our ability to make technology proposals and timely deliveries. Through our strategic global supply network and product development capabilities precisely focused on customer needs, we continue to create and supply new value to the world.

JFE Steel Corporation
Representative Director and Executive Vice President
Toshinori Kobayashi

Material CSR Issues of the JFE Group

In response to the needs of various stakeholders, the JFE Group identified material CSR issues in FY2016 and set KPIs in FY2017 to find out where and how we should invest its resources to minimize negative social impact and maximize the Group's value creation.
Such initiatives will demonstrate our Corporate Vision of "Contributing to society with the world's most innovative technology." We aim to contribute to the establishment of the Group's sustainable growth as well as sustainable society through the implementation of these initiatives.

Contributing to the Sustainable Development Goals (SDGs) through business activities

In September 2015, a United Nations Summit adopted 17 SDGs to be addressed through worldwide efforts to achieve sustainable development. In response to requests from global society, the JFE Group will strive to contribute to SDGs though its business activities.

Corporate Vision: Contributing to Society with the World's Most Innovative Technology

	Areas of Focus	Details	Scope of Influence	Material CSR Issues	Relevant SDGs
Activity	Provide quality products (customer satisfaction)	● Provide products and services based on advanced technologies • Continue stable supply of safe, high-quality products • Solve customer problems	JFE Group Customers Society	Stably supply products Ensure quality Pursue R&D operations Respond to customer needs	7 9 10 11 12 13 17
	Protect the global environment	● Mitigate environmental impact ● Contribute to recycling societies ● Utilize Group technologies to develop products that contribute to environmental protection	JFE Group Local communities near manufacturing sites Customers Society	Develop and provide environmentally friendly products Mitigate climate change Protect the global atmosphere Pursue resource recycling	6 7 9 12 13 14
	Ensure occupational safety and health	● Prioritize safety first ● Maintain the physical and mental health of employees and their families and create rewarding workplaces	JFE Group Suppliers Business partners	Prevent workplace accidents Ensure the health of employees and their families	3 8
	Recruit and nurture diverse human resources	● Maintain work environments where all personnel can maximize their abilities ● Accumulate and hand down technologies and skills	JFE Group Business associates	Pursue diversity and inclusion Strengthen human resource development programs	4 5 8 9 10
Basis of activity	Thoroughly enforce compliance		JFE Group Suppliers Political authorities Society	Ensure adherence to Corporate Ethical Standards and compliance	10 16

Goals

Increased corporate value and sustainable growth of the JFE Group

Help realize sustainable society

Corporate Governance (Ensure Fairness, Objectivity and Transparency)

Respect and Maintain Awareness of Human Rights

FY2016: Identification of Material CSR Issues

Step 1 Identification

By measuring the businesses of the JFE Group against the following yards ticks, we have identified 35 core issues for our CSR initiatives:
- GRI G4 Sustainability Reporting Guidelines
- ISO26000 ● Sustainable Development Goals (SDGs)
- ESG survey via external assessment
- Internal documents on employee satisfaction surveys, etc.
- Benchmark surveys on the three business areas

Step 2 Prioritization (Group-wide Meeting)

We prioritized the above 35 issues in two ways: stakeholder expectations and relevance to business (societal impact), and identified 13 issues in five focus areas.

Group-wide meeting

Managers from each operating company discussed the prioritization from the perspectives of group management and their respective operating companies' interests.

Step 3 Validation

The following process validated the material CSR issues identified:
- Confirmation and examination by each operating company
- Two-stage examination and approval by JFE Group CSR Council*

*Participants included the President of JFE Holdings (chairperson), executive vice president, Corporate Officers, full-time Audit & Supervisory Board Members, and the presidents of operating companies, etc.

FY2017: Setting KPIs

Step 4 Review / Setting KPIs

Conducting reviews
- Reviewed by the JFE Group CSR Council
- Examined comments by third-party experts on the CSR report

Setting KPIs

We set KPIs and implemented PDCA through the following processes.
- Review was conducted by each operating company
- Draft KPIs were submitted to the JFE Group Environmental Committee
- KPIs were deliberated at and approved by the JFE Group CSR Council

Web The JFE Group CSR REPORT
https://www.jfe-holdings.co.jp/en/csr/data/index.html

KPIs for Material CSR Issues

-Performance in FY2018 and revisions for FY2019 and beyond-

To address material CSR issues identified in FY2016, the JFE Group has set KPIs and has been working on the issues on a group-wide basis.
Based on the performance and efforts implemented in FY2018, we partially revised KPIs to be adopted in FY2019 and beyond.
We will continuously take into consideration the business characteristics of each operating company upon setting KPIs, aiming to facilitate PDCA cycle and effective CSR management.

JFE Steel JFE Engineering JFE Shoji Trade

○: Fully accomplished △: Partly accomplished ×: Not accomplished

Areas of Focus		Material CSR Issues	Operating company	KPIs	Results and initiatives implemented in FY2018	Evaluation	KPIs for FY2019
Activity	Provide quality products (customer satisfaction)	Stably supply products	JFE Steel	• Make steady progress on strengthening its manufacturing base to ensure stable supply	• Stable provision to customers was unsuccessful due to equipment problems, but capital investment for the establishment of manufacturing bases, with focus on upstream processes, was implemented	△	• Stable products supply to customers through steady operations • Make steady progress on strengthening its manufacturing bases, starting with blast furnace stabilizing measures
			JFE Engineering	• Secure a stable number of certificated managing engineers	• Revenue reached record-high in FY2018, while the stable number of managing engineers was successfully secured	○	• Secure a stable number of certificated managing engineers
			JFE Shoji Trade	• Make consistent capital investment in processing and distribution operations	Amount of investment • Investment in quality enhancement: 8.2 billion yen • Renewal and safety investment: 3.5 billion yen • System investment: 3.1 billion yen	○	• Make consistent capital investment in processing and distribution operations
		Ensure quality	JFE Steel	• Improve the level of quality assurance and product testing	• Capital investments regarding improving the level of quality assurance and product testing are progressing according to plan	○	• Implementation of the capital investments for improving the level of quality assurance and product testing established in the Sixth Medium-term Business Plan
			JFE Engineering	• No major quality problems	• No major quality problems	○	• No major quality problems
			JFE Shoji Trade	• Conduct quality audits on affiliate companies	• Conducted quality audits at least once annually on 30 manufacturing affiliate companies • Audit executing rate: 100% (Japan: 16 companies; overseas: 14 companies)	○	• Continue to conduct quality audits at least once annually on 30 manufacturing affiliate companies (audit executing rate: 100%)
		Pursue R&D operations	JFE Steel	• Make consistent or increased investment in R&D operations	• Increased R&D budget by 12% compared to FY2017	○	• Conduct R&D operations established in the Sixth Medium-term Business Plan
			JFE Engineering	• Make consistent or increased investment in R&D operations	• Investment amount is maintained and increased FY2017: 3.8 billion yen* FY2018: 4.1 billion yen* (8% growth from FY2017)	○	• Make consistent or increased investment in R&D expenses
		Respond to customer needs	JFE Steel	• Build infrastructure that improves customer satisfaction, and strengthen training for sales personnel	Building of infrastructure • Promoted implementation of an inquiry-based workflow system • Made inventory and work-in-process items information browsable on mobile devices Training for sales personnel • Rank-based training within the sales department (newly appointed sales employees, mid-rank sales employees, General Managers, Office heads Added quality assurance (QA) training in FY2018)	○	• Implement rank-based training within the sales department and ensure all employees receive training within two years from assignment • Implement customer satisfaction surveys and give thorough feedback
			JFE Engineering	• Use data collected from customer surveys to enhance customer satisfaction	• Gave feedback through work performance assessment notices for public works, and the QMS customer surveys for private works	○	• Use data collected from customer surveys to enhance customer satisfaction
			JFE Shoji Trade	• Invest in the development of strong sales personnel	• Provided employee training such as skill development, and group training in Japan for staff from overseas offices, as scheduled (100%)	○	• Ensure that all target employees receive employee training such as skill development, and that all target staff from overseas offices receive group training in Japan
	Protect the global environment	Develop and provide environmentally friendly products	JFE Steel	• Expand the environmentally friendly products and technological offerings	• Developed EXPAL (short for "extend painted life") steel sheet and topology optimization (weight reduction of parts) technology, etc.	○	• Develop new products and technologies established in the Sixth Medium-term Business Plan
		Mitigate climate change	JFE Steel	1. CO_2 reduction target defined in the Japan Iron and Steel Federation's "Commitment to a Low Carbon Society" 2. Continue to invest in energy conservation	1. Working towards the FY2020 target defined in the Japan Iron and Steel Federation's "Commitment to a Low Carbon Society" 2. Made capital investment in energy conservation	○	1. CO_2 reduction target defined in the Japan Iron and Steel Federation's "Commitment to a Low Carbon Society" 2. Continue to invest in energy conservation

*R&D investments for the current fiscal year

Material CSR Issues of the JFE Group

[JFE Steel] JFE Steel [JFE Engineering] JFE Engineering [JFE Shoji Trade] JFE Shoji Trade

○: Fully accomplished △: Partly accomplished ×: Not accomplished

Areas of Focus		Material CSR Issues	Operating company	KPIs	Results and initiatives implemented in FY2018	Evaluation	KPIs for FY2019
Activity	Protect the global environment	**Develop and provide environmentally friendly products** **Mitigate climate change**	[JFE Engineering]	• Contribute to climate change mitigation through our products and services	• Amount of CO_2 reduced by renewable-energy power generation plants we introduced 4.12 million t-CO_2 per year	○	1. Contribute to global environment conservation through our products and services • Spread of waste-to-energy plants • Spread of woody biomass power generation • Energy conservation in water and sewage facilities • Spread of geothermal, solar and wind power • Spread of sewage sludge energy plants • Provide electricity from renewable sources 2. Reduce CO_2 emissions in factories and offices
		Protect the global atmosphere	[JFE Steel]	1. Continue to work on keeping NOx and SOx emissions at low levels 2. VOC emissions: maintain at low levels (30% decrease compared to 2000) 3. Benzene emissions: maintain at low levels (80% decrease compared to 1999) 4. Dichloromethane emissions: maintain at low levels (40% decrease compared to 1999) Items 2. to 4. were added during the fiscal year for KPIs enrichment	1. NOx and SOx emissions were kept at low levels through thorough combustion-control 2. VOC emissions: 51% decrease 3. Benzene emissions: 93% decrease 4. Dichloromethane emissions: 68% decrease	○	1. Continue to work on keeping NOx and SOx emissions at low levels 2. VOC emissions: maintain at low levels (30% decrease compared to 2000) 3. Benzene emissions: maintain at low levels (80% decrease compared to 1999) 4. Dichloromethane emissions: maintain at low levels (40% decrease compared to 1999)
			[JFE Engineering]	–	–	–	• Continue to work on keeping NOx and SOx emissions at low levels
		Pursue resource recycling	[JFE Steel]	1. Maintain the efficient use of water resources Recycling rate: At least 90% 2. Recycling rate of co-products: At least 99% *For KPIs enrichment, item 1.'s numerical goal and item 2. were added during the fiscal year.	1. Recycling rate: 93.5% 2. Recycling rate: 99.7%	○	1. Maintain the efficient use of water resources Recycling rate: At least 90% 2. Recycling rate of co-products: At least 99%
			[JFE Engineering]	• Recycle at least 99.5% of rubble • Recycle at least 95.0% of sludge • Recycle at least 85.0% of industrial waste	• Rubble recycled: 99.6% • Sludge recycled: 98.8% • Industrial waste recycled: 91.0%	○	1. • Recycle at least 99.5% of rubble • Recycle at least 95.0% of sludge • Recycle at least 85.0% of industrial waste 2. Recycling rate of office resources (Yokohama Head Office): At least 98% 3. Promote the recycling business (plastics, food, consumer appliances, fluorescent tubes, etc.)
			[JFE Shoji Trade]	• Global recycling of steel scraps	• Increased the volume of scrap transactions compared to FY2017 (+1.4%) • In addition to exports from Japan, we increased offshore trading, such as small-lot transactions through containers in the ASEAN region	○	• Continue to implement measures that increases the volume of scraps compared to FY2017 (FY2020 target: 3% increase from FY2017)
	Ensure occupational safety and health	**Prevent workplace accidents**	Group-wide	• Workplace fatalities: zero occurrences	• Workplace fatalities: 2 • Introduced internal audit system • Installed safety monitors	×	• Workplace fatalities: zero occurrences
		Ensure the health of employees and their families	Group-wide	• Provision rates of health guidance (by 2020) [JFE Steel] 35% [JFE Engineering] 35% [JFE Shoji Trade] 40%	• Actual rates of health guidance [JFE Steel] 56.9% [JFE Engineering] 22.1% [JFE Shoji Trade] 45.2% • Made use of health guidance institutes • Encouraged the people who had not taken health guidance to do so	△	• Provision rates of health guidance (by 2020) [JFE Steel] 35% [JFE Engineering] 35% [JFE Shoji Trade] 40%
				• Rate of health examination for dependents: 60% (by 2020)	• Rate of health examination for dependents [JFE Steel] 52.3% [JFE Engineering] 54.2% [JFE Shoji Trade] 52.4% • Active promotion throughout the workplace and through health insurance union	×	• Rate of health examination for dependents: 60% (by 2020)
	Recruit and nurture diverse human resources	**Pursue diversity and inclusion**	Group-wide	• Ratio of female recruits [JFE Steel] Career-track white-collar positions At least 35% Career-track technical positions At least 10% On-site positions At least 10% [JFE Engineering] Career-track white-collar positions At least 20% Production/construction positions (technical) At least 5% [JFE Shoji Trade] Career-track white-collar positions At least 25%	• Ratio of female recruits [JFE Steel] Career-track white-collar positions 43% Career-track technical positions 12% On-site positions 12% [JFE Engineering] Career-track white-collar positions 22% Production/construction positions (technical) 20% [JFE Shoji Trade] Career-track white-collar positions 28% • Made a website and brochures for female candidates for career-track positions	○	• Ratio of female recruits [JFE Steel] Career-track white-collar positions At least 35% Career-track technical positions At least 10% On-site positions At least 10% [JFE Engineering] Career-track white-collar positions At least 20% Production/construction positions (technical) At least 5% [JFE Shoji Trade] Career-track white-collar positions At least 25%
				• Females in managerial positions: triple the August 2014 figure (by 2020)	• Females in managerial positions: 3.3 times the August 2014 figure	○	• Females in managerial positions: 5 times the August 2014 figure (by 2025)
		Strengthen human resource development programs	Group-wide	• Improve technical skills and conduct high-quality human resource development programs	• Human resource development programs with various educational systems	○	• Improve technical skills and conduct high-quality human resource development programs
				• 100% attendance from the target audience for human rights awareness training	• Implemented rank-based training	○	• 100% attendance from the target audience for human rights awareness training
Basis of activity	Thoroughly enforce compliance	**Ensure adherence to Corporate Ethical Standards and compliance**	Group-wide	• Steady execution of training to foster and maintain a sense of compliance	• Implemented rank-based compliance training, etc.	○	• Steady execution of training to foster and maintain a sense of compliance (100% achievement)
				• Improve employee awareness of ethics reflected in the Corporate Ethics Awareness Surveys	• Tackled issues identified from the last awareness survey Measures implemented: 1. Established an external hotline, and amended internal reporting regulations 2. Promoted work style reforms (working at home, encouraging employees to take paid leaves, etc.)	–*	• Improve employee awareness of ethics reflected in the Corporate Ethics Awareness Surveys • Have all employees participate in the Corporate Ethics Awareness Survey

* Next awareness survey to be conducted in FY2019

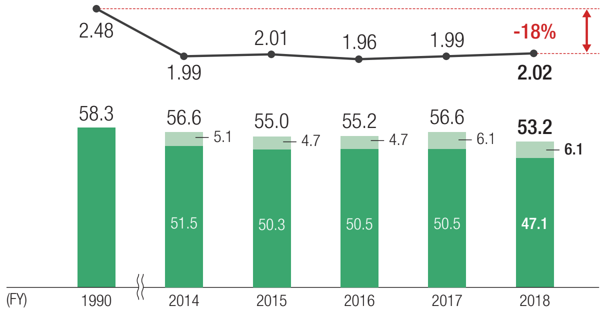
Management for Value Creation

Non-financial Highlights

Web For details on non-financial information, please refer to the JFE Group CSR REPORT.
https://www.jfe-holdings.co.jp/en/csr/data/index.html

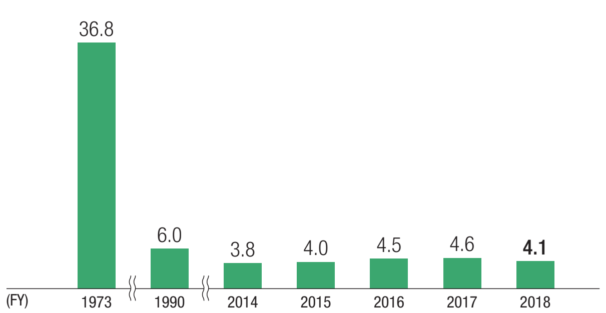
Environmental Indicators

CO_2 emissions from energy sources (million t-CO_2) and **CO_2 emission intensity** (t-CO_2/t-s) **of JFE Steel**

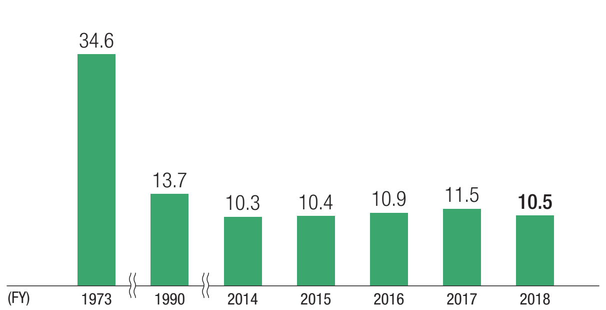


*1. The CO_2 coefficient for electricity purchased in FY2018 is that of FY2017 on the Japan Iron and Steel Federation's Commitment to a Low Carbon Society.
*2. Data for certain fiscal years have been recalculated retroactively for improved accuracy.

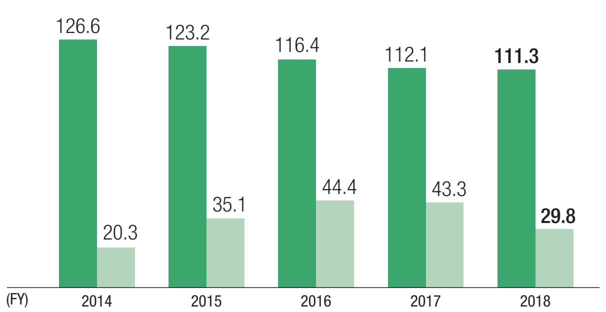
SOx emissions by JFE Steel (million Nm³)



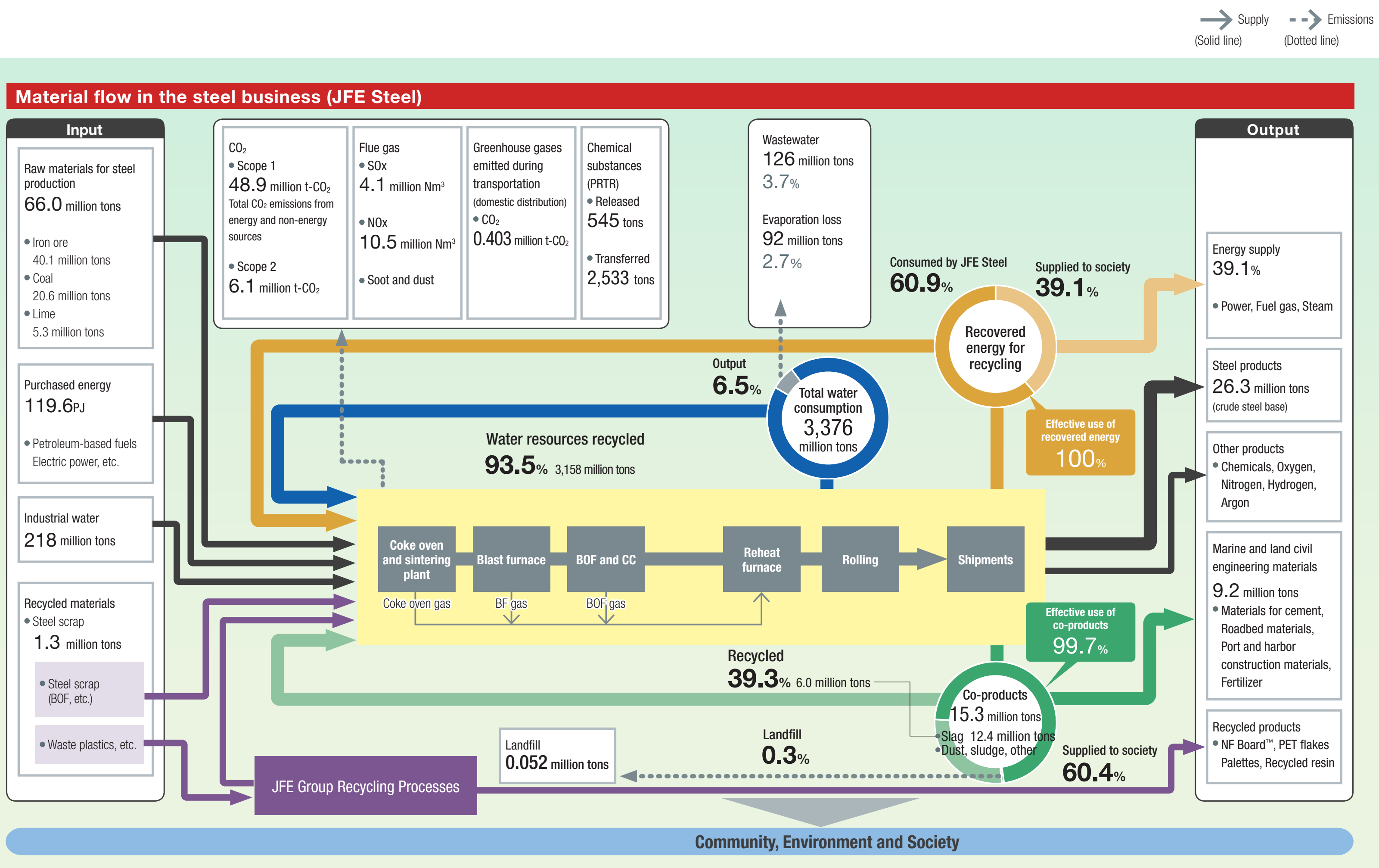
NOx emissions by JFE Steel (million Nm³)



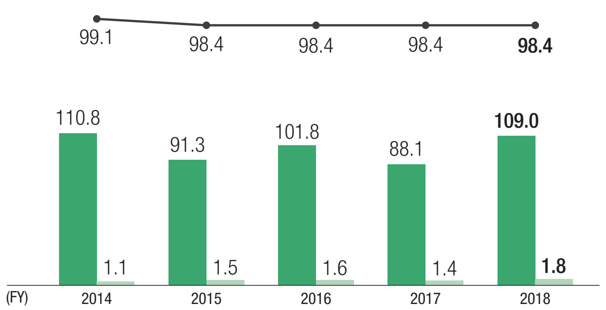
Environmental capital investment (billion yen) **and promotion expenses for environmental activities** (billion yen) **of JFE Steel**



Material flow in the steel business (JFE Steel)



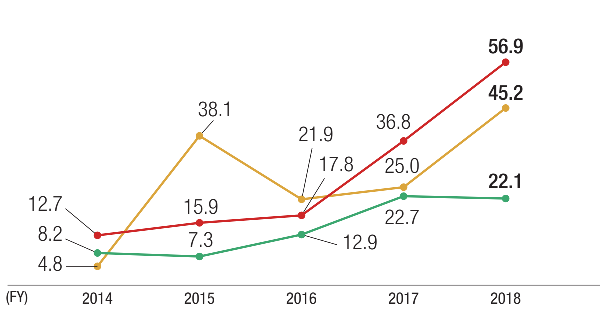
Waste generated at construction sites (thousand tons) **and recycling rate** (%) **of JFE Engineering**



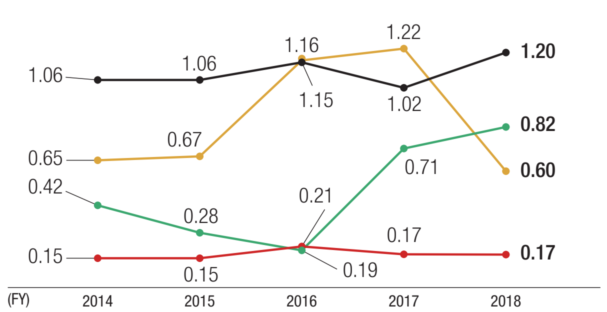
Industrial water accepted (million tons) **and circulated** (%) **of JFE Steel**

*Industrial water circulated (%) = (Total amount − industrial water accepted) / total amount × 100

Provision rates of health guidance (%)



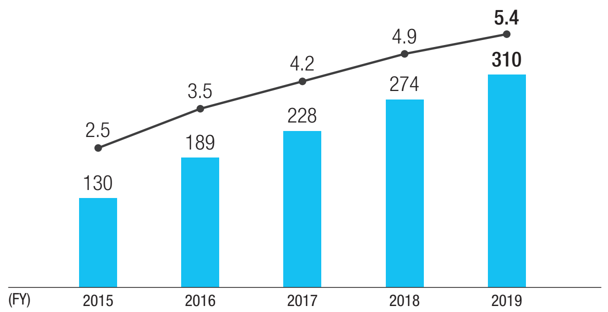
Lost-work Injuries



* JFE Steel and JFE Engineering: parent company, business associates and contractors; JFE Shoji Trade: domestic parent and group companies, business associates and contractors
*Lost-work injuries = Number of lost-time injuries / number of hours worked × 1,000,000

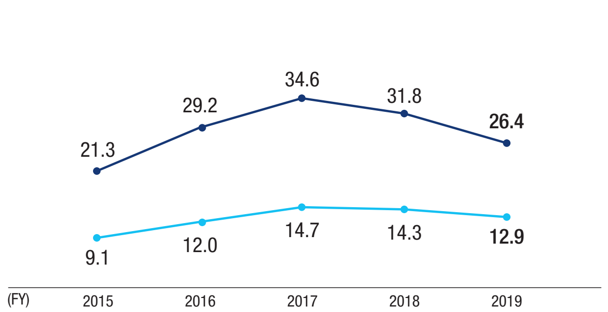
Societal Indicators

Number of female managers (persons) **and ratio of female managers** (%)



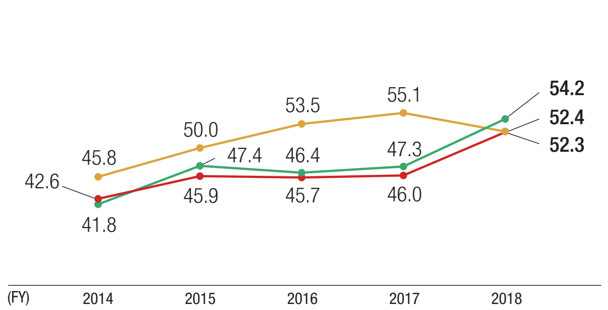
*Scope of calculation: JFE Holdings and operating companies

Ratio of female recruits (total) (%) **and ratio of female recruits (career-track white-collar positions)** (%)



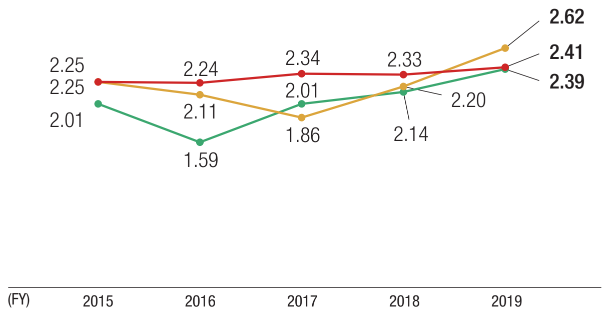
*Scope of calculation: total of three operating companies

Rate of health examination for dependents (%)



* Target: dependents aged 40 or older (including dependents other than spouses)

Employment of people with disabilities (as of June 1 of each year) (%)



Feature

02

JFE Group's Initiatives for Climate Change Issues

To build a sustainable society, the JFE Group works to respond to climate change risks with cutting-edge technology, contributing to a resilient societal framework.

JFE Steel / JFE Engineering / JFE Shoji Trade

Response to Risks

CO_2 intensity index

1990
100

Eco-process/ Innovative technologies

Coke dry quenching (CDQ)

Top pressure recovery turbine (TRT)

Regenerative burners

Endless hot strip rolling

Injecting Waste Plastic into Blast Furnaces

Super-SINTER™

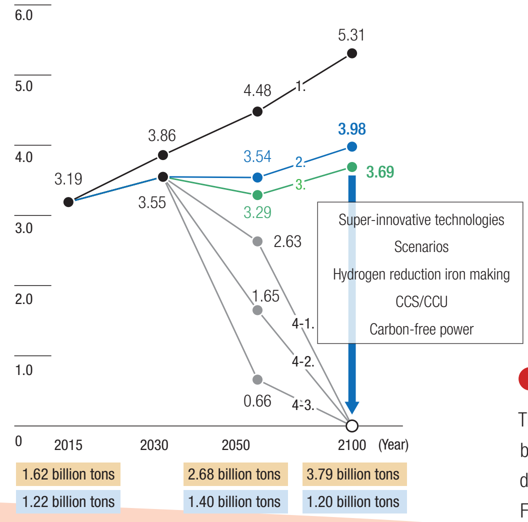
2018
82

2100
0

Basic Policy

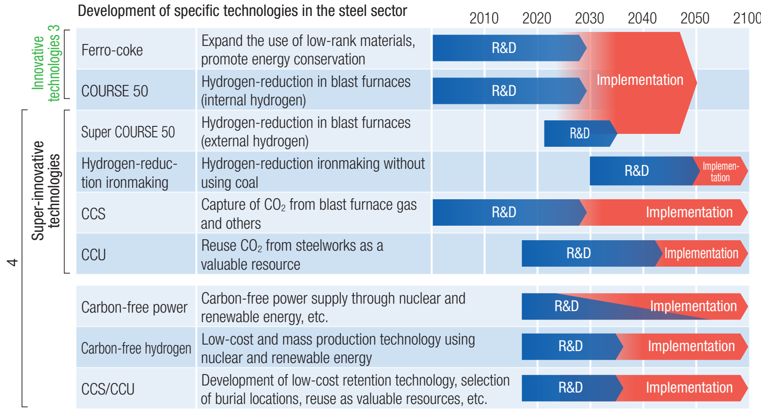
The JFE Group's business involves steel manufacturing, which emits massive amounts of CO_2. That is why climate change issues are serious management issues from the viewpoint of business continuity. The steel business accounts for 99.9% of the JFE Group's CO_2 emissions. The JFE Group is able to manufacture steel with the lowest CO_2 emission intensity among all the integrated steel mills in the world through developing diverse technologies that enable energy saving and CO_2 emission reduction, and applying them to our iron and steelmaking processes. We will continue developing processes to reduce environmental impact and spread our vast accumulated technologies globally for new opportunities, in order to contribute to mitigating climate change.

CO_2 emissions in terms of projected scenarios of long-term climate change mitigation



Source: Compiled based on information provided by the Japan Iron and Steel Federation

Initiatives toward a long-term vision for climate change mitigation



Source: Compiled based on information provided by the Japan Iron and Steel Federation

Long-term vision and direction

The Japan Iron and Steel Federation, to which JFE Steel, the steel operating company of JFE Group, belongs to, has set 2030 as the target year to achieve its Commitment to a Low Carbon Society. In addition, in November 2018, the Federation established and announced the Japan Iron and Steel Federation's long-term vision for climate change mitigation for 2030 and beyond, which ultimately aims for Zero Carbon Steel production. JFE Steel played a pivotal role in the development of this long-term vision.

To help achieve the Paris Agreement's long term goal of holding the average global temperature rise well below 2°C, the company continues to develop and spread required technologies and contribute to playing its part in mitigating climate change.

Worldwide efforts

1997 Adoption of the Third Conference of the Parties (COP3)'s "Kyoto Protocol"

2008 Commencement of the Japan Iron and Steel Federation's "Voluntary Action Plan"

2013 Commencement of the Japan Iron and Steel Federation's "Commitment to a Low Carbon Society"

2015 Adoption of the Twenty-First Conference of the Parties (COP21)'s "Paris Agreement"

2018 Announcement of the Japan Iron and Steel Federation's long-term vision for climate change mitigation (Zero Carbon Steel)

New Opportunities

Eco product

UNIHITEN™

Crack arrest technology

1.5 GPa-grade cold-rolled automotive steel sheet

Electrical steel sheet: JNP™ series

Renewable Energy

Wind power

Solar power

Geothermal power

Utilization of waste and biomass

Waste-to-energy power

Biogas power

Wood biomass power

Products for adapting to climate change

Disaster prevention and reduction

Smart agriculture (agricultural resilience)

Efforts up to the present

The JFE Group develops and possesses many environmentally friendly products and technologies which help customers save energy at the stage of consumption, such as high-performance steel materials and power generation using renewable energy. We see this as an opportunity to contribute to mitigating climate change issues.

Long-term vision

Reduction of weight and the electrification of automobiles are expected to be further advanced in the future, through enhancing the functions of its high-tensile and electrical steel sheets, the JFE Group will contribute to such advancements. Also, while contributing to the further spread of renewable energy, we plan to help reduce CO_2 through our recycling business and efforts in resource-saving. Moreover, to prepare for the gradually intensifying climate crisis, we plan to contribute to national resilience through providing steel for societal infrastructure and put it into use for construction.

FY2017
29.73
million t-CO_2

Contribute to the reduction of CO_2 emissions by providing high-performance steel materials (Results of Eco Product)

(Source: Information provided by the Japan Iron and Steel Federation)

FY2018
4.12
million t-CO_2

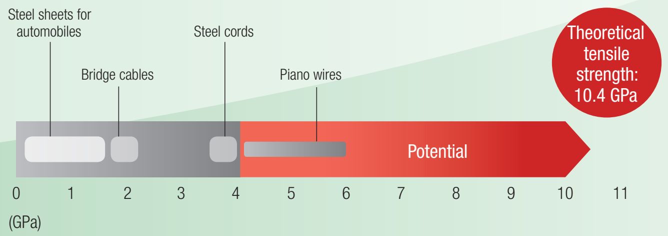
Amount of CO_2 reduced through renewable energy plants

(Estimation by JFE Engineering)

Further enhanced steel materials that contribute to a prosperous future

We have greatly enhanced the mechanical and electromagnetic characteristics of our steel materials. For example, since the 1970s, our steel sheets for automobiles have been increasingly strengthened in response to various social backgrounds and demands. The reduced weight of automobiles led to lower fuel consumption, which in turn contributed significantly to reducing CO_2 emissions. However, the characteristics level of enhanced tensile strength of our steel is only 1/10–1/3 of the theoretical limit. Aside from further strengthening its steel products, the Japanese steel business will provide the fundamental materials for future society through developing next-generation steel products for future hydrogen infrastructure, as well as contribute to the reduction of CO_2 emissions throughout the lifecycle of such products.

Tensile strength of steel actualized in 2019 (GPa)



Source: Charts and text based on information provided by the Japan Iron and Steel Federation

*1 Business as Usual (BAU) scenario

*2 Maximum Best Available Technology (BAT) scenario

Scenario Analysis

The JFE Group will disclose information on risks and opportunities regarding climate change issues, such as scenario analysis, in line with the TCFD recommendations.

JFE Holdings declared its agreement with the summary of the Final TCFD* Report, released on May 27, 2019.

*The Task Force on Climate-Related Financial Disclosures, established by the Financial Stability Board (FSB), based on the opinions of G20 Finance Ministers and Central Bank Governors.

Information disclosure following TCFD recommendations

TCFD recommendations

Climate-related risks and opportunities significantly affect the finance of companies on a medium- to long-term. TCFD is a task force established by the Financial Stability Board as requested at G20, to reduce risks that could destabilize the financial market. TCFD reviews methods of information disclosure that allows the financial market to appropriately evaluate climate-related risks and opportunities, and announces them as final recommendation reports.

TCFD considers that it is important for investors and other parties to accurately grasp what effects climate-related risks and opportunities pose on the financial conditions of investee before financial decision-making, based on which TCFD recommends that information related to four core elements in organizational management: Governance, Strategy, Risk management, and Indices and targets should be disclosed.

Summary of TCFD recommendations	JFE's disclosure (relevant sections in the CSR report)
Governance: Disclose the organization's governance associated with climate-related risks and opportunities	
a. Describe the Board of Directors' oversight of climate-related risks and opportunities	Overview of the corporate governance system
b. Describe assessment of climate-related risks and opportunities, and management's role in company management	Risk management
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning (if those information is important)	
a. Describe the climate-related risks and opportunities over the short, medium, and long term the organization has identified	Describe the results of the current scenario analysis
b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	Describe the results of the current scenario analysis
c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C scenario	Describe the results of the current scenario analysis
Risk management: Disclose the processes used by the organization to identify, assess, and manage climate-related risks	
a. Describe the organization's processes for identifying and assessing climate-related risks	Risk management Environmental management system
b. Describe the organization's processes for managing climate-related risks	
c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	
Indices and targets: Disclose the indices and targets used to assess and manage climate-related risks and opportunities	
a. Disclose the indices used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management	KPIs for Material CSR Issues
b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	JFE Group's CO_2 emissions / CO_2 emissions in the value chain
c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	KPIs for Material CSR Issues

Projected Scenarios

Scenario analysis

While correctly understanding the risks and opportunities related to climate, we evaluate the effects they have on current business strategies, and utilize them in establishing future strategies. Due to our business having the potential to be significantly affected by climate change, we have set the following two scenarios.

Both scenarios are based on the scenarios announced by the International Energy Agency (IEA). The analysis was performed under the assumption that carbon pricing would be introduced into major CO_2 generating countries in order to achieve the 2°C target.

Projected scenarios		2°C scenario	4°C scenario
Reference scenarios	Transition	Transition scenarios by the International Energy Agency (IEA) • Sustainable Development Scenario (SDS)*1 • 2°C scenario (2DS)*2	Transition scenarios by the International Energy Agency (IEA) • New Policies Scenario (NPS)*1 • Reference Technology Scenario (RTS)*2
	Physical effects	Estimate scenario of climate change by the United Nations' Intergovernmental Panel on Climate Change (IPCC) • Representative Concentration Pathways Scenario (RCP)*3	
Social vision		Bold policies and technological reforms will be undertaken to hold the increase in the global average temperature below 2°C until the end of the century, and to achieve sustainable development. Societal changes that come alongside decarbonization are assumed to affect business. • Worldwide/industry-wide common carbon pricing*4 • Increase in ratio of electric cars in automobile sales	Even with the new policies in various countries stipulated in accordance with the Paris Agreement, including Intended Nationally Determined Contribution (INDC), the global average temperature will rise up to 4°C by the end of the century. Climate changes such as rising temperatures are assumed to affect business. • Increase in frequency of flood damages • Rise in sea level

*1 Source: IEA "World Energy Outlook 2018" *2 Source: IEA "Energy Technology Perspectives 2017" *3 Source: IPCC "Fifth Assessment Report"

*4 Carbon pricing differences among countries may widen the global industrial competitiveness between countries with strict CO_2 emission restrictions and those with more lenient ones, potentially resulting in carbon leakage (countries with stricter restrictions decrease production and investments, reducing CO_2 emissions, while those with more lenient restrictions increase production and investments, increasing CO_2 emissions). The reference scenario SDS assumes that developed countries and certain developing countries have implemented carbon pricing. Based on this SDS, the JFE Group has set the 2°C scenario under the assumption that carbon pricing would be introduced into major CO_2 generating countries in order to achieve the 2°C target.

Relevant businesses and period for analysis

Relevant businesses of the scenario analysis were JFE Steel: steel business; JFE Engineering: engineering business; JFE Shoji Trade: trading business; and businesses of certain Group companies. The period for analysis was set to be up to 2050.

Compatibility with the Japan Iron and Steel Federation's long-term vision for climate-change mitigation

The Japan Iron and Steel Federation's long-term vision for climate-change mitigation ultimately aims for Zero Carbon Steel by 2100. On the other hand, the period for scenario analysis was set to 2050, in an aim to ensure the resilience of the JFE Group's business strategies at certain phases during the long-term challenge.

Identification processes of important factors affecting businesses

Identification processes of significant risk opportunities and factors

Step 1: Summarize factors that affect relevant businesses from a standpoint covering the value chain

Step 2: Study the factors comprehensively and take into account their "impact on the factors" as well as "expectations and concerns of stakeholders," thereby identifying especially important factors

	2°C scenario	4°C scenario
Impact on procurement		5. Procurement of raw materials becomes unstable due to increased frequency in climate disasters
Impact on direct business operations	1. Decarbonization in steel production processes 2. Increase in demand for the effective use of steel scraps	6. Damages to business bases due to climate disasters
Impact on demand for products and services	3. Change in demand for steel for automobiles and others 4. Increase in demand for solutions promoting decarbonization	7. National resilience

Impact × Expectations and concerns of stakeholders → Identifying important factors

Criteria for identifying important factors: • Impact (possibility of risk opportunities × impact upon occurrence) • Expectations and concerns of stakeholders

Results of Scenario Analysis

	Societal changes and responses to changes		Expectations and concerns of stakeholders towards the JFE Group	Evaluation results	
2°C scenario Important factor 1 Decarbonization in steel production processes	Rising societal demands for decarbonization towards steel production processes	Implementation of innovative technologies that achieve large-scale decarbonization Implementation of carbon pricing	• Significant contribution through innovative technologies • Increase in investment in the implementation of innovative technologies • Increase in operation costs due to the introduction of carbon pricing	Opportunities	Development and implementation of innovative technologies on top of existing technologies
				Risks	Investment in the implementation of innovative technologies is possible Cost competitiveness is maintained when carbon pricing is implemented worldwide
2°C scenario Important factor 2 Increase in demand for the effective use of steel scraps	Increased focus on electric furnace method, which emits low levels of carbon	Rising expectations toward electric furnace steel Increase in scrap generation	• Replacement of converter steel with electric furnace steel • Increase in JFE Group's production of electric furnace steel	Opportunities	Restrictions on the amount of scrap provided, increase in production of converter steel Increase in production of electric furnace steel and the need for electric furnace engineering Expansion of the scrap logistics business
2°C scenario Important factor 3 Change in demand for steel for automobiles and others	Change in automobile needs	Increase of EV motors Decrease of internal combustion engines Reduction of weight and the increased use of multi-materials	• Increase in demand for electrical steel sheets for EV motors • Decrease in demand for special steel due to the decrease of internal combustion engines • Replacement of automobile steel due to the increased use of multi-materials • Demand for further decarbonization and recyclability in steel production	Opportunities	Increase in demand for electrical steel sheets due to more electric vehicles Increase in demand for special steel due to increase in automobile sales Increase in demand for high-tensile steel sheets for automobiles Refocus on the recyclability of steel
	Rising demands for eco-friendly raw materials	Demand for decarbonization and recyclability		Risks	Limited impact of the increased use of multi-materials
2°C scenario Important factor 4 Increase in demand for solutions promoting decarbonization	Shifting to decarbonization	Increase in demand for solutions promoting transition toward decarbonization Overseas development of energy conservation technologies	• Renewable-energy power generation plants • Low-carbon business (Eco Solution) in developing countries using Best Available Technology (BAT) developed and commercialized in Japan	Opportunities	Integrated constructions and operations of renewable energy (biomass, geothermal, and solar power) plants Integrated constructions and operations of waste incinerators and plastic recycling plants Integrated constructions of CCU and CCS facilities Overseas development of low carbon businesses
4°C scenario Important factor 5 Procurement of raw materials becomes unstable due to increased frequency in climate disasters	Intensifying climate disasters alongside rising temperatures	Procurement of raw materials becomes unstable	• Procurement of raw materials becomes unstable	Risks	Undergoing concrete measures "Alternative procurement methods and source distribution" "Strengthening equipment capabilities"
4°C scenario Important factor 6 Damages to business bases due to climate disasters	Intensifying climate disasters alongside rising temperatures		• Increased damages due to typhoons and rainstorms • Increased damages due to water shortages • Flood damages due to rising sea levels	Risks	Flood and water shortage response measures already in motion Flood impacts due to rising sea levels can be coped with the current measures
4°C scenario Important factor 7 National resilience	Intensifying climate disasters alongside rising temperatures	Increase in importance of strengthening infrastructure Increased demand for disaster prevention products	• Contribution with steel and related products that help strengthen infrastructure	Opportunities	Strengthening infrastructure with steel and related products

Summary of Scenario Analysis Evaluation

FOCUS Important factor 1 Decarbonization in steel production processes

The JFE Group promotes the development of innovative technologies to achieve decarbonization ahead of the rest of the world. With a financial base that enables investments following the implementation of innovative technologies, we hugely contribute to shifting to a carbon-free society.

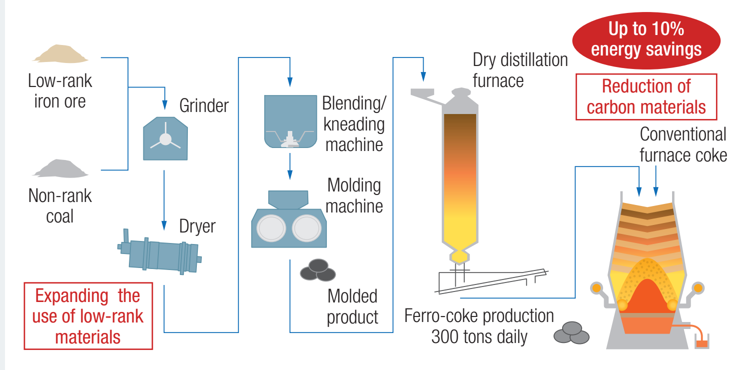
JFE Steel has been actively working on developing energy saving technology to increase the efficiency and achieving decarbonization in the iron and steelmaking processes. We currently boast the world's top-class energy-efficient iron and steelmaking processing technologies. To make further progress toward decarbonization, we will promote development of innovative steel production processes (COURSE50, ferro-coke) that are expected to reduce CO_2 emissions through methods such as hydrogen-reduction and CCS.

COURSE50 is aiming to reduce CO_2 emissions by approximately 30% in total: around 10% through hydrogen-reduction, and 20% through CCS. Equipment will be put in place by around 2030, and be introduced in stages by around 2050, in line with the timing of the renewal of blast furnace-related equipment. Ferro-coke, which improves the efficiency of iron-reduction in blast furnaces, is a technology that can significantly lower CO_2 emissions. Furthermore, to ultimately achieve Zero Carbon Steel, we will pursue challenges such as developing hydrogen-reduction ironmaking technologies in 2030 and beyond.

We view the introduction of these innovative technologies as one of the top priorities and push ahead with the initiative in cooperation with the national government. We are maintaining a financial base that is resilient to these investments.

We are currently building medium-scale pilot plant equipment that produces 300t/d of ferro-coke at JFE Steel's West Japan Works (Fukuyama).

Example case of advanced technology development: the production process of ferro-coke



Maintaining a cost competitiveness in response to the global introduction of carbon pricing

In the event that carbon pricing is introduced into major CO_2 generating countries, the increased operation costs will be reasonably reflected in steel product prices in and outside Japan, helping us maintain our cost competitiveness. Additionally, steel emits the least CO_2 during its production among other competing materials, which makes it be more cost competitive than other materials.

FOCUS Important factor 2 Increase in demand for the effective use of steel scraps

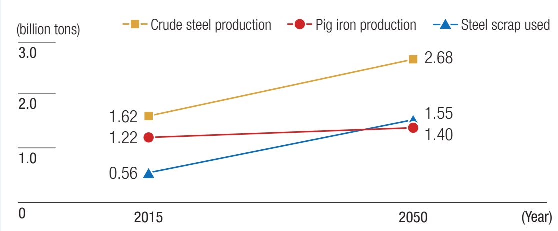
While scrap reusing increases, the need for crude steel also increases in the long-term, resulting in the increase in pig iron production (converter steel) by use of blast furnaces. Also, the increased use of our electric furnaces, the use of integrated construction technologies for electric furnace, and the expansion of the steel scrap logistics provide numerous opportunities to the entire JFE Group.

Steel scraps, the raw material for electric furnace steel, are almost fully retrieved and recycled and effectively reused in the advanced steel value chain. In the 2°C scenario, steel is used as a basic material to achieve SDGs, and the resulting increase in steel accumulation leads to the increased use in scrap. With the growth in population and the economy, the global demand for steel increases. To support the development of a sustainable society, the production of pig iron (converter steel) by use of blast furnaces is expected to increase as well (The Japan Iron and Steel Federation: Long-term vision for climate change mitigation). Furthermore, with the current technological level, many high-grade steels can only be made from converter steel. Converter steel and electric furnace steel co-exist to serve different purposes.

The JFE Group sees opportunity in the rising need for electric furnace steel and the global increase of scrap. Alongside accelerating our electric furnace steel production, we utilize our integrated construction engineering technologies for cutting-edge energy-saving electric furnace equipment, whereby increasing our business opportunities. Also, we will develop other scrap application technologies, so as to expand the use of scrap in the whole steel industry.

On the other hand, increase in the use of scrap entails the expansion of the scrap logistics business, which leads to the growth of JFE Shoji Trade's logistics business.

Estimated supply and demand for steelmaking and scrap use



JFE Group's Initiatives for Climate Change Issues

FOCUS Important factor ❸ Change in demand for steel for automobiles and others

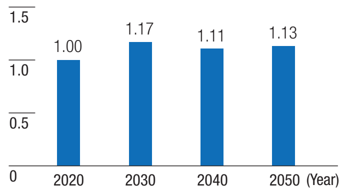
While global automobile sales are rising, the demand for electrical steel sheets and special steel for EV motors is also experiencing an increase. Strengthening of high-tensile steel for automobiles further contributes to weight reduction.

The transformation of automobiles to electrical vehicles will lead to a rapid increase in demand for electrical steel sheets for EV motors. JFE Steel added one of its Eco product, the non-oriented electrical steel sheet: JNE series, for motors, into its product line-up, garnering high market shares.

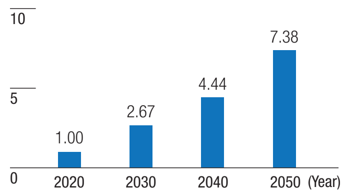
It is pointed out that the transformation of automobiles to electric vehicles could possibly decrease the use of special steel for engine-related components. Compared to a gasoline vehicle, amount of special steel used decreases roughly by 20% for hybrid vehicles, and by 40% for electric vehicles. However, even in the 2°C scenario, the number of automobile sales is expected to increase, resulting in the rising demand for special steel for automobiles as a whole. Therefore, relevant risk is considered small.

On the other hand, weight reduction in automobile frames is highly required for electric vehicles as well. JFE Steel has developed a 1.5 GPa-grade cold rolled steel sheet as one of its Eco product, and has been successful in commercializing it as an automotive steel sheet. This steel sheet is extremely strong, and enables significant weight reduction in automobile frames. This brings huge reduction in CO_2 emissions during driving.

Projected global demand for special steel for automobiles



Projected global demand for electrical steel sheets for automobiles



Y-axis: Steel demand (INDEX: projected demand in 2020 = 1.00)
Source: Projected based on the documentation for Strategic Commission for the New Era of Automobiles (Ministry of Economy, Trade and Industry)

Steel demand rises, regaining attention to its high recyclability which contributes to decarbonization.

Steel is a material with high recyclability while still maintaining high quality, being able to be reproduced into diverse products as many times as required. Going forward, resource recycling is expected to be promoted in society as a whole, which in turn contributes to decarbonization. In this respect, we expect the high recyclability of steel will be focused on again.

Limited effect of multi-material automobiles

Aluminum and carbon fiber reinforced plastic are considered alternate materials to reduce weight in automobiles. However, they are costly to produce compared to steel, and criticized due to high CO_2 emissions during their life cycles. Following this, in the 2°C scenario where carbon pricing is supposed to be introduced, the cost difference between steel and alternate materials will increase further. Therefore, although multi-materials can be introduced to a certain extent among luxury vehicles, their effect on normal vehicles are considered limited. Moreover, even if aluminum is thoroughly used as a substitute in making panel parts such as doors of luxury vehicles, the estimated weight-reduction is only 5% of all the materials used for luxury and normal vehicles. Considering the increase in the number of automobiles produced, use of multi-materials is expected to have a limited effect on overall steel demand for automotive parts.

FOCUS Important factor ❹ Increase in demand for solutions promoting decarbonization

Contributing to providing solutions (renewable energy generation/recycling plants, energy-saving iron and steelmaking technologies).

Biomass power plant

Waste-to-energy plant

The demand for power plants that employ renewable energy without emitting carbon is expected to significantly increase in the future. In the engineering field, the JFE Group's business involves the design, procurement, construction, and operation of power plants such as biomass, geothermal, and solar energy. Moreover, from the viewpoint of recycling and effective use of resources, we are also working to increase power generation amount at waste-to-energy plants. JFE Engineering is working to achieve full automation, which can lead to an increase in power generation amount by waste incinerators.

Additionally, we have also implemented measures to use recycled material in the production of plastic products, and to reduce the new adoption of materials that originate from fossil fuels. JFE Engineering's businesses consist of design, procurement, integrated construction and operation of recycling plants, while J&T Recycling Corporation plastic recycling.

Technological development of production processes is not enough to achieve absolute decarbonization in the industry as a whole. Therefore, the demand for CCU and CCS (the effective use and storage of CO_2) equipment is expected to increase. JFE Engineering is able to comprehensively conduct every phase of the design, procurement and construction of CCU and CCS equipment.

From the viewpoint of the steel industry, countries such as China, which makes up little less than 50% of global crude steel production, and India, whose production scale is expected to further increase, have ample potential to adopt Eco solution (energy-saving steelmaking technologies). If the advanced energy-saving technologies widely used in Japan are to be transferred and adopted on a global scale, the potential amount of global CO_2 reduction is well over 400 million t-CO_2. (Japan's contribution in 2030 through Eco solution is estimated to be an 80 million t-CO_2.)

FOCUS Important factor ❺ Procurement of raw materials becomes unstable due to increased frequency in climate disasters

Responding to climate disasters through alternative procurement methods and source distribution, as well as strengthening equipment capabilities.

We mainly procure raw materials from Australia, where typhoon occurrences are expected to double. In the event that production and delivery come to a temporary halt in Australia, production will definitely be affected, and damages may occur depending on the situation.

To respond to this, we promote alternative procurement methods and source distribution, as well as strengthening equipment capabilities.

Alternative procurement methods and source distribution: By means of spot procurement from Chinese port inventories, increasing procurement from short-distance sources such as Russia and Indonesia, and making advanced purchases and new contracts of other brands at shipping ports in non-affected regions of Australia. Furthermore, we utilize the reserved inventory and outside yard of Philippine Sinter Corporation, a Group company.
Strengthening equipment capabilities: Through strengthening the production capabilities by installing new equipment and renewing existing ones, we enhance our adaptability and flexibility towards fluctuations in supply and demand.

FOCUS Important factor ❻ Damages to business bases due to climate disasters

Initiatives against floods and water shortages are currently at work. Effects of flood due to rising sea levels can be managed under the present circumstances.

Going forward, typhoons and rainstorms are expected to intensify, and disasters on par with the torrential rain in West Japan in 2018 are expected to increase in frequency. We are currently implementing measures to minimize damages. We have invested approximately 6.5 billion yen in our steelworks' flood response measures, such as strengthening sewage equipment. Moreover, we have invested approximately 3.5 billion yen in our steelworks' water shortage response measures, and have introduced equipment such as seawater desalination devices in some steelworks. There have been no significant water shortage disaster since 1994, but in preparation for more frequent occurrence of water shortage going forward, we are working towards minimizing the damage.

All of our steelworks, located at coastal areas, are prone to floods due to rising sea levels. Sea levels are expected to rise 20-30 cm by around 2050 (approximately 70 cm in the case where climate change effect is at its peak in 2100). This will not be so serious as a sea level rise due to storm surge which may cause water intrusion, so the measures we are now working on seems effective. However, we will prepare for the future while analyzing climate disasters going forward.

FOCUS Important factor ❼ National resilience

Contributing to strengthening infrastructure by such means as high-strength H-shaped steel, high-strength steel pipe piles, and hybrid tide embankments.

Hybrid tide embankments

The JFE Group has taken the increasing frequency and intensity of climate disasters for years in Japan as serious matters. Since it is a material risk for the lives of our national citizens to be exposed to danger, we have made it our mission to introduce disaster prevention and reduction measures that maintain the functions of important infrastructure crucial to the livelihood and economic activities of national citizens, as well as to reinforce national resilience.

The JFE Group intends to work as a whole to contribute to the production of steels for construction such as high-strength H-shaped steel and high-strength steel pipe piles, to the making of products related to disaster response such as hybrid tide embankments, and also to the undertaking of infrastructure reconstruction.

■ Responding to climate change

The JFE Group views responding to climate change as a serious management issue, and will accordingly disclose information on our response to risks and opportunities to support sustainable growth.

Responding to climate change is an extremely important management issue for the Group because this is not only related to the business risks, but also gives us opportunities to contribute to achieving a sustainable society.

TCFD, in its final recommendation report released in 2017, asked for companies' disclosure of resilient strategies against climate change, using the "scenario analysis" method. In May 2019, the JFE Group declared its agreement to the TCFD recommendations. In this report, we disclosed the relevant information for the first time in line with the recommendations, and showed not only how we would respond toward the risks in the 2°C and 4°C scenarios, but also how we would contribute to solving issues by means of innovative iron and steelmaking process development, environmentally friendly products and technologies, and national resilience, etc. We expect the information disclosed herein to be read through by our various stakeholders, especially investors, and in turn to serve as the material to gain their better understanding of the JFE Group's efforts.

JFE Holdings, Inc.
Senior Vice President
Hiroyuki Fujiwara

Human Resource Development for Sharing and Practicing Group Philosophy

As we state in the JFE Group's Basic Stance on Human Resource Management, the Group steadily recruits diverse and skilled human resources, ensures that they acquire the skills and knowledge necessary to continue strengthening the Group's technological capabilities, and nurtures their global capabilities in order for the Group to survive in an increasingly complicated and diversified global environment.

In addition, the JFE Group adheres to the philosophy of safety first, and, together with its Group companies and business associates, works to consistently maintain safe working environments and secure workplaces for all employees.

JFE Group's Basic Stance on Human Resource Management

1 **Respect human rights and facilitate fair management of human resources**
The Group manages human resources fairly by respecting the human rights of all employees and nurturing employees who embrace the Group's corporate values and standards of business conduct.

2 **Foster a corporate culture that nurtures people and promotes satisfying workplaces**
The Group facilitates interactive communication among employees to cultivate a corporate culture that nurtures human resources and creates safe, attractive environments where everyone can enjoy working.

3 **Diversify human resources**
The Group ensures that diverse all people, including women, non-Japanese, the elderly and the disabled, can demonstrate their full potential.

4 **Recruit and steadily nurture excellent human resources**
To survive in an increasingly complicated and diversified global environment, the Group steadily recruits diverse, high-quality skilled human resources, ensures that they receive the skills and knowledge necessary to continue strengthening the Group's technological capabilities, and nurtures their global capabilities.

Pursuit of diversity and inclusion

The JFE Group views the promotion of diversity as a key management issue, and promotes initiatives to maximize the abilities of employees with diverse backgrounds in terms of gender, nationality, values, or lifestyle, in order to swiftly and appropriately respond to the rapidly changing business environment.

The importance of diversity continues to rise in order to stably secure excellent human resources as the labor force decreases due to the low birth rate and aging population in recent years.

Due to a broad range of initiatives to support female employees, the ratio of female recruits for FY2019 for the three operating companies was approximately 13%.

Furthermore, the Group has set a numerical target to increase the number of female employees in management positions by 3 times (282 persons) from that as of August 2014, by 2020. As a result of pursuing an expansion of early appointment of female employees in management positions, the Group achieved the target in April 2019. In June 2019 JFE Holdings also appointed a female Audit & Supervisory Board Member.

Human resource development and transfer of technologies and skills

The JFE Group is making a concerted effort to improve the abilities of each individual employee. JFE Steel, as the Group's core business, undertakes the following initiatives.

Human resource development at steelworks

Because improvements in the skills of individuals is a source of competitive strength for steelworks to supply high-quality products, JFE Group steelworks have employed technical experts as full-time instructors to ensure the transfer of high-level skills to new generations. Recently, IT technology such as virtual reality has been used to enhance the effectiveness of training, while on the other hand data science and other technologies have been utilized to realize the automation of steelworks operation itself.

Global human resource development

With the expectation of the JFE Group's business expanding overseas in the future, younger employees are actively sent abroad to develop into global human resources from an early stage in their careers.

Management training

A long-running training program for potential Corporate Officers covering a total of 20 days over a period of seven months serves to train future management for JFE Steel and other Group companies. The program utilizes dialogue with the current management team as well as lectures or discussions with noted figures in various industries as outside instructors. In this way the participants learn the necessary knowledge, thinking, and grounding to become managers, reappraising management issues affecting their own companies while building their ability to formulate strategies. They also acquire a broader perspective toward the business environment and social trends.

Promoting work style reforms

JFE Holdings and its operating companies have been proactively promoting work style reforms under the common understanding that it is indispensable to radically revamp conventional work styles, create new value through high productivity and fulfill a work style reform in which each employee can take pride and feel satisfaction in his or her work in order to address various management problems. We are promoting operational reforms by utilizing its systems and IT tools, while at the same time raising the awareness of each employee and maintaining a balance between work and life through such initiatives as encouraging no-overtime workdays and setting official days when employees are encouraged to take paid holidays. Furthermore, the company and its operating companies have introduced a telecommuting system, as a system to allow for more flexible work styles. Going forward, the Group will continue to focus its efforts on achieving more diverse work styles for its employees.

Preventing occupational accidents

Some work areas in the JFE Group's diverse scope of business require tasks with a comparatively high risk of accidents, including activities in elevated or hot environments, and the transportation of heavy objects. Having a safe work environment is crucial, and preventing workplace accidents is a fundamental requirement to provide peace of mind for employees, which include diverse human resources such as elderly people and women.

Web The JFE Group CSR REPORT
https://www.jfe-holdings.co.jp/en/csr/data/index.html

JFE Steel follows three basic strategies: promote the autonomous resolution of issues, strengthen health and safety at business associates and Group companies, and develop activities in line with the Group's Health Declaration. By adopting specialized safety know-how developed by DuPont, JFE Steel is building a new safety culture, changing the focus away from the dependency of people doing only what they are told to do and toward the autonomy of people exercising their own initiative.

Human rights initiatives

The JFE Group has for many years observed human rights through its Standards of Business Conduct, which mandate respect for individuals in the Group and greater society as well as nondiscrimination in all corporate activities. We also conduct our business based on the JFE Group Human Rights Basic Stance, which is aligned with international norms such as the United Nations' Guiding Principles on Business and Human Rights.

In order to steadily work on human rights initiatives, the JFE Group Human Rights Promotion Council was established under the JFE Group Compliance Committee, to define Group-wide policies and exchange information with human rights promotion departments set up in the operating companies.

In FY2019, we invited external experts to speak about business and human rights at an internal seminar so as to gain understanding of international trends. Across the JFE Group we are working to increase awareness of human rights.

In order to establish and maintain a sustainable system for purchasing raw materials, JFE Steel purchases them with full consideration of respect for human rights, legal compliance, and environmental preservation in accordance with the Raw Materials Purchasing Policy of the company. We also post our purchasing policy on our website to provide information about our policy throughout the supply chain and have begun exchanging opinions with suppliers. Raw materials are purchased after investigating a supplier to confirm that they are not using conflict minerals.

Web JFE Group Human Rights Basic Stance
https://www.jfe-holdings.co.jp/en/csr/society/human_rights_basic_policy/

JFE Steel Raw Materials Purchasing Policy
https://www.jfe-steel.co.jp/en/company/purchase_policy.html

Human rights promotion structure

JFE Group Compliance Committee (Chair: President, JFE Holdings)

JFE Group Human Rights Promotion Council
(Chair: executive Officer in charge of General Administration, JFE Holdings)

JFE Holdings, operating companies
Department in charge of Human Rights

Feature 03

Outside Executives Group Interview

Outside executives share perspectives on the features and effectiveness of JFE's governance system

JFE Holdings' Audit & Supervisory Board voluntarily established Nomination and Remuneration committees as advisory bodies to the Board of Directors. The President has explained the reasons behind selecting this type of system for discussing issues in committees. A roundtable discussion involving all six outside executives was held to elicit their opinions regarding the effectiveness of JFE Holdings' governance system.

A

Shigeo Ohyagi

Teijin Limited
Senior Advisor

Mr. Ohyagi joined Teijin Limited in 1971. He was appointed to his present post in June 2018, after serving as Representative Director, President, and Chairman of the Board of Teijin. He is also an Outside Director of KDDI Corporation and MUFG Bank, Ltd. He became an Audit & Supervisory Board Member of JFE Holdings in June 2014.

B

Tsuyoshi Numagami

Board Member and
Executive Vice President of
Hitotsubashi University

Mr. Numagami was appointed Professor of the Graduate School of Commerce and Management of Hitotsubashi University in 2000. He took his present position in 2014 after becoming the Dean of the school in 2011. He was also appointed Professor of the Graduate School of Business Administration in 2018. He became an Audit & Supervisory Board Member of JFE Holdings in June 2018.

C

Masao Yoshida

Furukawa Electric Co., Ltd.
Special Advisor

Mr. Yoshida joined Furukawa Electric Co., Ltd. in 1972. He was appointed to his current post in July 2018 after serving as President and Representative Director and then Chairman and Representative Director. He is also an External Director of Tokyo Century Corporation. He became a Director of JFE Holdings in June 2015.

D

Isao Saiki

Abe, Ikubo & Katayama
Law Firm
Partner Lawyer

Mr. Saiki was admitted to the bar in 1989 and joined Ginza Law Office (now Abe, Ikubo & Katayama Law Firm). He has held his current post since January 1998. He became an Audit & Supervisory Board Member of JFE Holdings in June 2017.

E

Nobumasa Kemori

Sumitomo Metal Mining
Co., Ltd.
Executive Advisor

Mr. Kemori joined Sumitomo Metal Mining Co., Ltd. in 1980. He was appointed to his current post in June 2017 after serving as Representative Director and President and then Representative Director and Chairman of the Board. He is also as an Outside Director of Nagase & Co., Ltd. and Sumitomo Realty & Development Co., Ltd. He became a Director of JFE Holdings in June 2018.

F

Masami Yamamoto

Fujitsu Limited
Director
Senior Advisor

Mr. Yamamoto joined Fujitsu Limited in 1976. He was appointed to his current post in June 2019 after serving as President and Representative Director and then Chairman and Representative Director. He is also a Member of the Board of Directors (Outside Director) of Mizuho Financial Group, Inc. He became a Director of JFE Holdings in June 2017.

As a company with an Audit & Supervisory Board, JFE Holdings enhances the effectiveness of its management oversight through a hybrid governance system that includes voluntary Nomination and Remuneration committees.

Representative Director,
President and CEO JFE Holdings, Inc.

Koji Kakigi

I think JFE Holdings' governance system has two main characteristics. The first is independent Audit & Supervisory Board Members with strong authority over a broad range of Group businesses, and the second is the voluntarily Nomination and Remuneration committees to ensure objectivity and transparency.

JFE's three operating companies—JFE Steel, JFE Engineering and JFE Shoji Trade—together with many Group and partner companies, are engaging in a wide range of businesses. Managing risks throughout the Group while enhancing the autonomy and efficiency of each operating company is essential to continuously increase corporate value.

To achieve this, JFE facilitates fast decision-making by delegating authority to its operating companies through a pure holding company system and corporate officer system. JFE Holdings has also adopted a governance system where members of its independent Audit & Supervisory Board, a standard system used in Japan, serve four-year terms with strong authority to audit the execution of duties by Directors and business throughout the entire Group. In addition, governance is strengthened and information is shared throughout the Group by having JFE Holdings Directors and Corporate Officers also serve as Directors of the operating companies and members of JFE Holdings Audit & Supervisory Board serve as members of the Audit & Supervisory Boards of the operating companies.

JFE Holdings' Audit & Supervisory Board has three independent Outside Audit & Supervisory Board Members and two full-time Inside Audit & Supervisory Board Members. The full-time Audit & Supervisory Board Members are also absentee Audit & Supervisory Board Members of each operating company. In addition, multiple full-time Audit & Supervisory Board Members are assigned to the operating companies, and Audit & Supervisory Board Members serve as absentee Audit & Supervisory Board Members in companies under the operating companies.

Furthermore, full-time Audit & Supervisory Board Members are assigned, or part-time Audit & Supervisory Board Members are dispatched, from each operating company to Group companies. Each part-time Audit & Supervisory Board Member is appointed as an absentee Audit & Supervisory Board Member of one of the four Group companies to enhance Group governance.

The JFE Group Board of Auditors, which consists of full-time and part-time Audit & Supervisory Board Members of the operating companies and each Group company, considers internal-control issues of each company, with the JFE Holdings' Audit & Supervisory Board playing a central role. Audit & Supervisory Board Members enhance their auditing activities by conducting research and study in JFE Group Board of Auditors subcommittees.

JFE Holdings believes that this is the most effective system for creating an "audit tree" to enable robust and wide-ranging Group risk management.

See page 81 for more details about the internal control system.

Furthermore, JFE Holdings has voluntarily established Nomination and Remuneration committees as advisory bodies to the Board of Directors. The majorities of both committees are composed of and chaired by independent outside executives to ensure fairness, objectivity and transparency regarding the appointment and remuneration of Directors and other officers.

The Nomination Committee deliberates matters such as basic policy regarding the election and dismissal of the President, successor planning, and the nomination of candidates for outside executives. The Remuneration Committee deliberates on matters such as basic policy regarding remuneration of Directors of JFE Holdings and each operating company. Both committees report to the Board of Directors.

As such, JFE Holdings has created a hybrid governance system that integrates the superior aspects of a Nomination Committee, etc. into the existing Audit & Supervisory Board. Under this system, JFE Holdings is working to increase the effectiveness of its management oversight and deepen discussions regarding sustainable growth and improved medium- to long-term corporate value.

See page 77 for more details on corporate governance.

Outside Executives Group Interview

Outside executives share perspectives on features and effectiveness of JFE governance system

First, how did you feel working as an outside executive for the past year?

Kemori One year has passed since I was appointed as a Director in June 2018. JFE Holding is a company with an Audit & Supervisory Board, the standard corporate structure in Japan, but I was very interested in how the company's governance functions effectively within this framework.

At my first Board of Directors meeting, I felt that the Outside Audit & Supervisory Board Members and Outside Directors worked together magnificently, with the Audit & Supervisory Board Members speaking freely, no differently than Directors.

The current Board of Directors consists of five Inside Directors and three Outside Directors joined by an additional three Outside Audit & Supervisory Board Members. Inside members are outnumbered six to five by outside members, which improves auditing and oversight functions dramatically. We have very useful discussions about what goes into making decisions and execution status reports after decisions are made, so I think the entire company is heading in a good direction. The chairperson of the Board of Directors (President) is open-minded and takes time to listen, asking people to please speak up if there are any more opinions, even after outside executives have said whatever they want to say. I think this is one of the reasons why discussions are lively.

Numagami I also just finished my first year. I was deeply impressed by the fact that such diverse and highly specialized outside executives active in their own respective fields were having open discussions and frankly saying what they honestly thought. I am a business scholar who specializes in organizational theory and strategic theory. In organizational theory, it is said that problems such as shared information bias1 and groupthink2 can easily arise when making decisions as a group. However, because JFE Holdings' outside executives are very frank and raise issues for discussion from various angles, I think such problems in decision making are unlikely to arise here. Also, I believe group discussions should not be just superficial verbal exchanges. Taking what is said as a clue, we should converse with people while considering the thoughts behind their words, their viewpoints and the framework of each discussion. However, when diverse people gather, it is extremely difficult to fully understand their diverse viewpoints, so I always have a hard time holding discussions in the classroom. However, partly because the chairperson of JFE Holdings' Board of Directors is highly capable as an interpreter, the diverse viewpoints are integrated effectively. I think it's magnificent that a place has been established where such dialogue with each other is possible.

*1 The tendency of a group to spend much time discussing shared information but not much time discussing unshared information, meaning that even if people with diverse information come together, the information they possess will not necessarily be utilized fully

*2 The situation where a group accepts irrational decision making by prioritizing fast consensus- forming rather than reaching the best conclusion, meaning that some individuals avoid expressing opposing viewpoints

Yoshida As Mr. Kemori said, it's like there are six Outside Directors. Since I became a Director in 2015, Outside Directors have changed the most. Two Directors with engineering backgrounds have joined us—Mr. Yamamoto is highly knowledgeable about IoT and AI, and Mr. Kemori is extremely familiar with on-site issues from melting and casting to rolling. Mr. Kemori also points out issues with sharp insight that I can't, no matter how much I visit a site. Mr. Saiki, a legal expert, and Mr. Numagami, a business scholar, have become Audit & Supervisory Board Members. I think the Board has a very good makeup because we can discuss issues from diverse perspectives.

What impresses you the most when you visit JFE sites?

Numagami I've been shown many sites, including JFE Steel's Kurashiki, Chiba and Keihin sites and JFE Engineering's Global Remote Center, incinerator site and the multilevel crossing construction site at Maihama. I believe it's important to visualize the situation in the field to have a logical discussion at the Board of Directors meeting, so there is a big difference between seeing or not seeing a site. In addition, discussions at JFE Holdings' Board of Directors tend to go back and forth between what's happening in the field and in global competition, debating on both issues at the same time. But if you haven't seen a site and only understand the global side, the meeting may deteriorate into a dog fight. I am very grateful that after visiting various sites I am able to understand our dynamic discussions more deeply.

Kemori I specialize in metallurgical technology, so I have inspected mainly sites with blast furnaces, such as in Vietnam and Keihin, Kurashiki and Fukuyama in Japan. FHS in Vietnam is basically operated by a Taiwanese company, so the number of employees dispatched there from JFE is limited. However, I could see that they relied on JFE, particularly for the rolling process, and that this was leading to future growth.

In Japan, I saw how the executives from headquarters who accompanied me to sites interacted with local executives and employees in the field during plant tours and social gatherings later. I truly feel that JFE is a manufacturing company led by its plants in the field. There is no wall between executives and people working in the field, and it's a company with extremely good and open communication. Also, such field trips give me opportunities to contact people in the field, making me feel like part of the family. This gives me a strong sense of affinity with and membership in JFE, which motivates me to do my best for the company.

Next, please talk about the role of the Audit & Supervisory Board.

Saiki Auditing from a legal standpoint is a core function of Audit & Supervisory Board Members. A company's Audit & Supervisory Board Members must have long terms of office to carry out accurate legal audits. However, there is also the opinion that this alone would be a waste of auditor resources. My first impression is that JFE Holdings has given a lot of thought to this, and has created an environment where Audit & Supervisory Board Members can play active roles, sometimes even like Outside Directors. Compared to other companies, there is much more information available to JFE Audit & Supervisory Board Members and there are more opportunities to speak up.

In the case of the Audit and Supervisory Committee, Nomination Committee, etc., audits are carried out by Directors who have voting rights. This is significant. However, since their terms of office are short, their ability to conduct audits with a long-term view is also an issue. In this respect, an Audit & Supervisory Board makes it easier to steadily carry out audits with a long-term view. It's important to maximize the advantages of both systems. However, how those in charge of auditing are allowed to exercise their roles depends entirely on management's stance. I don't think the issue is simply if a company has an Audit & Supervisory Board or not.

Ohyagi The basic thinking behind why JFE Holdings chose to have an Audit & Supervisory Board has remained consistent since I took office. JFE Holdings is a huge corporate organization with numerous subsidiaries, and since most of them have manufacturing sites, we have to look at both corporate management and on-site operations.

Therefore, the company has secured a system in which specialists monitor a wide variety of conditions, which why the company chose to have an Audit & Supervisory Board. Realistically, it's difficult for people from outside the company to learn about a field and carry out oversight and audits in a short two-year term of office, as in a company with an Audit & Supervisory Committee.

Also, there aren't other companies where Audit & Supervisory Board Members express their opinions like we do. It may not even be allowed at other companies. JFE Holdings practices not only defensive governance with legal audits, as Mr. Saiki mentioned earlier, but also active governance with the full participation of Audit & Supervisory Board Members. JFE Holdings has created a unique culture in its Board of Directors, allowing Outside Audit & Supervisory Board Members to express themselves fully as outside executives, just like Outside Directors, in discussions prior Board of Directors resolutions. We essentially serve the same functions as Directors, even though we don't legally have voting rights. This is not easy to achieve.

Outside executives share perspectives on features and effectiveness of JFE governance system

Yoshida I have not met any other Audit & Supervisory Board Members who talk about the ideal situation for their companies, so we Directors find your comments very helpful.

Yamamoto A Board of Directors meeting is clearly livelier in a company where Audit & Supervisory Board Members can speak up often. That may be the main driving force for revitalizing Board of Directors meetings.

Yoshida That's right.

Saiki Regarding Audit & Supervisory Board Member activities, outside executives hold meetings several days before Board of Directors meetings, and the Audit & Supervisory Board meeting. To be honest, I have the impression that there is a heavy burden on Audit & Supervisory Board Members at this company. We also participate in meetings where Audit & Supervisory Board Members of the Group get together for discussions to help us understand how we are positioned within the context of Group-wide auditing. Additionally, JFE Holdings' full-time Audit & Supervisory Board Members sometimes check the status of Group company audits in great detail.

There are also opportunities to feed information back to Outside Members at Audit & Supervisory Board meetings. Audits are carried out relatively efficiently even though there are many Group companies. This has enabled me to hear about issues that Audit & Supervisory Board Members of Group companies deal with in their audits.

Numagami JFE Holdings has a system called an audit tree for sharing all audit information, including that of sub-subsidiary companies, which eventually reaches JFE Holdings' Audit & Supervisory Board. I think that a major characteristic of JFE Holdings is that Audit & Supervisory Board Members can use that information when speaking at meetings.

Ohyagi The Group-level activities of JFE Holdings Audit & Supervisory Board Members are probably rare among listed companies. The 40 to 50 members of each company are divided into five groups. Each group decides key themes for the year and then carries out research. They report on their activities and help to elevate the efforts of each other. For example, one theme is to discuss what our company can learn from incidents that have occurred at other companies. I'm impressed by the fact that we have the power to take Audit & Supervisory Board Member activities to a higher level by repeating such efforts earnestly each year.

I would like to ask about the Nomination and Remuneration committees that have been established voluntarily. In April of this year, the President was replaced. How was the Nomination Committee involved?

Yamamoto This was the first election of a President since the Nomination and Remuneration committees were established as advisory bodies to the Board of Directors in October 2015, so it was a test if the autonomous election process by the Nomination Committee works properly.

To get straight to the point, I think it functioned smoothly and exhibited a high level of performance. After hearing of former President Hayashida's intention to retire, multiple meetings of the Nomination Committee were held, and issues such as rules for election and dismissal of the President, successor planning and election of Inside and Outside Directors were repeatedly discussed. As a result, the process of selecting the next President went smoothly. I felt that the change of President was necessary and appropriate for the continuity and growth of JFE Holdings, and other Directors and Audit & Supervisory Board Members probably felt the same way, which reflected our capacity to find suitable successors by remaining aware of the process in our daily activities.

Also, at the same time, some parts of the process have been revised, and I expect that it will be further improved when we go through the next election and dismissal process. For example, a process has been created in which the President will propose a successor plan to the Nomination Committee every year, based on which discussions will be held by the committee. The Nomination Committee will draw up a plan for selecting a successor to the President based on these discussions and report it to the Board of Directors. This means that the President must always be aware of his successor. Now that a mechanism has been put in place where selection of a successor does not arise suddenly but proceeds according to a plan, in the future the Nomination Committee will have to check if the system works well, including the development of potential successors.

Since JFE Holdings has various opportunities to communicate with Corporate Officers at operating companies, including reporting to the Board of Directors, the Nomination Committee would like to take advantage of these opportunities to constantly check the suitability of successors and the way they think.

Last year, we introduced and launched a medium- to long-term performance-linked remuneration system. What's your assessment?

Kemori Considering the criticism that fixed remunerations to executives in Japan are relatively high and not linked closely to business performance, and the opinion that systems which overemphasize short-term profits are not suitable in Japan, we have adopted a remuneration system that evaluates medium- to long-term performance and feeds that evaluation back into remuneration. Also, I think the current system is based on the idea that by introducing stock compensation, the executives' intent to raise stock prices and corporate value from the shareholders' perspective will manifest itself in action. I regard our remuneration system as an improvement on problems with the Japanese remuneration system. As for the future, I think it will be necessary to check whether this remuneration system is truly appropriate from three points of view. The first is whether the system really remunerates executives for performance versus the economic environment when it changes significantly later in terms of indicators that influence remuneration. The second is how the positioning of sales and profits relate within the industry. The last is if significant gaps appear in comparison with the remuneration of typical employees. If it seems the system should be revised after looking at these issues, then I think we should be flexible and make the needed changes at that time. I would also like to confirm if this revision of executive remuneration is functioning as an incentive for executives.

Saiki I think it's appropriate in the view of shareholders because remuneration is linked to performance. However, since the Medium-term Business Plan is used as a benchmark, it may not necessarily be an incentive for executives if the business environment changes drastically and initial assumptions are changed. With everyone devoted to working with a sense of mission, I think at some point it will become necessary to review either the remuneration system or the benchmarks to provide appropriate incentives.

Yamamoto Members of JFE Holdings management are all very diligent and create medium-term business plans with high goals. This makes it possible for target-achievement rates to be low, which wouldn't be an incentive for executives. So it's not an appropriate incentive, which is a problem.

Ohyagi JFE Holdings is an industry leader, so we should target appropriate levels of remuneration that top executives of a leading business can take pride in. However, enormous capital investment must come first in the steel industry, so there is a high level of fixed costs. Also, business results fluctuate significantly depending on changes in environmental conditions such as raw materials and energy, so sometimes results do not appear in the short term. If the variable part of results is proportionally large, the level of remuneration will only reflect the fixed part whenever the environment worsens, resulting in a remuneration system in which the incentive does not work. I think devising a system to counter this is very difficult. In the service industry, for example, it is possible to set a three-year goal and pay the incentive only if the goal is achieved. But this is not so easy for a company making large capital investments. Given these conditions, we have to settle with the idea of having a certain industry standard for the fixed portion of remuneration, and then adding an appropriate variable portion. That being said, we definitely want executives to overcome economic fluctuations and do their best to earn a level of remuneration that leads the industry. I would like to see a system with incentives that earnestly reflect these objectives.

What discussions are being held at the Board of Directors meeting regarding the Sixth Medium-term Business Plan that is currently underway?

Yoshida It has been a little over a year since the current Medium-term Business Plan began, but I feel that a tremendous amount of change has occurred during that time. The assumptions of the plan have changed significantly, given that U.S.-China trade friction, soaring raw material prices, rising logistics and construction costs due to shortages of labor, tariffs and fluctuations in exchange rates and interest rates all have become a reality and are no longer just future threats. In the midst of this, how do the results of our activities differ from the changing external environment? For example, how does the amount of capital investment differ from initial assumptions and what kind of trouble is there with equipment? I think the time has come to distance ourselves a little from our perspective when the Medium-term Business Plan was formulated to allow us to check if any points need to be corrected. Depending on the situation, we may need to discuss revising the plan at the Board of Directors meeting. Since investment effects take a long time to appear at JFE Holdings, I think that we might have to change things slightly, including the remuneration system we just talked about.

Numagami I completely agree. When I have students formulate a strategic plan at the university, I teach them to forecast conditions as best they can and create their plan based on that, because it is not possible to foresee all changes in the environment; changes always occur. People become oblivious to change if they don't have a plan, because without a plan they can't check to see if their original outlook was incorrect. However, I also instruct students not to blindly adhere to a plan. There are always things that can't be predicted. So, rather than just sticking to a plan, we need to check it again and again, including the assumptions made at the time it was formulated, and rethink those parts that should be reconsidered.

Yamamoto It's the same for global expansion, which is a significant issue in the Medium-term Business Plan. In working with various companies for global expansion, if the environment changes then our relationships with these partner companies will also change. Adaptation is a very important theme, so we must emphasize continuous adaptation.

Ohyagi I used to think that a medium- to long-term plan determines the direction a company must take over the next five to ten years, and what needs to be done to achieve that. However, in my experience, the capital market really requires us to correct discrepancies in short-term performance against our plans. I have found it necessary to convey the message that we will revise any plan when it needs to be revised to meet market conditions.

Kemori I think we need to set a profit goal, but in situations where the market changes significantly or costs increase unexpectedly, ensuring a certain level of production capacity, for example, is also important over the medium- to long-term. At the company I come from, we forge medium- to long-term plans to increase production capacity by tens of thousands of tons per year through the acquisition of mining interests. Based on this, our three-year plan forecasts profits if prices stay at a certain level. However, not much thought has been given to valuating medium- to long-term results based on the absolute amount of profit. It might be better to rethink the idea of evaluating performance only in terms of profit goals.

Yoshida In the case of the steel industry, there is also the issue of changes in the proportion of production systems between blast furnaces and electric furnaces, or developed countries and emerging countries. After all, we have to be conscious of profits as an indicator for performance-based evaluations, but maybe we need to combine it with other factors too.

Ohyagi How to update the business portfolio is a theme that all managers constantly consider. Even so, it cannot be changed so easily in the steel industry, where there are huge steelworks on vast sites with running railways inside. How do we survive in such a situation?

Yoshida Should we transfer the downstream part of production overseas as with steel sheets for automobiles, or should we change the proportions to a certain extent by moving upstream parts of production as well? It's the same in the industry I come from, and I think this discussion will come up constantly.

Handling ESG initiatives is one of the core strategies in the Medium-term Business Plan, but what kind of opinions are you expressing at Board of Directors meetings?

Yoshida Because JFE Holdings uses a lot of coke in its blast furnaces, how to make iron with less carbon at a lower cost is a social mission. I think we can make a significant contribution to society if we can do this. I said the same thing last year, but I would like to see the company essentially change the way steel is made by taking the global lead in research and development of a manufacturing process that does not use coke. Then, I think we should aim for a balance between profits and the environment by providing our energy-saving and carbon-saving technologies to the world, for which we would receive a certain level of compensation in return. I received a report about it at a Board of Directors meeting. I think we are aggressively tackling the environmental issue as a leading company, mindful that we can help prevent global warming and reduce its impact on climate change.

Numagami As Mr. Yoshida says, there are many companies that just focus on making steel cheaply, but I don't think there are many companies committed to high-level research and development in regard to steel. As a leader in the global steel industry, we have the potential to contribute significantly to society, so research and development is very important.

How much to invest in research and development is a difficult question, but it may be necessary to set it as a key performance indicator, including what kind of results should be generated.

Ohyagi Regarding governance, the structure of the Board of Directors has changed considerably to match the changing times. Five years ago, when I was appointed, there were five members: three Inside Directors and two Outside Directors. Later, to further stimulate and deepen discussions, we added the Presidents of JFE Engineering and JFE Shoji Trade as Inside Directors, and also increased the number of Outside Directors. In addition, we established the voluntary Nomination and Remuneration committees, which are both chaired by outside executives. In recent years, governance at Japanese corporations has changed considerably, but JFE Holdings has changed at an even faster rate over the past five years. Inherently, JFE Holdings is extremely straightforward and serious in terms of employees and corporate character. It feels like once it starts to change it can change at an increasingly faster pace.

Lastly, what do you want to focus on as outside executives to increase JFE's corporate value and achieve sustainable growth?

Yamamoto Regarding the value of steel, I think steel continues to be the basis of global industries. In that sense, JFE Holdings has high potential and many opportunities to play an active role in the world, so I think the most important thing is how to be aggressive while also minding the portfolio. I would definitely like to help JFE Holdings become a company where ESG issues are also handled firmly and positively rather than defensively.

Yoshida As Mr. Yamamoto said, steel is very useful as a construction material; few materials can surpass it. When we

Management for Value Creation

think about a system to generate profits while consumption factors continue to change and expand, we must always take the perspectives of comparative advantage and optimization, considering not only how to advance our technology but also what are the most suitable technologies and places for production from a medium- to long-term viewpoint.

Numagami I have long studied organizations where employees in general become exhausted, particularly middle managers who must deal with the excessively heavy burden of constant adjustment. I would like to contribute by identifying such organizational issues one by one, aiming to allow our excellent middle managers to spend more energy on external competition rather than internal issues.

Saiki While people familiar with the industry know all too well that steel is a line of business greatly affected by changes in the economic environment, despite being a heavy industry, the general public is not aware of this. Based on my belief that management should always communicate messages that are understandable to all of society, including general investors and consumers, not just experts, I'd like to contribute to higher accountability and increased corporate value by continuing to ask core questions.

Ohyagi A big company needs to keep changing to remain active even after 20 or 30 years. As an industry leader, JFE Holdings must continue to change. The question is how to develop people who can carry this out from an early stage and then continue to change. I also believe that in thinking 20 or 30 years ahead, we need to start promoting diversity more actively, because later it will be too late. We must deal effectively with human resource development and diversity so that we don't lose our position as an industry leader.

Kemori My theory is that in heavy industry, you cannot improve corporate value without improving safety records. The fact that accidents have occurred means the established standard operating procedures (SOPs) are not being followed. This is also related to pursuing quality and increasing productivity. Prioritizing safety over everything is ultimately related to corporate value to a significant degree. From that point of view, I would like to continue expressing my frank opinions.

I experienced a very difficult crisis-management situation in an overseas project that I worked on as President of a company. The valuable lesson I learned from that experience is that even in the worst situations, the top global executives never cry about a situation no matter how difficult it may be, and instead persist in searching for a resolution. If you are going to do business overseas, you must be prepared and determined to face any situation. This is important for JFE Holdings, which is expanding globally. I would like to offer such advice based on my experiences.

Message from New Executive

Overcoming preconceptions is the key to governance and value creation

Audit & Supervisory Board Member (full-time)
Kumiko Baba

I joined Toshiba Corporation after the Equal Employment Opportunity Act came into effect. At the time, I was involved in international business including advanced computer equipment. I was always required to be fair and logical in difficult contract negotiations as I interacted with many partners, including ICT companies mainly in the United States. In a field with fast product and business model cycles, I experienced the excitement and tension of doing business at a company with a leading global share, striving to make suitable changes in a timely manner. Later, I joined JFE in April 2014.

It is said that promoting diversity involves incorporating female perspectives. Although there were times during my business career of over 30 years when my abilities as a professional were questioned, at no time has gender actually made any difference in terms of results. Recently, the utilization of women is sometimes expressed as a corporate obligation, but essentially my perception is that we have finally been freed from old values and preconceived concepts, and that the time has come when we can rationally utilize human resources without being preoccupied with age, gender, origin, or other attributes. I have experienced the difficulty of balancing work with family life, including raising children, but it does not conflict with my value as a professional. The issue of division of roles by gender is also entering a new stage worldwide.

I expect this trend will continue to promote the creation of value for companies, individuals and society. I believe that rational and fair thinking ensures transparency, and is directly linked to a governance system that openly provides accurate and fair explanations.

JFE delivers products and services essential to society, such as steel and engineering. It has a good culture that is highly motivated, open-minded and values substance over form. However, it is true that many large Japanese corporations communicate with in-house jargon and rely on tacit understanding lacking economic rationality. I would like to fulfill my professional duties as an Audit & Supervisory Board Member by contributing to a culture of thorough and honest discussions based on respect for data and objective arguments.

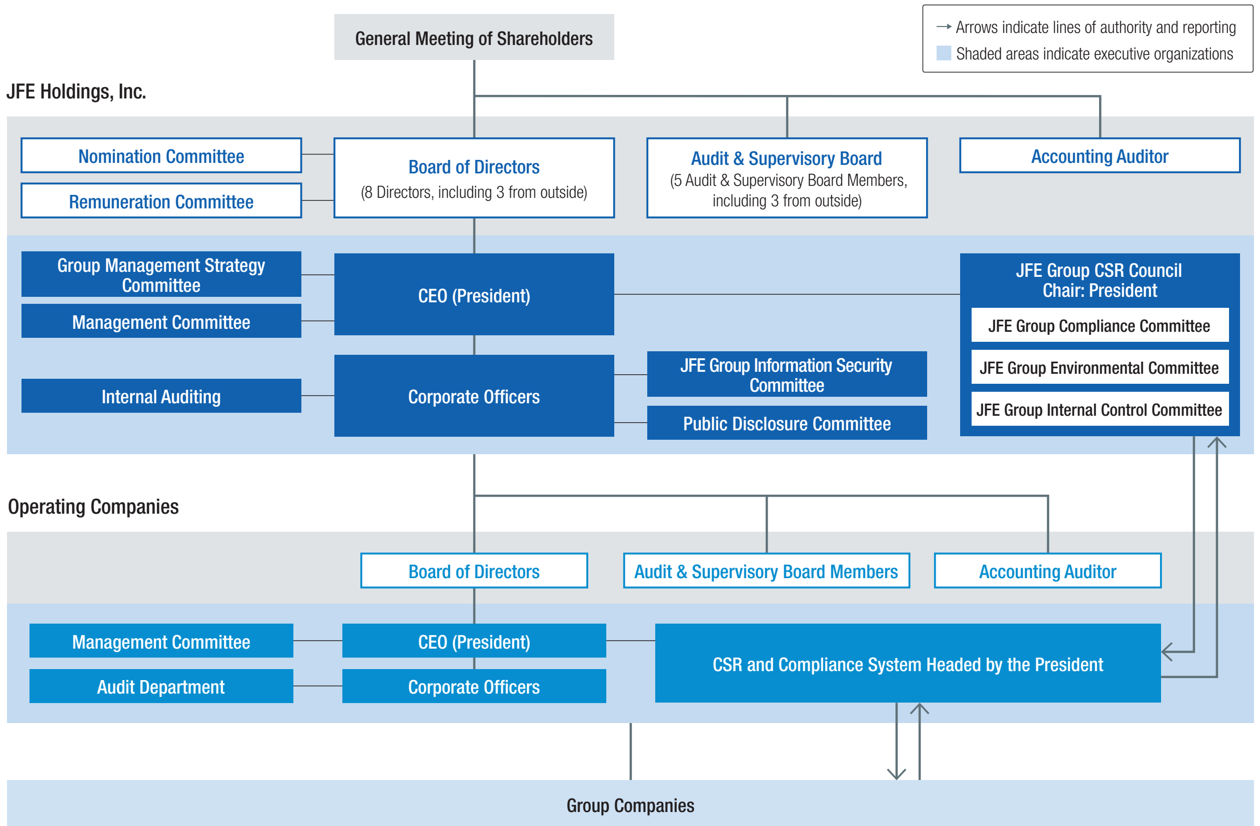
Corporate Governance

Basic Stance

With the steel business, engineering business and trading business at its core, the JFE Group develops a broad range of businesses in a wide range of areas together with many group companies and partners. Establishing a proper governance system is essential towards improving independence and raising efficiency in each operating company, along with the optimal management of risks, which include those related to the environment, safety and disaster prevention in the Group. It is also necessary for the sustainable growth of the Group and the medium- to long-term improvement of its corporate value.

See page 68 for the current stance on the company's governance system.

Corporate Governance System



Establishment of Basic Stance on Corporate Governance

The JFE Holdings, Inc. Basic Stance on Corporate Governance was established in October 2015 to strengthen efforts to achieve sustainable growth and increased corporate value over the medium to long term. Please review the Corporate Governance Report for more information.

Web
JFE Holdings, Inc. Basic Stance on Corporate Governance
https://www.jfe-holdings.co.jp/en/company/info/pdf/basic-policy.pdf

Corporate Governance Report
https://www.jfe-holdings.co.jp/en/company/info/pdf/corporate-governance.pdf

Overview of the corporate governance system

Group governance system

The JFE Group comprises a holding company and three operating companies JFE Steel, JFE Engineering and JFE Shoji Trade.

JFE Holdings, a pure holding company at the core of the Group's integrated governance system, guides Group-wide strategy, risk management and public accountability.

Each operating company has developed its own system suited to its respective industry, ensuring the best course of action for competitiveness and profitability.

Overview of the corporate governance system

Organizational design type	Company with an Audit & Supervisory Board
Number of Directors (Of which, the number of Independent Outside Directors)	8 members (3 members)
Number of Audit & Supervisory Board Members (Of which, the number of Independent Outside Audit & Supervisory Board Members)	5 members (3 members)
Term for Directors	1 year (The same for Outside Directors)
Corporate Officer System	Adopted
Voluntary advisory committees of the Board of Directors	Nomination Committee and Remuneration Committee

Major topics discussed at the FY2018 Board of Directors meeting

- Revision of the Basic Stance on Corporate Governance (Complying with the Revised Corporate Governance Code)
- Introduction of medium- to long-term performance-linked remuneration
- Follow-up for investment and lending and capital investment for each operating company

Governance system

JFE Holdings and each operating company have their respective Audit & Supervisory Board Members. The companies are crosschecked by the Directors, who supervise operational execution, and the Audit & Supervisory Board Members, who conduct audits. Also, a Corporate Officer system separates decision making and execution to clarify authority and responsibility, as well as to accelerate execution. JFE Holdings' Board of Directors is responsible for maintaining and enhancing management efficiency and passing resolutions as legally required, laying down key management policies and strategies and supervising operational execution. The Audit & Supervisory Board oversees management for the purpose of strengthening its soundness.

Major initiatives to strengthen the governance system

- **September 2002** — Established JFE Holdings
- **June 2007** — Added two outside directors and shortened the term of directors from two years to one year
- **October 2015** — Established JFE Holdings, Inc. Basic Stance on Corporate Governance, Nomination Committee, and Remuneration Committee
- **FY2015** — Initiated analysis and evaluation of board of directors' effectiveness
- **June 2017** — Reorganized the Board of Directors and the Audit & Supervisory Board based on results of their effectiveness analysis and evaluation
  - Added the presidents of JFE Engineering and JFE Shoji Trade to the Board of Directors, along with an increase of two outside members (Director and Audit & Supervisory Board Member)

Independent Outside Directors

We elect Independent Outside Directors with the aim of ensuring one-third or more of the Directors are Independent Outside Directors. Independent Outside Directors will be elected from persons who are appropriate to bear the responsibility of strengthening governance such as those who possess abundant experience as management in global enterprises or experts who possess profound knowledge and satisfy our independence standards. Currently, of the eight Directors, three are Independent Outside Directors.

Independent Outside Audit & Supervisory Board Members

More than half of the Audit & Supervisory Board Members are from outside. Independent Outside Audit & Supervisory Board Members will be elected from persons who are appropriate to bear the role of enhancing the auditing function such as those who possess abundant experience as management in global enterprises or experts who possess profound knowledge and satisfy our independence standards. Currently, of the five Audit & Supervisory Board Members, three are Independent Outside Audit & Supervisory Board Members.

Web
Standards for Independence of Outside Directors/Audit & Supervisory Board Members of JFE Holdings, Inc.
https://www.jfe-holdings.co.jp/en/company/info/pdf/independence.pdf

JFE Holdings Outside Directors and Outside Audit & Supervisory Board Members (as of July 1, 2019)

Position	Name	Major Concurrent Positions	Independent Executive	FY2018 Board of Directors Attendees	FY2018 Audit & Supervisory Board Attendees
Outside Director	**Masao Yoshida**	Special Advisor of Furukawa Electric Co., Ltd. External Director of Tokyo Century Corporation	✓	12 out of 12 times (100%)	—
Outside Director	**Masami Yamamoto**	Director and Senior Advisor of Fujitsu Limited Outside Director of Mizuho Financial Group, Inc.	✓	12 out of 12 times (100%)	—
Outside Director	**Nobumasa Kemori**	Executive Advisor of Sumitomo Metal Mining Co., Ltd. Outside Director of NAGASE & CO., LTD. Outside Director of Sumitomo Realty & Development Co., Ltd.	✓	9 out of 9 times (100%) *1	—
Outside Audit & Supervisory Board Member	**Shigeo Ohyagi**	Senior Advisor of Teijin Limited Outside Director of KDDI Corporation Outside Director of MUFG Bank, Ltd.	✓	12 out of 12 times (100%)	18 out of 19 times (95%)
Outside Audit & Supervisory Board Member	**Isao Saiki**	Partner Lawyer of Abe, Ikubo & Katayama Law Firm	✓	12 out of 12 times (100%)	19 out of 19 times (100%)
Outside Audit & Supervisory Board Member	**Tsuyoshi Numagami**	Board Member and Executive Vice President of HITOTSUBASHI UNIVERSITY	✓	9 out of 9 times (100%) *2	13 out of 13 times (100%) *2

*1 Newly elected as a Director in the previous year's Ordinary General Meeting of Shareholders (held on June 21, 2018); therefore, the number of meetings of the Board of Directors differs.
*2 Newly elected as an Audit & Supervisory Board Member in the previous year's Ordinary General Meeting of Shareholders (held on June 21, 2018); therefore, the number of meetings of the Board of Directors and the Audit & Supervisory Board differs.

Approach to diversity in the Board of Directors

With regard to the composition of the Board of Directors, the company elects Officers following deliberations by the Nomination Committee, by focusing on the enhancement of diversity of the Board members, such as their expertise, knowledge and experience in various fields, while balancing with the appropriate size of the Board. One female Audit & Supervisory Board Member was appointed in June 2019, and the company is working to enhance gender and global diversity mainly by electing Directors and Audit & Supervisory Board Members who possess a wealth of knowledge and experience as management in global enterprises. The company will continue to systematically engage in initiatives to foster such human resources suitable for candidates for Directors and Audit & Supervisory Board Members by setting specific targets.

Nomination Committee and Remuneration Committee

In October 2015, JFE Holdings set up the Nomination Committee and the Remuneration Committee as advisory bodies to the Board of Directors to secure fairness, objectivity and transparency in the appointment of and remuneration for Directors and Audit & Supervisory Board Members. For both committees, the majority of committee members are Outside Directors/Audit & Supervisory Board Members and the chairs are chosen from among these people.

Nomination Committee and Remuneration Committee structure
(as of July 1, 2019)

Committee	Inside Director	Outside Director	Outside Audit & Supervisory Board Member	Chair
Nomination Committee	2	2	2	Masami Yamamoto Outside Director
Remuneration Committee	2	2	2	Nobumasa Kemori Outside Director

The Nomination Committee deliberates and reports to the Board of Directors on matters pertaining to the basic stance on the election and dismissal of the President of the company, proposals for the election of candidates for the President of the company, succession plans of the President of the company, and the nomination of candidates for Outside Directors and Outside Audit & Supervisory Board Members. Six meetings were held in FY2018. The Remuneration Committee deliberates matters pertaining to the basic stance on the remuneration of Directors, etc. of the company and each operating company and reports to the Board of Directors. Three meetings were held in FY2018.

Support for Directors and Audit & Supervisory Board Members

Directors and Audit & Supervisory Board Members are provided with opportunities and funding to receive training in legal matters, corporate governance, risk management and other subjects that help them fulfill their roles and duties.

In addition, a briefing is held for Outside Directors and Outside Audit & Supervisory Board Members prior to Board of Directors meetings.

Furthermore, Outside Directors and Outside Audit & Supervisory Board Members are provided with relevant information and opportunities to exchange opinions with the president and other top managers, attend key hearings on the operational status of individual departments, and inspect business sites and Group companies inside and outside Japan.

Analysis and evaluation of effectiveness

Since FY2015, JFE Holdings has worked to improve the overall effectiveness of its Board of Directors by analyzing and evaluating it every year.

In FY2018, third-party questionnaires were sent to all Directors and Audit & Supervisory Board Members. Based on the discussions by the Board of Directors in light of the survey results and evaluation by the third-party organization, the Board of Directors determined that its overall effectiveness has been ensured through invigorated discussions primarily by the Outside Directors/Audit & Supervisory Board Members, mainly by conducting a preliminary briefing session where all Outside Directors/Audit & Supervisory Board Members attended and by appropriate direction by the chairperson. In addition, the appointment of a female Audit & Supervisory Board Member in June 2019 has helped further diversify the composition of Directors and Audit & Supervisory Board Members, thereby enabling more fruitful discussions.

Furthermore, in addition to accurate and fair audits performed by the Audit & Supervisory Board Members, the members also express opinions and actively ask questions at Board of Directors meetings to further invigorate deliberations. Such outcomes support the conclusion that JFE functions more efficiently as a company with an Audit & Supervisory Board.

Meanwhile, we are implementing measures to further improve the effectiveness of the Board of Directors, including by enhancing discussions, such as on ESG issues essential for sustainable growth.

Operating system

Key decision making

JFE companies are responsible for business decisions in accordance with their respective rules and procedures, whereas JFE Holdings makes decisions about Group-wide matters. Each operating company determines key matters through a deliberative process by its own Management Committee and Board of Directors. In April 2017, JFE Holdings changed the operating structure of key committees. Management strategies involving the entire group are now deliberated by the Group Management Strategy Committee and core issues of JFE holdings, the operating companies and the Group are deliberated by the Management Committee before they are submitted to the Board of Directors for resolution.

Structure of Group Management Strategy Committee and Management Committee

Committee	Company	Chairperson	Attendees
Group Management Strategy Committee	JFE Holdings	President	Inside Directors (including 3 operating company Presidents), Corporate Officers and full-time Audit & Supervisory Board Members
Management Committee	JFE Holdings	President	Inside Directors (excluding 3 operating company Presidents), Corporate Officers and full-time Audit & Supervisory Board Members
	Each operating company	President	Directors, major Corporate Officers and Audit & Supervisory Board Members

Executive remuneration

Executive remuneration is based on the basic policies founded on discussions and reports by the Remuneration Committee, and it is decided through either a resolution of the Board of Directors or deliberations by the Audit & Supervisory Board Members, for an amount within the total limit approved at the General Meeting of Shareholders.

Executive remuneration (FY2018)

Position	Total Remuneration, etc. (thousand yen)	Number of Executives
Directors (excluding Outside Directors)	297,832	5
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	78,334	2
Outside Directors/ Audit & Supervisory Board Members	73,847	8

Officers whose consolidated remuneration exceeded 100 million yen
(FY2018)

Name	Position	Company	Per Company (thousand yen)	Total (thousand yen)
Eiji Hayashida	Director	JFE Holdings	173,925	173,925
Koji Kakigi	Director	JFE Holdings	12,000	175,545
	Director	JFE Steel	163,545	
Hajime Oshita	Director	JFE Holdings	8,400	101,585
	Director	JFE Engineering	93,185	

Basic Stance on determination of remuneration for Directors and Audit & Supervisory Board Members and Corporate Officers

- The Board of Directors shall determine remuneration system for Directors and Corporate Officers based on deliberations regarding its appropriateness by the Remuneration Committee to ensure fairness, objectiveness and transparency.
- The remuneration level for Directors and Corporate Officers shall be determined to secure excellent human resources who are able to put the Group's corporate vision into practice, taking into consideration the business environment of the Group and remuneration levels at other companies in the same industry or of the same scale.
- The ratio between basic remuneration and performance-linked remuneration (annual bonus and stock remuneration) shall be properly established according to the roles and responsibilities, etc. of each Director and Corporate Officer so as to function as sound incentives toward the sustainable growth of the Group.

The company pays only basic remuneration to Outside Directors and Audit & Supervisory Board Members, given their respective roles of supervising and auditing management from an independent and objective standpoint.

Composition of remuneration for Directors and Audit & Supervisory Board Members and Corporate Officers

Medium- to long-term performance-linked remuneration system for Directors and Audit & Supervisory Board Members has been introduced from FY2018. Remuneration for Directors and Audit & Supervisory Board Members after the introduction of this system is as follows.

Basic remuneration

A fixed amount is paid every month according to positions and other factors.

Annual bonus

Directors and Corporate Officers, excluding Outside Directors, receive cash bonuses once a year, based on a standard determined according to single-year consolidated results. From FY2018 to FY2020, the "total amount of segment profit" will be used as a performance indicator.

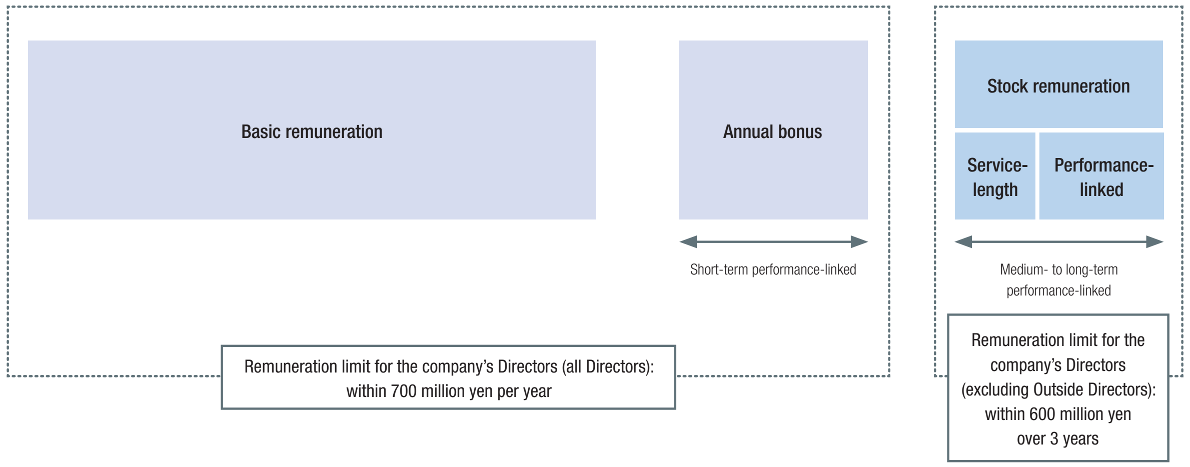
Medium- to long-term performance-linked remuneration

The stock remuneration plan is a plan that provides the company's shares and an amount of cash equivalent to the market price of the company's shares to Directors (excluding Outside Directors) and Corporate Officers. Remuneration based on this system is paid based on the payment level, which is determined in accordance with the performance targets, etc. in the Group's medium-term business plan, and as a rule, it is provided at retirement through a trust in the form of the company's shares or cash.

In FY2019, the payment level is determined according to the level of achievement of the target profit attributable to owners of the parent company of 200 billion yen per year, set under the Sixth Medium-term Business Plan. Furthermore, 5% or more ROE is the minimal requirement for the payment.

Remuneration for the company president when the target goals have been attained is set so that the ratio of basic remuneration (fixed remuneration), annual bonus (short-term performance-liked) and stock remuneration (medium- to long-business performance-linked) roughly stands at 6:2:2.

Composition of remuneration for the company's Directors and part-time Audit & Supervisory Board Members



Internal control

The JFE Group's internal control system, in accordance with the Basic Stance for Building an Internal Control System, is maintained through various committee regulations including the Rules of the Board of Directors, Regulations for Group Management Strategy Committee, Regulations for Management Committee, Regulations for the JFE Group CSR Council, Regulations for Organization and Operations, Regulations for Document Management, Regulations for Addressing Violence Directed at Companies, and the installation of Corporate Ethics Hotline. The Basic Stance for Building Internal Control Systems is revised and improved from time to time to boost sustainable corporate value.

Strengthening internal control

Internal audits

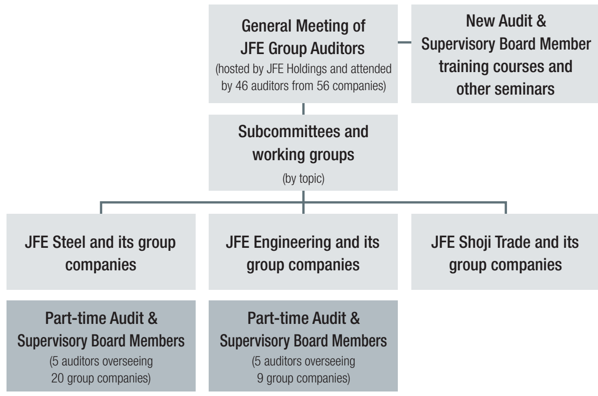
JFE Holdings, its operating companies and key Group companies had internal audit organizations comprising 159 people as of April 1, 2019. These organizations share information to enhance overall auditing within the Group.

Audits by Audit & Supervisory Board Members

Audit & Supervisory Board Members attend meetings of the Board of Directors, Group Management Strategy Committee and Management Committee as well as other important meetings. To audit how Directors execute their responsibilities, they conduct hearings with Directors and corporate officers regarding operational status and receive operational reports from subsidiaries. In addition to undergoing statutory audits, JFE companies take the following initiatives to ensure the effectiveness of internal auditing by the Audit & Supervisory Board Members and to strengthen coordination among the Members.

- A total of 36 full-time Audit & Supervisory Board Members have been appointed to 29 companies, including JFE Holdings. Operating company personnel are dispatched to Group companies as part-time Outside Audit & Supervisory Board Members. Each absentee Audit & Supervisory Board Member serves one to four subsidiaries to raise the quality of the audits by their Audit & Supervisory Board Members and enhance Group governance. Ten absentee Audit & Supervisory Board Members served 29 companies in total.
- The JFE Group Board of Auditors includes both full-time Audit & Supervisory Board Members of each Group company and part-time Audit & Supervisory Board Members. Subcommittees and working groups created to address specific issues meet autonomously to share information, investigate issues and enhance understanding. The findings of the year's activities are presented at the general meeting of JFE Group Auditors and used for audits.

Structure of JFE Group Board of Auditors



Cooperation between Audit & Supervisory Board Members and Accounting Auditor

In FY2018, the Audit & Supervisory Board Members held eight scheduled or unscheduled meetings with Ernst & Young ShinNihon, JFE's outside accounting auditor, in which the latter presented its audit plan, completed work and detailed results. The firm also presented a detailed explanation of its quality management system to confirm its validity. In turn, the Audit & Supervisory Board Members explained their own audit plans and other matters to the firm. The two sides also shared opinions on related matters.

Cooperation between Audit & Supervisory Board Members and Internal Auditing Department

In FY2018, the Audit & Supervisory Board Members held seven scheduled or unscheduled meetings with the internal auditing department, in which the latter presented its internal audit plan, work status and detailed results. During the meetings, the Audit & Supervisory Board Members also shared opinions with the department.

Operating company governance

Some Directors, Corporate Officers and Audit & Supervisory Board Members of JFE Holdings serve concurrently as the Directors or Audit & Supervisory Board Members of operating companies to strengthen governance and information sharing across the Group. To strengthen governance, JFE Holdings' managers attend each operating company's General Meeting of Shareholders and Management Planning Briefing, receive reports on their activities and discuss the managerial policies of subsidiaries.

Basic policies for strategic shareholdings and exercise of related voting rights

All shares held by the company are the shares of subsidiaries or affiliates.

The company's wholly owned subsidiaries and operating companies, JFE Steel Corporation, JFE Engineering Corporation and JFE Shoji Trade Corporation (hereinafter the "Operating Companies"), hold stocks as strategic shareholdings for the aim of facilitating the promotion of business transactions and financial transactions, etc.

The company and the Operating Companies regularly review all strategic holdings at the Board of Directors meetings through examination of their significance and comparison between the company's cost of capital and the return on investment, and consider from a comprehensive perspective, selling the shares which have become insignificant or cause damage risk to shareholders' interest. In April 2016, the company decided to reduce its strategic holdings by approximately 100 billion yen and has sold a total of approximately 140 billion yen of its strategic holdings (on a market value basis) since FY2016. Furthermore, in FY2018, the Board of Directors, at a meeting held in August 2018, examined the significance of its strategic holdings and the return on investment from the above perspective.

The exercise of voting rights of strategic shareholdings is decided upon reviews by Operating Companies on the content of the proposal and is appropriately implemented in a way that will maximize shareholder interest. To be specific, the content of the proposal is to be checked by the investment application department and the investment control department, and approval will be given to proposals which are considered not to pose any threat to the maximization of interest of these Operating Companies as shareholders.

Of the shares for investment purposes held by JFE Steel, which has the largest balance sheet amount and account for the majority of the shares for investment purposes posted in the consolidated financial statements of the company, those shares of JFE Steel that are held for purposes other than pure investments are shown below.

	End of FY2016	End of FY2017	End of FY2018
Number of issues	243	242	238
Total balance sheet amount (billion yen)	314.4	259.1	241.0

Thorough Compliance

Basic Stance

In expanding our businesses in Japan and abroad, it is important that JFE maintains relationships of trust with all stakeholders, including its customers, shareholders and local communities. Trust can only be built upon a strong foundation of "Ensuring Thorough Compliance." Misconduct and scandals resulting from compliance violations can instantly shatter the trust that has taken many years to establish. Therefore, JFE believes it is extremely important that all members of the organization deepen their knowledge and awareness of compliance and perform their jobs accordingly.

Compliance System

The JFE Group's Standards of Business Conduct guide employees to conduct their business activities based on the Corporate Vision and Corporate Values. They also help to strengthen awareness among all JFE Group executives and employees and ensure adherence to corporate ethics.

The Compliance Committee chaired by the president generally convenes every quarter to deliberate basic policies and issues and then supervise their implementation. Each operating company has a similar in-house system for promoting and supervising compliance. In addition, operating companies have introduced a Corporate Ethics Hotline to ensure that crucial information regarding compliance can be communicated directly from the front lines to top management.

Ensure adherence to corporate ethical standards and compliance

Configured KPI (Group-wide)

- Steady execution of training to foster and maintain a sense of compliance
- Improve employee awareness of ethics reflected in JFE's Corporate Ethics Awareness Survey

Thorough compliance

The JFE Group conducts training on compliance with the Antimonopoly Act, insider trading restrictions, security export controls, the Construction Business Act, laws against bribery of public officials, etc. The Group has also compiled a Compliance Guidebook and distributed to employees and executives (domestic and overseas), to be used in activities such as collation, to ensure that the rules are fully communicated and informed.

Whistleblowing system

The JFE Group has established a Corporate Ethics Hotline to ensure that crucial information regarding compliance, including violation of the Antimonopoly Act, bribery, or all kinds of workplace harassment, can be communicated directly from the front lines to top management rapidly and accurately. The whistleblowing system aims to maintain corporate ethics, comply with laws and regulations, and prevent corruption. It is accessible to all officers and employees of the JFE Group as well as those of suppliers and other business partners. Additionally, an external hotline to a law firm is also provided. To encourage the active sharing of information, confidentiality is strictly respected and the hotline is operated under rules and regulations that protect people who report information or seek advice. Whistleblowing and requests for advice are regularly reported to full-time Audit & Supervisory Board Members. Moreover, the operational status of the system is reviewed every year by the Board of Directors.

Cases handled by the Corporate Ethics Hotline

Company	FY2016	FY2017	FY2018
JFE Holdings and operating companies	62	89	80

Prevention of bribery

The JFE Group does not tolerate any kind of illegal activity in Japan or any other country, including bribery, such as offering money or other benefits to public officials, and never resorts to these illegal activities to gain profit or resolve problems. Based on these thoughts, the Group issued JFE Group's Basic Stance on Preventing Bribery of Public Officials and disseminate it throughout the Group including operating companies. JFE Group also maintains various systems to prevent the bribery of public officials.

Web JFE Group's Basic Stance on Preventing Bribery of Public Officials
https://www.jfe-holdings.co.jp/en/company/philosophy/anti-bribery.html

Resisting organized crime

The JFE Group declares in its standards of business conduct that it will firmly resist all antisocial forces, and has established the JFE Group Policies for Addressing Antisocial Forces and Regulations for Addressing Violence Directed at Companies to clarify the measures to be taken in response to any issues.

Employee ethics awareness surveys

The JFE Group regularly conducts Corporate Ethics Awareness Surveys to quantitatively assess employees' awareness of ethics and help employees stay informed about JFE's corporate vision.

Antimonopoly Act compliance

The JFE Group views past violations of the Antimonopoly Act seriously and continues to implement thorough measures to eliminate the possibility of future infringements.

Risk Management

Risk Management System

JFE Holdings is responsible for comprehensive risk management in accordance with its Basic Stance for Building an Internal Control System. The JFE Group CSR Council, which is independent of the Audit & Supervisory Board and chaired by the President of JFE Holdings, collects specific information and enhance management for the purpose of reducing the frequency and impact of risks. The Corporate Officer responsible for risk works to identify potential risks associated with business activities, ethical and regulatory compliance, the disclosure of financial reports and information, as well as ESG risks such as climate change, which have become increasingly important in risk management. If potential risks are identified, they are reviewed and assessed at an appropriate meeting as necessary for further examination or the deployment of countermeasures. The Board of Directors supervises the CSR and ESG activities of the JFE Group by receiving reports and holding discussion on its material issues.

Web See pages 19 to 22 of the JFE Group CSR REPORT 2019. https://www.jfe-holdings.co.jp/en/csr/data/index.html

Response to risks

Intellectual property management

The JFE Group meticulously manages intellectual property across its diverse business activities. To prevent infringement on third-party intellectual property, it constantly monitors the latest information on intellectual property and implements all necessary measures.

Privacy protection

JFE has established the JFE Group Privacy Statement for managing information including "My Numbers," which are personally identifiable numbers under Japan's social security and tax number systems.

To maintain the appropriate protection of personal information, employee trainings on the rules, which have been set in place in accordance with the privacy statement, have been conducted as stipulated in applicable laws of each country related to businesses and guidelines.

Web JFE Group Privacy Statement
https://www.jfe-holdings.co.jp/en/privacy.html

Information security

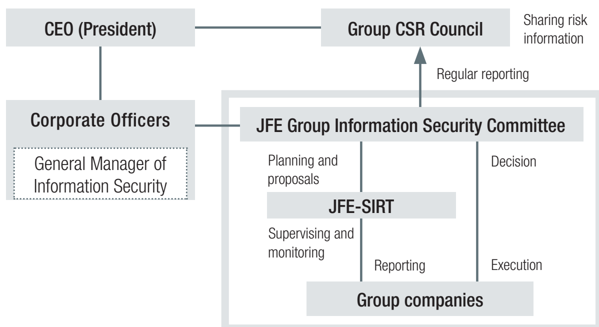
The JFE Group formulates various rules on information security management to prevent information leakage and system failures due to cyber-attacks and improper system use. Efforts are made to enhance information-security knowledge and awareness of rules among employees through training and education. Additionally, shared IT measures are applied in each Group company and regular information security audits are conducted to reinforce the overall information security management level in the Group.

Key issues related to information security are deliberated by the JFE Group Information Security Committee to determine Group policy.

Based on policies set by the committee, the JFE-SIRT* formulates and implements information-security measures, performs information security audits, offers guidance on responding to incidents and generally enhances the level of Group-wide information security management.

* JFE-Security Integration and Response Team established in April 2016.

JFE Group Information Security Governance System



Disaster response

The JFE Group aims to be a resilient company in times of disaster when seen from a business continuity planning (BCP) viewpoint. It conducts emergency drills for large earthquakes and tsunamis and has introduced a system to confirm people's safety, along with formulating emergency manuals and diversifying suppliers of procurement.

Stakeholder Relationships

Promotion of interactive communication

The JFE Group strives to maintain agreeable and favorable relationships with all stakeholders, including shareholders, customers, clients, employees and local communities, for the sustainable growth and medium- to long-term increase of corporate value.

Major activities

Stakeholders	Approach	Major communication methods, etc.	Others	
			Frequency (per year)	Scale, etc.
Shareholders/ Investors	We work to disclose information accurately, fairly and in a timely and appropriate manner as well as strive for active communication. We established the Investor Relations and Corporate Communications Department as an organization responsible for communication with domestic and international shareholders and investors, and promote constructive dialogue as well as provide management with the information acquired, with the aim of maintaining and improving the relationship of trust.	Ordinary general meeting of shareholders (convocation notices, notices of resolutions, etc.)	1	Approx. 150,000 persons (Unit shareholders)
		Investors meeting (financial results, medium-term business plans, etc.)	4	Approx. 500 persons in total
		Individual meetings (financial results, medium-term business plans, etc.)	As needed	Approx. 400 persons in total
		Briefings (at the branch offices of securities firms, etc.)	10	Approx. 1,000 persons
		Plant tours for shareholders (steel, engineering, shipbuilding bases, etc.)	25	Approx. 2,100 persons
		Publishing shareholder newsletters (JFE Dayori)	2 (Mid-year and annual)	Approx. 220,000 copies/issue
		Various reports, including integrated reports and CSR reports	1	Approx. 40,000 copies
		Information via websites (for shareholders and investors), etc.	As needed	
Customers	The Group believes that the stable supply of products and services and reliable quality assurance, along with advancing research and development, are necessary to meet customer needs. We will work to establish win-win relationships by continuously meeting customer needs and the trust they place in us.	Communication through sales activities and support for quality assurance	As needed	Conducted at each operating company
		Interviews and questionnaires, such as that on customer satisfaction	As needed	Conducted at each operating company
		Information via websites (product information), etc.	As needed	
Clients	CSR initiatives are being actively pursued together with our clients, who are important business partners. We have established Purchasing and Procurement Policies to promote fair and sincere procurement activities and to construct healthy relationships with clients.	Communication through purchasing activities	As needed	Conducted at each operating company
		Briefings and discussions	As needed	Conducted at each office
		Information via websites, etc.	As needed	
Employees	With the recognition of top management that creating workplaces to provide dignity and job satisfaction for all is essential for maximizing the potential of individuals, we have formulated the Basic Stance on Human Resource Management and Health Declaration and are conducting various activities toward attaining the goals.	Communication through daily operations and in the workplace	As needed	
		Internal newsletters and intranet	As needed	
		Various labor-management committees	2 to 4	Management and labor unions at each operating company
		Corporate Ethics Hotline	As needed	80 calls in FY2018
		Various training sessions	As needed	Position-specific, compliance, human rights, etc.
		Family days (visits by employee families, lunch at employees' cafeterias, etc.)	As needed	Conducted at each operating company
		Corporate Ethics Awareness Survey	1 (every 3 years)	At the company and operating companies
Local communities	To ensure business continuity at manufacturing bases where steelworks are located and elsewhere, constructing a relationship of trust with citizens in local communities and realizing coexistence and prosperity are crucial. We will pursue various activities with the aim of realizing sustainable growth and regional development, including continued initiatives toward ensuring safety and reducing our environmental impact.	Communication through local residents' associations, events, etc.	As needed	
		Events at manufacturing bases (festivals, etc.)	Approx. once in each region	Approx. 280,000 persons a year
		Plant tours	As needed	100,000 or more persons a year
		Clean-up activities (vicinity of manufacturing bases, regional cleaning, etc.)	As needed	
		Sports promotion (baseball or jogging workshops, various sports competitions, etc.)	As needed	
		Others (education at elementary schools, craft workshops, workplace experience events, etc.)	As needed	
		Information via websites (environmental information, etc.)	As needed	
		Social contribution through JFE 21st Century Foundation (various research support, regional activity support, etc.)	As needed	

Web JFE 21st Century Foundation ▶ http://www.jfe-21st-cf.or.jp/eng

External recognition in recent years

Name of SRI index, etc.	Description of selection criteria, etc.	Evaluation / selection period	
MSCI ESG Leaders Indexes MSCI Japan Empowering Women Index	Both indexes consist of companies with outstanding ESG evaluations selected by Morgan Stanley Capital International (MSCI). MSCI Japan Empowering Women Index consists of companies that are recognized as having outstanding gender diversity in each industry within the MSCI Japan IMI Top 500 Index. MSCI calculates multifaceted gender diversity scores based on data disclosed in accordance with the Act on the Promotion of Women's Participation and Advancement in the Workplace.	At June 2019	MSCI 2019 Constituent MSCI ESG Leaders Indexes MSCI 2019 Constituent MSCI日本株女性活躍指数 (WIN) THE INCLUSION OF JFE HOLDINGS IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF JFE HOLDINGS BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.
SNAM Sustainability Index	For this index, Sompo Japan Nipponkoa Asset Management (SNAM) applies a unique evaluation system that utilizes the experience and knowledge of SOMPO RISK MANAGEMENT (environmental survey) and IntegreX (social and governance survey). The company has been included in this index for eight consecutive years.	2012 to 2019	Member of SNAM Sustainability Index 2019
Health & Productivity Stock Selection Program and Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500)	Under the Health & Productivity Stock Selection Program, the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange cooperate to select companies that have been strategically implementing employee health management from a business management viewpoint. The company was selected for the Health & Productivity Stock Selection for the first time in 2018. Additionally, the company was selected for Certified Health & Productivity Management Outstanding Organizations Recognition Program which certifies organizations that implement outstanding health management in collaboration with health insurance society members.	2018	2018 健康経営銘柄 2018 健康経営優良法人 ホワイト500
Competitive IT Strategy Company Stock Selection	The Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange cooperate to select companies actively applying IT to realize management innovation and enhanced earnings levels and productivity that will lead to medium- to long-term increase in corporate value and reinforced competitive strength. Selections are made per industry type, and the company has been selected for this index for five consecutive years. (2019 Competitive IT Strategy Company Stock Selection: 29 companies)	2015 to 2019	2019 攻めのIT経営銘柄 Competitive IT Strategy Company
Nadeshiko Brand	The Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange cooperate to select one to three companies per industry that have demonstrated outstanding achievement for the advancement of women. The company has been selected for this index three times up to this year.	2014 2015 2017	NADESHIKO BRAND 2017
DBJ Environmentally Rated Loan Program	This is the first financing system in the world to incorporate special environmental ratings, which uses a screening system developed by the Development Bank of Japan (DBJ) to evaluate environmental management levels and select outstanding companies with three interest stages according to evaluation points. Our company was rated as a top-ranking company that pursues excellent and advanced environmental initiatives in recognition of our advanced environmental management which we have pursued.	2016	DBJ 環境格付 2015
DBJ Employees' Health Management Rated Loan Program	This is the first financing option in the world to incorporate special health management ratings, which uses the unique screening system developed by the Development Bank of Japan (DBJ) to evaluate and select companies with excellent health management initiatives for employees, whereby setting financing terms and conditions according to the evaluation result. The company was rated as a top-ranking company with excellent advanced initiatives to employees' health management in recognition of our advanced health management which we have pursued.	2018	DBJ健康格付 2018

Awards for technology and product development, etc. (FY2018)

JFE Steel

Award name	Description	Sponsor
The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology, Prize for Science and Technology (Development Category)	Development of Super-SINTER™, which reduces CO_2 emissions in the process of manufacturing raw materials for steelmaking	Ministry of Education, Culture, Sports, Science and Technology
National Commendation for Invention, Invention Award	Invention of shipbuilding plates with excellent brittle crack propagation resistance	Japan Institute of Invention and Innovation
Information Technology Award, Information Technology Special Prize (System Integration Prize)	JFE Group's accounting system overhaul project	Japan Institute of Information Technology
Energy-Efficient Machinery Award, JMF's President Award	Air leak visualization device to detect leak amount and direction (MK-750)	Japan Machinery Federation
JSPMI Prize, Chairman's Prize	Magnetic leakage flux tester for minute unevenness of steel sheets surface	Japan Society for the Promotion of Machine Industry
Okochi Memorial Technology Award	Development of SP3, high wear resistant heat treatment rail for heavy haul railways with extreme fine pearlite structure	Okochi Memorial Foundation

JFE Engineering

Award name	Description	Sponsor
Environment Minister's Award for Global Warming Prevention Activity	The MiReLiS™ BOG re-liquefaction facility	Ministry of the Environment
JSME Medal for New Technology	The AtoMS™, a city gas calorific value adjustment system with novel atomization technology	The Japan Society of Mechanical Engineers
Engineering Advancement Association of Japan Distinguished Service Award (Contribution to Environment)	Project team for the new BOG re-liquefaction and booster facility	Engineering Advancement Association of Japan
Engineering Advancement Association of Japan Distinguished Service Award (Advancement of Engineering)	Toyohashi biomass project team	Engineering Advancement Association of Japan

Management Organization

Executive Structure (as of July 1, 2019)

Category	Name	Career, experience, and knowledge	Appointment as members of advisory bodies to the Board of Directors: Nomination Committee	Appointment as members of advisory bodies to the Board of Directors: Remuneration Committee
Directors	A Koji Kakigi	1977 Joined Kawasaki Steel Corporation 2015 Representative Director, President and CEO of JFE Steel Corporation, Representative Director of JFE Holdings, Inc. 2019 Representative Director, President and CEO of JFE Holdings, Inc. (current post) Mr. Kakigi has abundant experience and knowledge required for management of the Group, which he has accumulated through his experience in operations in human resource and labor administration departments, and execution of duties as Corporate Officer in general administration, legal, accounting, finance, and procurement, in the company and JFE Steel Corporation.	Member	Member
	B Yoshihisa Kitano	1982 Joined Kawasaki Steel Corporation 2019 Representative Director, President and CEO of JFE Steel Corporation (current post), Representative Director of JFE Holdings, Inc. (current post) Mr. Kitano has abundant experience and knowledge required for management of the Group, which he has accumulated through his experience in operations in steel making technology and production control departments, and execution of duties as Corporate Officer such as supervision of steel works and overseas business, corporate planning, and IT in JFE Steel Corporation.	Member	
	C Masashi Terahata	1982 Joined Kawasaki Steel Corporation 2018 Representative Director and Executive Vice President of JFE Steel Corporation 2019 Representative Director and Executive Vice President of JFE Holdings, Inc. (current post) Mr. Terahata has abundant experience and knowledge required for management of the Group, which he has accumulated through his experience in operations such as general administration and legal departments in the company as well as operations in human resource and labor administration departments, and execution of duties as Corporate Officer in management divisions such as accounting, finance and procurement departments in JFE Steel Corporation.		Member
	D Naosuke Oda	1977 Joined NKK Corporation 2012 Representative Director and Executive Vice President of JFE Steel Corporation 2016 Representative Director, President and CEO of JFE Shoji Trade Corporation (current post) 2017 Director of JFE Holdings, Inc. (current post) Mr. Oda has abundant experience and knowledge required for management of the Group, which he has accumulated through his experience in operations related to sales of automotive steel at JFE Steel Corporation, and supervising sales divisions as Corporate Officer.		
	E Hajime Oshita	1982 Joined NKK Corporation 2017 Representative Director, President and CEO of JFE Engineering Corporation (current post), Director of JFE Holdings, Inc. (current post) Mr. Oshita has abundant experience and knowledge required for management of the Group, which he has accumulated through his experience in corporate planning, accounting and finance, and a wide range of duties as Corporate Officer, including overseeing domestic and overseas businesses at JFE Engineering Corporation.		

Category	Name	Career, experience, and knowledge
Audit & Supervisory Board Members	F Nobuya Hara	1984 Joined NKK Corporation 2016 Audit & Supervisory Board Member of JFE Steel Corporation (current post) 2017 Audit & Supervisory Board Member of JFE Holdings, Inc. (current post) Mr. Hara has abundant experience and knowledge in finance and accounting that he has accumulated through operations related to corporate planning, accounting and finance at JFE Steel Corporation as well as accounting operations at the company. He also has abundant experience and knowledge gained through corporate management operations at the group companies of JFE Steel Corporation, in addition to duties as its Audit & Supervisory Board Member.
	G Kumiko Baba	1989 Joined Toshiba Corporation 2014 Joined JFE Engineering Corporation 2018 Vice President of JFE Engineering Corporation 2019 Audit & Supervisory Board Member of JFE Holdings, Inc. (current post) Ms. Baba had engaged in operations such as contract negotiation with overseas parties and business alliances and launches of new business in Toshiba Corporation. Since joining JFE Engineering Corporation, she has executed duties as Corporate Officer in the company in addition to supervision of overseas businesses and accounting and finance related operations and thus she has abundant experience and knowledge about finance and accounting.

Outside Executive Structure (as of July 1, 2019)

Category	Name	Main concurrent positions	Independent executive	Expertise and background: Corporate management/ Management strategy	Engineering	Global management	Finance and accounting	Legal	Academic	Appointment as members of advisory bodies to the Board of Directors: Nomination Committee	Remuneration Committee
Directors	H Masao Yoshida	Special Advisor of Furukawa Electric Co., Ltd.	Independent	✓		✓	✓			Member	
	I Masami Yamamoto	Director and Senior Advisor of Fujitsu Limited	Independent	✓	✓	✓				Chair	Member
	J Nobumasa Kemori	Executive Advisor of Sumitomo Metal Mining Co., Ltd.	Independent	✓	✓	✓					Chair
Audit & Supervisory Board Members	K Shigeo Ohyagi	Senior Advisor of Teijin Limited	Independent	✓		✓				Member	Member
	L Isao Saiki	Partner Lawyer of Abe, Ikubo & Katayama Law Firm	Independent					✓			Member
	M Tsuyoshi Numagami	Board Member and Executive Vice President of HITOTSUBASHI UNIVERSITY	Independent	✓			✓		✓	Member	

Company Profile / Share Information

Corporate Profile (As of March 31, 2019)

Company Name (Trade Name)	JFE Holdings, Inc.
Head Office	2-2-3 Uchisaiwaicho, Chiyoda-ku, Tokyo 100-0011, Japan TEL: +81-3-3597-4321
Established	September 27, 2002
Capital	147.1 billion yen
Number of Employees	62,083 (Consolidated) Male: 53,193 / Female: 8,890

Share Data (As of March 31, 2019)

Total Number of Shares Authorized to Be Issued	2,298,000,000 shares
Total Number of Shares Issued	614,438,399 shares
Total Number of Shareholders	218,589 persons

Share Information (As of March 31, 2019)

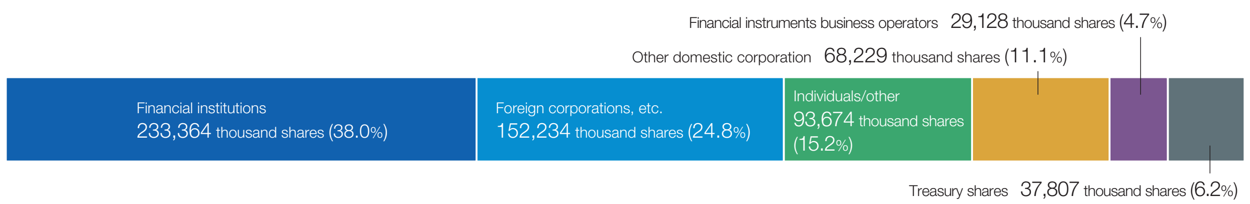
Minimum Trading Unit	100 shares
Fiscal Year End	March 31 of each year
Stock Exchange Listing	Tokyo Stock Exchange, Inc. and Nagoya Stock Exchange, Inc.
Security Code	5411
Shareholder Registry Administrator	Mizuho Trust & Banking Co., Ltd. 1-2-1 Yaesu, Chuo-ku, Tokyo 103-8670, Japan

Major Shareholders (As of March 31, 2019)

Name	Number of shares held (Thousand shares)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	41,770	7.2
Japan Trustee Services Bank, Ltd. (trust account)	32,487	5.6
Nippon Life Insurance Company	20,821	3.6
Mizuho Bank, Ltd.	13,403	2.3
The Dai-ichi Life Insurance Company, Limited	13,127	2.3
Japan Trustee Services Bank, Ltd. (trust account 5)	10,479	1.8
Tokio Marine & Nichido Fire Insurance Co., Ltd.	8,613	1.5
STATE STREET BANK WEST CLIENT-TREATY 505234	8,075	1.4
JPMorgan Securities Japan Co., Ltd.	8,066	1.4
JP MORGAN CHASE BANK 385151	7,984	1.4

Note: In addition to the above, the Company retains 37,807 thousand shares as treasury shares. The treasury shares are not included in the shareholding ratio calculation.

Distribution of Shareholders (As of March 31, 2019)



Changes in Share Prices, Trading Volume and Dividends

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Share price (Yen) (As of year-end)	2,145	3,765	2,434	1,778	1,767	1,943	2,654	1,516	1,909	2,144	1,879
Trading volume (Million shares) (Fiscal year)	1,035	814	760	722	1,206	1,113	799	1,080	1,141	896	685
Annual dividends per share (Yen)	90	20	35	20	20	40	60	30	30	80	95

Employee Data (Non-consolidated: Actual figures for FY2018)

Category		JFE Steel	JFE Engineering	JFE Shoji Trade
Number of employees (persons) (March 31, 2019)		15,677	3,847	974
	Male	14,373	3,340	607
	Female	1,304	507	367
Number of recruits (persons)		937	165	69
	Male	838	142	40
	Female	99	23	29
	New graduates	783	86	61
	Mid-career	154	79	8
Average years employed (years)		16.3	13.6	12.1
	Male	16.1	13.6	12.3
	Female	18.2	13.6	11.8
Annual turnover rate (%)*		2.4	1.2	3.9

*Ratio of the number of those who retired voluntarily to the enrollment

URL of the Company's website

Web https://www.jfe-holdings.co.jp/en/

Investor Information
https://www.jfe-holdings.co.jp/en/investor/

CSR (Environment and Society)
https://www.jfe-holdings.co.jp/en/csr/

Operating and Main Group Companies (As of April 1, 2019)

*Net sales/Revenue: Results for FY2018 *Number of employees: As of March 31, 2019 (Consolidated)

*Equity method affiliates

Steel business — JFE Steel

Head office: Chiyoda-ku, Tokyo | Revenue: 2,830.6 billion yen | Number of employees: 44,975 (male: 39,460; female: 5,515)

Domestic group companies

• JFE Mineral Company, Ltd. • Mizushima Ferroalloy Co., Ltd. • JFE Material Co., Ltd. • Chiba Riverment and Cement Corporation
• Mizushima Riverment Corporation • JFE Precisions Co., Ltd. • JFE Plastic Resource Corporation • JFE Bars & Shapes Corporation
• JFE Metal Products & Engineering, Inc. • JFE Galvanizing & Coating Co., Ltd. • JFE Welded Pipe Manufacturing Co., Ltd. • JFE Container Co., Ltd.
• JFE Steel Pipe Co., Ltd. • Galvatex Corporation • JFE Pipe Fitting Mfg. Co., Ltd. • JFE Tubic Corporation • JFE Techno-Wire Corporation
• JFE Kozai Corporation • Daiwa Kohtai Co., Ltd. • GECOSS Corporation • JFE Plant Engineering Co., Ltd. • JFE Advantech Co., Ltd.
• JFE Civil Engineering & Construction Corporation • JFE Sekkei Ltd. • JFE Logistics Corporation • JFE West Technology Corporation
• JFE Wing Corporation • JFE Techno-Research Corporation • JFE Systems, Inc. • JFE Chemical Corporation • JFE Life Corporation
• JFE East Japan GS Co., Ltd. • JFE West Japan GS Co., Ltd. • JFE Apple East Corporation • JFE Apple West Corporation
• Shinagawa Refractories Co., Ltd.* • Nippon Chuzo K.K.* • Nippon Chutetsukan K.K.* • EXA Corporation* • Setouchi Joint Thermal Power Co., Ltd.*
• K.K. JFE Sanso Center* • Mizushima Eco-Works Co., Ltd.* • NKK Seamless Steel Pipe K.K.*

Overseas group companies

• Nova Era Silicon S.A. • Thai Coated Steel Sheet Co., Ltd. • Thai Tinplate Manufacturing Co., Ltd.*
• JFE Steel Galvanizing (Thailand) Ltd. • Philippine Sinter Corporation • PT.JFE Steel Galvanizing Indonesia
• JFE Steel Australia Resources Pty. Ltd. • Nucor-JFE Steel Mexico, S. Der. L. Dec.V.* • California Steel Industries, Inc.*
• Hojalata Y Laminados S.A.* • Fujian Sino-Japan Metal Co., Ltd.* • Bohai NKK Drill Pipe Co., Ltd.* • Guangzhou JFE Steel Sheet Co., Ltd.*
• Inner Mongolia Erdos EJM Manganese Alloys Co., Ltd.* • Jiaxing JFE Precision Steel Pipe Co., Ltd.*
• Shanghai Baowu JFE Clean Iron Powder Co., Ltd.* • JSW Steel Ltd.* • Thai Cold Rolled Steel Sheet Public Co., Ltd.* • P.T. Sermani Steel*
• Perusahaan Sadur Timah Malaysia (Perstima) Bhd.* • JFE Steel Tubular Technical Center Pte. Ltd.* • J-Spiral Steel Pipe Co., Ltd.*
• Agrimeco & JFE Steel Products Co., Ltd.* • Al Gharbia Pipe Company* • JFE MERANTI MYANMAR Co., Ltd.

Engineering business — JFE Engineering

Head office: Chiyoda-ku, Tokyo | Yokohama head office: Yokohama, Kanagawa Prefecture | Revenue: 485.8 billion yen | Number of employees: 9,569 (male: 8,280; female: 1,289)

Domestic group companies

• Asukasoken Co., Ltd. • Urban Energy Corporation • Kitanihon Industrial Co., Ltd. • J&T Recycling Corporation
• JFE Aqua Machine and Service Corporation • JFE Environmental Service Corporation • JFE Career Navi Corporation • JFE Technos Corporation
• JFE Pipeline Engineering Corporation • JFE Business Support Yokohama Corporation • J Farm Corporation • Japan Tunnel Systems Corporation*
• JP Steel Plantech Co.* • Tohoku Dock Tekko K.K. • Fuji Kako Co., Ltd • Mie Data Craft Co., Ltd.

Overseas group companies

• JFE Techno Manila, Inc. • JFE Engineering (M) Sdn. Bhd. • PT. JFE Engineering Indonesia
• JFE Engineering India Private Limited • Standardkessel Baumgarte Holding GmbH • J&M Steel Solutions Co., Ltd.
• DongJie Environmental Technology Co., Ltd.*

Trading business — JFE Shoji Trade

Head office: Chiyoda-ku, Tokyo | Revenue: 1,125.8 billion yen | Number of employees: 7,498 (male: 5,430; female: 2,068)

Domestic group companies

• JFE Shoji Trade Steel Construction Materials Corporation • JFE Shoji Pipe & Fitting Trade Corporation • JFE Shoji Electrical Steel Co., Ltd.
• JFE Shoji Usuitakenzai Corporation • Kawasho Foods Corporation • JFE Shoji Electronics Corporation • JFE Shoji Coil Center Corporation
• Niigata Steel Corporation • Nagano Can Corporation • Toyo Kinzoku Corporation • JFE Shoji Terre One Corporation • Tochigi Shearing Corporation
• Hokuriku Steel Co., Ltd • K&I Tubular Corporation • Taisei Kogyo Corporation • Kadota Kozai Corporation • JFE Shoji Zosen Kako Corporation
• JFE Shoji Kohnan Steel Center Co., Ltd • Naigai Steel Corporation • JFE Shoji Tinplate Center Corporation • Mizushima Steel Corporation
• Mizushima Metal Products Corporation • Nihon Jiseizai Kogyo Co., Ltd. • Kyushu-Tech Corporation • JFE Shoji Oil Co., Ltd
• JFE Shoji Trade Matech Inc. • JFE Shoji Machinery & Materials Corporation • JFE Shoji Business Support, Inc. • JFE Shoji Service Corporation
• Kadowaki Steel Material's Corporation • Tohsen Corporation • Shin Nihon Kogyo Corporation • Yashimanada Corporation
• Mitsuwa Tekken Co., Ltd. • Aichi Kanzai Kogyo Corporation • Hoshi Kinzoku Corporation • Showa Kigyo Corporation
• JFE Shoji Jutaku Shizai Corporation • Hokuriku Kogyo Corporation • Kohnan Blanking Service Corporation • JFE Shoji Cormec Co., Ltd.
• Hanwa Kozai Co., Ltd.* • Kita-Kanto Steel Corporation* • Ohmi sangyo Co., Ltd.*

Overseas group companies

• Guangzhou JFE Shoji Steel Products Co., Ltd. • Dongguan JFE Shoji Steel Products Co., Ltd. • Zhejiang JFE Shoji Steel Products Co., Ltd.
• Jiangsu JFE Shoji Steel Products Co., Ltd. • JFE Shoji Steel Philippines, Inc. • Central Metals (Thailand) Ltd. • Steel Alliance Service Center Co., Ltd.
• New Bangpoo Manufacturing Co., Ltd. • JFE Shoji Steel Vietnam Co., Ltd. • JFE Shoji Steel Hai Phong Co., Ltd.
• JFE Shoji Steel Malaysia Sdn. Bhd. • PT. JFE Shoji Steel Indonesia • JFE Shoji Steel India Private Limited • Vest Inc.
• JFE Shoji Steel America Inc. • JFE Shoji Steel de Mexico, S.A. de C.V. • Kelly Pipe Co., LLC
• JFE Shoji Steel Service Center Bajio S.A.P.I. de C.V. • Marushin Canneries (Malaysia) Sdn. Bhd.
• JY Steel Processing Co.,Ltd. • Kawarin Enterprise Pte. Ltd.* • r.bourgeois JFE Shoji Magnetic Lamination, Inc.*

Shipbuilding business — Japan Marine United

Head office: Yokohama, Kanagawa Prefecture | Net sales: 268.9 billion yen | Number of employees: 5,814 (male: 5,541; female: 273)

Domestic group companies

• JMU AMTEC Co., Ltd. • IMC Co., Ltd. • JMU Defense Systems Co., Ltd.

Annual Highlights

JFE Holdings

2018

April
- Announced the Sixth Medium-term Business Plan

May
- Selected as Competitive IT Strategy Company Stock Selection for the fourth consecutive year

June
- Held the 16th Ordinary General Meeting of Shareholders

July
- Sponsored the 13th All-China Japanese Speech Contest

August
- Formulated the JFE Group's Declaration of Cybersecurity Management

September
- Published the JFE GROUP REPORT 2018 (Integrated Report) Issued the JFE Group CSR REPORT 2018

October
- Published the JFE Group IT REPORT 2018

November
- Received a rating in the DBJ Employees' Health Management Rated Loan Program from the Development Bank of Japan (DBJ)

Steel business — JFE Steel

2018

April
- Received the Prize for Science and Technology (Development Category) in the 2018 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology (for development of the Super-SINTER™ steel material manufacturing technology)

May
- High-weldability CO_2 arc-welding technology, "Ultra-narrow-gap J-STAR™ Welding," was adopted for the reconstruction of the large keep of Kumamoto Castle.
- Established a base in Yangon, Myanmar
- Received the Invention Award in the 2018 National Commendation for Invention (crack arrest steel plate for container carriers)
- Ignited the second blast furnace in FHS integrated steelworks project in Vietnam
- Held festivals in Keihin and Fukuyama

June
- Established JFE Welding Research Alliance Laboratories in the Joining and Welding Research Institute, Osaka University
- Earned Regional Choice Award in SAP Innovation Awards 2018 (JFE Group's accounting system overhaul project)

July
- Began commercial production at a plant for premixed metal powder for segregation prevention in China

September
- Greatly improved High-Mecha-Neji™, thread joint for connecting steel pipe piles, and acquired its examination certificate
- Developed longer-life coating steel sheet with greater post-coating corrosion resistance for bridges, construction machinery, industrial machinery, etc.

October
- Held festivals in Chiba and at Sendai Works

November
- Held festivals in Kurashiki and at Chita Works
- Developed GI JAZ™, high-lubricity GI steel sheet for automobiles
- Received "Information Technology Special Prize (System Integration Prize)" in Information Technology Award 2018 (JFE Group's accounting system overhaul project)
- Released for sale the high axial loading-type seismic/vibration damping devices

December
- Developed JBCR385, cold roll forming rectangular steel pipe of the highest strength in Japan, and acquired a rating for the design method
- Adopted safety behavior support technology using AI image recognition, a first in the steel industry in Japan

2019

January
- JFE topology optimization technologies adopted for use by SUZUKI MOTOR CORPORATION
- 1310MPa High-tensile Steel Sheet Adopted for First Time in Cold-press-forming Vehicle Body-frame Parts
- Received the Chairman's Prize in the 53rd JSPMI Prize (magnetic leakage flux tester for minute unevenness of steel sheets surface)
- Received the JMF's President Award in the Energy-Efficient Machinery Award 2018 (air leak visualization devise to detect leak amount and direction (MK-750))

February
- Received the 65th (2018) Okochi Memorial Technology Award (SP3, high wear resistant heat treatment rail for heavy haul railways)
- Established JFE Welding Institute - Center for Integrity against Fatigue and Fracture (JWI-CIF[2]), one of the world's largest fracture and fatigue evaluation centers for the steel industry
- Developed Hat-shaped Steel SC Girders to improve construction efficiency and save labor
- Received the Derwent Top 100 Global Innovator 2018-19 Award

March
- Adopted control failure recovery support system utilizing IBM's Watson to all manufacturing lines
- Opened workplace daycare center in Keihin

Engineering business — JFE Engineering

2018

April
- Biomass power plant for Hachinohe Biomass Power Generation began power generation
- Began operation of project of wastewater treatment plant for the Seien area in Hamamatsu City under concession scheme
- Commercialization of a new system to remove mercury from exhaust gas generated by waste incineration
- Received order for new Waste to Energy Plant from Hotaka municipalities, Nagano
- Established Innovation Centre for Environmental Technology in Singapore
- (JFE Technos) Integrated JFE Rail Link and Construction division of River Steel
- Launched Office of Smart-Work Promotion and Office of Global Human Resources Promotion

May
- Established Tokorozawa Future Electric Power Corporation, regional power producer and supplier system, with Tokorozawa City
- Completed construction of of Long-life radio tower for Tokyo Gas
- Received order for rebuilding West Exit pedestrian overpass at Shibuya Station

June
- Completed construction of Suzaki Natural Gas Supply Center for Okinawa Electric Power Company's subsidiary

July
- (Urban Energy) Began zero emissions plan service
- Received order for new Waste to Energy plant from East Tottori municipalities
- Contracted to manufacture diagnostic agent for renal cancer from Telix Pharmaceuticals (Australia)
- Began trial operation of waste gasifying and melting furnace at Nanyang Technological University (Singapore)
- Received order for building a bridge at Izushima in Onagawa Town
- Received order for water purification plant at Taguibo in the Philippines

August
- Received order for smart agriculture plant from Shimotsuke City, Tochigi Prefecture
- Began food recycling business (J Bio Food Recycle Co., Ltd)
- Received order for water purification plant at Morong in the Philippines

September
- Kawasaki City adopted ZeroE system
- Received order from Izumo City, Shimane, for new Waste to Energy plant

October
- Received order for the Yen Xa wastewater treatment plant, the largest of its kind in Hanoi
- Completed construction of wastewater treatment plant in Parañaque in the Philippines

November
- Began operation of AI-utilizing tool **Pla'cello**
- Began operations of Toyama Shinko LNG Terminal, Hokuriku Electric Power Company

December
- Established Fukuyama Mirai Energy Corporation, a regional power producer and supplier
- Participated in the concession business relating to Otsu City gas specific operating project etc.
- Received order for construction of Niihama LNG Terminal facility
- Received order for hybrid caissons for Kawasaki City
- Completed construction of expansion to Thilawa Port in Myanmar
- Began ESP business for The Nisshin OilliO Group, Ltd.

2019

January
- Began commercial operation of IGP (Iwate Geothermal Power Company) Matsuo Hachimantai Geothermal Power Station

February
- JFE RECYCLING and Tokyo Waterfront Recycle Power concluded a merger contract

March
- Began sale of Iwata Zero Emissions Electricity
- Tokorozawa City adopted ZeroE system
- Completed construction on rebuilding of East Exit pedestrian overpass at Shibuya Station
- Began operations of Ishikari LNG base, Hokkaido Electric Power Company

Trading business — JFE Shoji Trade

2018

April
- Established Electric Appliances and Steel Products Planning Department and E-Business Promotion Office
- Courtesy visit by Carlos Kingsley Ahenkorah, Deputy Minister for Trade and Industry of Ghana, to JFE Shoji and Kawasho Foods Corporation
- JFE Shoji Steel America, Inc. participated in the transformer industry exhibition held by IEEE (Institute of Electrical and Electronics Engineers)

May
- A new plant began operation for Suga Steel, a plate processing and sales company in Thailand that JFE has invested
- JFE Shoji Terre One accepted trainees from the Myanmar Ministry of Construction
- Hokuriku Steel received its first Kanazawa Plant Superintendent's Commendation from Komatsu Ltd.

June
- JFE Shoji Trade America Inc. established Silao Office, belonging to Mexico Branch
- With support from JFE Shoji Steel India Private Limited, PT.JFE Shoji Steel Indonesia, etc., JFE exhibited at CWIEME in Berlin, the world's largest expo in electrical steel sheets industry
- The Cold Iron Melting Section of Ferrous Raw Material Department received the Top Seller award from ShengLi, Vietnam's major electric furnace manufacturer

July
- Thai's steel materials processor Steel Alliance Service Center acquired inspection certificate from JFE Steel Galvanizing (Thailand) for the second consecutive year
- Held Shinto ground-breaking ceremony at the site for construction of the new JFE Shoji Buriki Center plant

September
- JFE Shoji Trade Steel Construction Materials established ROLLMAT JAPAN as a joint investment with two other companies, to handle deformed bar processed products

October
- Changed the name of the Tokyo Headquarters to simply "Headquarters," and the Osaka Headquarters to "Osaka Branch."
- Conducted social contribution activities in Ghana and Nigeria for eight consecutive years

December
- JFE Shoji Trade Steel Construction Materials Corporation received Commendation from Deputy Vice-Minister for Logistics, the Ministry of Land, Infrastructure, Transport and Tourism, jointly with three other companies
- Kawasho Foods Corporation established a joint venture in China jointly with TARAMI corporation and a Chinese food manufacturer

2019

January
- JFE Shoji Steel Vietnam Co.,Ltd received an Excellent Vendor Award from SEHC of the Samsung Group

March
- Invested in I.M.E. (Thailand), the local subsidiary of motor manufacturer Ichinomiya Electronics

Shipbuilding business — Japan Marine United

2018

April
- Exhibited at the Sea Japan marine exhibition

July
- Naming and launching ceremony for the escort ship Maya
- Completed he concept design for an LNG-powered large bulk carrier jointly with Nippon Yusen

September
- Received order for Japan's first state-owned LNG-powered marine environment maintenance ship
- Received order for a self elevating platform (SEP)

October
- Held the 1st JMU Technology Forum

November
- Performed modification work for the onboard theater STU48

2019

February
- Received order for a LNG bunkering vessel

Financial Information

Note: Fiscal Year(FY) 2018 in the following pages refers to the period beginning April 1, 2018 and ended March 31, 2019

Financial information URL **www.jfe-holdings.co.jp/en/investor**

1. Preparation Policy of the Consolidated Financial Statements

The consolidated financial statements of the Company are prepared in accordance with International Financial Reporting Standards (hereinafter referred to as "IFRS") pursuant to the provisions of Article 93 of the Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements (Ordinance of the Ministry of Finance No. 28 of 1976; hereinafter referred to as the "Ordinance on Consolidated Financial Statements").

2. Audit Certification

In accordance with the provisions of Article 193-2, paragraph 1 of the Financial Instruments and Exchange Act, the consolidated financial statements of the Company for the fiscal year ended March 31, 2019 were audited by Ernst & Young ShinNihon LLC.

3. Particular Efforts to Secure the Appropriateness of Consolidated Financial Statements, etc.

The Company is making particular efforts to ensure the appropriateness of consolidated financial statements, etc. Specifically, in order to establish a system for gaining proper understanding of the details and revisions of accounting standards and relevant guidance and responding accordingly, the Company has joined the Financial Accounting Standards Foundation and attends seminars and workshops held by the foundation.

4. Development of a System for Fair Preparation of Consolidated Financial Statements, etc. in Accordance with IFRS

In order to prepare appropriate consolidated financial statements under IFRS, the Company keeps up to date with the latest accounting standards and assesses their impact by obtaining press releases and standards issued by the International Accounting Standards Board as necessary. The Company has also formulated the Group Accounting Policies in compliance with IFRS and conducts its accounting based on those policies. In addition, the Company attends seminars and workshops held by the Financial Accounting Standards Foundation, audit firms and other organizations, thereby accumulating expertise within the Company.

Consolidated statement of financial position

(million yen)

	Notes	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Assets				
Current assets				
Cash and cash equivalents	7, 21	70,209	75,117	**82,288**
Trade and other receivables	8, 37	685,295	758,029	**754,679**
Contract assets	27	132,500	126,935	**124,039**
Inventories	9	757,793	836,865	**917,812**
Income taxes receivable		6,796	1,766	**19,076**
Other financial assets	10, 37	4,912	7,157	**4,471**
Other current assets	11	68,871	77,684	**86,290**
Total current assets		1,726,379	1,883,556	**1,988,658**
Non-current assets				
Property, plant and equipment	12, 21	1,661,123	1,732,154	**1,835,229**
Goodwill	13	5,137	4,473	**4,445**
Intangible assets	13	66,918	73,163	**82,567**
Investment property	15	60,403	59,682	**59,425**
Investments accounted for using equity method	6, 18, 21	332,428	289,223	**315,064**
Retirement benefit asset	24	11,224	16,459	**16,380**
Deferred tax assets	19	27,674	24,467	**36,609**
Other financial assets	10, 21, 37	426,418	393,668	**360,133**
Other non-current assets	11, 21	11,523	10,322	**10,686**
Total non-current assets		2,602,853	2,603,616	**2,720,543**
Total assets	6	4,329,232	4,487,173	**4,709,201**

(million yen)

	Notes	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Liabilities and equity				
Liabilities				
Current liabilities				
Trade and other payables	20, 21, 37	524,727	560,381	**584,939**
Bonds payable, borrowings, and lease obligations	21, 37	271,767	317,494	**329,400**
Contract liabilities	27	33,465	53,588	**59,060**
Income taxes payable, etc.		16,155	43,601	**16,399**
Provisions	23	8,622	8,594	**14,336**
Other financial liabilities	22, 37	89,884	92,612	**99,097**
Other current liabilities	11	187,016	213,876	**222,705**
Total current liabilities		1,131,639	1,290,149	**1,325,938**
Non-current liabilities				
Bonds payable, borrowings, and lease obligations	21, 37	1,153,753	1,073,734	**1,194,478**
Retirement benefit liability	24	123,989	128,341	**133,999**
Provisions	23	36,537	35,914	**30,438**
Deferred tax liabilities	19	10,279	5,162	**3,550**
Other financial liabilities	22, 37	27,588	22,109	**17,140**
Other non-current liabilities	11	9,197	9,696	**11,895**
Total non-current liabilities		1,361,346	1,274,959	**1,391,503**
Total liabilities		2,492,986	2,565,108	**2,717,442**
Equity				
Share capital	25	147,143	147,143	**147,143**
Capital surplus	25	646,582	646,634	**646,793**
Retained earnings	25	1,050,635	1,138,091	**1,241,420**
Treasury shares	25	(178,853)	(179,070)	**(180,670)**
Other components of equity		115,941	109,907	**71,650**
Equity attributable to owners of parent		1,781,449	1,862,707	**1,926,337**
Non-controlling interests		54,796	59,357	**65,422**
Total equity		1,836,245	1,922,065	**1,991,759**
Total liabilities and equity		4,329,232	4,487,173	**4,709,201**

Consolidated statement of profit or loss

(million yen)

	Notes	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Revenue	27	3,627,248	**3,873,662**
Cost of sales	12, 13, 24, 29	(3,054,388)	**(3,328,475)**
Gross profit		572,860	**545,186**
Selling, general and administrative expenses	12, 13, 24, 28, 29, 30	(336,949)	**(357,323)**
Share of profit (loss) of entities accounted for using equity method	6, 18	(10,173)	**42,685**
Other income	31	30,619	**30,877**
Other expenses	32	(37,979)	**(29,355)**
Business profit	6	218,378	**232,070**
Impairment losses	6, 16	(28,453)	**(10,252)**
Loss on remeasurement of retained interest		(18,717)	**–**
Expenses for treatment of PCB waste		(3,850)	**–**
Operating profit		167,357	**221,818**
Finance income	6, 33	1,546	**2,083**
Finance costs	6, 33	(16,026)	**(14,588)**
Profit before tax		152,877	**209,313**
Income tax expense	19	(49,723)	**(39,488)**
Profit		103,153	**169,825**
Profit attributable to			
Owners of parent		97,635	**163,509**
Non-controlling interests		5,518	**6,315**
Profit		103,153	**169,825**
Earnings per share			
Basic earnings per share (yen)	35	169.34	**283.81**
Diluted earnings per share (yen)	35	169.34	**283.76**

Financial Information

Consolidated statement of comprehensive income

(million yen)

	Notes	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Profit		103,153	**169,825**
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurements of defined benefit plans	24, 34	4,510	**(4,270)**
Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income	34, 37	13,751	**(23,091)**
Share of other comprehensive income of investments accounted for using equity method	18, 34	602	**(430)**
Total of items that will not be reclassified to profit or loss		18,864	**(27,793)**
Items that may be reclassified to profit or loss			
Exchange differences on translation of foreign operations	34	(2,098)	**(4,445)**
Effective portion of cash flow hedges	34	2,649	**(383)**
Share of other comprehensive income of investments accounted for using equity method	18, 34	1,535	**(10,824)**
Total of items that may be reclassified to profit or loss		2,086	**(15,653)**
Total other comprehensive income		20,950	**(43,446)**
Comprehensive income		124,104	**126,378**
Comprehensive income attributable to			
Owners of parent		117,483	**120,693**
Non-controlling interests		6,621	**5,685**
Comprehensive income		124,104	**126,378**

Consolidated statement of changes in equity

(million yen)

	Notes	Equity attributable to owners of parent					
						Other components of equity	
		Share capital	Capital surplus	Retained earnings	Treasury shares	Remeasure-ments of defined benefit plans	Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income
Balance as of April 1, 2017		147,143	646,582	1,050,635	(178,853)	–	119,153
Profit		–	–	97,635	–	–	–
Other comprehensive income		–	–	–	–	4,527	13,819
Comprehensive income		–	–	97,635	–	4,527	13,819
Purchase of treasury shares		–	–	–	(226)	–	–
Disposal of treasury shares		–	(4)	–	10	–	–
Change in treasury shares arising from change in equity in entities accounted for using equity method		–	–	–	0	–	–
Dividends	26	–	–	(34,605)	–	–	–
Share-based payment transactions	30	–	–	–	–	–	–
Changes in ownership interest in subsidiaries		–	56	–	–	–	–
Transfer from other components of equity to retained earnings		–	–	24,427	–	(4,527)	(19,900)
Transfer to non-financial assets	37	–	–	–	–	–	–
Other		–	–	–	–	–	–
Total transactions with owners		–	52	(10,178)	(216)	(4,527)	(19,900)
Balance as of March 31, 2018		147,143	646,634	1,138,091	(179,070)	–	113,073

	Notes	Equity attributable to owners of parent					
		Other components of equity					
		Exchange differences on translation of foreign operations	Effective portion of cash flow hedges	Total	Total	Non-controlling interests	Total equity
Balance as of April 1, 2017		–	(3,212)	115,941	1,781,449	54,796	1,836,245
Profit		–	–	–	97,635	5,518	103,153
Other comprehensive income		(1,805)	3,307	19,847	19,847	1,102	20,950
Comprehensive income		(1,805)	3,307	19,847	117,483	6,621	124,104
Purchase of treasury shares		–	–	–	(226)	–	(226)
Disposal of treasury shares		–	–	–	5	–	5
Change in treasury shares arising from change in equity in entities accounted for using equity method		–	–	–	0	–	0
Dividends	26	–	–	–	(34,605)	(2,176)	(36,781)
Share-based payment transactions	30	–	–	–	–	–	–
Changes in ownership interest in subsidiaries		–	–	–	56	(56)	–
Transfer from other components of equity to retained earnings		–	–	(24,427)	–	–	–
Transfer to non-financial assets	37	–	(1,454)	(1,454)	(1,454)	–	(1,454)
Other		–	–	–	–	172	172
Total transactions with owners		–	(1,454)	(25,882)	(36,224)	(2,060)	(38,285)
Balance as of March 31, 2018		(1,805)	(1,359)	109,907	1,862,707	59,357	1,922,065

(million yen)

	Notes	Equity attributable to owners of parent					
						Other components of equity	
		Share capital	Capital surplus	Retained earnings	Treasury shares	Remeasurements of defined benefit plans	Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income
Balance as of April 1, 2018		147,143	646,634	1,138,091	(179,070)	–	113,073
Profit		–	–	163,509	–	–	–
Other comprehensive income		–	–	–	–	(4,630)	(23,108)
Comprehensive income		–	–	163,509	–	(4,630)	(23,108)
Purchase of treasury shares		–	–	–	(1,627)	–	–
Disposal of treasury shares		–	(16)	–	27	–	–
Change in treasury shares arising from change in equity in entities accounted for using equity method		–	–	–	–	–	–
Dividends	26	–	–	(54,784)	–	–	–
Share-based payment transactions	30	–	170	–	–	–	–
Changes in ownership interest in subsidiaries		–	4	–	–	–	–
Transfer from other components of equity to retained earnings		–	–	(5,396)	–	4,630	766
Transfer to non-financial assets	37	–	–	–	–	–	–
Other		–	–	–	–	–	–
Total transactions with owners		–	158	(60,181)	(1,600)	4,630	766
Balance as of March 31, 2019		147,143	646,793	1,241,420	(180,670)	–	90,730

	Notes	Equity attributable to owners of parent					
		Other components of equity					
		Exchange differences on translation of foreign operations	Effective portion of cash flow hedges	Total	Total	Non-controlling interests	Total equity
Balance as of April 1, 2018		(1,805)	(1,359)	109,907	1,862,707	59,357	1,922,065
Profit		–	–	–	163,509	6,315	169,825
Other comprehensive income		(14,742)	(334)	(42,816)	(42,816)	(630)	(43,446)
Comprehensive income		(14,742)	(334)	(42,816)	120,693	5,685	126,378
Purchase of treasury shares		–	–	–	(1,627)	–	(1,627)
Disposal of treasury shares		–	–	–	10	–	10
Change in treasury shares arising from change in equity in entities accounted for using equity method		–	–	–	–	–	–
Dividends	26	–	–	–	(54,784)	(1,972)	(56,756)
Share-based payment transactions	30	–	–	–	170	–	170
Changes in ownership interest in subsidiaries		–	–	–	4	(4)	–
Transfer from other components of equity to retained earnings		–	–	5,396	–	–	–
Transfer to non-financial assets	37	–	(838)	(838)	(838)	–	(838)
Other		–	–	–	–	2,356	2,356
Total transactions with owners		–	(838)	4,558	(57,064)	379	(56,684)
Balance as of March 31, 2019		(16,547)	(2,532)	71,650	1,926,337	65,422	1,991,759

Consolidated statement of cash flow

(million yen)

	Notes	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Cash flows from operating activities			
Profit before tax		152,877	**209,313**
Depreciation and amortization		182,646	**196,243**
Changes in allowance		(724)	**(23)**
Interest and dividend income		(9,427)	**(10,627)**
Interest expenses		15,446	**13,648**
Decrease (increase) in trade and other receivables		(72,082)	**2,533**
Decrease (increase) in inventories		(78,270)	**(82,525)**
Increase (decrease) in trade and other payables		30,010	**19,691**
Other		132,500	**(669)**
Subtotal		352,977	**347,585**
Interest and dividends received		16,355	**19,014**
Interest paid		(12,906)	**(12,606)**
Income taxes paid		(28,067)	**(85,741)**
Cash flows from operating activities		328,358	**268,251**
Cash flows from investing activities			
Purchase of property, plant and equipment, intangible assets, and investment property		(268,379)	**(312,578)**
Proceeds from sale of property, plant and equipment, intangible assets, and investment property		2,994	**488**
Purchase of investments		(10,847)	**(8,394)**
Proceeds from sale of investments		64,798	**6,889**
Other		(5,020)	**243**
Cash flows from investing activities		(216,454)	**(313,351)**

(million yen)

	Notes	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Cash flows from financing activities			
Net increase (decrease) in short-term borrowings	36	4,556	**18,752**
Increase (decrease) in commercial papers	36	(1,999)	**77,000**
Proceeds from long-term borrowings	36	378,474	**213,499**
Repayments of long-term borrowings	36	(398,061)	**(200,487)**
Proceeds from issuance of bonds	36	20,000	**30,000**
Redemption of bonds	36	(50,000)	**(15,000)**
Payments for purchase of treasury shares		(226)	**(1,627)**
Dividends paid to owners of parent	26	(34,510)	**(54,640)**
Other	36	(18,060)	**(15,614)**
Cash flows from financing activities		(99,828)	**51,882**
Effect of exchange rate change on cash and cash equivalents		(7,167)	**388**
Net increase (decrease) in cash and cash equivalents		4,908	**7,170**
Cash and cash equivalents at beginning of period		70,209	**75,117**
Cash and cash equivalents at end of period	7	75,117	**82,288**

Notes to Consolidated Financial Statements

1. Reporting Entity

JFE Holdings, Inc. (the "Company") is an incorporated company established under Japan's Companies Act and is located in Japan.
The consolidated financial statements of the Company, as of March 31, 2019, encompass the Company and its subsidiaries (the "Group") and its interests in affiliates and joint arrangements of the Company.
Details of the Group's business are described in "6. Segment Information."

2. Basis of Preparation

(1) Statement of compliance with IFRS and notes on first-time adoption

The Company meets the requirements of a "specified company complying with designated international accounting standards" as specified in Article 1-2 of the Consolidated Financial Statements Regulations, and the Company therefore prepares its consolidated financial statements in accordance with IFRS, in accordance with Article 93 of the Consolidated Financial Statements Regulations.
The Group adopted IFRS for the first time in the fiscal year ended March 31, 2019. The date of transition to IFRS ("transition date") is April 1, 2017. The effects of the transition to IFRS on the financial position, business results, and cash flows of the Group as of the transition date and comparative year are described in "41. First-time Adoption."

With the exception of IFRSs not adopted early and the exemptions permitted under IFRS 1, "First-time Adoption of International Financial Reporting Standards" ("IFRS 1"), the Group's accounting practices are in compliance with IFRS effective as of March 31, 2019. Exemptions used are described in "41. First-time Adoption."

The Group's consolidated financial statements for the fiscal year ended March 31, 2019 were authorized for issue on June 21, 2019 by the Board of Directors.

(2) Basis of measurement

The Group's consolidated financial statements have been prepared based on acquisition cost, with the exception of financial instruments, etc., described in "3. Significant Accounting Policies."

(3) Functional currency and reporting currency

The Group's consolidated financial statements are presented in Japanese yen, which is the Company's functional currency. Amounts less than one million yen are rounded down.

3. Significant Accounting Policies

(1) Basis of consolidation

(i) Subsidiaries

Subsidiaries are those companies over which the Company has control. If the Group has an exposure or right to variable returns from involvement in the investee, and has the ability to use its power over the investee to affect the amount of returns, then it is regarded as controlling the investee.

The financial statements of subsidiaries are included in the consolidated financial statements of the Group from the date of acquisition of control to the date of loss of control.

If there is a change in equity interest in a subsidiary without loss of control, it is accounted for as a capital transaction. If there is a change in equity interest in a subsidiary accompanied by a loss of control, the subsidiary's assets and liabilities, non-controlling interests related to the subsidiary, and other components of equity are derecognized, with any gain or loss resulting therefrom recognized in profit or loss.

For subsidiaries whose reporting periods end on a date that differs from that of the parent entity, provisional financial statements as of the consolidated reporting date are used.

(ii) Associates and joint arrangements

Associates: An entity in which the Group owns at least 20% and at most 50% of the voting rights is considered an associate unless it can be clearly demonstrated that the Company cannot exercise influence over financial and operating policy decisions of the entity. An entity in which the Group owns less than 20% of the voting rights is considered an associate if the Company can exercise influence over financial and operating policy decisions of the entity. Investments in associates are accounted for using the equity accounting method.

A joint arrangement is an arrangement in which two or more parties have joint control such that decisions about the relevant activities of the arrangement require the unanimous consent of the parties sharing control. If the parties that share joint control have rights to the assets and obligations for the liabilities relating to the arrangement, it is called a joint operation. If the parties that share joint control have rights to the net assets of the arrangement, it is called a joint venture. In relation to its interest in a joint operation, the Group recognizes its share of assets, liabilities, revenue, and expenses. Joint ventures are accounted for using the equity accounting method.

For associates whose reporting periods end on a date that differs from that of the parent entity, provisional financial statements as of the consolidated reporting date are prepared.

For JSW Steel Limited, provisional financial statements are prepared based on December 31 as the reporting date because local legislation imposes restrictions on when certain information becomes available to the Company. Necessary adjustments have been made for material transactions or events disclosed between JSW Steel Limited's provisional reporting date and the consolidated reporting date.

(iii) Consolidation eliminations

The balances of receivables and payables and transactions within the Group, and unrealized gains and losses arising from transactions within the Group, have been eliminated when preparing consolidated financial statements.

(2) Business combinations

Business combinations are accounted for using the acquisition method.

Identifiable assets acquired through business combinations, liabilities assumed, non-controlling interests of the acquiree, and goodwill are recognized on the acquisition date (the date on which the acquirer obtains control of the acquiree). As a general rule, identifiable assets acquired and liabilities assumed are measured at fair value.

If the total value of the fair value of consideration (including contingent consideration) transferred in the business combination, the amount of any non-controlling interests of the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree ("Value A") exceeds the net value (usually the fair value) of the acquiree's identifiable assets and liabilities assumed ("Value B"), the excess is recognized as goodwill. If, on the other hand, Value A is less than Value B, the difference is recognized in profit or loss as of the acquisition date.

Acquisition costs incurred are recognized as expenses when incurred.

For each individual transaction, the Company chooses to measure non-controlling interests at fair value or as a proportionate share of the fair value of identifiable net assets of the acquiree.

(3) Foreign currency translation

(i) Translation of foreign currency transactions

Foreign currency transactions are translated into the functional currency of each company using the exchange rate or similar rate prevailing on the transaction date. Monetary items denominated in foreign currencies at the end of the reporting period are translated into the functional currency at the exchange rate prevailing at the end of the reporting period, and the resulting exchange differences are recognized in profit or loss. When the valuation difference of a non-monetary item is recognized in other comprehensive income, any exchange component is recognized in other comprehensive income, and when a non-monetary item is recognized in profit or loss, any exchange component is recognized in profit or loss.

(ii) Translation of foreign operations

Assets and liabilities of foreign operations are translated at the exchange rates prevailing at the end of the reporting period. In addition, revenues and expenses of foreign operations are translated at the average exchange rates for the reporting period unless exchange rates fluctuated significantly during the period. Exchange differences arising from translation are recognized in other comprehensive income, and the accumulated amount is included in other components of equity.

When disposing of foreign operations, the cumulative amount of exchange differences related to the foreign operations is recognized in profit or loss at the time of disposal. Note that the Group has used the exemption specified in IFRS 1 that permits it to transfer the cumulative exchange differences that existed at the IFRS transition date to retained earnings.

(4) Financial instruments

(i) Financial assets

a. Initial recognition and measurement

Financial assets are classified either as financial assets measured at amortized cost or as financial assets measured at fair value at the time of initial recognition. The Group recognizes a financial asset on the transaction date on which it becomes a party to the contractual provisions of the financial asset.

Financial assets that meet the following conditions are classified as financial assets measured at amortized cost:

- The asset is held in a business model of which the objective is to hold the asset in order to collect its contractual cash flows
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Financial assets other than financial assets measured at amortized cost are classified as financial assets measured at fair value.

With the exception of equity financial assets held for trading purposes that must be measured at fair value through profit or loss, equity financial assets measured at fair value are individually classified either as measured at fair value through profit or loss or as measured at fair value through other comprehensive income, with that classification being made when the asset is initially recognized and applying continuously thereafter.

With the exception of financial assets measured at fair value through profit or loss, financial assets are measured at fair value at initial recognition plus transaction costs directly attributable to the acquisition. Financial assets measured at fair value through profit or loss are measured at fair value at initial recognition, and transaction costs directly attributable to the transaction are recognized in profit or loss.

b. Measurement subsequent to initial recognition

(a) Financial assets measured at amortized cost

After initial recognition, measurement is the amortized cost using the effective interest method.

(b) Financial assets measured at fair value through profit or loss

After initial recognition, measurement is the fair value with subsequent changes recognized in profit or loss.

(c) Equity financial assets measured at fair value through other comprehensive income

After initial recognition, measurement is the fair value with subsequent changes recognized in other comprehensive income.

Amounts recognized in other comprehensive income are transferred to retained earnings when an asset is derecognized or its fair value declines significantly (except when recovery is deemed probable); they are not transferred to profit or loss. Dividends derived from such financial assets are recognized as profit or loss.

c. Derecognition

Financial assets are derecognized when the contractual rights to receive cash flows have extinguished or when the contractual rights to receive cash flows have been transferred and substantially all risks and rewards of ownership of the financial asset are transferred to another entity.

d. Impairment

For financial assets measured at amortized cost, the Company recognizes allowances for doubtful accounts based on expected credit losses.

Allowances for doubtful accounts are calculated as the present value of the difference between the contractual cash flows due to the Group and the cash flows that the Group expects to receive.

The Group determines whether the credit risk on each financial asset has increased significantly since initial recognition on each reporting date, and if the credit risk has not increased significantly since initial recognition, the amount of the allowance for doubtful accounts is assessed based on the expected credit losses (expected credit losses over 12 months) resulting from default events that may occur within 12 months. If, on the reporting date, credit risk on a financial asset has increased significantly since initial recognition, the amount of the allowance for doubtful accounts is assessed based on the expected credit losses arising from all possible default events over the expected lifetime of the financial asset (expected credit losses over full lifetime). However, in the case of trade receivables, contract assets, and lease receivables that do not contain a significant financing component, regardless of the above, the amount of the allowance for doubtful accounts is always measured using the expected credit losses for the instrument's full lifetime.

A receivable is determined to be credit-impaired when a fact such as the commencement of legal liquidation proceedings due to the obligor's bankruptcy, etc. or the significant deterioration of the obligor's financial condition occurs. When it becomes apparent that a receivable will be unrecoverable in the future due to a write-off under the provisions of the Corporate Reorganization Act, etc., the carrying amount of the receivable is directly reduced.

Provisions of allowances for doubtful accounts on financial assets are recognized in profit or loss. In the case of events that reduce the allowance for doubtful accounts, reversals of allowances for doubtful accounts are recognized in profit or loss.

Estimates of allowances for doubtful accounts relating to financial assets reflect the following.

- Unbiased probability-weighted amounts calculated by evaluating a range of possible outcomes
- Time value of money
- Rational and supportable information about past events, current conditions, and forecasts of future economic conditions, available at the reporting date without undue cost or effort

(ii) Financial liabilities

a. Initial recognition and measurement

Financial liabilities are classified either as financial liabilities measured at amortized cost or as financial liabilities measured at fair value through profit or loss at the time of initial recognition. The Group initially recognizes issued debt securities on the date of issue, and other financial liabilities are initially recognized on the transaction date on which the Group becomes a party to the contractual provisions of the financial liability.

Financial liabilities measured at amortized cost are measured at fair value minus transaction costs directly attributable to the issue of the instruments at the time of initial recognition. However, financial liabilities measured at fair value through profit or loss are measured at fair value at the time of initial recognition.

b. Measurement subsequent to initial recognition

(a) Financial liabilities measured at amortized cost

After initial recognition, measurement is the amortized cost using the effective interest method.

(b) Financial liabilities measured at fair value through profit or loss

After initial recognition, measurement is the fair value with subsequent changes recognized in profit or loss.

c. Derecognition

Financial liabilities are derecognized when the financial liabilities extinguish; that is, when the liabilities are discharged, are cancelled, or expire.

(iii) Derivative and hedge accounting

The Group enters into derivative transactions such as forward exchange contracts and interest rate swaps in order to hedge foreign exchange risk, interest rate risk, and the like.

At the inception of the hedge, the Group formally designates and documents the risk management purpose and strategy for the hedging relationship and the implementation of the hedge. This documentation identifies the hedging instrument, the item or transaction being hedged, the nature of the risk being hedged, and the method of evaluating the effectiveness of the hedging instrument in offsetting the exposure to changes in the fair value or cash flows of the hedged item due to the risk being hedged. The Group expects these hedges to be highly effective in offsetting changes in fair value or cash flows due to the risks being hedged; however, the hedges are assessed on an ongoing basis to determine whether they have actually been highly effective or not throughout the hedging periods.

Derivatives are initially recognized at fair value. After initial recognition, fair value is measured and subsequent changes are treated as shown immediately below.

a. Fair value hedges

Changes in the fair value of derivatives used as hedging instruments are recognized in profit or loss or other comprehensive income. Changes in the fair value of the hedged item corresponding to the hedged risk are recognized in profit or loss or other comprehensive income, with the carrying amount of the hedged item being adjusted.

b. Cash flow hedges

The portion of the change in the fair value of derivatives used as hedging instruments that is determined to be an effective hedge is recognized in other comprehensive income, and the cumulative amount is included in other components of equity. The portion of hedges that is ineffective is recognized in profit or loss. Amounts accumulated in other components of equity are reclassified from other components of equity to profit or loss in the accounting period in which the transaction being hedged affects profit or loss. However, if the forecast transaction being hedged subsequently results in the recognition of a non-financial asset or non-financial liability, the amount accumulated in other components of equity is treated as an adjustment to the initial book value of that non-financial asset or non-financial liability.

Hedge accounting is discontinued prospectively when the hedging instrument expires, is sold, or is terminated or exercised, or if the derivative no longer meets the requirements for hedge accounting. When the forecast transaction is no longer expected to occur, the amount accumulated in other components of equity is immediately reclassified from other components of equity to profit or loss.

c. Derivatives not designated as hedges

Changes in the fair value of such derivatives are recognized in profit or loss.

(iv) Offsetting financial assets and financial liabilities

Financial assets and financial liabilities are offset and presented at net when the Group has a legally enforceable right to offset the recognized amounts and intends to settle on a net basis or intends to realize the asset and settle the liability simultaneously.

(5) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, readily available deposits, and short-term investments maturing within three months that are readily convertible to cash and subject to an insignificant risk of changes in value.

(6) Inventories

Inventories are measured at the lower of cost and net realizable value. Cost consists of material costs, direct labor costs, other direct costs, and an appropriate allocation of related manufacturing overhead costs. Net realizable value is calculated by deducting the estimated selling costs from the estimated selling price. Cost is mainly calculated based on the weighted-average method.

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

The Group uses the cost model to measure the carrying value of property, plant and equipment subsequent to its recognition. Under this model, property, plant and equipment is carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Property, plant and equipment other than land and construction in progress are mainly depreciated using the straight-line method.

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

- Buildings and structures: 2–75 years
- Machinery and vehicles: 2–27 years

The estimated useful lives, depreciation methods, and residual values of property, plant and equipment are reviewed at the end of each fiscal year.

(8) Goodwill and intangible assets

(i) Goodwill

Goodwill is not amortized; it is tested for impairment annually or whenever an indication of impairment exists. Impairment losses on goodwill are recognized in the consolidated statement of profit or loss and are not subsequently reversed.

Goodwill is carried at book value less accumulated impairment losses.

(ii) Intangible assets (excluding leased assets)

Intangible assets acquired separately are measured at cost at the time of initial recognition. Intangible assets acquired in business combinations are measured at fair value as of the acquisition date.

The Group uses the cost model to measure the carrying value of intangible assets subsequent to their recognition. Under this model, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses.

Intangible assets whose useful lives can be determined are amortized using the straight-line method over their estimated useful lives.

Intangible assets mainly comprise software for internal use and have estimated useful lives of 2–10 years.

(9) Leases

Leases for which all risks and rewards of ownership have effectively been transferred to the Group are classified as finance leases, and leases other than finance leases are classified as operating leases. The Group determines whether an arrangement contains a lease, based on the substance of the arrangement, even when it does not legally take the form of a lease.

(i) Finance leases

Assets and lease liabilities related to finance leases are recognized at the commencement date of the lease based on the lesser of the fair value of the leased property and the present value of the minimum lease payments.

Property, plant and equipment acquired as a finance lease are depreciated using the straight-line method over the shorter of the estimated useful life of the asset or the lease term.

Lease payments are allocated to finance costs and repayments of lease obligations based on the interest method, and finance costs are recognized in the consolidated statement of profit or loss.

(ii) Operating leases

Operating lease payments are recognized on a straight-line basis over the lease term.

(10) Investment property

Investment property is real estate held for the purpose of earning rental income, capital gains, or both.

The Group uses the cost model to measure the carrying value of investment property subsequent to its recognition. Under this model, investment property is carried at cost less any accumulated depreciation and any accumulated impairment losses.

Investment property other than land is depreciated mainly using the straight-line method over the estimated useful life. The estimated useful life of the Company's main investment properties is 26 years. The estimated useful lives, depreciation methods, and residual values of investment properties are reviewed at the end of each fiscal year.

(11) Impairment of non-financial assets

For property, plant and equipment and intangible assets, if there is any indication at the end of each reporting period that an asset may be impaired, the asset is assessed based on its recoverable value, being the higher of fair value less costs to sell and its value in use; if the carrying value of the asset exceeds its recoverable value, then the asset is impaired and is written down to its recoverable value.

Goodwill and intangible assets with indefinite useful lives are tested for impairment annually and whenever there is any indication of impairment.

Impairment losses recognized on assets other than goodwill in previous years are assessed at the end of each reporting period to determine whether there is any indication that the recognized impairment loss may no longer exist or may have decreased. If any such indication exists, the recoverable amount is estimated, and if the recoverable amount exceeds the carrying amount of the asset or the cash-generating unit to which the asset belongs, an impairment reversal is recognized and the carrying amount is increased to the recoverable amount subject to the condition that the carrying amount of the asset may not exceed the carrying amount (net of accumulated depreciation or accumulated amortization) that would have been determined had no impairment loss been previously recognized. Impairment losses recognized on goodwill are not reversed in subsequent periods.

(12) Post-employment benefits

(i) Defined benefit plans

Defined benefit plans are any retirement benefit plans other than defined contribution plans. For each separate plan, the defined benefit obligation is calculated by estimating the future benefits earned as compensation for services provided by employees in previous and current fiscal years, and discounting that amount to the present value. The fair value of plan assets is deducted from the result of that calculation. The discount rate is determined with reference to the market yields of high quality corporate bonds that are denominated in the same currency as the expected benefit payment and that have approximately the same maturity as the Group's defined benefit obligation.

If a retirement benefit plan is revised, costs related to the variable portion of benefits related to employees' past service are immediately recognized in profit or loss.

The Group recognizes changes in net defined benefit liability (asset) due to remeasurement in other comprehensive income and immediately transfers the amounts to retained earnings.

(ii) Defined contribution plans

Expenses related to defined contribution plans are recognized as expenses in the period in which the employees provide the services.

(13) Share-based payment

The Company has instituted share-based payment plans through which a portion of the compensation of directors (excluding outside directors) and executive officers (excluding non-residents under income tax law) of the Company and its operating companies is provided in the form of cash-settled share-based payments and equity-settled share-based payments through employee stock ownership plans. The Group's objective is to establish a clear link between compensation and the Group's operating performance and equity value and encourage the sharing of value with shareholders, thereby creating a greater incentive to contribute toward enhancing shareholder value over the medium and long term.

For equity-settled share-based payments, compensation for services received is measured with reference to the fair value of Company shares granted. The calculated consideration for services is recognized as an expense, and the same amount is recognized as an increase in equity.

For cash-settled share-based payments, the fair value of the amount paid is recognized as a liability, and changes in the fair value of the liability are recognized in profit or loss over the period up until an unconditional right to compensation is established.

(14) Provisions

Provisions are recognized when the Company has a present obligation (legal obligation or constructive obligation) resulting from past events, it is likely that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

If the impact of the time value of money is material, provisions are measured at a discounted amount calculated using a discount rate that reflects the risks specific to the liability.

(15) Revenue

With the exception of interest, dividend income, etc., under IFRS 9 Financial Instruments, the Group uses the following five-step approach in recognizing revenue that reflects the amount of consideration to which the Company expects to be entitled in exchange for the transfer of goods and services to customers:

Step 1: Identify the contract with the customer
Step 2: Identify the performance obligations in the contract
Step 3: Determine the transaction price
Step 4: Allocate the transaction price to a distinct performance obligation of the contract
Step 5: Recognize revenue when the performance obligation is fulfilled (or as it is fulfilled).

With respect to sales of steel products, etc. in the steel business, revenues are mainly recognized at the point of shipment, when the customer assumes the significant risk and economic value of ownership of the product being physically transferred and the right to receive payment is confirmed. Consideration for transactions is received mainly within one year from the fulfillment of performance obligations and includes no significant financing components.

With regard to construction contracts, etc. in the engineering business, we mainly estimate the progress of fulfilling performance obligations, and revenue is recognized over a fixed period based on the degree of progress. Consideration for transactions is mainly received in phases during the contract term separately from the fulfillment of performance obligations, and the remaining amount is received after a fixed period from the fulfillment of all performance obligations. Consideration for certain transactions includes significant financing components. A cost-based input method is used for performance obligations fulfilled over time in order to recognize revenue. The cost-based input method excludes the effects of any inputs that do not depict the Group's performance in transferring control of goods or services to the customer. When a cost incurred is not proportionate to progress, the Group's performance is faithfully depicted by adjusting the input method to recognize revenue only to the extent of that cost incurred.

With respect to sales of steel products, etc. in the trading business, revenues are mainly recognized at the point of delivery to the customer, when ownership rights and physical ownership of the product are physically transferred to the customer and the significant risk and economic value associated with ownership and the right to receive payment is confirmed. In addition, for certain transactions in the trading business, the Company has the responsibility to carry out work as an agent. Consideration for transactions is received mainly within one year from the fulfillment of performance obligations and includes no significant financing components.

Revenue is measured at the amount that deducts price reduction and rebates, etc. from the promised value in the contract with the customer.

When the Group is engaged in a transaction as a party to the transaction, revenue is presented as the total consideration received from the customer. When the Group is engaged in transactions as an agent for a third party, revenue is presented as a fee, calculated as the total amount of consideration received from the customer minus the amount collected for the third party.

(16) Business profit

Business profit is profit before income taxes excluding financial income and one-time items of materially significant value. It is a benchmark indicator of the Company's consolidated earnings.

(17) Finance income and costs

Finance income consists mainly of interest income, and finance costs consist mainly of interest expenses. Interest income is recognized as income when incurred using the effective interest method. Interest expense is recognized as an expense when incurred using the effective interest method.

(18) Dividend income

Dividend income is recognized in profit or loss when the right to receive the dividend is established.

Of the shares and investments held by the Group, dividends received on those held for the purpose of facilitating business transactions are included in other income.

(19) Income taxes

Income tax expense consists of current tax expense and deferred tax expense. These items are recognized in profit or loss except when they arise from items that are directly recognized in other comprehensive income or equity and when they arise from business combinations.

Current tax expense is measured in an amount that reflects the amount the Company expects the tax authorities to refund or expects to pay to the tax authorities. The tax rate and tax law used to calculate the amount of tax are those that are enacted or substantively enacted at the end of the reporting period.

Deferred tax assets and deferred tax liabilities are recognized for temporary differences, which are the differences between the carrying amounts and tax bases of assets and liabilities, and for unused tax losses and unused tax credits. They are measured using the tax rate and tax law applicable to the fiscal year in which the temporary difference, etc., is expected to be resolved.

Deferred tax liabilities are recognized for taxable temporary differences excluding the following:

- Temporary differences arising from initial recognition of goodwill
- Temporary differences resulting from the initial recognition of an asset or liability in a transaction that is not a business combination and does not affect accounting income or taxable income at the time of the transaction
- Taxable temporary differences arising from investments in subsidiaries and associates, and interests in joint arrangements, when the Company is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognized for deductible temporary differences, unused tax losses, and unused tax credits, but only to the extent that it is probable that future taxable profit will be available against which the deductible temporary difference, etc., can be utilized, except when the deductible temporary difference, etc., results from the initial recognition of an asset or liability in a transaction that is not a business combination and does not affect accounting income or taxable income at the time of the transaction.

Deferred tax assets are recognized for deductible temporary differences arising from investments in subsidiaries and associates, and interests in joint arrangements, only when it is probable that the temporary difference will reverse in the foreseeable future and it is probable that taxable profit will be available against which the deductible temporary difference can be utilized.

Deferred tax assets and deferred tax liabilities are offset only when there is a legally enforceable right to offset income taxes payable and income taxes receivable and either of the following criteria is met:

- The deferred tax assets and the deferred tax liabilities relate to income tax levied on the same taxable entity by the same tax authority
- The deferred tax assets and deferred tax liabilities relate to income tax levied on separate taxable entities by the same tax authority, and the taxable entities intend to settle income taxes receivable and income taxes payable on a net basis or realize the assets and settle the liabilities simultaneously.

(20) Equity

(i) Share capital and capital surplus

Capital paid in by shareholders is recognized in share capital or capital surplus.

(ii) Treasury shares

When treasury shares are acquired, the consideration paid, including direct transaction costs, is recognized as contra equity.

(21) Earnings per share

Basic earnings per share are calculated by dividing the profit attributable to owners of the parent company by the weighted average number of common shares on issue during the fiscal year.

Diluted earnings per share are calculated by adjusting for the impact of all dilutive potential shares.

4. Significant Accounting Judgments, Estimates and Assumptions

In preparing the consolidated financial statements, the Group makes judgments, accounting estimates and assumptions that affect the application of accounting policies and the amounts of assets, liabilities, income and expenses. These estimates and assumptions are based on the management's best judgments reflecting historical experiences and various factors that are believed to be reasonable under the circumstances. By their nature, however, actual results may differ from the estimates and assumptions.

The estimates and underlying assumptions are reviewed on an ongoing basis. The effects resulting from revisions of these estimates are recognized in the period in which the estimates are revised and in future periods affected by the revision.

Judgments and estimates made in applying accounting policies that have a significant effect on the consolidated financial statements are mainly as follows:

- Scope of subsidiaries, associates and joint arrangements (Note "3. Significant Accounting Policies")
- Revenue recognition (Note "3. Significant Accounting Policies")
- Matters related to financial instruments (Note "3. Significant Accounting Policies" and Note "37. Financial Instruments")
- Valuation of inventories (Note "3. Significant Accounting Policies" and Note "9. Inventories")
- Impairment of non-financial assets (Note "3. Significant Accounting Policies" and Note "16. Impairment of Non-financial Assets")
- Recoverability of deferred tax assets (Note "3. Significant Accounting Policies" and Note "19. Income Taxes")
- Valuation and accounting for provisions (Note "3. Significant Accounting Policies" and Note "23. Provisions")
- Measurement of defined benefit obligations (Note "3. Significant Accounting Policies" and Note "24. Post-employment Benefits")
- Contingencies (Note "40. Contingent Liabilities")

5. New IFRS Standards Not Yet Adopted

The following is a list of IFRS standards and interpretations newly established or amended by the approval date of the consolidated financial statements that the Group has not yet adopted.

IFRS	Title	Effective date (fiscal years beginning on or after)	The Group's application date (fiscal year ending)	Summaries of new or amended IFRS standards and interpretations
IFRS 16	Leases	January 1, 2019	March 31, 2020	Amendment to the accounting for lease agreements

Under IFRS 16, a lessee does not classify leases into finance lease or operating lease, but introduces a single lessee accounting model in which a lessee recognizes, for all leases in principle, a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. However, a lessee may elect not to apply the above requirement to short-term or low value leases. After the initial recognition of a right-of-use asset and a lease liability, depreciation expense of the right-of-use asset and interest expense of the lease liability are recorded.

The estimated impact of the adoption of this standard on the consolidated financial statements of the Group is an increase in total assets and total liabilities of approximately ¥100.0 billion, respectively, at April 1, 2019, the date of initial application.

6. Segment Information

(1) Overview of reportable segments

The Group organized under JFE Holdings executes commercial activities through three operating companies—JFE Steel Corporation, JFE Engineering Corporation, and JFE Shoji Trade Corporation—in accordance with the characteristics of their respective businesses.

Consolidated reporting segments, one for each operating company, are characterized by their constituent products and services.

Each segment has its own respective products and services. The steel business produces and sells various steel products, processed steel products and raw materials, and provides transportation and other related businesses such as facility maintenance and construction. The engineering business handles engineering for energy, urban environment, steel structures and industrial machines, recycling, and electricity retailing. The trading business purchases, processes, and distributes steel products, raw materials for steel production, nonferrous metal products, and food, etc.

(2) Information on reportable segments

The accounting treatments for the Group's reported business segments are generally the same as described in "3. Significant Accounting Policies."

The Group assesses segment performance on the basis of segment profit. Segment profit is profit before tax excluding one-time items of a materially significant value.

Intersegment transactions are based on market prices and the like.

Transition date (April 1, 2017)

(million yen)

	Steel	Engineering	Trading	Total	Adjustments (Note)	Amount recorded in consolidated financial statements
Segment assets	3,713,843	387,541	630,927	4,732,313	(403,080)	4,329,232
Other assets						
Investments accounted for using equity method	257,164	9,537	10,460	277,162	55,265	332,428

Note: Adjustments to segment assets include corporate assets not allocated to a reportable segment: 116,803 million yen and elimination of intersegment receivables and payables, etc.: -519,884 million yen. Corporate assets are assets of the Company.

Fiscal 2017 (April 1, 2017 to March 31, 2018)

(million yen)

	Steel	Engineering	Trading	Total	Adjustments (Note)	Amount recorded in consolidated financial statements
Revenue						
Revenue from external customers	2,378,107	391,223	857,917	3,627,248	–	3,627,248
Intersegment revenue	357,669	10,296	141,451	509,417	(509,417)	–
Total	2,735,777	401,519	999,368	4,136,666	(509,417)	3,627,248
Segment profit	187,240	18,736	35,186	241,163	(37,264)	203,898
Impairment losses						(28,453)
Loss on remeasurement of remaining interest						(18,717)
Expenses for treatment of PCB waste						(3,850)
Profit before tax						152,877
Segment assets	3,826,432	384,232	711,849	4,922,513	(435,340)	4,487,173
Other items						
Depreciation and amortization	168,985	7,540	6,117	182,643	3	182,646
Impairment losses	(23,071)	(2,797)	(2,584)	(28,453)	–	(28,453)
Finance income	1,151	111	510	1,772	(226)	1,546
Finance costs	(13,888)	(704)	(2,010)	(16,603)	577	(16,026)
Share of profit of entities accounted for using equity method	20,087	1,051	1,439	22,577	(32,751)	(10,173)
Investments accounted for using equity method	243,505	9,648	12,787	265,941	23,281	289,223
Capital expenditures	282,245	11,495	6,570	300,310	1	300,311

Note: Adjustments are as follows:

- Adjustments to segment profit include corporate profit not allocated to a reportable segment: 18,010 million yen, elimination of dividend income from each reportable segment: -17,780 million yen, and share of loss of entities accounted for using equity method related to Japan Marine United Corporation: -31,827 million yen; elimination of other intersegment transactions: -5,667 million yen. Corporate profit is profit of the Company.
- Adjustments to segment assets include corporate assets not allocated to a reportable segment: 41,866 million yen and elimination of intersegment receivables and payables, etc.: -477,207 million yen. Corporate assets are assets of the Company.

Fiscal 2018 (April 1, 2018 to March 31, 2019)

(million yen)

	Steel	Engineering	Trading	Total	Adjustments (Note)	Amount recorded in consolidated financial statements
Revenue						
Revenue from external customers	2,441,696	471,673	960,292	3,873,662	–	3,873,662
Intersegment revenue	388,953	14,142	165,568	568,663	(568,663)	–
Total	2,830,649	485,815	1,125,861	4,442,326	(568,663)	3,873,662
Segment profit	161,383	20,104	35,761	217,250	2,315	219,566
Impairment losses						(10,252)
Profit before tax						209,313
Segment assets	3,951,109	416,079	756,258	5,123,448	(414,246)	4,709,201
Other items						
Depreciation and amortization	182,343	7,878	6,020	196,241	2	196,243
Impairment losses	(9,736)	(470)	(44)	(10,252)	–	(10,252)
Finance income	1,451	141	717	2,311	(228)	2,083
Finance costs	(11,399)	(701)	(2,885)	(14,986)	398	(14,588)
Share of profit of entities accounted for using equity method	38,777	1,351	1,075	41,205	1,480	42,685
Investments accounted for using equity method	268,568	10,415	13,814	292,798	22,265	315,064
Capital expenditures	306,285	11,648	11,571	329,504	1	329,505

Note: Adjustments are as follows:

- Adjustments to segment profit include corporate profit not allocated to a reportable segment: 104,233 million yen, elimination of dividend income from each reportable segment: -103,928 million yen, and share of profit of entities accounted for using equity method related to Japan Marine United Corporation: 219 million yen; elimination of other intersegment transactions: 1,791 million yen. Corporate profit is profit of the Company.
- Adjustments to segment assets: Corporate assets not allocated to a reportable segment: 61,666 million yen and elimination of intersegment receivables and payables, etc.: -475,913 million yen. Corporate assets are assets of the Company.

(3) Information about the categories of products and services

The information is the same as information on reportable segments.

(4) Information about revenue from external customers by geographical areas

The information is provided in “27. Revenue.”

(5) Information about non-current assets (excluding financial assets, retirement benefit asset, and deferred tax assets) by geographical areas

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Japan	1,659,900	1,737,994	1,847,464
Other	145,206	141,802	144,889
Total	1,805,106	1,879,797	1,992,354

Note: Non-current assets are based on the geographical location of each company of the Group.

(6) Information about major customers

The information is not provided as there is no external customer that accounts for 10% or more of consolidated revenue of the Group.

7. Cash and Cash Equivalents

The breakdown of cash and cash equivalents is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Cash and bank deposits with maturities of three months or less	68,709	73,917	82,283
Negotiable certificates of deposit, etc.	1,500	1,200	5
Total	70,209	75,117	82,288

Cash and cash equivalents are classified as financial assets measured at amortized cost.

The balance of cash and cash equivalents reported in the consolidated statement of financial position as of March 31, 2018 and 2019 is consistent with that reported in the consolidated statement of cash flows.

8. Trade and Other Receivables

The breakdown of trade and other receivables is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Notes and accounts receivable – trade	655,945	728,275	718,931
Other	30,769	31,922	37,339
Allowance for doubtful accounts	(1,419)	(2,169)	(1,590)
Total	685,295	758,029	754,679

Trade and other receivables are stated as net of allowance for doubtful accounts in the consolidated statement of financial position.

Trade and other receivables are classified as financial assets measured at amortized cost.

9. Inventories

The breakdown of inventories is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Merchandise and finished goods	365,179	399,827	440,417
Work in progress	38,259	43,916	45,987
Raw materials and supplies	354,353	393,121	431,407
Total	757,793	836,865	917,812

Inventories recognized as an expense in “Cost of sales” for the years ended March 31, 2018 and 2019 amounted to ¥2,586,740 million and ¥2,803,908 million, respectively.

10. Other Financial Assets

(1) The breakdown of other financial assets is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Financial assets measured at amortized cost			
Leasehold and guarantee deposits	10,696	11,135	**11,420**
Other	13,087	10,519	**9,539**
Allowance for doubtful accounts	(1,793)	(568)	**(474)**
Subtotal	21,990	21,085	**20,485**
Financial assets measured at fair value through profit or loss			
Derivative assets	25,683	20,086	**21,325**
Other	4,027	4,030	**3,982**
Subtotal	29,711	24,116	**25,308**
Equity financial assets measured at fair value through other comprehensive income			
Equity securities	373,666	349,385	**312,311**
Investments in capital	5,963	6,238	**6,499**
Subtotal	379,629	355,623	**318,811**
Total	431,331	400,826	**364,605**
Current assets	4,912	7,157	**4,471**
Non-current assets	426,418	393,668	**360,133**
Total	431,331	400,826	**364,605**

Other financial assets are stated as net of allowance for doubtful accounts in the consolidated statement of financial position.

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

The issuers and fair values of major equity financial assets measured at fair value through other comprehensive income are as follows:

(million yen)

Issuers	Transition date (April 1, 2017)
Toyota Motor Corporation	34,825
Isuzu Motors Limited	21,255
Kawasaki Heavy Industries, Ltd.	20,520
Formosa Ha Tinh (Cayman) Limited	17,226
SUZUKI MOTOR CORPORATION	16,877

(million yen)

Issuers	As of March 31, 2018
Isuzu Motors Limited	23,557
SUZUKI MOTOR CORPORATION	20,923
Formosa Ha Tinh (Cayman) Limited	20,724
TAIYO NIPPON SANSO CORPORATION	20,342
Central Japan Railway Company	16,639

(million yen)

Issuers	As of March 31, 2019
TAIYO NIPPON SANSO CORPORATION	**21,289**
Central Japan Railway Company	**21,251**
Isuzu Motors Limited	**20,988**
Formosa Ha Tinh (Cayman) Limited	**18,178**
SUZUKI MOTOR CORPORATION	**17,885**

Equity securities and investments in capital are held mainly for the purpose of facilitating business and financial transactions with investees. Therefore, they are designated as equity financial assets measured at fair value through other comprehensive income.

In order to promote the efficiency of held assets and to use them effectively, the Group has sold (derecognized) equity financial assets measured at fair value through other comprehensive income.

The fair value and accumulated gains or losses recognized in other comprehensive income at the time of sale are as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Fair value	64,676	**5,552**
Accumulated gains or losses recognized in other comprehensive income	20,510	**1,845**

11. Other Assets and Liabilities

The breakdown of other current assets, other non-current assets, other current liabilities, and other non-current liabilities is as follows:

(1) Other current assets and other non-current assets

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Advance payments	9,805	21,852	**23,721**
Other	70,589	66,154	**73,254**
Total	80,394	88,006	**96,976**
Current assets	68,871	77,684	**86,290**
Non-current assets	11,523	10,322	**10,686**
Total	80,394	88,006	**96,976**

(2) Other current liabilities and other non-current liabilities

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Accrued expenses	142,530	158,393	**168,469**
Other	53,684	65,179	**66,130**
Total	196,214	223,572	**234,600**
Current liabilities	187,016	213,876	**222,705**
Non-current liabilities	9,197	9,696	**11,895**
Total	196,214	223,572	**234,600**

12. Property, Plant and Equipment

The movement of carrying amount for property, plant and equipment during the year is as follows:

Fiscal 2017 (April 1, 2017 to March 31, 2018)

(million yen)

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Other	Total
Balance at the beginning of the year	392,317	743,162	45,153	386,497	61,297	32,695	1,661,123
Acquisition	32,055	177,566	17,572	132	21,913	23,555	272,796
Sale or disposal	(1,576)	(4,868)	(554)	(824)	(1,075)	(271)	(9,172)
Depreciation	(27,975)	(112,528)	(14,799)	(142)	–	(7,575)	(163,024)
Impairment losses	(5,609)	(10,521)	(184)	(5,896)	(2,308)	(209)	(24,730)
Exchange differences on translation of foreign operations, etc.	(199)	(5,415)	41	(622)	603	750	(4,840)
Balance at the end of the year	389,011	787,394	47,228	379,143	80,430	48,946	1,732,154

Fiscal 2018 (April 1, 2018 to March 31, 2019)

(million yen)

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Other	Total
Balance at the beginning of the year	389,011	787,394	47,228	379,143	80,430	48,946	1,732,154
Acquisition	29,545	188,278	19,312	3,597	45,185	14,870	300,790
Sale or disposal	(1,126)	(3,347)	(362)	(40)	(758)	(26)	(5,661)
Depreciation	(27,907)	(122,362)	(16,382)	(18)	–	(9,223)	(175,894)
Impairment losses	(2,042)	(4,976)	(29)	(889)	(146)	(22)	(8,105)
Exchange differences on translation of foreign operations, etc.	(2,381)	(1,272)	(557)	(1,268)	(2,526)	(47)	(8,054)
Balance at the end of the year	385,098	843,715	49,209	380,524	122,185	54,496	1,835,229

Notes: 1. Depreciation of property, plant and equipment is included in "Cost of sales" and "Selling, general and administrative expenses" in the consolidated statement of profit or loss.
2. Acquisition of construction in progress represents an increase due to new acquisition, net of transfers to each item of property, plant and equipment.

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

(million yen)

	Buildings and structures	Machinery and vehicles	Tools, furniture and fixtures	Land	Construction in progress	Other	Total
Transition date (April 1, 2017)							
Cost	1,781,517	5,853,912	185,370	404,675	61,297	141,357	8,428,131
Accumulated depreciation and accumulated impairment losses	(1,389,200)	(5,110,749)	(140,216)	(18,178)	–	(108,662)	(6,767,007)
Carrying amount	392,317	743,162	45,153	386,497	61,297	32,695	1,661,123
As of March 31, 2018							
Cost	1,801,752	5,921,447	187,885	401,948	82,739	161,499	8,557,272
Accumulated depreciation and accumulated impairment losses	(1,412,740)	(5,134,053)	(140,657)	(22,804)	(2,308)	(112,553)	(6,825,118)
Carrying amount	389,011	787,394	47,228	379,143	80,430	48,946	1,732,154
As of March 31, 2019							
Cost	1,819,010	6,030,497	193,316	404,383	124,298	173,918	8,745,423
Accumulated depreciation and accumulated impairment losses	(1,433,911)	(5,186,781)	(144,107)	(23,858)	(2,113)	(119,421)	(6,910,194)
Carrying amount	385,098	843,715	49,209	380,524	122,185	54,496	1,835,229

13. Goodwill and Intangible Assets

(1) Movement of goodwill and intangible assets

The movement of carrying amount for goodwill and intangible assets during the year is as follows:

Fiscal 2017 (April 1, 2017 to March 31, 2018)

(million yen)

	Goodwill	Software	Other	Total
Balance at the beginning of the year	5,137	56,449	10,469	72,055
Acquisition	3	26,644	161	26,809
Sale or disposal	–	(308)	(4)	(312)
Amortization	–	(18,047)	(450)	(18,497)
Impairment losses	–	(675)	(217)	(893)
Exchange differences on translation of foreign operations, etc.	(667)	176	(1,032)	(1,523)
Balance at the end of the year	4,473	64,238	8,925	77,637

Fiscal 2018 (April 1, 2018 to March 31, 2019)

(million yen)

	Goodwill	Software	Other	Total
Balance at the beginning of the year	4,473	64,238	8,925	77,637
Acquisition	3	27,690	511	28,206
Sale or disposal	–	(434)	(3)	(437)
Amortization	–	(18,909)	(347)	(19,257)
Impairment losses	–	(129)	(25)	(154)
Exchange differences on translation of foreign operations, etc.	(31)	1,597	(545)	1,019
Balance at the end of the year	4,445	74,052	8,514	87,012

Note: Amortization of intangible assets is included in "Cost of sales" and "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

The cost, accumulated amortization, accumulated impairment losses and carrying amount of goodwill and intangible assets are as follows:

(million yen)

	Goodwill	Software	Other	Total
Transition date (April 1, 2017)				
Cost	5,137	288,343	23,789	317,270
Accumulated amortization and accumulated impairment losses	–	(231,894)	(13,320)	(245,214)
Carrying amount	5,137	56,449	10,469	72,055
As of March 31, 2018				
Cost	4,473	312,377	22,856	339,707
Accumulated amortization and accumulated impairment losses	–	(248,138)	(13,931)	(262,070)
Carrying amount	4,473	64,238	8,925	77,637
As of March 31, 2019				
Cost	4,445	337,652	23,031	365,128
Accumulated amortization and accumulated impairment losses	–	(263,600)	(14,516)	(278,116)
Carrying amount	4,445	74,052	8,514	87,012

(2) Research and development expenses

Research and development expenses recorded in "Cost of sales" and "Selling, general and administrative expenses" for the years ended March 31, 2018 and 2019 amounted to ¥34,714 million and ¥37,271 million, respectively.

14. Lease Transactions

The Group leases machinery, ships, buildings and other assets as a lessee and buildings and other assets as a lesser. Certain lease arrangements include renewal options, but no significant lease arrangements include escalation clauses. In addition, there are no material restrictions (such as restrictions related to additional borrowings and additional leases) imposed by the lease arrangements.

(1) Finance lease obligations

Future minimum lease payments for leased assets recorded under finance leases and their present value for each payment period are as follows:

(million yen)

	Transition date (April 1, 2017)		As of March 31, 2018		**As of March 31, 2019**	
	Future minimum lease payments	Present value	Future minimum lease payments	Present value	**Future minimum lease payments**	**Present value**
Within one year	5,489	5,044	6,924	6,387	7,977	7,427
Later than one year and within five years	20,537	19,157	25,956	24,666	29,071	27,939
Later than five years	4,847	4,788	14,732	14,317	16,392	16,008
Total	30,874	28,990	47,613	45,371	53,441	51,375
Less: Future finance costs	(1,884)	–	(2,242)	–	(2,065)	–
Total present value	28,990	28,990	45,371	45,371	51,375	51,375

(2) Operating leases

As Lessee

Future minimum lease payments under non-cancellable operating leases are as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Within one year	5,726	9,392	8,462
Later than one year and within five years	15,081	25,233	20,811
Later than five years	5,745	5,124	3,990
Total	26,552	39,750	33,264

Future minimum sublease payments expected to be received under non-cancellable subleases are as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Minimum sublease payments received	18,591	16,510	14,046

Minimum lease payments under operating leases and minimum sublease payments received that are recognized as expenses are as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Minimum lease payments	38,243	39,231
Minimum sublease payments received	3,949	4,054

As lessor

Future minimum lease payments under non-cancellable operating leases are as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Within one year	1,106	1,160	1,130
Later than one year and within five years	3,832	3,851	3,550
Later than five years	5,149	4,319	3,488
Total	10,088	9,331	8,170

15. Investment Properties

(1) Movement of investment properties

The movement of carrying amount for investment properties is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Balance at the beginning of the year	60,403	59,682
Acquisition	706	508
Reclassification from property, plant and equipment	1,881	3,931
Reclassification to property, plant and equipment	(1,669)	(1,458)
Depreciation	(1,126)	(1,092)
Impairment losses	(407)	(1,933)
Sale or disposal	(104)	(213)
Balance at the end of the year	59,682	59,425
Cost (balance at the beginning of the year)	122,835	129,154
Accumulated depreciation and accumulated impairment losses (balance at the beginning of the year)	(62,432)	(69,471)
Cost (balance at the end of the year)	129,154	132,849
Accumulated depreciation and accumulated impairment losses (balance at the end of the year)	(69,471)	(73,424)

(2) Fair values

The carrying amount and fair value of investment properties are as follows:

(million yen)

	Transition date (April 1, 2017)		As of March 31, 2018		**As of March 31, 2019**	
	Carrying amount	Fair value	Carrying amount	Fair value	**Carrying amount**	**Fair value**
Investment properties	60,403	114,805	59,682	130,755	**59,425**	**133,615**

The fair value of investment properties is principally based on the real estate appraisal values provided by independent licensed real estate appraisers.
The fair value hierarchy of investment properties is categorized within Level 3 because unobservable inputs are included.
Fair value hierarchy is described in "37. Financial Instruments."

(3) Income and expenses arising from investment properties

Rental income and direct sales expenses arising from investment properties are as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Rental income	11,005	**11,053**
Direct sales expenses arising from investment properties which generated income	3,097	**3,095**
Direct sales expenses arising from investment properties which did not generate income	56	**64**

16. Impairment of Non-financial Assets

When the Group assesses whether there is an indication that non-financial assets may be impaired, in principle, the assets are classified as idle assets, leased assets, assets for various projects and assets for business use, and then those classified assets are grouped by the smallest unit that generates independent cash flows.

Fiscal 2017 (April 1, 2017 to March 31, 2018)

The carrying amount was reduced to the recoverable amount mainly for the business assets of JFE Steel Chita Works due to the deteriorated business environment, and the reduction was recorded as an impairment loss. Impairment losses in the consolidated statement of profit or loss totaled 28,453 million yen, consisting of 10,521 million yen of machinery and vehicles, 5,896 million yen of land, 5,609 million yen of buildings and structures, and 6,425 million yen of construction in progress and others. The recoverable amount of the business assets was primarily measured at their value in use, which was calculated by discounting the future cash flows at a discount rate of 8.8%.

Fiscal 2018 (April 1, 2018 to March 31, 2019)

The carrying amount was reduced to the recoverable amount mainly for the business assets in Indonesia due to the deteriorated business environment, and the reduction was recorded as an impairment loss. Impairment losses in the consolidated statement of profit or loss totaled 10,252 million yen, consisting of 4,976 million yen of machinery and vehicles, 2,042 million yen of buildings and structures, and 3,232 million yen of investment property and others. The recoverable amount of the business assets was primarily measured at their value in use, which was calculated by discounting the future cash flows at a discount rate of 10.9%.

17. Subsidiaries

Major subsidiaries

Overview of major subsidiaries at the end of fiscal 2018 is described in "I. Overview of the Company, 4. Overview of subsidiaries and affiliates."

18. Investments Accounted for Using Equity Method

(1) Material associates

JSW Steel Limited

JSW Steel Limited, located in Mumbai, India, engages primarily in manufacture and sales of steel products.

The condensed consolidated financial statements of JSW Steel Limited are as follows.

For JSW Steel Limited, provisional financial statements are prepared based on December 31 as the reporting date because local legislation imposes restrictions on when certain information becomes available to the Company.

However, in the accompanying notes, the condensed consolidated financial statements of JSW Steel Limited that were already released at the transition date and the end of each fiscal year are disclosed. Accordingly, financial information as of September 30 is stated in the statement of financial position, and financial information for the first nine months of the reporting period ended December 31 is stated in the statement of profit or loss and the statement of comprehensive income.

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Current assets	324,750	413,672	**456,584**
Non-current assets	1,145,014	1,220,368	**1,197,047**
Total assets	1,469,764	1,634,040	**1,653,631**
Current liabilities	497,796	548,453	**547,421**
Non-current liabilities	619,878	677,984	**616,315**
Total liabilities	1,117,674	1,226,437	**1,163,736**
Total equity	352,090	407,602	**489,894**
Equity attributable to owners of parent	356,023	414,401	**497,781**
Non-controlling interests	(3,933)	(6,799)	**(7,886)**

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Revenue	881,936	**1,016,940**
Profit	56,271	**98,272**
Other comprehensive income	3,758	**(2,135)**
Comprehensive income	60,030	**96,137**

An adjustment between the amount of equity attributable to owners of parent in the above condensed consolidated financial statements and the carrying amount of interests in JSW Steel Limited and the fair value of interests in JSW Steel Limited are as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Equity attributable to owners of parent	356,023	414,401	**497,781**
Ownership interest (%)	15.0	15.0	**15.0**
Equity attributable to the Group	53,403	62,160	**74,667**
Consolidation adjustment	896	4,549	**4,443**
Carrying amount of interests in JSW Steel Limited	54,299	66,709	**79,110**
Fair value of interests in JSW Steel Limited	118,051	172,389	**168,268**

Dividends received from JSW Steel Limited for the fiscal years ended March 31, 2018 and 2019 were 1,435 million yen and 1,846 million yen, respectively.

(2) Immaterial associates and joint ventures

The carrying amount of investments in immaterial associates and joint ventures is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Associates	190,672	119,373	117,964
Joint ventures	87,456	103,140	117,988

Financial information on immaterial associates and joint ventures is as follows, which represents the amounts attributable to the Group based on the Group's interest in those associates and joint ventures.

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Associates		
Profit	(33,622)	5,292
Other comprehensive income	(1,134)	(1,152)
Comprehensive income	(34,757)	4,140
Joint ventures		
Profit	12,219	15,185
Other comprehensive income	298	(79)
Comprehensive income	12,517	15,105

19. Income Taxes

(1) Deferred tax assets and deferred tax liabilities

The breakdown of deferred tax assets and deferred tax liabilities by major cause of accrual is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Deferred tax assets			
Retirement benefit liability	31,021	33,210	34,996
Accrued bonuses	12,298	14,263	14,611
Accrued expenses	8,149	9,382	9,850
Provisions	6,043	6,099	7,552
Unused tax losses	10,593	3,161	6,561
Cash flow hedges	4,728	4,220	4,243
Impairment losses	969	3,342	2,828
Other	29,591	31,002	32,899
Total deferred tax assets	103,395	104,681	113,543
Deferred tax liabilities			
Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income	55,657	51,745	45,065
Retained earnings of subsidiaries and associates	5,895	8,486	11,290
Other	24,447	25,145	24,129
Total deferred tax liabilities	85,999	85,376	80,484
Net deferred tax assets	17,395	19,304	33,059

The breakdown of changes in net deferred tax assets (liabilities) is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Balance at the beginning of the year	17,395	19,304
Deferred tax expense	9,584	4,183
Deferred taxes on items of other comprehensive income		
Effective portion of cash flow hedges	(1,140)	164
Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income	(5,376)	7,013
Remeasurements of defined benefit plans	(1,951)	1,957
Other	794	434
Balance at the end of the year	19,304	33,059

Deductible temporary differences and unused tax losses for which deferred tax assets are not recognized in the consolidated statement of financial position are as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Deductible temporary differences	228,511	199,694	217,001
Unused tax losses	395,769	309,474	229,253

Unrecognized deferred tax assets for the above deductible temporary differences were 59,544 million yen, 60,884 million yen and 65,871 million yen as of April 1, 2017, March 31, 2018 and March 31, 2019, respectively. Unrecognized deferred tax assets for the above unused tax losses were 23,840 million yen, 14,806 million yen and 8,084 million yen as of April 1, 2017, March 31, 2018 and March 31, 2019, respectively.

The breakdown by expiration date of unused tax losses for which deferred tax assets are not recognized in the consolidated statement of financial position is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Year 1	96	638	171
Year 2 to Year 5	303,968	225,038	148,915
Year 5 or later	84,516	78,360	78,053
No specified expiration date	7,187	5,437	2,112
Total	395,769	309,474	229,253

Taxable temporary differences arising from investments in subsidiaries and associates for which deferred tax liabilities were not recognized as of April 1, 2017, March 31, 2018 and March 31, 2019 amounted to 118,528 million yen, 115,222 million yen and 94,548 million yen, respectively.

Deferred tax liabilities are not recognized for such temporary differences, where the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets of 5,277 million yen, 8,180 million yen and 1,371 million yen were recognized as of April 1, 2017, March 31, 2018 and March 31, 2019, respectively, for taxable entities that incurred net loss in the current or previous period, and whose recoverability of deferred tax assets depends on future taxable profit.

In assessing the recoverability of deferred tax assets, the Group considers the scheduled reversal of deferred tax liabilities, projected future taxable profit and tax planning strategies.

(2) Income tax expense

The breakdown of income tax expense is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Current tax expense	59,308	43,671
Deferred tax expense	(9,584)	(4,183)
Total	49,723	39,488

(3) Reconciliation of effective tax rate

The breakdown by major cause of a difference between the effective statutory tax rate and the burden ratio of corporation tax, etc. after application of tax effect accounting is as follows:

(%)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Effective statutory tax rate	31.0	30.0
(Reconciliation)		
Items permanently not tax-deductible, such as entertainment expenses	1.7	0.8
Items permanently not taxable, such as dividend income	(1.9)	(0.2)
Share of profit (loss) of entities accounted for using equity method	2.1	(6.1)
Tax credits	(2.3)	(2.5)
Other	2.0	(3.0)
Burden ratio of corporation tax, etc. after application of tax effect accounting	32.5	18.9

20. Trade and Other Payables

The breakdown of trade and other payables is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Notes and accounts payable – trade	470,575	504,235	522,098
Accounts payable – other	54,151	56,146	62,840
Total	524,727	560,381	584,939

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

21. Bonds Payable, Borrowings, and Lease Obligations

(1) The breakdown of bonds payable, borrowings, and lease obligations is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Short-term loans payable (Note 1)	110,752	117,700	135,601
Current portion of long-term borrowings (Note 1)	97,972	172,410	103,371
Current portion of bonds (Note 2)	49,997	14,996	–
Commercial papers (Note 1)	8,000	6,000	83,000
Bonds payable (Note 2)	74,826	79,778	109,706
Long-term borrowings (Note 1)	1,054,982	954,972	1,040,824
Lease obligations	28,990	45,371	51,375
Total	1,425,521	1,391,229	1,523,879
Current liabilities	271,767	317,494	329,400
Non-current liabilities	1,153,753	1,073,734	1,194,478
Total	1,425,521	1,391,229	1,523,879

Bonds payable, borrowings, and lease obligations are classified as financial liabilities measured at amortized cost.

Bonds payable and borrowings are not subject to financial covenants that have significant effects on the financing activities of the Group.

(Note 1) The weighted average interest rate and repayment date for the balance of short-term loans payable, current portion of long-term borrowings, commercial papers and long-term borrowings as of March 31, 2019 are as follows:

	Average interest rate (%)	Repayment date
Short-term loans payable	2.78	–
Current portion of long-term borrowings	0.46	–
Commercial papers	(0.00)	–
Long-term borrowings	1.06	April 27, 2020 to March 22, 2078

(Note 2) Terms and conditions of issuance of bonds are summarized as follows:

(million yen)

Company name	Issue	Date of issuance	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019	Interest rate (%)	Collateral	Redemption date
The Company	The 16th unsecured bond	May 27, 2010	19,998	–	–	0.858	None	May 26, 2017
The Company	The 17th unsecured bond	June 8, 2011	29,950	29,962	29,974	1.326	None	June 8, 2021
The Company	The 19th unsecured bond	September 5, 2011	14,987	14,996	–	0.686	None	September 5, 2018
The Company	The 20th unsecured bond	April 17, 2012	29,999	–	–	0.453	None	April 17, 2017
The Company	The 21st unsecured bond	March 13, 2014	9,962	9,967	9,973	0.804	None	March 13, 2024
The Company	The 22nd unsecured bond	September 19, 2014	19,925	19,935	19,945	0.703	None	September 19, 2024
The Company	The 23rd unsecured bond	May 23, 2017	–	9,961	9,970	0.090	None	May 23, 2022
The Company	The 24th unsecured bond	March 1, 2018	–	9,954	9,963	0.110	None	March 1, 2023
The Company	The 25th unsecured bond	May 21, 2018	–	–	19,922	0.260	None	May 21, 2025
The Company	The 26th unsecured bond	November 22, 2018	–	–	9,956	0.150	None	November 22, 2023
Total	–	–	124,823	94,775	109,706	–	–	–

(2) Assets pledged as collateral and corresponding secured obligations

Assets pledged as collateral

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Cash and cash equivalents	196	656	763
Property, plant and equipment	16,412	15,019	13,519
Investments accounted for using equity method	1,155	995	1,376
Other financial assets (non-current)	569	108	294
Other non-current assets	187	155	171
Total	18,521	16,935	16,124

Note: Industrial foundation's assets of property, plant and equipment as mortgage

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Property, plant and equipment	13,912	12,565	11,152

In addition, shares of consolidated subsidiaries have been pledged as collateral.

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Shares of consolidated subsidiaries (book value posted on the non-consolidated financial statements of the consolidated subsidiaries)	242	553	553

Corresponding secured obligations

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Trade and other payables	387	410	252
Bonds payable, borrowings, and lease obligations (current)	970	1,183	882
Bonds payable, borrowings, and lease obligations (non-current)	7,827	11,390	10,568
Total	9,186	12,984	11,702

Note: Those corresponding to the industrial foundation's assets in the above obligations

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Bonds payable, borrowings, and lease obligations (current)	839	839	559
Bonds payable, borrowings, and lease obligations (non-current)	7,252	6,692	6,133
Total	8,091	7,532	6,692

22. Other Financial Liabilities

The breakdown of other financial liabilities is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Financial liabilities measured at amortized cost			
Deposits received	81,698	83,834	93,763
Other	31,717	25,244	18,091
Subtotal	113,416	109,079	111,855
Financial liabilities measured at fair value through profit or loss			
Derivative liabilities	4,056	5,642	4,383
Total	117,473	114,721	116,238
Current liabilities	89,884	92,612	99,097
Non-current liabilities	27,588	22,109	17,140
Total	117,473	114,721	116,238

23. Provisions

The breakdown and movement of provisions are as follows:

Fiscal 2018 (April 1, 2018 to March 31, 2019)

(million yen)

	Provision for loss on specified business	Other provisions	Total
Balance at the beginning of the year	16,478	28,031	44,509
Increase during the year	215	15,405	15,620
Interest expense incurred over the discount period	198	3	201
Decrease due to intended use	(3,443)	(9,454)	(12,897)
Decrease due to reversal	–	(2,533)	(2,533)
Exchange differences on translation of foreign operations and others	–	(124)	(124)
Balance at the end of the year	13,448	31,327	44,775
Current liabilities	–	14,336	14,336
Non-current liabilities	13,448	16,990	30,438
Total	13,448	31,327	44,775

Provision for loss on specified business

A provision for loss on specified business is provided for possible losses on a certain specific business of industrial waste disposal at an estimated amount of losses to be incurred from the following fiscal year onwards.

These expenses are expected to be paid primarily after one year; however, the timing of the payment is subject to change due to future business plans and other factors.

24. Post-employment Benefits

The Group has adopted mainly retirement lump-sum payment plans, defined benefit pension plans and defined contribution pension plans. Retirement lump-sum payment plans and defined benefit pension plans are exposed to general investment risk, interest rate risk, inflation risk and other risks. However, the Group determines that those risks are immaterial.

The defined benefit pension plans are operated by corporate pension funds legally separated from the Group. The corporate pension funds and pension fund trustees are required by laws and regulations to act in the best interests of the plan participants, and are responsible for managing the plan assets in accordance with the designated policies.

(1) Reconciliation of defined benefit obligations and plan assets

The reconciliation of the defined benefit obligations and plan assets to the retirement benefit liability and asset recognized in the consolidated statement of financial position is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Funded defined benefit obligations	219,946	209,670	**202,208**
Plan assets	(153,681)	(147,465)	**(137,259)**
Subtotal	66,264	62,205	**64,948**
Unfunded defined benefit obligations	46,500	49,676	**52,670**
Total	112,765	111,881	**117,619**
Amounts recognized in the consolidated statement of financial position			
Retirement benefit liability	123,989	128,341	**133,999**
Retirement benefit asset	(11,224)	(16,459)	**(16,380)**
Net defined benefit liability (asset) recognized in the consolidated statement of financial position	112,765	111,881	**117,619**

(2) Reconciliation of defined benefit obligations

The movement of defined benefit obligations is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Balance at the beginning of the year	266,447	**259,347**
Current service cost	14,323	**14,533**
Interest expense	1,862	**1,688**
Remeasurements		
Actuarial losses arising from changes in demographic assumptions	21	**57**
Actuarial losses arising from changes in financial assumptions	1,759	**1,864**
Experience adjustments	(343)	**1,302**
Past service cost	(786)	**15**
Benefits paid	(23,800)	**(23,485)**
Exchange differences on translation of foreign operations, etc.	(136)	**(445)**
Balance at the end of the year	259,347	**254,878**

The weighted-average duration of defined benefit obligations is as follows:

(years)

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Weighted-average duration	10.7	10.9	**11.0**

(3) Reconciliation of plan assets

The movement of plan assets is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Balance at the beginning of the year	153,681	**147,465**
Interest income	971	**862**
Remeasurements		
Return on plan assets (excluding interest income)	7,899	**(3,002)**
Contribution to the plan by employer	2,114	**2,084**
Benefits paid	(17,268)	**(10,099)**
Exchange differences on translation of foreign operations, etc.	67	**(51)**
Balance at the end of the year	147,465	**137,259**

The Group expects to contribute 2,137 million yen to its defined benefit plans in the fiscal year ending March 31, 2020.

(4) Major breakdown of plan assets

The breakdown of the total plan assets by major category is as follows:

(million yen)

	Transition date (April 1, 2017)			As of March 31, 2018			**As of March 31, 2019**		
	With quoted market price in an active market	With no quoted market price in an active market	Total	With quoted market price in an active market	With no quoted market price in an active market	Total	**With quoted market price in an active market**	**With no quoted market price in an active market**	**Total**
Equity instruments									
Domestic stocks	59,007	285	59,292	61,669	470	62,140	**56,979**	**474**	**57,453**
Foreign stocks	6,879	350	7,229	6,461	680	7,142	**6,524**	**667**	**7,191**
Debt instruments									
Domestic bonds	15,982	3,658	19,640	16,751	3,625	20,377	**16,222**	**3,423**	**19,645**
Foreign bonds	3,084	2,471	5,555	3,100	2,508	5,609	**3,038**	**2,229**	**5,267**
Cash and deposits	7,854	–	7,854	3,587	–	3,587	**3,122**	**–**	**3,122**
Life insurance general accounts	–	52,967	52,967	–	47,625	47,625	**–**	**42,942**	**42,942**
Other	–	1,142	1,142	–	983	983	**–**	**1,636**	**1,636**
Total	92,807	60,874	153,681	91,571	55,893	147,465	**85,886**	**51,373**	**137,259**

The Group's management policy for the plan assets is to secure stable returns in the medium and long term for ensuring future payments of defined benefit obligations pursuant to internal regulations. Specifically, the target rate of returns and the asset mix ratio by investment asset class are determined within the acceptable risk range every fiscal year, and the plan assets are managed with the asset mix ratio maintained.

(5) Actuarial assumptions

Major actuarial assumptions are as follows:

(%)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Discount rate	Mainly 0.7	Mainly 0.6	**Mainly 0.5**
Anticipated rate of salary increase	Mainly 0.9 to 3.0	Mainly 0.9 to 3.0	**Mainly 0.9 to 3.0**

Note: The sensitivities of defined benefit obligations due to changes in the discount rate as of each fiscal year are as follows. Each of these sensitivities assumes that other variables are held constant; however, they do not always change independently. Negative figures indicate a decrease in defined benefit obligations, while positive figures indicate an increase.

The Group does not expect any significant changes in the anticipated rate of salary increase.

(million yen)

	Change in assumptions	As of March 31, 2018	As of March 31, 2019
Discount rate	Increase by 0.5%	(12,390)	**(12,681)**
	Decrease by 0.5%	13,408	**13,673**

(6) Defined contribution pension plans

Contributions to the defined contribution pension plans are as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Contributions to the defined contribution pension plans	3,520	**3,774**

25. Equity and Other Equity Items

(1) Share capital

(i) Authorized shares

The number of authorized shares as of April 1, 2017, March 31, 2018 and March 31, 2019 was 2,298,000 thousand common shares.

(ii) Fully paid and issued shares

The movement of the number of issued shares is as follows:

	Number of issued common shares (thousand shares)
As of April 1, 2017 (transition date)	614,438
Increase (decrease)	–
As of March 31, 2018	614,438
Increase (decrease)	–
As of March 31, 2019	**614,438**

Note: All the shares issued by the Company are non-par value common shares that have no restrictions on the rights.

(2) Treasury shares

The movement of the number of treasury shares is as follows:

	Number of shares (thousand shares)
As of April 1, 2017 (transition date)	37,829
As of March 31, 2018	37,919
As of March 31, 2019	**38,590**

Note: Treasury shares as of March 31, 2019 include the Company shares held in trust accounts for employee stock ownership plans.

(3) Capital surplus and retained earnings

Under the Companies Act of Japan, at least one-half of the proceeds from issuance of shares shall be credited to share capital, while the remainder of the proceeds shall be credited to capital reserves included in capital surplus. In addition, the Companies Act of Japan provides that one-tenth of the dividends of retained earnings shall be appropriated as capital reserves or as retained earnings reserves until their aggregate amount equals one-quarter of share capital.

26. Dividends

(1) Amounts of dividends paid

Fiscal 2017 (April 1, 2017 to March 31, 2018)

Date of resolution	Type of share	Total amount of dividends (million yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 23, 2017	Common stock	17,303	30	March 31, 2017	June 26, 2017
Board of Directors Meeting held on November 1, 2017	Common stock	17,302	30	September 30, 2017	November 30, 2017

Fiscal 2018 (April 1, 2018 to March 31, 2019)

Date of resolution	Type of share	Total amount of dividends (million yen)	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 21, 2018	Common stock	28,834	50	March 31, 2018	June 22, 2018
Board of Directors Meeting held on October 30, 2018	Common stock	25,950	45	September 30, 2018	November 30, 2018

Note: The total amount of dividends of 25,950 million yen includes dividends of the Company shares held in trust accounts for employee stock ownership plans of 27 million yen.

(2) Of the dividends for which the record date belongs to the fiscal year, those dividends for which the effective date will be after the end of the fiscal year

Fiscal 2017 (April 1, 2017 to March 31, 2018)

Date of resolution	Type of share	Total amount of dividends (million yen)	Source of funds for dividends	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 21, 2018	Common stock	28,834	Retained earnings	50	March 31, 2018	June 22, 2018

Fiscal 2018 (April 1, 2018 to March 31, 2019)

Date of resolution	Type of share	Total amount of dividends (million yen)	Source of funds for dividends	Dividend per share (yen)	Record date	Effective date
Ordinary General Meeting of Shareholders held on June 21, 2019	Common stock	28,831	Retained earnings	50	March 31, 2019	June 24, 2019

Note: The total amount of dividends of 28,831 million yen includes dividends of the Company shares held in trust accounts for employee stock ownership plans of 30 million yen.

27. Revenue

(1) Disaggregation of revenue

Fiscal 2017 (April 1, 2017 to March 31, 2018)

(million yen)

	Steel Business	Engineering Business	Trading Business	Elimination of intersegment revenue	Total
Region					
Japan	1,753,804	374,432	481,282	(201,019)	2,408,500
Other	981,973	27,086	518,086	(308,397)	1,218,748
Total	2,735,777	401,519	999,368	(509,417)	3,627,248
Transfer of goods or services					
At a point in time	2,511,020	2,623	999,286	(488,672)	3,024,258
Over time	224,757	398,895	81	(20,745)	602,990
Total	2,735,777	401,519	999,368	(509,417)	3,627,248

Fiscal 2018 (April 1, 2018 to March 31, 2019)

(million yen)

	Steel Business	Engineering Business	Trading Business	Elimination of intersegment revenue	Total
Region					
Japan	1,861,015	450,628	550,678	(251,297)	2,611,024
Other	969,633	35,187	575,182	(317,365)	1,262,637
Total	2,830,649	485,815	1,125,861	(568,663)	3,873,662
Transfer of goods or services					
At a point in time	2,595,794	3,904	1,125,801	(542,751)	3,182,749
Over time	234,854	481,910	59	(25,912)	690,912
Total	2,830,649	485,815	1,125,861	(568,663)	3,873,662

(2) Contract balances

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Receivables from contracts with customers	655,945	728,275	718,931
Contract assets	132,500	126,935	124,039
Contract liabilities	33,465	53,588	59,060

The amount recognized as receivables that was included in the opening balance of contract assets was 85,483 million yen and 100,460 million yen as of March 31, 2018 and 2019, respectively.

The amount recognized as revenue that was included in the opening balance of contract liabilities was 17,554 million yen and 40,847 million yen as of March 31, 2018 and 2019, respectively.

(3) Remaining performance obligations

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied as of the end of the fiscal year	996,075	1,057,100	1,040,707
Expected timing of revenue recognition			
Within one year	316,145	394,464	404,960
Over one year	679,930	662,635	635,747

28. Selling, General and Administrative Expenses

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

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Employee benefit expenses	133,543	137,593
Product shipping-related expenses	84,423	97,190
Provision of allowance for doubtful accounts	102	219
Other	118,878	122,319
Total	336,949	357,323

29. Employee Benefit Expenses

Employee benefit expenses are as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Employee benefit expenses	468,690	486,211

Employee benefit expenses include salaries, bonuses, legal welfare expenses and retirement benefit expenses, and are recorded in "Cost of sales" and "Selling, general and administrative expenses."

30. Share-based Payment

The Company has instituted a share-based payment plan through which a portion of the compensation of directors (excluding outside directors) and executive officers (excluding non-residents under income tax law) (hereinafter referred to collectively as the "Directors/Officers") of the Company and its operating companies is provided in the form of employee stock ownership plans. The Group's objective is to establish a clear link between compensation and the Group's operating performance and equity value and encourage the sharing of value with shareholders, thereby creating a greater incentive to contribute toward enhancing shareholder value over the medium and long term.

The plan is a compensation plan whereby shares in the Company are acquired through a trust funded by cash contributed by the Company, and the Company's shares and an amount of cash equivalent to the market price of the Company's shares (hereinafter referred to as the "Company's Shares") are provided through the trust to the Directors/Officers, pursuant to the Stock Grant Regulations for Officers established by the Company and its operating companies.

The Company's Shares are granted to the Directors/Officers, in principle, upon their retirement.

Compensation under the plan is granted to the Directors/Officers as consideration for their execution period of duties, provided the Directors/Officers have been in office for at least a month during the period specified as follows (the "Execution Period"):

- Directors of the Company: From the date of the Ordinary General Meeting of Shareholders of the Company for the respective year to the date of the Ordinary General Meeting of Shareholders of the Company for the following year
- Others: From April 1 of the respective year to March 31 of the following year

The Company and its operating companies calculate points equivalent to the performance-linked portion and the service-length portion for each Execution Period and grant them to the Directors/Officers.

The points granted for each Execution Period are accumulated until retirement, and the number of the Company's Shares is calculated by converting the accumulated points as "one point = one share."

Part of the plan that provides the Company's shares is accounted for an equity-settled share-based payment transaction while part of the plan that provides cash is accounted for a cash-settled share-based payment transaction.

Expenses recognized for the plan as "Selling, general and administrative expenses" in the consolidated statement of profit or loss are as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Equity-settled	–	170
Cash-settled	–	64
Total	–	234

Financial Information

The carrying amount of liabilities for the plan is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Other non-current liabilities	–	–	64

The number of points granted and the weighted-average fair value of points at the grant date for the equity-settled portion of the plan are as follows:

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Number of points granted (points)	–	79,832
Weighted-average fair value of points at the grant date (yen)	–	2,136

Note: The fair value of points granted approximates the share price at the grant date, and thus represents the share price at the grant date.

31. Other Income

The breakdown of other income is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Dividend income		
Financial assets measured at fair value through other comprehensive income	7,881	8,544
Rental income	7,232	6,982
Gain on sale of investments in subsidiaries	192	–
Other	15,312	15,350
Total	30,619	30,877

The breakdown of dividend income from equity financial assets measured at fair value through other comprehensive income is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Financial assets derecognized during the year	1,005	56
Financial assets held as of the reporting date	6,875	8,487

32. Other Expenses

The breakdown of other expenses is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Loss on retirement of fixed assets	18,354	14,462
Loss on sale of investments in subsidiaries	–	53
Foreign exchange loss	5,383	–
Other	14,241	14,839
Total	37,979	29,355

33. Finance Income and Finance Costs

(1) Finance income

The breakdown of finance income is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Interest income		
Financial assets measured at amortized cost	1,546	2,083
Total	1,546	2,083

(2) Finance costs

The breakdown of finance costs is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Interest expenses		
Financial liabilities measured at amortized cost	15,220	13,447
Other	225	201
Other	580	939
Total	16,026	14,588

Financial Information

34. Other Comprehensive Income

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

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Remeasurements of defined benefit plans		
Amount arising during the year	6,461	(6,228)
Before tax effects	6,461	(6,228)
Tax effects	(1,951)	1,957
Remeasurements of defined benefit plans	4,510	(4,270)
Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income		
Amount arising during the year	19,127	(30,105)
Before tax effects	19,127	(30,105)
Tax effects	(5,376)	7,013
Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income	13,751	(23,091)
Exchange differences on translation of foreign operations		
Amount arising during the year	(2,098)	(4,445)
Reclassification adjustments	–	–
Before tax effects	(2,098)	(4,445)
Tax effects	–	–
Exchange differences on translation of foreign operations	(2,098)	(4,445)
Effective portion of cash flow hedges		
Amount arising during the year	34	4,638
Reclassification adjustments	3,755	(5,186)
Before tax effects	3,790	(547)
Tax effects	(1,140)	164
Effective portion of cash flow hedges	2,649	(383)
Share of other comprehensive income of investments accounted for using equity method		
Amount arising during the year	2,589	(11,948)
Reclassification adjustments	(451)	692
Share of other comprehensive income of investments accounted for using equity method	2,137	(11,255)
Total other comprehensive income	20,950	(43,446)

35. Earnings per Share

(1) Basic earnings per share and diluted earnings per share

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Basic earnings per share (yen)	169.34	283.81
Diluted earnings per share (yen)	169.34	283.76

(2) Basis for calculation of basic earnings per share and diluted earnings per share

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Profit used in calculation of basic earnings per share and diluted earnings per share		
Profit attributable to owners of the parent company (million yen)	97,635	163,509
Amount not attributable to common shareholders of the parent company (million yen)	–	–
Profit used in calculation of basic earnings per share (million yen)	97,635	163,509
Profit adjustments (million yen)	–	–
Profit used in calculation of diluted earnings per share (million yen)	97,635	163,509
Weighted average number of common shares used in calculation of basic earnings per share and diluted earnings per share		
Weighted average number of common shares used in calculation of basic earnings per share (thousand shares)	576,572	576,117
Impact of dilutive potential common shares (thousand shares)		
Share-based payments	–	114
Weighted average number of common shares used in calculation of diluted earnings per share (thousand shares)	576,572	576,231

Note: The Company shares held in trust accounts for employee stock ownership plans are included in treasury shares, which are excluded from the calculation of the weighted average number of shares used in the calculation of basic earnings per share. The weighted average number of treasury shares excluded from the calculation of basic earnings per share for the current consolidated fiscal year is 378,000.

Financial Information

36. Supplemental Information to the Consolidated Statement of Cash Flows

The movement of liabilities arising from financing activities is as follows:

Fiscal 2017 (April 1, 2017 to March 31, 2018)

(million yen)

	Opening balance	Changes from financing cash flows	Non-cash changes		Closing balance
			Increase due to new leases	Other (Note)	
Short-term borrowings	110,752	4,556	–	2,391	117,700
Current portion of long-term borrowings	97,972	(98,061)	–	172,499	172,410
Current portion of bonds	49,997	(50,000)	–	14,998	14,996
Commercial papers	8,000	(1,999)	–	–	6,000
Bonds payable	74,826	20,000	–	(15,047)	79,778
Long-term borrowings	1,054,982	78,474	–	(178,485)	954,972
Lease obligations	28,990	(6,394)	22,426	349	45,371
Total	1,425,521	(53,425)	22,426	(3,293)	1,391,229

Note: Item "Other" in the non-cash changes mainly includes the transfer of long-term borrowings due within one year to current portion of long-term borrowings and the transfer of bonds payable due within one year to current portion of bonds.

Fiscal 2018 (April 1, 2018 to March 31, 2019)

(million yen)

Liabilities arising from financing activities	Opening balance	Changes from financing cash flows	Non-cash changes		Closing balance
			Increase due to new leases	Other (Note)	
Short-term borrowings	117,700	18,752	–	(852)	135,601
Current portion of long-term borrowings	172,410	(171,184)	–	102,145	103,371
Current portion of bonds	14,996	(15,000)	–	3	–
Commercial papers	6,000	77,000	–	–	83,000
Bonds payable	79,778	30,000	–	(72)	109,706
Long-term borrowings	954,972	184,196	–	(98,344)	1,040,824
Lease obligations	45,371	(8,317)	14,106	215	51,375
Total	1,391,229	115,447	14,106	3,096	1,523,879

Note: Item "Other" in the non-cash changes mainly includes the transfer of long-term borrowings due within one year to current portion of long-term borrowings and the transfer of bonds payable due within one year to current portion of bonds.

37. Financial Instruments

(1) Capital management

The Group's capital management principle is to enhance capital efficiency and ensure sound financial conditions in order to achieve sustainable growth and the medium- to long-term improvement of corporate value.

The Group's major indicators for capital management are as follows:

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
ROE *1	–	5.4%	**8.6%**
D/E Ratio *2	55.9%	63.7%	**68.2%**
Debt / EBITDA multiple*4	–	3.5x	**3.6x**

Notes: 1. *1 ROE = Profit attributable to owners of parent / Equity attributable to owners of parent

2. *2 D/E Ratio = Bonds payable, borrowings, and lease obligations / Equity attributable to owners of parent

For debt with an equity component*3, a portion of its issue price is deemed to be equity attributable to owners of parent, as assessed by rating agencies.

3. *3 Debt with an equity component (subordinated loans)

(million yen)

Borrowing date	Amount borrowed	Assessment of equity content	Amount deemed to be equity
March 18, 2013	300,000	75%	225,000
June 30, 2016	200,000	25%	50,000
March 19, 2018	300,000	25%	75,000

The subordinated loan financed on March 18, 2013 was early repaid on March 19, 2018, and refinanced through a new subordinated loan originated on the same date.

4. *4 Debt / EBITDA multiple = Bonds payable, borrowings, and lease obligations / EBITDA

EBITDA: Business income + Depreciation and Amortization

These indicators are monitored as necessary and appropriate.

The Group is not subject to material capital regulation.

(2) Basic policy on financial risk management

The Group is exposed to financial risks (credit risk, liquidity risk, foreign exchange risk, interest rate risk, and market price fluctuation risk) in the course of business activities. In order to mitigate these risks, the Group conducts risk management under certain policies. The Group uses derivative transactions to avoid or mitigate the risks described later and does not use them for speculative purposes.

(3) Credit risk

(i) Credit risk management

Trade receivables held by the Group are exposed to the credit risks of customers. To manage such risks, each company of the Group conducts regular reassessments of the financial standing of business partners.

The Group does not have excessive concentration of credit risk on any particular counterparty.

(ii) Maximum exposure to credit risk

Other than undrawn loan commitments and guaranteed obligations, the Group's maximum exposure to credit risk is the carrying amount of financial assets less impairment losses in the consolidated statement of financial position.

The maximum exposure to the credit risk of loan commitments and financial guarantee contracts is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Loan commitments	901	2,355	**1,170**
Financial guarantee contracts	55,675	45,530	**50,344**

(iii) Movement of allowance for doubtful accounts

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)		
	Allowance for doubtful accounts measured at an amount equal to 12-month expected credit losses	Lifetime expected credit losses	
		Allowance for doubtful accounts for trade receivables, contract assets, and lease receivables	Allowance for doubtful accounts for credit-impaired financial assets
Balance at the beginning of the year	70	946	2,196
Increase during the year	153	397	1,090
Decrease during the year (intended use)	(0)	(0)	(475)
Decrease during the year (reversal)	(9)	(414)	(1,177)
Other	0	(43)	4
Balance at the end of the year	214	886	1,637

(million yen)

	Fiscal 2018 (April 1, 2018 – March 31, 2019)		
	Allowance for doubtful accounts measured at an amount equal to 12-month expected credit losses	Lifetime expected credit losses	
		Allowance for doubtful accounts for trade receivables, contract assets, and lease receivables	Allowance for doubtful accounts for credit-impaired financial assets
Balance at the beginning of the year	**214**	**886**	**1,637**
Increase during the year	**57**	**390**	**108**
Decrease during the year (intended use)	**(130)**	**(2)**	**(148)**
Decrease during the year (reversal)	**(45)**	**(438)**	**(538)**
Other	**(14)**	**58**	**29**
Balance at the end of the year	**81**	**894**	**1,089**

Note: An increase during the year and decrease during the year (reversal) in allowance for doubtful accounts for trade receivables, contract assets, and lease receivables (lifetime expected credit losses) resulted from an increase and decrease in trade and other receivables mainly due to sale and collection.

(iv) Carrying amounts (before deducting allowance for doubtful accounts) of financial assets and receivables for which allowance for doubtful accounts is provided

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Financial assets with allowance for doubtful accounts measured at an amount equal to 12-month expected credit losses	33,438	36,521	**38,096**
Trade receivables, contract assets, and lease receivables	788,883	855,556	**847,344**
Credit-impaired financial assets	4,792	1,725	**1,111**

(v) Analysis of credit risk

Credit risk ratings are almost similar among financial assets with allowance for doubtful accounts measured at an amount equal to 12-month expected credit losses.

Past due information on trade receivables, contract assets, and lease receivables is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Not past due	773,058	842,436	**830,481**
Past due within 30 days	10,037	8,179	**10,442**
Past due between 30 days and 90 days	3,583	2,938	**4,194**
Past due over 90 days	2,204	2,002	**2,225**
Total	788,883	855,556	**847,344**

(4) Liquidity risk

(i) Liquidity risk management

Liquidity risk is the risk that the Group may become unable to meet its payment obligations on their due date, including for trade receivables and borrowings, owing to deterioration in the financing environment and other factors.

The Group raises the necessary funds mainly through bank loans and the issuance of commercial papers and bonds, taking into consideration the stability and cost of funds, while the due dates of those obligations are managed so as to avoid concentration of payments in view of the liquidity risk. In addition, the Group manages the funds of the domestic Group companies intensively and efficiently in an attempt to mitigate the liquidity risk.

The Group is also maintaining sufficient liquidity by setting commitment lines with financial institutions.

(ii) Financial liabilities (including derivative financial instruments) by maturity date

Transition date (April 1, 2017)

(million yen)

	Carrying amount	Contractual cash flows	Within one year	Between one year and two years	Between two years and three years	Between three years and four years	Between four years and five years	Over five years
Non-derivative financial liabilities								
Trade and other payables	524,727	524,727	524,727	–	–	–	–	–
Bonds payable and borrowings	1,396,531	1,467,063	279,153	198,755	64,353	87,686	120,909	716,205
Installment payables	21,000	21,120	6,549	6,534	4,018	1,509	1,506	1,002
Subtotal	1,942,258	2,012,911	810,430	205,289	68,372	89,195	122,416	717,207
Derivative financial liabilities	4,056	2,513	1,140	100	273	491	138	369
Total	1,946,315	2,015,424	811,570	205,390	68,645	89,687	122,554	717,576

As of March 31, 2018

(million yen)

	Carrying amount	Contractual cash flows	Within one year	Between one year and two years	Between two years and three years	Between three years and four years	Between four years and five years	Over five years
Non-derivative financial liabilities								
Trade and other payables	560,381	560,381	560,381	–	–	–	–	–
Bonds payable and borrowings	1,345,858	1,395,453	323,793	111,351	86,821	120,080	250,232	503,174
Installment payables	14,500	14,571	6,534	4,018	1,509	1,506	1,002	–
Subtotal	1,920,740	1,970,406	890,709	115,369	88,331	121,587	251,234	503,174
Derivative financial liabilities	5,642	1,575	442	155	1,010	(3)	(3)	(26)
Total	1,926,382	1,971,981	891,151	115,525	89,341	121,584	251,231	503,147

As of March 31, 2019

(million yen)

	Carrying amount	Contractual cash flows	Within one year	Between one year and two years	Between two years and three years	Between three years and four years	Between four years and five years	Over five years
Non-derivative financial liabilities								
Trade and other payables	**584,939**	**584,939**	**584,939**	**–**	**–**	**–**	**–**	**–**
Bonds payable and borrowings	**1,472,503**	**1,540,838**	**336,214**	**137,135**	**141,858**	**277,747**	**90,319**	**557,562**
Installment payables	**8,000**	**8,036**	**4,018**	**1,509**	**1,506**	**1,002**	**–**	**–**
Subtotal	**2,065,443**	**2,133,814**	**925,172**	**138,644**	**143,364**	**278,750**	**90,319**	**557,562**
Derivative financial liabilities	**4,383**	**(1,492)**	**150**	**39**	**(338)**	**(343)**	**(535)**	**(465)**
Total	**2,069,826**	**2,132,322**	**925,323**	**138,684**	**143,026**	**278,406**	**89,783**	**557,097**

(5) Foreign exchange risk

(i) Foreign exchange risk management

Financial instruments denominated in foreign currencies held by the Group are exposed to foreign exchange rate fluctuation risk. Hedge transactions, including forward exchange contracts, are entered into as necessary for the net balance of foreign currencies received from exports of products, etc. and foreign currencies paid for imports of raw materials, etc. under transactions denominated in the relevant foreign currencies.

(ii) Foreign exchange sensitivity analysis

The financial impact on profit before tax in the case of a 1% appreciation of Japanese yen against foreign currencies for financial instruments held by the Group at the end of each fiscal year is as follows. The analysis is based on the assumption that all other variables are held constant.

The sensitivity does not include the effects of translating financial instruments and the assets and liabilities of foreign operations denominated in the functional currency into the presentation currency.

(million yen)

	Currency	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Impact on profit before tax	U.S. dollar	(426)	**(465)**

(6) Interest rate risk

(i) Interest rate risk management

Borrowings and bonds payable with floating interest rates held by the Group are exposed to interest rate fluctuation risk. Hedge transactions, including interest rate swaps, are entered into for certain borrowings and bonds payable to cope with interest rate fluctuations and to reduce interest rate payments.

(ii) Interest rate sensitivity analysis

The financial impact on profit before tax in the case of a 1% increase in interest rate for financial liabilities with floating interest rates held by the Group at the end of each fiscal year is as follows. The analysis is based on the assumption that all other variables are held constant.

The sensitivity does not include borrowings with floating interest rates which are converted to fixed rates by derivative transactions, including interest rate swap agreements.

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Impact on profit before tax	(7,475)	**(7,857)**

(7) Share price fluctuation risk

(i) Share price fluctuation risk management

Equity instruments (stock) held by the Group are exposed to market price fluctuation risk. Most of the equity instruments are equities of the companies with which business relationships are maintained, and the fair values of such equities are regularly monitored.

(ii) Share price fluctuation sensitivity analysis

The financial impact on other comprehensive income (before tax) in the case of a 1% decrease in quoted price for each financial instrument (stock) with an active market held by the Group at the end of each fiscal year is as follows.

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	**Fiscal 2018 (April 1, 2018 – March 31, 2019)**
Impact on other comprehensive income (before tax)	(2,881)	**(2,546)**

(8) Carrying amounts and fair values of financial instruments

(million yen)

	Transition date (April 1, 2017)		As of March 31, 2018		**As of March 31, 2019**	
	Carrying amount	Fair value	Carrying amount	Fair value	**Carrying amount**	**Fair value**
Long-term borrowings	1,054,982	1,058,896	954,972	960,749	**1,040,824**	**1,050,235**
Current portion of bonds	49,997	50,027	14,996	15,039	**–**	**–**
Bonds payable	74,826	75,739	79,778	80,766	**109,706**	**110,895**

The fair value of financial assets and financial liabilities measured at amortized cost excluding long-term borrowings, current portion of bonds and bonds payable are not included as they are close to their carrying amount.

Financial instruments measured at fair value on a recurring basis are also not included as the fair value and the carrying amount are equal.

The fair value of long-term borrowings is determined by discounting the total of principal and interest to present value with the estimated interest rate on a similar new loan.

The fair value of bonds payable is based on market prices.

Long-term borrowings and bonds payable are categorized as Level 2 within the fair value hierarchy.

(9) Fair value hierarchy of financial instruments

The fair value hierarchy of financial instruments measured at fair value on a recurring basis after initial recognition is categorized into the following three levels depending on the observability and materiality of inputs used in the measurement.

Level 1: Fair value measured using market prices in active markets for identical assets or liabilities

Level 2: Fair value measured using observable inputs other than those categorized within Level 1, either directly or indirectly

Level 3: Fair value measured using significant unobservable inputs.

When two or more inputs are used for the measurement of fair value, the level of fair value measurement is determined based on the lowest level input that is significant to the entire measurement.

Transfers between levels of the fair value hierarchy are determined at the end of each fiscal year.

There were no transfers between Level 1 and Level 2 for the fiscal years ended March 31, 2018 and 2019.

Transition date (April 1, 2017)

(million yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through profit or loss				
Derivative assets	–	25,683	–	25,683
Other	–	4,027	–	4,027
Equity instruments measured at fair value through other comprehensive income				
Equity securities	317,926	–	55,739	373,666
Investments	–	–	5,963	5,963
Total	317,926	29,711	61,703	409,341
Financial liabilities				
Financial liabilities measured at fair value through profit or loss				
Derivative liabilities	–	4,056	–	4,056
Total	–	4,056	–	4,056

Financial Information

As of March 31, 2018

(million yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through profit or loss				
Derivative assets	–	20,086	–	20,086
Other	–	4,030	–	4,030
Equity instruments measured at fair value through other comprehensive income				
Equity securities	288,188	–	61,196	349,385
Investments	–	–	6,238	6,238
Total	288,188	24,116	67,435	379,740
Financial liabilities				
Financial liabilities measured at fair value through profit or loss				
Derivative liabilities	–	5,642	–	5,642
Total	–	5,642	–	5,642

As of March 31, 2019

(million yen)

	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value through profit or loss				
Derivative assets	–	21,325	–	21,325
Other	–	3,982	–	3,982
Equity instruments measured at fair value through other comprehensive income				
Equity securities	254,609	–	57,701	312,311
Investments	–	–	6,499	6,499
Total	254,609	25,308	64,201	344,119
Financial liabilities				
Financial liabilities measured at fair value through profit or loss				
Derivative liabilities	–	4,383	–	4,383
Total	–	4,383	–	4,383

• Equity securities and investments

Listed equity securities are categorized within Level 1 as their fair value is determined based on the market price.

Unlisted equity securities and investments in capital are categorized within Level 3 as their fair value is determined using the comparable peer company analysis or other appropriate valuation techniques, where one or more significant inputs are not based on observable market data. The major significant unobservable input is a discount for illiquidity. The fair value decreases as a discount for illiquidity due to unlisted nature increases. A 30% illiquidity discount has been applied.

• Derivative assets and derivative liabilities

Derivative transactions, such as forward exchange contracts and interest rate swaps, are categorized within Level 2 as their fair value is determined based on the quoted prices from counterparty financial institutions.

The fair value of financial instruments categorized within Level 3 is determined by each Group company which directly holds the relevant equity securities, in accordance with the valuation policy and procedures for fair value measurements established by the Group. The results of fair value measurements are approved by an appropriate responsible person.

The movement of financial instruments measured at fair value on a recurring basis that are categorized within Level 3 for the fiscal years ended March 31, 2018 and 2019 is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Balance at the beginning of the year	61,703	67,435
Other comprehensive income (Note)	4,358	(2,637)
Acquisition	1,891	578
Sale	(321)	(235)
Other	(196)	(938)
Balance at the end of the year	67,435	64,201

Note: The amount is included in "Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income" in the consolidated statement of comprehensive income.

(10) Derivative transactions and hedging activities

Derivative transactions used by the Group carry risks of market price fluctuations in the future, including that of currencies, interest rates, etc. The Group uses derivatives that are only based on actual demand, such as export and import transactions, borrowings and bonds payable. Accordingly, these risks are limited within the scope of loss of opportunity gains. Furthermore, as the Group only conducts derivative transactions primarily with financial institutions with high credit ratings, the risk of failure to perform contracts due to bankruptcy of the counterparty, etc., is considered to be close to non-existent. The Company has established the internal rule on derivative transactions, and conducts transactions related to derivatives pursuant to the rule. On each actual transaction, the Company conducts a transaction upon authority by the Corporate Officer for Finance pursuant to the rule stated above. Balances, market prices and losses/gains on valuation of derivatives are to be reported to the management council regularly. The consolidated subsidiaries also conduct derivative transactions pursuant to the respective internal rules.

If the risk management objective for a hedging relationship is altered, the application of hedge accounting is discontinued.

(i) Fair value hedges

The Group uses interest rate swaps primarily to hedge the fluctuation risk of the fair value of bonds payable and borrowings, and designates those interest rate swaps as fair value hedges.

The amount recognized in profit or loss for the hedge ineffectiveness portion and the portion excluded from the assessment of hedge effectiveness was immaterial for the fiscal years ended March 31, 2018 and 2019.

(ii) Cash flow hedges

The Group uses forward exchange contracts and interest rate swaps primarily to hedge the fluctuation risk of the cash flows associated with foreign exchange fluctuations in foreign currency denominated transactions and interest rate fluctuations in borrowings, and designates such derivative transactions as cash flow hedges.

The amount recognized in profit or loss for the hedge ineffectiveness portion and the portion excluded from the assessment of hedge effectiveness was immaterial for the fiscal years ended March 31, 2018 and 2019.

(iii) Fair value of hedging instruments to which hedge accounting is applied

(million yen)

	Transition date (April 1, 2017)		As of March 31, 2018		**As of March 31, 2019**	
	Assets	Liabilities	Assets	Liabilities	**Assets**	**Liabilities**
Fair value hedges						
Interest rate swap transactions	2,651	–	2,005	–	**1,703**	**–**
Option contracts	9,522	–	6,342	–	**7,737**	**–**
Subtotal	12,174	–	8,348	–	**9,441**	**–**
Cash flow hedges						
Forward exchange transactions	1,933	690	1,591	672	**371**	**428**
Interest rate swap transactions	–	1,605	–	1,394	**–**	**2,035**
Cross-currency interest rate swap transactions	11,348	1,675	9,187	3,267	**11,009**	**1,850**
Commodity futures transactions	–	–	457	–	**–**	**–**
Commodity collar transactions	–	–	–	–	**–**	**3**
Subtotal	13,282	3,972	11,236	5,334	**11,381**	**4,317**
Total	25,457	3,972	19,584	5,334	**20,822**	**4,317**

The fair value of the hedging instrument as an asset is recognized in "Other financial assets (current assets)" and "Other financial assets (non-current assets)" in the consolidated statement of financial position. The fair value of the hedging instrument as a liability is recognized in "Other financial liabilities (current liabilities)" and "Other financial liabilities (non-current liabilities)" in the consolidated statement of financial position.

(iv) Notional amount and average price of hedging instruments to which hedge accounting is applied

The notional amount of hedging instruments to which hedge accounting is applied

(million yen)

	Transition date (April 1, 2017)		As of March 31, 2018		**As of March 31, 2019**	
	Within one year	Over one year	Within one year	Over one year	**Within one year**	**Over one year**
Fair value hedges						
Interest rate swap transactions	–	58,000	8,000	50,000	**–**	**70,000**
Option contracts	–	27,265	–	27,265	**–**	**27,265**
Cash flow hedges						
Forward exchange transactions	101,897	15,882	105,157	8,098	**78,398**	**4,164**
Interest rate swap transactions	105,647	86,175	36,546	138,678	**1,000**	**136,728**
Cross-currency interest rate swap transactions	–	76,758	8,481	74,637	**8,376**	**99,521**
Commodity futures transactions	–	–	3,421	–	**–**	**–**
Commodity collar transactions	–	–	–	–	**946**	**–**

The average forward exchange rate of major currencies under foreign exchange transactions and the average paid interest rate under interest rate swap transactions and cross-currency interest rate swap transactions are as follows:

	Transition date (April 1, 2017)	As of March 31, 2018	**As of March 31, 2019**
Cash flow hedges			
Foreign exchange transactions			
U.S. dollar	111.12 yen	106.74 yen	**110.34 yen**
Euro	114.64 yen	120.47 yen	**126.64 yen**
Interest rate swap transactions			
Receive floating / pay fixed	0.40%	0.32%	**0.29%**
Cross-currency interest rate swap transactions			
U.S. dollar	100.48 yen	99.40 yen	**101.31 yen**
Receive floating / pay fixed	0.31%	0.31%	**0.29%**

(v) Carrying amount of hedged items in fair value hedges and accumulated amount of fair value hedge adjustments

Transition date (April 1, 2017)

(million yen)

	Line item of the consolidated statement of financial position	Carrying amount		Including accumulated amount of fair value hedge adjustments	
		Assets	Liabilities	Assets	Liabilities
Interest rate swap transactions	Bonds payable, borrowings, and lease obligations	–	60,651	–	2,651
Option contracts	Other financial assets	17,226	–	(10,038)	–

As of March 31, 2018

(million yen)

	Line item of the consolidated statement of financial position	Carrying amount		Including accumulated amount of fair value hedge adjustments	
		Assets	Liabilities	Assets	Liabilities
Interest rate swap transactions	Bonds payable, borrowings, and lease obligations	–	60,005	–	2,005
Option contracts	Other financial assets	20,724		(6,541)	–

As of March 31, 2019

(million yen)

	Line item of the consolidated statement of financial position	Carrying amount		Including accumulated amount of fair value hedge adjustments	
		Assets	Liabilities	Assets	Liabilities
Interest rate swap transactions	Bonds payable, borrowings, and lease obligations	**–**	**71,703**	**–**	**1,703**
Option contracts	Other financial assets	**18,178**		**(9,087)**	**–**

(vi) Other components of equity and gains or losses on hedging instruments of cash flow hedges

Transition date (April 1, 2017)

(million yen)

	Amount of other components of equity (net of tax)
Foreign exchange transactions	766
Interest rate swap transactions	(1,123)
Cross-currency interest rate swap transactions	(1,371)
Total	(1,728)

Financial Information

Fiscal 2017 (April 1, 2017 to March 31, 2018)

(million yen)

	Amount of other components of equity (net of tax)	Hedging gains or losses recognized in other comprehensive income	Reclassification amount to cost of non-financial assets	Reclassification adjustments from other comprehensive income to profit	Major line item of the consolidated statement of profit or loss for reclassification adjustments
Foreign exchange transactions	924	1,840	(1,197)	(484)	Other expenses
Interest rate swap transactions	(975)	(364)	–	512	Finance costs
Cross-currency interest rate swap transactions	(577)	(1,807)	–	2,601	Finance costs
Commodity futures transactions	94	351	(257)	–	
Total	(533)	20	(1,454)	2,628	

Fiscal 2018 (April 1, 2018 to March 31, 2019)

(million yen)

	Amount of other components of equity (net of tax)	Hedging gains or losses recognized in other comprehensive income	Reclassification amount to cost of non-financial assets	Reclassification adjustments from other comprehensive income to profit	Major line item of the consolidated statement of profit or loss for reclassification adjustments
Foreign exchange transactions	58	(305)	(743)	182	Other income
Interest rate swap transactions	(1,424)	(838)	–	389	Finance costs
Cross-currency interest rate swap transactions	(386)	4,394	–	(4,203)	Finance costs
Commodity futures transactions	–	–	(94)	–	
Commodity collar transactions	(2)	(2)	–	–	
Total	(1,755)	3,247	(838)	(3,630)	

(11) Transfer of financial assets

As of March 31, 2018 and March 31, 2019, trade receivables transferred without satisfying conditions for derecognition of financial assets of 5,042 million yen and 6,977 million yen were recognized in "Trade and other receivables," respectively, and the amounts received due to the transfer of 5,042 million yen and 6,977 million yen were recognized in "Bonds payable, borrowings, and lease obligations," respectively.

With regard to these trade and other receivables, the Group will assume the payment obligations in case the drawer of the notes or the debtor fails to make payment. For this reason, it has been determined that the Group holds almost all of the risks and rewards related to ownership of the transferred assets.

38. Related Parties

Compensation for key management personnel is as follows:

(million yen)

	Fiscal 2017 (April 1, 2017 – March 31, 2018)	Fiscal 2018 (April 1, 2018 – March 31, 2019)
Compensation and bonuses	1,763	1,744
Share-based payment	–	145
Post-employment benefits	88	3
Total	1,852	1,892

39. Commitments

Commitments for the acquisition of assets after the reporting date is as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Acquisition of property, plant and equipment	159,700	191,087	251,365

40. Contingent Liabilities

(1) Guarantees of obligations

Guarantees for borrowings from financial institutions to companies other than subsidiaries are as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Joint ventures	14,470	14,424	17,286
Associates	207	601	857
Other	21,279	18,936	20,595
Total	35,957	33,962	38,738

In addition to the above, guarantees of obligations that may arise in the future for associates are as follows:

(million yen)

	Transition date (April 1, 2017)	As of March 31, 2018	As of March 31, 2019
Guarantee limit for associates	9,958	11,568	11,605

(2) Litigation, etc.

There is no applicable item.

41. First-time Adoption

Starting from the fiscal year ended March 31, 2019, the Group is disclosing IFRS-compliant consolidated financial statements. The most recent consolidated financial statements prepared in accordance with Japanese GAAP are for the year ended March 31, 2018, and the date of transition to IFRS is April 1, 2017.

(1) Exemptions under IFRS 1

In principle, IFRS 1 requires companies applying IFRS for the first time to apply IFRS retrospectively, but some option exemptions are available.

Of the exemptions from retrospective application of IFRSs permitted by IFRS 1, the Group has elected the following:

(i) Business combinations

An entity may elect not to retrospectively apply IFRS 3 Business Combinations to business combinations that occurred before the date of transition to IFRS. The Group has elected not to apply IFRS 3 retrospectively. The amount of goodwill arising from business combinations before the transition date is based on the carrying amount under Japanese GAAP, and that goodwill has been tested for impairment as of the transition date regardless of whether any indication of impairment exists.

(ii) Deemed cost

An entity may measure property, plant and equipment and investment property at fair value at the date of transition to IFRS. The Group uses the fair value as of the transition date as the deemed cost under IFRS for certain property, plant and equipment and certain investment properties.

(iii) Exchange differences on translation of foreign operations

An entity may elect to reset cumulative exchange differences on translation of foreign operations to zero as of the transition date. The Group has reset its cumulative exchange differences on translation of foreign operations to zero as of the transition date, with the entire amount being transferred to retained earnings.

(iv) Leases

An entity may elect to determine whether any arrangement contains a lease based on the facts and circumstances existing at the transition date. The Group has made such determinations based on the facts and circumstances existing at the transition date.

(v) Borrowing costs

An entity may elect to start capitalization of borrowing costs relating to qualifying assets on the date of transition to IFRS. The Group has elected to start capitalization of borrowing costs relating to qualifying assets on the transition date.

(vi) Designation of financial instruments recognized before the transition date

An entity may elect to make designations in accordance with IFRS 9 Financial Instruments based on the facts and circumstances existing at the transition date. The Group has made such designations based on the facts and circumstances existing at the transition date.

(2) Reconciliations

The following reconciliations are required for first-time adoption of IFRS:

Items that do not affect retained earnings and comprehensive income are shown under "Reclassifications" and items that affect retained earnings or comprehensive income are shown under "Recognition and measurement differences."

Figures based on Japanese GAAP (J-GAAP) as of the date of transition to IFRS and for the previous fiscal year reflect the retroactive application of "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28, February 16, 2018).

Reconciliation of equity as of April 1, 2017 (transition date)

(million yen)

J-GAAP item	J-GAAP	Reclassifications	Recognition and measurement differences	IFRS	Notes	IFRS item
Assets						Assets
Current assets						Current assets
Cash and deposits	69,936	(553)	825	70,209	(1)	Cash and cash equivalents
Notes and accounts receivable – trade	798,058	(91,762)	(21,000)	685,295	(2) (4) (6)	Trade and other receivables
		122,985	9,514	132,500	(4)	Contract assets
Merchandise and finished goods	313,368	459,562	(15,138)	757,793	(3) (16)	Inventories
Work in progress	50,834	(50,834)			(3)	
Raw materials and supplies	408,728	(408,728)			(3)	
		6,827	(30)	6,796		Income taxes receivable
		4,106	805	4,912	(1) (5) (6)	Other financial assets
Other	131,625	(43,021)	(19,732)	68,871	(2)	Other current assets
Allowance for doubtful accounts	(1,416)	1,416			(6)	
Total current assets	1,771,135	–	(44,755)	1,726,379		Total current assets
Non-current assets						Non-current assets
Property, plant and equipment	1,650,879	(63,001)	73,246	1,661,123	(7) (9) (14) (16)	Property, plant and equipment
		5,137	–	5,137		Goodwill
Intangible assets	78,368	(7,916)	(3,533)	66,918		Intangible assets
		63,001	(2,598)	60,403	(7) (9)	Investment property
Investments and other assets						
Investments securities	372,196	(372,196)				
Shares of subsidiaries and associates	349,864	(876)	(16,559)	332,428	(14)	Investments accounted for using equity method
Net defined benefit assets	13,067	–	(1,843)	11,224		Retirement benefit asset
		32,011	(4,337)	27,674	(12)	Deferred tax assets
		403,537	22,881	426,418	(5) (6) (15)	Other financial assets
Other	78,591	(62,650)	(4,417)	11,523		Other non-current assets
Allowance for doubtful accounts	(2,953)	2,953			(6)	
Non-current assets	2,540,014	–	62,838	2,602,853		Total non-current assets
Total assets	4,311,149	–	18,083	4,329,232		Total assets

J-GAAP item	J-GAAP	Reclassifications	Recognition and measurement differences	IFRS	Notes	IFRS item
						Liabilities and equity
Liabilities						Liabilities
Current liabilities						Current liabilities
Notes and accounts payable – trade	446,645	53,597	24,484	524,727	(8)	Trade and other payables
Short-term loans payable	204,379	59,396	7,991	271,767		Bonds payable, borrowings, and lease obligations
Commercial papers	8,000	(8,000)				
Current portion of bonds	50,000	(50,000)				
		33,569	(103)	33,465	(4)	Contract liabilities
		15,346	809	16,155		Income taxes payable, etc.
		8,561	61	8,622		Provisions
		88,347	1,536	89,884	(5)	Other financial liabilities
Other	330,432	(200,818)	57,402	187,016	(4) (8) (10)	Other current liabilities
Total current liabilities	1,039,457	–	92,182	1,131,639		Total current liabilities
Non-current liabilities						Non-current liabilities
Bonds payable	75,000	1,050,012	28,741	1,153,753		Bonds payable, borrowings, and lease obligations
Long-term borrowings	1,038,089	(1,038,089)				
Net defined benefit liabilities	123,745	–	244	123,989		Retirement benefit liability
		50,483	(13,945)	36,537	(11)	Provisions
		18,941	(8,662)	10,279	(14)	Deferred tax liabilities
Deferred tax liabilities for land revaluation	9,118	(9,118)				
		25,177	2,410	27,588	(5)	Other financial liabilities
Other	100,581	(97,407)	6,023	9,197	(10)	Other non-current liabilities
Total non-current liabilities	1,346,534	–	14,812	1,361,346		Total non-current liabilities
Total liabilities	2,385,991	–	106,994	2,492,986		Total liabilities
Net assets						Equity
Share capital	147,143	–	–	147,143		Share capital
Capital surplus	646,582	–	–	646,582		Capital surplus
Retained earnings	1,129,981	–	(79,346)	1,050,635	(13) (17)	Retained earnings
Treasury shares	(178,853)	–	–	(178,853)		Treasury shares
Accumulated other comprehensive income	124,330	–	(8,388)	115,941	(13) (14) (15)	Other components of equity
				1,781,449		Total equity attributable to owners of parent
Non-controlling interests	55,972	–	(1,176)	54,796		Non-controlling interests
Total net assets	1,925,157	–	(88,911)	1,836,245		Total equity
Total liabilities and net assets	4,311,149	–	18,083	4,329,232		Total liabilities and equity

Reconciliation of equity as of March 31, 2018 (previous fiscal year)

(million yen)

J-GAAP item	J-GAAP	Reclassifications	Recognition and measurement differences	IFRS	Notes	IFRS item
Assets						Assets
Current assets						Current assets
Cash and deposits	76,111	(886)	(107)	75,117	(1)	Cash and cash equivalents
Notes and accounts receivable – trade	855,730	(78,251)	(19,449)	758,029	(2) (4) (6)	Trade and other receivables
		110,491	16,443	126,935	(4)	Contract assets
Merchandise and finished goods	351,961	498,378	(13,474)	836,865	(3) (16)	Inventories
Work in progress	60,292	(60,292)			(3)	
Raw materials and supplies	438,086	(438,086)			(3)	
		1,127	639	1,766		Income taxes receivable
		4,976	2,181	7,157	(1) (5) (6)	Other financial assets
Other	148,125	(39,644)	(30,795)	77,684	(2)	Other current assets
Allowance for doubtful accounts	(2,188)	2,188			(6)	
Total current assets	1,928,119	–	(44,562)	1,883,556		Total current assets
Non-current assets						Non-current assets
Property, plant and equipment	1,702,248	(62,280)	92,187	1,732,154	(7) (9) (14) (16)	Property, plant and equipment
		3,157	1,316	4,473		Goodwill
Intangible assets	83,724	(6,232)	(4,328)	73,163		Intangible assets
		62,280	(2,598)	59,682	(7) (9)	Investment property
Investments and other assets						
Investments securities	325,413	(325,413)				
Shares of subsidiaries and associates	312,880	(1,662)	(21,994)	289,223	(14)	Investments accounted for using equity method
Net defined benefit assets	18,082	–	(1,622)	16,459		Retirement benefit asset
		29,296	(4,828)	24,467	(12)	Deferred tax assets
		354,102	39,566	393,668	(5) (6) (15)	Other financial assets
Other	72,134	(54,939)	(6,872)	10,322		Other non-current assets
Allowance for doubtful accounts	(1,691)	1,691			(6)	
Non-current assets	2,512,791	–	90,825	2,603,616		Total non-current assets
Total assets	4,440,910	–	46,262	4,487,173		Total assets

J-GAAP item	J-GAAP	Reclassifications	Recognition and measurement differences	IFRS	Notes	IFRS item
						Liabilities and equity
Liabilities						Liabilities
Current liabilities						Current liabilities
Notes and accounts payable – trade	471,897	55,938	32,546	560,381	(8)	Trade and other payables
Short-term loans payable	285,542	22,421	9,530	317,494		Bonds payable, borrowings, and lease obligations
Commercial papers	6,000	(6,000)				
Current portion of bonds	15,000	(15,000)				
		52,547	1,040	53,588	(4)	Contract liabilities
		44,051	(450)	43,601		Income taxes payable, etc.
		8,148	446	8,594		Provisions
		90,713	1,898	92,612	(5)	Other financial liabilities
Other	411,846	(252,820)	54,850	213,876	(4) (8) (10)	Other current liabilities
Total current liabilities	1,190,286	–	99,862	1,290,149		Total current liabilities
Non-current liabilities						Non-current liabilities
Bonds payable	80,000	956,474	37,259	1,073,734		Bonds payable, borrowings, and lease obligations
Long-term borrowings	944,376	(944,376)				
Net defined benefit liabilities	127,435	–	905	128,341		Retirement benefit liability
		41,394	(5,479)	35,914	(11)	Provisions
		13,624	(8,461)	5,162	(14)	Deferred tax liabilities
Deferred tax liabilities for land revaluation	9,113	(9,113)				
		18,451	3,658	22,109	(5)	Other financial liabilities
Other	79,786	(76,454)	6,363	9,696	(10)	Other non-current liabilities
Total non-current liabilities	1,240,712	–	34,246	1,274,959		Total non-current liabilities
Total liabilities	2,430,999	–	134,109	2,565,108		Total liabilities
Net assets						Equity
Share capital	147,143	–	–	147,143		Share capital
Capital surplus	646,639	–	(4)	646,634		Capital surplus
Retained earnings	1,211,796	–	(73,704)	1,138,091	(13) (17)	Retained earnings
Treasury shares	(179,070)	–	–	(179,070)		Treasury shares
Accumulated other comprehensive income	123,065	–	(13,157)	109,907	(13) (14) (15)	Other components of equity
				1,862,707		Total equity attributable to owners of parent
Non-controlling interests	60,337	–	(980)	59,357		Non-controlling interests
Total net assets	2,009,911	–	(87,846)	1,922,065		Total equity
Total liabilities and net assets	4,440,910	–	46,262	4,487,173		Total liabilities and equity

Financial Information

Notes to reconciliation of equity

Reclassifications

Reclassifications consist mainly of the following:

(1) Cash and cash equivalents

Time deposits with a term of more than three months, which were included in "Cash and deposits" under Japanese GAAP, are included in "Other financial assets (current)" under IFRS.

(2) Trade and other receivables

Accounts receivable included in "Other" in current assets under Japanese GAAP are included in "Trade and other receivables" under IFRS.

(3) Inventories

"Merchandise and finished goods," "Work in progress," and "Raw materials and supplies" were presented as separate items under Japanese GAAP; under IFRS, they are presented in "Inventories."

(4) Contract assets and contract liabilities

Some receivables included in "Notes and accounts receivables - trade" under Japanese GAAP are reclassified to "Contract assets" under IFRS; and advances received included in "Other" in current liabilities under Japanese GAAP are reclassified to "Contract liabilities" under IFRS.

(5) Other financial assets and other financial liabilities

In accord with IFRS presentation requirements, "Other financial assets" and "Other financial liabilities" are presented as separate items.

(6) Allowance for doubtful accounts

"Allowance for doubtful accounts (current)" was presented as a separate item under Japanese GAAP; under IFRS, it is deducted directly from "Trade and other receivables" and "Other financial assets (current)" and thus presented on a net basis. Similarly, "Allowance for doubtful accounts (non-current)" is deducted directly from "Other financial assets (non-current)" and thus presented on a net basis.

(7) Investment property

In accord with IFRS presentation rules, "Investment property" has been reclassified from "Property, plant and equipment."

(8) Trade and other payables

Accounts payable included in "Other" in current liabilities under Japanese GAAP are included in "Trade and other payables" under IFRS.

Recognition and measurement differences

Recognition and measurement differences consist mainly of the following:

(9) Deemed cost

The Group has elected to use the exemption that permits it to measure some property, plant and equipment and some investment property at fair value at the date of transition to IFRS. "Property, plant and equipment" and "Investment property" decreased as a result.

The fair value at the transition date and the Japanese-GAAP carrying amounts for property, plant and equipment and investment property for which deemed cost is used are, respectively, 42,047 million yen and 83,425 million yen. Fair value is based on a valuation by an independent valuer who holds a recognized and relevant professional qualification, and is classified as Level 3.

(10) Paid leave payable, etc.

Paid leave payable was not recognized as a liability under Japanese GAAP; under IFRS, it is recognized as a liability and "Other current liabilities" has therefore increased. Rewards and the like granted based on years of service were not recognized as a liability under Japanese GAAP; under IFRS, they are recognized as a liability and "Other non-current liabilities" has therefore increased.

(11) Provisions

Under Japanese GAAP, future expenses that met certain requirements were recognized as provisions; some of these provisions have been derecognized because they did not meet the IFRS requirements for provisions. Also, some future expenses that were not recognized as provisions under Japanese GAAP meet the IFRS requirements for provisions and are therefore now recognized as provisions. All told, these changes have caused "Provisions" to decrease.

(12) Deferred tax assets and deferred tax liabilities

Under Japanese GAAP, the deferred method was applied to the tax effects of eliminations of internal unrealized gains; under IFRS, the asset-liability method is applied. Also, in conjunction with its adoption of IFRS, the Company has reevaluated the recoverability of deferred tax assets. As a result of the above, "Deferred tax assets" has decreased.

(13) Other components of equity

The Group has elected to use the exemption for first-time adopters specified in IFRS 1 that permits it to transfer the cumulative exchange differences on translation of foreign operations as of the date of transition to IFRS to retained earnings. Also, under Japanese GAAP, actuarial differences arising from defined benefit plans are amortized over a fixed period starting from the year following that in which they occurred; under IFRS, they are recognized in other comprehensive income when they occur and immediately transferred to retained earnings.

(14) Revaluation reserve for land

Under Japanese GAAP, some land for business purposes was revaluated based on the Act on Revaluation of Land (Act No. 34 of March 31, 1998) and the Act for the Partial Revision of the Act on Revaluation of Land (Act No. 19 of March 31, 2001), with the amount equivalent to the tax on the valuation difference recognized in "Deferred tax liabilities for revaluation" in liabilities, and the "Land revaluation difference" recognized as a component of net assets. On the date of transition to IFRS, "Deferred tax liabilities for revaluation" and "Land revaluation difference" were reversed and the book value of the land reverted to its book value before revaluation. As a result, "Property, plant and equipment," "Investments accounted for using equity method," "Deferred tax liabilities," and "Other components of equity" decreased.

(15) Unlisted equity securities and investments

Under Japanese GAAP, unlisted equity securities and investments were valued using the moving-average cost method; under IFRS, they are measured at fair value, and thus "Other financial assets (non-current)" and "Other components of equity" have increased.

(16) Replacement parts, spare equipment, and maintenance equipment

Some replacement parts, spare equipment, and maintenance equipment included in "Supplies" under Japanese GAAP meet the definition of property, plant and equipment under IFRS and are therefore recognized in "Property, plant and equipment." As a result, "Production supplies" has decreased and "Property, plant and equipment" has increased.

(17) Retained earnings

(million yen)

	Transition date April 1, 2017	Previous fiscal year March 31, 2018
Deemed cost	(40,866)	(40,866)
Reconciliation of paid leave payable, etc.	(21,002)	(22,716)
Reconciliation of provisions	14,858	7,488
Reconciliation of deferred tax assets and deferred tax liabilities	(13,450)	(11,396)
Reconciliation of other components of equity	(8,558)	4,526
Other	(10,326)	(10,739)
Total reconciliations to retained earnings	(79,346)	(73,704)

Note: The reconciliation amounts for each item reflect tax effects.

Financial Information

Reconciliation of profit/loss and comprehensive income for the previous fiscal year (April 1, 2017 – March 31, 2018)

Consolidated statement of profit or loss items

(million yen)

J-GAAP item	J-GAAP	Reclassifications	Recognition and measurement differences	IFRS	Notes	IFRS item
Net sales	3,678,612	(337)	(51,025)	3,627,248	(3)	Revenue
Cost of sales	(3,096,019)	230	41,400	(3,054,388)	(3)	Cost of sales
Gross profit	582,592	(107)	(9,624)	572,860		Gross profit
Selling, general and administrative expenses	(335,923)	(756)	(269)	(336,949)		Selling, general and administrative expenses
		(8,732)	(1,441)	(10,173)	(1)	Share of loss of entities accounted for using the equity method
		30,811	(191)	30,619	(1)	Other income
		(38,455)	476	(37,979)	(1)	Other expenses
				218,378		Business profit
		(28,496)	43	(28,453)	(1)	Impairment losses
		–	(18,717)	(18,717)	(4)	Loss on remeasurement of retained interest
		(3,850)	–	(3,850)	(1)	Expenses for treatment of PCB waste
Operating income	246,669	(49,586)	(29,725)	167,357		Operating profit
Non-operating income	32,303	(32,303)			(1)	
Non-operating expenses	(62,633)	62,633			(1)	
Ordinary income	216,339					
Extraordinary income	29,388	(29,388)			(1)	
Extraordinary losses	(32,346)	32,346			(1)	
		30,880	(29,334)	1,546	(1) (5)	Finance income
		(15,338)	(687)	(16,026)	(1)	Finance costs
Profit before income taxes	213,381	(756)	(59,747)	152,877		Profit before tax
Income taxes - current	(60,616)	(2,021)	12,913	(49,723)	(2) (6)	Income tax expense
Income taxes - deferred	(2,777)	2,777			(2)	
Profit	149,987	–	(46,834)	103,153		Profit
						Profit attributable to
Profit attributable to owners of parent	144,638	–	(47,003)	97,635		Owners of parent
Profit attributable to non-controlling interests	5,349	–	169	5,518		Non-controlling interests

Consolidated statement of comprehensive income items

(million yen)

J-GAAP item	J-GAAP	Reclassifications	Recognition and measurement differences	IFRS	Notes	IFRS item
Profit	149,987	–	(46,834)	103,153		Profit
Other comprehensive income						Other comprehensive income
						Items that will not be reclassified to profit or loss
Remeasurements of defined benefit plans, net of tax	5,657	–	(1,146)	4,510		Remeasurements of defined benefit plans
Valuation difference on available-for-sale securities	(21,736)	–	35,487	13,751	(5)	Net change in fair value of equity instruments designated as measured at fair value through other comprehensive income
		1,380	(778)	602		Share of other comprehensive income of investments accounted for using equity method
						Items that may be reclassified to profit or loss
Foreign currency translation adjustment	234	–	(2,332)	(2,098)		Exchange differences on translation of foreign operations
Deferred gains (losses) on hedges	(286)	–	2,935	2,649		Effective portion of cash flow hedges
Share of other comprehensive income of investments accounted for using the equity method	15,745	(1,380)	(12,829)	1,535		Share of other comprehensive income of investments accounted for using equity method
Total other comprehensive income	(385)	–	21,336	20,950		Total other comprehensive income
Comprehensive income	149,602	–	(25,498)	124,104		Comprehensive income

Notes to reconciliation of profit/loss and comprehensive income

Reclassifications

Reclassifications consist mainly of the following:

(1) Reconciliation of display items

Of those items presented in "Non-operating income," "Non-operating expenses," and "Extraordinary income" under Japanese GAAP, finance-related gains and losses are recognized in "Finance income" and "Finance costs" under IFRS, and other items are presented in "Other income," "Other expenses," and "Share of loss of entities accounted for using the equity method." Items presented in "Extraordinary loss" under Japanese GAAP are presented in "Impairment losses" and "Expenses for treatment of PCB waste" under IFRS.

(2) Income tax expense

Under Japanese GAAP, "Income taxes - current" and "Income taxes - deferred" were presented as separate items; under IFRS, they are presented collectively in "Income tax expense."

Recognition and measurement differences

Recognition and measurement differences consist mainly of the following:

(3) Revenue and cost of sales

Under Japanese GAAP, the total amount of transactions in which the Group is involved as an agent is presented as sales; under IFRS, revenue is presented on a net basis for transactions in which the Group is determined to be involved as an agent. As a result, "Revenue" and "Cost of sales" have decreased. In adopting IFRS, the Group also reviewed the scope of application of the equity method. Some companies to which the equity method was applied under Japanese GAAP are now recognized as joint operations, resulting in an increase in "Revenue" and "Cost of sales."

(4) Loss on remeasurement of remaining interest

Under Japanese GAAP, remaining interests in investments for which application of the equity method was discontinued were accounted for by recognizing the difference between the carrying amount and the carrying amount on the separate balance as a decrease in retained earnings. Under IFRS, such residual interests are measured at fair value, and the difference versus the carrying amount is recognized in profit or loss.

(5) Finance income

Under Japanese GAAP, gains and losses on sales of equity financial assets were recognized in net profit and loss. Under IFRS, changes in fair value are recognized in other comprehensive income, resulting in a decrease in "Finance income."

(6) Income tax expense

The amount of "Income tax expense" has been adjusted owing to temporary differences arising from the transition from Japanese GAAP to IFRS. This resulted in a decrease in "Income tax expense."

Reconciliation of cash flows for the previous fiscal year (April 1, 2017 – March 31, 2018)

The differences between the consolidated cash flow statements disclosed under Japanese GAAP and the consolidated cash flow statements disclosed under IFRS are mainly attributable to some replacement parts, spare equipment, and maintenance equipment included in "Supplies" under Japanese GAAP being recognized in "Property, plant and equipment" under IFRS because they meet the definition of property, plant and equipment under IFRS. As a result, cash flows from operating activities increased and cash flows from investing activities decreased.

42. Subsequent Events

On May 27, 2019, the Company issued unsecured bonds (with inter-bond pari passu clause) under the following terms and conditions:

1. Name of bonds	JFE Holdings, Inc. The 27th Unsecured Bond (with inter-bond pari passu clause)	JFE Holdings, Inc. The 28th Unsecured Bond (with inter-bond pari passu clause)	JFE Holdings, Inc. The 29th Unsecured Bond (with inter-bond pari passu clause)
2. Issue amount	30 billion yen	10 billion yen	20 billion yen
3. Coupon rate	0.170%	0.260%	0.365%
4. Issue price	100% of the principal amount		
5. Maturity date	May 27, 2024	May 27, 2026	May 25, 2029
6. Closing date	May 27, 2019		
7. Redemption	The Bonds will be redeemed in full upon maturity; provided, however, that the Bonds may also be repurchased and redeemed at any time on or after the following day of the issue date.		
8. Collateral or guarantee	Unsecured and not guaranteed		
9. Use of proceeds	Appropriated to the working capital of JFE Steel Corporation, a wholly owned subsidiary of the Company.		

(2) Other

(Significant lawsuits, etc.)

There is no applicable item.

(Quarterly information for the fiscal year ended March 31, 2019)

(Cumulative period))	Three months ended June 30, 2018	Six months ended September 30, 2018	Nine months ended December 31, 2018	**Fiscal year ended March 31, 2019**
Net sales (million yen)	936,336	1,907,261	2,939,182	**3,961,762**
Profit before income taxes (million yen)	79,557	143,500	195,457	**209,927**
Profit attributable to owners of parent (million yen)	61,430	110,485	151,060	**164,218**
Earnings per share (yen)	106.56	191.70	262.17	**285.04**

(Accounting period)	First quarter(From April 1, 2018 to June 30, 2018)	Second quarter(From July 1, 2018 to September 30, 2018)	Third quarter(From October 1, 2018 to December 31, 2018)	**Fourth quarter(From January 1, 2019 to March 31, 2019)**
Profit per share (yen)	106.56	85.14	70.46	**22.85**

Notes: 1. Quarterly information for the fiscal year ended March 31, 2019 has been prepared under Japanese GAAP.

2. An audit or review pursuant to Paragraph 1, Article 193-2 of the Financial Instruments and Exchange Act has not been conducted for the information for the fiscal year ended March 31, 2019 and the fourth quarter accounting period.

3. The Company has instituted share-based payment plans since the second quarter accounting period. The Company shares held in trust accounts are included in treasury shares, which are excluded from the calculation of the average number of shares during the period, when computing profit per share for the fiscal year and each quarter accounting period.

Financial Information

Ernst & Young ShinNihon LLC
Hibiya Mitsui Tower, Tokyo Midtown Hibiya
1-1-2 Yurakucho, Chiyoda-ku
Tokyo 100-0006, Japan

Tel: +81 3 3503 1100
Fax: +81 3 3503 1197
ey.com

Building a better working world

Independent Auditor's Report

The Board of Directors
JFE Holdings, Inc.

We have audited the accompanying consolidated financial statements of JFE Holdings, Inc. 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 JFE Holdings, Inc. 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 1.

June 21, 2019

Ernst & Young Shinnihon LLC

JFE Holdings, Inc.

2-2-3 Uchisaiwaicho, Chiyoda-ku, Tokyo, 100-0011, Japan
HP : https://www.jfe-holdings.co.jp/en/

View the Report on your Smartphone

- JFE GROUP REPORT 2019
- CSR Report 2019

FSC www.fsc.org MIX Paper from responsible sources FSC® C022915

UD FONT

Issued in November 2019