Management Strategies



The JFE Group will continue to leap forward by tackling challenges

JFE's mission is clearly stated in its corporate vision of contributing to society with the world's most innovative technology. Our core purpose and focus is to contribute to social development, by providing high-performance and high-quality products and services that meet customer requirements and social needs, with minimal negative impact on the environment. We are determined to continue drawing on our technological strengths to provide solutions that make us customers' supplier of choice, and to remain a company that is recognized and known for its contribution to society.

To achieve our mission, and increase corporate value over the medium- to long-term, we must increase profitability and respond appropriately to environmental and social issues to enable sustainable growth — governed always by principles that ensure all we do is fair, just and transparent.

The wonder and potential of steel, an early and enduring foundation of civilization

Steel, the basic material behind all JFE Group does, has been an essential building block in the foundation of civilized societies and the evolution of lifestyles over time. Rich reserves of iron ore enable mass production of steel at low cost and as a material steel offers both strength and formability. At the production stage it has relatively low environmental impact, and it is easy to recycle and transform into new products any number of times without losing its high quality. No other material has all these characteristics, and no other material can challenge steel's importance as a key building block of civilization. In recent years changing trends, including reduction in product weight — especially for automobiles, are driving calls for the replacement of iron with lighter materials like aluminum and carbon fiber.

However, in practice, I feel that efforts to do so have only made the superiority of steel stand out all the more.

As a building block for the sustainable growth of society and in the evolution of lifestyles, we are convinced steel is as much a material of the future as the past. Ongoing R&D will surely discover other latent properties of steel that will create new and innovative uses for it in products, while the economic growth of emerging countries will almost certainly ensure a steady, long-term increase in global demand for the raw material too.

JFE Group will continue to build and operate its businesses by using steel, an incredibly useful and strong material with significant cost advantages, in its various forms, at the core.

The strengths of the JFE Group, offering solutions through the world's most innovative technology

Among the world's steel producers, JFE believes its strength lies in superior quality made possible by its product development expertise, rooted in cutting-edge technologies, and by its production capabilities, refined over a long history of production on site. Everything we do is driven by the goals of meeting evolving customers' requirements and usability.

Our innovative steel products include high-tensile steels — strong steel sheets that are light, thin, and effective in reducing the weight for end products like automobiles, and steel plates which are quick and easy to use when constructing high-rise buildings and bridges. Japanese steel producers have maintained a competitive advantage over overseas rivals in terms of product performance and quality, and we are confident that JFE is one of the best. However, with competitors in China and South Korea, for example, striving to close this gap through heavy investment in cutting-edge facilities and technological development, we must work hard to stay at least one step ahead with our R&D and continue to hone our state-of-the-art technologies. For instance, the tensile strength of high-tensile steel produced by companies in emerging countries has at last reached the 50-60 kg range, but ours is already at 150 kg. It is essential that we are persistent in our day to day research, so that when our competitors can offer tensile strength of 100 kg, we will be able to provide 200 kg.

Our main customers are Japanese manufacturers with the world's strictest quality standards. To comply with their high-level requirements, our product development is attuned to their needs from the earliest stages and we jointly engage in R&D activities. Through such long-term cooperation with customers, the quality of our products is being constantly refined and our competitive edge is continually improved.

Steel business production bases in Japan Sendai Works West Japan Works Crude steel output (FY2017) Crude steel output (FY2017) 0.60 million tons 19.99 million tons Specializes in steel bars and Kurashiki district Fukuyama district East Japan Works Crude steel output (FY2017) **Chita Works** 7.86 million tons Specializes in steel pipes Chiba district Keihin district

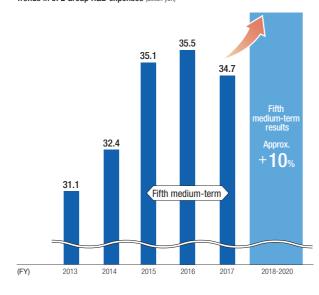
Production capabilities are measured by a producer's ability to produce steel in a stable and cost competitive way, and to maintain productivity even when complex, high added value products are being produced. Our production bases, consolidated into two large-scale operations in the east and west, are able to very efficiently produce high-quality steel at relatively low cost. Our West Japan Works is capable of manufacturing over 20 million tons of steel each year and boasts a scale and competitive strength on a par with the world's leading companies. The East Japan Works benefits from a location near the Tokyo metropolitan area, which generates Japan's greatest demand, and provides an array of products in a timely manner. The competitive strengths of these steelworks are supported by the knowledge and expertise of the human resources developed on the job at these sites over many years.

Another of JFE Group's special strengths is sales and marketing. JFE Steel and JFE Shoji Trade work together to create a global network for timely deliveries and services. It has come to be trusted by and has earned praise from our customers.

We consider these strengths to be important assets accumulated over many years and the competitive edge they give us cannot be quickly and easily matched by other companies.

Furthermore, in addition to steelmaking and sales, the JFE Group also engages in the engineering business, with special strength in the environment and energy sectors. By applying our steel fabrication, assembly, combustion and environmental management technologies as a foundation we can contribute to social infrastructure including bridges, waste power generation, and water and sewage treatment plants. We believe that our technology in waste treatment and

Trends in JFE Group R&D expenses (billion yen)



waste-to-energy power generation is world class, and provides a wonderful opportunity for our business to grow by responding to an increase in demand for infrastructure along with the economic development of emerging countries, and to ongoing demand for better environmental protection.

The diverse business opportunities that grow out of the application of our steel-related technologies in various ways also represent one of JFE Group's strengths.



The current economic conditions are steady, but long-term prospects are unclear and global competition is heating up

The current business atmosphere is influenced by apprehension over the risk of protective trade stemming from U.S. politics, but business performance has remained strong, both in Japan and overseas. The impact of China's overcapacity issue in the market has subsided when compared to the past as some progress has been seen in the disposal of aged facilities and the streamlining of businesses thanks to guidance by the Chinese government, and domestic demand is stable. Although in the long term, steady growth in demand may be expected from the economic growth of emerging countries overseas, the gradual decline in demand due to Japan's contracting population is a concern.

Turning our eyes to overseas competitors, companies are being

consolidated through business integration, and producers in emerging countries are investing heavily in production facilities and R&D to enhance their competitive strength. Global competition is intensifying by the day.

On the other hand, changes in social needs will prompt marked changes in social arrangements, including a conversion to electric vehicles (EV), the reduction of automobile weight, structural changes in the environmental energy sector, and progress made in innovative digital technologies. We believe that providing solutions to meet social and consumer needs in line with these emerging and growing trends will create new business opportunities for us.

Promoting growth strategies to win out over global competition, aiming for a sustainable increase in profitability

Reinforcing production facilities in Japan

In this business environment, the first policy the JFE Group should emphasize towards realizing sustainable growth, expanding profitability and improving global competitiveness is to reinforce production bases in Japan and optimize production capabilities. Most Japanese steelworks were built over half a century ago, and the time for major renovation work is at hand. Although doing so will require several hundred billion yen investment, our domestic steelworks are and will continue to be crucial production bases. Renovation must be undertaken if we are to maintain global competitive strength through the next half-decade. Therefore, in the Sixth Medium-term Business Plan formulated this year, we have planned for investment on a scale of 900 billion yen over the next three years.

Developing and enhancing global bases

The second policy is to develop steel supply bases globally. Although Japan as a market for steel is expected to shrink gradually due to the contracting population, it will remain a major production base for the steel industry. We will realize sustainable growth and secure stable profit by seeking to be the supplier of choice for customers and providing them with products with high-added value in a timely

It is important for us to steadily grasp growth in demand, especially in emerging countries. Two of our major strategies are to build a supply system for high added value products such as steel sheets for automobiles and to develop steel supply bases to enhance the social infrastructure.

The first strategy involves traditional vertical specialization. Steelworks in Japan will produce steel products to a certain point, after

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which galvanizing and processing will be completed locally at overseas bases prior to delivery to customers. In order to expand profitability, we will further reinforce production capabilities and promote cutting-edge technological development of steelworks in Japan, aim to provide a stable competitive supply of raw steel sheets, and stabilize local production capabilities overseas.

The second strategy involves developing steel supply bases to enhance the social infrastructure, focusing on Southeast Asia. As the steel material in this category is a commodity, we need a new business model with a focus on lower costs. Instead of shipping substrates from Japan, we need to build integrated production operations in highdemand markets to make use of upstream facilities and secure cost competitiveness. We have taken a stake in the first integrated steelworks in Vietnam (FHS), which commenced operations last year. We will further capitalize on this facility to meet the needs and capture demand for infrastructure in Asia and expand the presence of the JFE brand. This strategy enables us to use our steelworks in Japan to specialize in high-end products with higher profitability.

The engineering business also draws on advanced technological capabilities cultivated in our fields of expertise in Japan and applies them to overseas development. As demand varies depending on the maturity of each country or region, our contribution may vary from building fundamental infrastructure such as bridges or ports, to water treatment plants or waste-to-energy plants, according to regional needs. Through these efforts, we will contribute to the development of infrastructure in Asia.

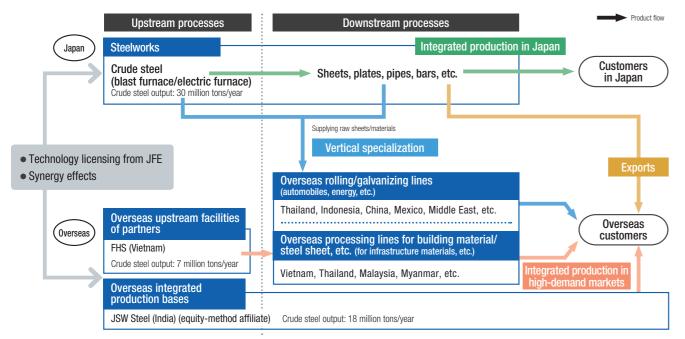
Boldly taking on challenges in new growth areas

The third policy is to acquire business opportunities in new growth areas. For instance, environmental and social problems, such as global warming, are becoming an increasingly pressing issues. We can transform these challenges into business opportunities for both our steel and engineering businesses by providing products that meet environmental needs.

Responding to the electrification of automobiles is one example for the steel and trading businesses. For example, high performance electrical steel sheets, one of the products we specialize in, are commonly used in motors and batteries. EVs require high-strength steel material that is thin and lightweight, as their batteries are very heavy. The energy sector is shifting away from conventional fossil fuels to greater use of new energy sources such as solar and wind power generation, which call for steel materials that are resistant to weather and corrosion, and can withstand extreme environments. We will boldly invest in these fields and develop products that customers will choose because they best meet their needs, leading to profitability that then enables investment which is crucial for sustainable growth.

Currently, the main method of waste treatment in emerging countries is to create landfills. If pollutants can be eliminated from waste combustion and the heat generated can be used to generate power, we would contribute to both environmental protection and the development of society. We are also focusing on contracted plant operations and maintenance. Through the efficient management of operations, we will realize lower running costs for the customer and long-term stable profit for the company. This field is one with the greatest potential, so we intend to steadily accumulate achievements overseas as well by assessing which risks to take.

Global steel supply strategy



The Sixth Medium-term Business Plan focuses on ability to generate profit and cash flow

In order to realize our growth strategies, we created the Sixth Mediumterm Business Plan in April 2018 to guide business operations from 2018 to 2020. We are steadily implementing various initiatives toward achieving the earnings targets (annual consolidated ordinary income of 280 billion yen, average basis). Conventionally in the past we have set earnings targets to be reached in the final fiscal year but in this plan we have established an average-basis target for the first time.

Steel, our core business, is susceptible to transitions in global business cycles and the future business environment, even in the short term, is extremely difficult to forecast. In the previous medium term period, this fact was one of the reasons that profit fluctuated and fell short of the level initially estimated. However, for future growth, considerable ongoing capital and project investments to capitalize on

growth opportunities are crucial. We must generate profit and cash flow in order to steadily put our investments plans into action. Thus, for the current plan, we have focused on a management policy that prioritizes generating profit and cash flow and established an earnings target on an average basis that should be attained over the three-year period. Although the road to achieving future growth might be bumpy at times, we must acknowledge that we should secure this profit level on average. It is a very challenging target with no room for excuses, but it is one that we are committed to.

For details of the Medium-term Business Plan, please refer to the Business Strategy section for each operating company (from page 39)

Major policies and financial/earnings targets for the Sixth Medium-term Business Plan

Group-wide measures

- 1 Pursue growth by meeting social needs with leading-edge technologies
- 2 Continue to expand domestic profit base and strengthen manufacturing capabilities
- 3 Advance overseas business and expand overseas profit 4 Strengthen business structure for sustainable growth

Total investment (Three-year period, decision basis)

Total investment	1 trillion yen
Of which, domestic investment	900 billion yen
Of which, overseas investment	100 billion yen

Financial targets

Capital efficiency	R0E 10%
Financial standing	A-grade rating by internationa credit agencies

Financial/earnings targets (Average basis during the sixth medium-term)

Consolidated ordinary income	280 billion yen/year
Net income attributable to shareholders of the parent	200 billion yen/year
Debt/EBITDA ratio	Approx. 3 times

Environmental and social initiatives to ensure sustainability

Environmental initiatives

As mentioned in the beginning, CO₂ emission intensity of steel production is guite small compared to those of other materials. However, as the production volume is so immense, the steel industry has the second largest CO₂ emissions after the electricity industry. Although Japan's steel companies produce steel products with the lowest environmental impact in the world, it is impossible to produce steel without any CO₂ emissions. In order to continue our business into

the future, there is a need to reduce CO2 emissions as much as possible through the development of environmentally-friendly sound production processes and products.

JFE steel is implementing three initiatives to reduce greenhouse gasses. The first is reduction of greenhouse gas emissions during the production process (Eco-Processes), which include the development of environmentally harmonized processing of raw materials. The second is supplying high quality and functional products such as high-tensile

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steel that reduces the weight of automobiles (Eco-Products). The third is spreading JFE Steel's environmental technologies world-wide (Eco-Solutions). JFE Steel contibutes to the circular economy through other initiatives including reuse of almost all water used in steel processing and improvement of marine environments with products from steel slag. Through these efforts, we strive for a recycling-oriented society.

Social initiatives

We believe that it is our mission to contribute to social initiatives through products and services with superior performance and quality. Securing and training human resources is very important. Currently, we are in the process of a large shift to a younger generation of employees. We need to focus on their development over the next three years to prepare for the future. As it is difficult to transfer vast amounts of knowledge in a short period of time, we will steadily enhance employee skills through training and education. We will also apply cutting-edge IT technologies to enhance productivity and reduce workloads with work style reforms, all in an effort to create an environment in which employees will be able to fully focus on the creative aspects of their work.

We also believe that prosperous coexistence with local communities is very important. As we have many large-scale manufacturing bases, good communication with local governments and

citizens is essential for stable operations. Our goal is to continue to grow with local communities while contributing to efforts to revitalize regional economies and by providing stable employment.

Efforts towards attaining Sustainable Development Goals

The Sustainable Development Goals (SDGs), 17 goals to be shared by the world toward sustainable growth, were adopted at the September 2015 United Nations Summit.

Environmental and social issues pose risks, but they also offer opportunities. Responding to the electrification of automobiles and supporting the spread of waste-to-energy plants are potential ways for us to grow our business by providing solutions that reduce environmental impact. We want to help resolve climate change and other global environmental issues as well as social issues through these activities.

In addition, in the current medium-term, we have established key performance indicators (KPI) for these major environmental and social issues. Each operating company will strengthen their specific activities towards their target KPI to steadily advance towards sustainability. This will be our response toward global social demand and our initiatives towards attaining SDGs.

For details on our efforts on major issues, KPI and their relation to SDGs, please refer to the ESG initiatives section (from page 57).

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

The Three Ecos		Eco-Processes	Eco-Products	Eco-Solutions	
Goals		Improvement of energy efficiency by taking full advantage of cutting-edge technologies Reduction of CO ₂ emissions at the final-product stage by providing high-performance steel materials		Reduction of CO ₂ worldwide, particularly in developing countries through the transfer and application of world-leading, energy-saving technologies	
Plans	FY2020 (Phase I)	Reduction of 5 million t-CO ₂ on BAU* emissions benchmark • Energy conservation, etc.: 3 million t-CO ₂ reduction • Reuse of waste plastics, etc.: 2 million t-CO ₂ reduction	To cut approx. 34 million t-CO ₂ through the use of major high-performance sheet materials	Forecast to reduce approx. 70 million t-CO ₂	
	FY2030 (Phase II)	Reduction of 9 million t-CO ₂ on BAU emissions benchmark	To cut approx. 42 million t-CO ₂ through the use of major high-performance sheet materials	Forecast to reduce approx. 80 million t-CO ₂	
Progress as of the end of FY2016		Reduction of 2.46 million t-CO ₂ on BAU emissions benchmark (by Energy conservation, etc.)	Domestic and export businesses cut 28.47 million t-CO ₂	Effectively cut 60.01 million t-CO ₂	

^{*}Business As Usual emissions: Estimated level of emissions in the absence of any special measures Source: Based on information published by the Japan Iron and Steel Federation

Effective corporate governance to improve corporate value in the medium- to long-term

We have conducted various initiatives to enhance corporate governance to date, including establishing the Basic Policy on Corporate Governance and the Nomination and Remuneration Committees, evaluating the effectiveness of the Board of Directors and reviewing the structure of the Board along with the Audit & Supervisory Board based on its results, and introducing a medium- to long-term performance-linked stock remuneration plan for directors.

The structure of the Board of Directors and Audit & Supervisory
Board was reviewed focusing on reinforcing it with members from
diverse backgrounds. Officers with expertise and knowledge in various
fields have been elected following deliberations by the Nomination

Committee. In order to appoint more female and foreign officers, we took a systematic approach in developing candidates. An example of our goals is to triple the appointment of female managers group-wide by 2020 compared to in 2014. We have already reached a point where this target is feasible. In April 2018, the first female corporate officer was appointed at JFE Engineering. We will continue our efforts to enhance executive candidates to promote future appointments.

I feel that corporate governance necessary to attain the goals in the Medium-term Business Plan has been developed at this stage, but we will conduct reviews as needed, based on the results of the effectiveness evaluation conducted each year.

Towards a further leap forward — to all stakeholders

In closing, I would like to share my philosophy on business management.

Although the business environment that surrounds the company is currently fairly stable, in the medium- to long-term, demand is expected to decrease, especially in Japan with its contracting population. There are concerns over various large shifts expected after 2020. Intensifying global competition, evolving social needs and regulations, and developments in protective trade, all point to the risk of dramatic changes to the business environment.

Regardless, I personally intend to further boost the growth of the company overseas as well to create a larger, stronger corporation – not only in terms of production volume and net sales, but from a profit viewpoint and based on our social and environmental contribution. We will continue to take these steps because we believe our stakeholders share our belief they are necessary and worth pursuing.

Investment to renew our production bases in Japan and establish them overseas, and to actively develop cutting-edge technology are essential to make our goals a reality. It is also important to create a competitive and sustainable business model, that can provide a stable supply of products and services that meet the needs and address the characteristics of each region, as soon as possible. Our financial foundation has improved to a certain degree, and we have secured enough reserves to implement flexible investment for growth.

Although we may appear conservative, we have consistently developed and refined our technologies and human resources with a strong commitment towards establishing the JFE Group as a star that will continue to shine decades into the future. JFE Steel, JFE Engineering and JFE Shoji Trade are united as a group to thoroughly

implement the Sixth Medium-term Business Plan, so we can take aggressive moves for future growth in the next three years of the Plan, while domestic demand remains comparatively stable.

I ask for the stakeholders' continued understanding and support for these policies that aim to develop the corporation in the medium- to long-term.



Message from the CFO

Strengthening cash flow to develop new manufacturing facilities, make strategic investments and enhance our good financial standing

Shinichi Okada

Representative Director, Executive Vice President and CFO

Q.1 What are your basic financial strategies?

The JFE Group is reinforcing its good financial standing by prioritizing cash flow. We require vast amounts of stable funding over the long-term for the large-scale capital needed to maintain the integrated steelworks of our mainstay steel business and to invest in growth. We also need to maintain a robust financial standing to manage our investments and risks associated with business opportunities spanning the globe. Furthermore, steel business proceeds tend to fluctuate quite dramatically, so precisely controlling our financial

condition helps us to establish stable equity for our debt levels and cash flow.

We have set a target ROE of 10%, which matches our estimated shareholders' equity cost, as we continue to strive for improved corporate value. I believe that by implementing the various measures of our Sixth Medium-term Business Plan we will be able to achieve this figure in the final year of the plan.

Major indicators

	FY2013	FY2014	FY2015	FY2016	FY2017
ROE (%)	6.3	7.7	1.8	3.7	7.6
Ordinary income (billion yen)	173.6	231.0	64.2	84.7	216.3
Capital investment (billion yen; construction basis)	175.7	225.9	212.5	234.7	257.2
Debt/EBITDA ratio (multiples)	4.2	3.6	5.4	4.9	3.4
D/E ratio (%)	67.9	59.0	56.9	51.4	58.2
Net income per share (yen)	177	242	58	118	251
Payout ratio (%)	22.5	24.8	51.4	25.5	31.9

Q.2 How did the Fifth Medium-term Business Plan go, and what are your priorities in the Sixth Medium-term Business Plan?

We set a target ROE increase of 10% from our previous plan.

However, due to the sluggish business environment and other factors, we were not able to achieve this target. On the other hand, we held our D/E ratio to a low 0.5x, which supported our financial strength to a certain extent. We actively developed steel manufacturing facilities in Japan, which led to funding requirements for capital investment exceeding our initial plan by over 100 billion yen, but sales of assets totaling around 240 billion yen, mainly comprising shares, enabled us to strike a balance between enhancing our competitive strength and our financial standing.

We will maintain a sound financial standing under our Sixth Medium-term Business Plan to ensure that we have financial reserves for strategic investment including M&A. Generating cash flow is a key focus of our plan, and we have adopted the debt/EBITDA ratio as a new indicator to show how many years' of operating cash flow our debt amounts to. If we achieve our earnings target under the plan — 280 billion yen/average basis for consolidated ordinary income — our target debt/EBITDA ratio of around 3x would be achievable and would make it possible for JFE to receive an A rating by international credit agencies.

What is your cash flow outlook over the next three years and what is your policy on return to shareholders?

We forecast operating cash flow of approximately 1.2 trillion

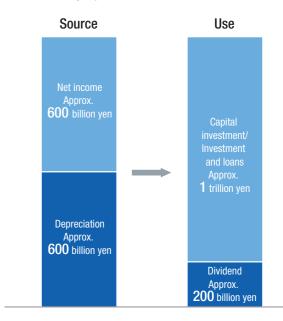
yen for the three-year period. Our policy will be to make investments aimed at increasing corporate value and paying returns to shareholders within the range of this inflow.

Investments will focus on enhancing the resilience of our steel manufacturing capabilities. We built up our base in the previous medium term and will continue to do so, as well as strive to cut costs on a scale of 100 billion yen and expand both capacity and new product development. These add up to a planned capital investment in Japan of 850 billion yen, up 10% from the previous plan. Including group-wide project investment overseas of 100 billion yen, the Sixth Medium-term Business Plan calls for investment on the scale of one trillion yen to support our sustainable growth.

Returns to shareholders will take the form of dividends, which we position as one of our top priorities. Our policy will be to increase the payout ratio to around 30%. We do not plan to buy back shares because we will need stable capital for aggressive capital investment in the foreseeable future.

During the current plan, we foresee working capital increasing as a result of enhanced net sales, which in turn will expand borrowings. Our operating companies will use the cash conversion cycle (CCC)* and other measures to cope with this and improve capital efficiency.

Cash flow for three-year period



We believe that capital investment is crucial for enhancing future profitability, even if risks arise in the business environment. Initiatives such as asset reduction through the disposal of shareholdings and shifting the timing of capital investment will help to generate cash flow.

*The number of days from investment such as for purchasing materials or products to the final point of cash inflow, which serves as an indicator of fund efficiency

Financial and Non-financial Highlights

Financial Items					
_	2007	2008	2009	2010	
Management Performance	2001	2000	2000	2010	2011 2012 2010 2011 2010 2010
Net sales	3,539	3,908	2,844	3,195	3,166 3,189 3,666 3,850 3,431 3,308 3,678
Operating income	510	407	88	182	44 39 153 222 90 96 246
Ordinary income	502	400	69	165	52 52 173 231 64 84 216
Income before income taxes	447	331	70	115	(71) 75 160 226 74 105 213
EBITDA*1	741	670	337	428	306 260 368 421 254 279 388
Net income attributable to shareholders of the parent	261	194	45	58	(36) 39 102 139 33 67 144
·	223	289	225	180	197 179 175 225 212 234 257
Capital investment (construction basis)					
Depreciation	220	247	248	246	238 194 181 176 177 182 159
Research and development expenses	39	41	36	33	34 33 31 32 35 35 34
Financial Position					
Total assets	4,170	4,328	3,918	3,976	4,007 4,107 4,241 4,639 4,234 4,336 4,460
Property, plant and equipment	1,843	1,843	1,800	1,712	1,644 1,606 1,599 1,629 1,627 1,650 1,702
Equity capital	1,496	1,335	1,422	1,437	1,414 1,558 1,702 1,938 1,804 1,865 1,946
Net assets	1,541	1,378	1,465	1,478	1,456 1,596 1,745 1,990 1,857 1,921 2,006
Interest-bearing liabilities (Loans payable, bonds payable, etc.)	1,281	1,768	1,468	1,496	1,593 1,596 1,534 1,501 1,379 1,375 1,330
Cash Flows					
Cash flows from operating activities	438	243	389	302	110 287 254 297 267 185 298
Cash flows from investing activities	(297)	(350)	(236)	(302)	(205) (163) (164) (216) (137) (163) (194)
Free cash flows*2	141	(106)	152	0	(95) 123 90 81 129 21 103
Cash flows from financing activities	(125)	260	(321)	23	96 (147) (105) (78) (144) (18) (90)
Per Share Information	(1-5)		(==:)		to the teachers that the teachers the teacher the teachers the teachers the teacher the teachers the teachers the teacher the
Net income	451	356	86	111	(69) 71 177 242 58 118 251
Net assets	2,619	2,526	2,690	2,709	2,628 2,701 2,951 3,362 3,128 3,236 3,376
Cash dividends	120	90	20	35	20 20 40 60 30 30 80
Dividend payout ratio (%)	26.6	25.3	23.2	31.6	— 28.1 22.5 24.8 51.4 25.5 31.9
Financial Indicators	20.0	20.0	20.2	01.0	20.1 22.0 25.0 01.7 20.0 01.0
Debt/EBITDA ratio (times)*3	1.7	2.6	4.4	3.5	5.2 6.1 4.2 3.6 5.4 4.9 3.4
ROE*4	17.5	13.7	3.3	4.1	(2.6) 2.7 6.3 7.7 1.8 3.7 7.6
ROA*5	13.0	10.0	2.2	4.6	1.7 1.6 4.5 5.5 1.7 2.3 5.2
Equity capital ratio	35.9	30.9	36.3	36.2	
D/E ratio*6	61.4	98.9	75.5	76.5	83.5 76.9 67.9 59.0 56.9 51.4 58.2
Year-end share price (yen)	4,420	2,145	3,765	2,434	1,778 1,767 1,943 2,654 1,516 1,909 2,144
Information by Reportable Segment					
Net sales					
Steel business	3,203	3,423	2,281	2,747	2,714 2,499 2,691 2,873 2,445 2,349 2,715
Engineering business	314	338	294	265	278 267 284 367 397 426 391
Trading business					785 1,781 1,934 1,756 1,671 1,907
Ordinary income					
Steel business	508	412	32	134	25 15 126 188 27 40 198
Engineering business	(11)	9	13	12	14 16 18 18 20 26 19
Trading business					7 21 24 15 21 33
Other					
Crude steel output (JFE Steel Corporation, non-consolidated) (thousand t)	30,520	26,550	25,830	28,800	26,900 27,970 28,670 28,440 27,360 28,140 28,460
Crude steel output (JFE Steel Corporation, consolidated) (thousand t)	34,270	29,280	28,350	31,470	29,240 30,690 31,580 31,040 29,750 30,410 30,060
Shipment of steel products (JFE Steel Corporation, non-consolidated) (thousand t)	28,020	25,060	23,180	26,250	24,670 25,230 25,520 26,070 25,390 25,700 25,300
Average price of steel products (JFE Steel Corporation, non-consolidated) (thousand yer/t)	79.2	100.8	70.2	77.9	82 70.6 75.7 77.1 66.8 62.8 75.3
Export ratio of steel products (JFE Steel Corporation, non-consolidated; in value terms) (%)	43.9	41.6	45.6	46.5	45 49.9 48.4 48.1 45.8 44 44.4
Number of employees (JFE Holdings, Inc., consolidated) (persons)	56,688	56,547	53,892	54,400	54,133 57,044 57,210 58,856 59,460 60,439 61,234
	50,000	JU,J41	JU,UJL	J 4 , 1 UU	
*1 EBITDA: Ordinary income + depreciation + interest expenses					*4 ROE: Net income attributable to shareholders of the parent / equity capital

^{*1} EBITDA: Ordinary income + depreciation + interest expenses

CO₂ emissions from energy sources (million t-CO₂) /

CO₂ emission intensity (t-CO₂/t-s) of JFE Steel

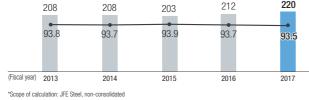
Reception volume of industrial water (million t) / circulation ratio (%)

■■ Reception volume (non-consolidated) • Circulation ratio (non-consolidated)

■ Scope 1 ■ Scope 2 • CO₂ emission intensity from energy sources 1.99 2.01 1.99

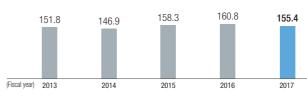






Investments in environmental equipment and expenses on promotion of environmental activities (billion yen)

*5 ROA: (Ordinary income + interest expenses) / total assets



*6 D/E ratio: Loans payable, bonds payable, etc./equity capital However, liabilities that have been approved by rating institutions as having equity credit attributes are included in capital based on the rating.

 $\hbox{``Scope of calculation: JFE Steel. However, figures for research and development include those for JFE Engineering.}$

Number of female managers (persons) / ratio of female managers (%)



^{*2} Free cash flows: Cash flows from operating activities + cash flows from investing activities

^{*3} Debt/EBITDA ratio: Loans payable, bonds payable, etc. / EBITDA



Governance that shapes the future of the JFE Group

Independent executives' perspective on the effectiveness of the Board of Directors and the Medium-term Business Plan

The three-year Sixth Medium-term Business Plan started from fiscal year 2018. The current plan incorporates more suggestions from outside executives than ever before, and active discussions were held at the Board of Directors meetings. We interviewed the four outside executives, who each played a major part in establishing the Sixth Medium-term Business Plan, to review the formulation process of the Plan as well as to hear their views on the company's corporate governance.

To begin with, what is your impression of the company's Board of Directors?

Yamamoto One year has passed since I became Director in 2017. I feel that the meetings have been extremely productive, with active discussions and management taking new directions. Both the Directors and the Audit & Supervisory Board Members are equally entitled to their frank opinion, answers to questions are on the mark and discussions are lively. In a word, it is a well-balanced Board. I think it has a positive influence on the overall company atmosphere and its governance.

Saiki I had the experience of filling in as JFE's Audit & Supervisory Board Member as a substitute four years ago, for two months. Discussions have become much more active, and the degree of freedom in the meetings is very high compared to the situation at other companies. Discussions at the briefings for outside executives are also extremely lively, and any input is immediately reflected on the Board agenda briefing. This is a display of how everyone, from the Board members to the secretariat staff, proactively assists the active discussions and strives to respond to them.

Yoshida It has been three years since I was appointed in 2015. Compared to the company's scale of sales, the Board of Directors was a very compact organization at that time. I remember offering advice at the effectiveness evaluation in 2017, suggesting that the discussions should be enhanced from the diverse viewpoints of engineers and operating companies. This idea was put into



action immediately, and Mr. Masami Yamamoto, who is an executive with an engineering background, joined us as an independent Director, in addition to another from an operating company other than JFE Steel. An independent Audit & Supervisory Board Member was also added: Mr. Isao Saiki, a lawyer. A glance at the people who make up the Board shows that the company responds flexibly and swiftly to change and that it evolves positively without being constrained by the past.

Ohyagi As Mr. Yoshida mentioned, there is a sense of speedy evolution in the company, and I believe it has the power to successfully realize policies for improvement. The committees such as the nomination and remuneration committees usually comprise Directors and top management in charge of execution.



Masao Yoshida Senior Advisor Furukawa Electric Co., Ltd.

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 Chairman and Representative Director of Furukawa Electric. He is also an independent Director for FURUKAWA CO., LTD., and External Director of Tokyo Century Corporation. He was appointed a Director of the company in June 2015.



Masami Yamamoto
Chairman and Director
Fuiitsu Limited

Mr. Yamamoto joined Fujitsu Limited in 1976. He was appointed to his current post in June 2017, after serving as President and Representative Director and Chairman and Representative Director of Fujitsu. He was appointed Director of the company in June 2017.



Shigeo Ohyagi Senior Advisor Teijin Limited

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 independent Director of KDDI Corporation and MUFG Bank, Ltd. He was appointed Audit & Supervisory Board Member of the company in June 2014.



Isao Saiki Partner Lawyer Abe, Ikubo & Katayama Law Firm

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

However, I am an independent Audit & Supervisory Board Member, and the company chose to embrace diversity and had me take part in the discussion of its committees. I dare say this company has evolved to be the most advanced company with an Audit & Supervisory Board system in Japan during the four years I have been serving as an independent member. Fairness and transparency is ensured in the remuneration system as well as the operation of the Nomination Committee. As far as outside executives are concerned, the company has established an environment in which each individual is free to express a range of opinions.



Has your understanding of the business changed and has the effectiveness of the Board of Directors improved?

Yamamoto As the company is a manufacturer, fully understanding the manufacturing sites is essential for Board of Directors discussions. My request to learn more was met and I was given the opportunity to visit many business sites last year, such as at Tsurumi, Chiba, Fukuyama, Kurashiki, Chita and Tsu, Thanks to these visits, I was able to smoothly participate in discussions despite being a newly appointed member. I keenly felt the consideration and attitude the corporation has towards allowing each Director to visit sites to enable them to discover firsthand how business is conducted and what issues are present. Visiting the sites was an eye-opener for me, and I strongly felt that these manufacturing sites are, in a sense, the lifeline of the entire company.

Saiki I visited a local subsidiary in Myanmar at the beginning of this year. I was able to visit many worksites, including one where a wharf was being constructed. I was impressed by the many hard-working younger staff, especially at the manufacturing sites, and the powerful energy there. Directly experiencing situations like these and deepening my understanding will have a positive effect on my job as an Audit & Supervisory Board Member.

Ohyagi Various improvements have been made based on the results of the effectiveness evaluation of the Board of Directors during the four years I have been here. Operation methods and organizational designs have also evolved. However, the company's culture of valuing the manufacturing sites has not changed. As the company is extremely large in scale and places huge value on the manufacturing sites, the Board of Director meetings are held on-site at least once every year. We also conduct questionnaires, asking how on-site employees feel about the management. I believe that the company's attitude, which values the on-site employees' viewpoint on changes within the company and how it is understood on-site, is deeply rooted in the corporate culture. Management discussions are based on this information, to change company structures. In this way, I believe that this company is established on a system of trust, in which employees and management both fully understand each other.

Yoshida There are pre-meeting briefings and documents are supplied before a Board of Directors meeting. The support and work put into this preparation are also excellent compared to in other companies. If you were to point out something beforehand. not only would verbal statements be corrected but the documents would be thoroughly corrected as well, eliminating the necessity to ask the same question over again. This practice allows more time for discussions on substantial issues on the day and is an example of the company's effort toward holding meaningful discussions at the Board of Directors meetings. There used to be cases of insufficient explanations on the agenda such as its background, circumstances and assessments. However, there have been great improvements after deficiencies were pointed out at the effectiveness evaluation, and it worked well at the discussions for the current Medium-term Business Plan. It is wonderful how our opinions and requests are heard by the management and applied for practical use.

Do you have any comments on the discussions and evaluations when formulating the Medium-term **Business Plan at the Board of Directors meeting?**

Yamamoto As Mr. Yoshida mentioned a moment before, I believe that the holding company functions worked extremely well when establishing the Sixth Medium-term Business Plan, and the company did its job. Usually, in discussions at a holding company, meetings do not proceed beyond deliberating issues within the plans created by the operating company. However, in this company, while being receptive to business plans from each operating company, the holding company maintains a stance of taking the lead to conduct thorough discussions in the Board of Directors meetings. This allows the Board to really take a close look at management strategies and policies.



Saiki I felt that it would have been better if it there was a discussion on how the holding company should instruct the operating companies beforehand when establishing the Mediumterm Business Plan. The holding company should provide instructions from a wider perspective through a groupmanagement viewpoint, in contrast to the more practical and conservative plans and figures from the operating companies. I thought that issues on the holding company's role in the creation of medium-term business plans should be topics of expansive discussions in future meetings.

Ohyagi The Board of Directors did not have much say during the creation of the previous Fifth Medium-term Business Plan. Learning from this experience, the Board of Directors held

discussions from the planning stages for the current Business Plan.

The company has established upstream production capabilities and has been successfully creating low-cost, highquality products that cannot be matched by overseas competitors. This allows for a shared awareness that we can attain the number one position through our high business efficiency and innovative technologies. However, I stated my opinion that, even if so, there should be more focus on how we should respond to social needs and how we should cultivate social needs to create a plan that makes more sense to the employees. My opinion was successfully reflected in the Plan.

Furthermore, because the steel industry is easily affected by changes in energy and raw material prices, which leads to great fluctuations in business results, the current earnings target incorporates this characteristic and presents a target figure that can be clearly committed to as a "level to be attained stably in three years (average basis)." I believe this is a result of the thorough discussions at the meetings.

Yoshida As he was saying, there was an understanding that there was not enough prior discussion at the Board of Directors meetings on the previous Medium-term Business Plan, and this situation needed improvement. For the current Medium-term Business Plan, we challenged ourselves to transform the steps from the deliberation process. There is one point that I feel is necessary for a better process, which is that there should be an initial rough design prior to the planning stage with outside executive participation that expresses what management issues exist and how they should be resolved to make the company come nearer to its ideal state. This change would help show the overall direction to other employees before tackling the detailed policies of a medium-term business plan. Furthermore, because the scale of the steel business and investment are very large, understanding the reasoning behind investment or regional strategies according to domestic and overseas bases is not an easy task. For this reason, I felt that for the steel business, it would be better if we had more detailed discussions.

One more point I would like to state is that, in the Board of Directors of this company, the role outside Audit & Supervisory Board Members are expected to play is practically the same as those of outside Directors. This means that it is almost like having six outside Directors, which leads to extremely lively and deep discussions from various viewpoints, while at the same time embodying the strengths of the Audit & Supervisory Board system. I believe this characteristic has a positive effect on the company's governance.

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Ohyagi When I first took this post, I stated that, "Independent Audit & Supervisory Board Members should comment from a risk point-of-view." However, the other Audit & Supervisory Board Members told me that this viewpoint was fundamentally wrong. They said that independent Audit & Supervisory Board Members are looked upon as independent auditors, and that the company wanted us to actively state opinions and thoroughly contribute to management, and I could freely say what I felt. With this encouragement, I threw myself into meetings while listening to the opinions of many people, which enabled me to participate in the lively discussions as well.

The company has set up-front investment toward enhancing technological developments as the foundation of the current Medium-term Business Plan. The success of the current Plan will depend on how accurately this is implemented, because on-track execution will dramatically boost our capabilities in new creations and cost competitiveness at the next step.

Based on your knowledge and experience, what points do you pay attention to when offering advice and supervision?

Yoshida The Board of Directors held discussions on applying overseas knowledge as well, without focusing only on R&D systems developed by Japanese nationals. In my experience, this idea is extremely helpful for factors such as product conceptmaking, as we will be able to anticipate proposals that transcend ideas from Japanese minds. The company is continuing to expand its overseas business, so there must be a shift to foreign users as well. In this sense, I believe that research systems should put more weight overseas and cooperate with local marketing and user development overseas.

Yamamoto Another initiative we need to embark as an essential requirement for the next step forward is to effectively apply advanced technologies such as AI, IoT and big data to our manufacturing operations. From my point-of-view, as a former member of an ICT corporation, I believe this company's R&D department is advanced in this sense and has been keeping up with market trends. However, this area is one that evolves quickly, and I advised the company not to take matters only in their own hands, but to collaborate and make the most of external knowledge. There is a need for efficient and speedy action, or the world will go ahead without us.

Ohyagi I agree. From now on, digitalization and product simulation in advance will become possible, in addition to conventional manufacturing. We need to properly address these technologies, as they will be the source of cost competitiveness, quality, new products, and more.

The strategy on how a manufacturing company expands its business varies depending on the industry. I have a background in the fiber and resin businesses, and in that industry, manufacturers expand the supply chain toward end users. In the steel industry, manufacturers thoroughly enhance upstream manufacturing capabilities to create products unequaled by international competitors at low costs. Deliberating on overall corporate models such as these is something we all can discuss with great interest. In this context, what is most important for the Board of Directors is to provide diverse suggestions such as "How about using this method instead?"

Saiki In addition to legal risk management, which is my specialty as a lawyer, I want to view risks by asking myself whether there is anything odd from the viewpoint of general investors and consumers. Some factors that are naturally accepted by company staff may seem unnatural to the general public. I want to continue stating my opinions and hold discussions with these factors in mind.

What are your thoughts on the ESG initiatives?

Yamamoto I believe ESG has two benefits for the company. One is that it is a defensive measure to manage risks in serious issues such as reducing CO₂ emissions. Another is that it is an aggressive measure to view the solving of social issues including energy issues as business opportunities for the company. JFE Engineering especially has been tackling various challenges in the environment and energy sectors.

Ohyagi The steel business inevitably involves a large amount of CO₂ emission in the manufacturing process. Reducing CO₂ emissions is also a countrywide task for Japan, resulting in R&D investment toward improving processes, raw material application technologies, and large-scale capital investment in various areas. I was surprised to see that not only was the company conducting capital investment for improved productivity, it was also continuously conducting new capital investment focused on

sustainability in the environmental area. I believe that these types of initiatives should actively be pursued in the future as well.

Yoshida I hope that the world-class results of efforts toward reducing environmental impact, established across the company's long history of development, will spread out to the world in a sense as public goods or common property, within the reach of everyone. Doing so will establish the company as one that excels in the E (environmental) aspects of ESG. The recycling, environmental and energy-related businesses of JFE Engineering also have the potential to grow and play a positive part in society.

Yamamoto I give this company a high rating when seen from a governance viewpoint. This company was strongly motivated to be one of the first to introduce a remuneration plan for Directors linked to medium- to long-term performance.

Saiki Linking performance to remuneration involves many complicated parameters. We have yet to see if the system works properly. There is a need to closely watch and see if this system actually does work as an incentive for executives.

Ohyagi This system attempts to redesign the conventional fixed remuneration structure from its foundation and divides it into three stages, devoting the portion linked to medium- to long-term performance as stock remuneration. I feel that this new remuneration system is not only about motivating executives, but also how to stimulate the motivation of the entire company.

In closing, what are the challenges towards enhanced corporate value and sustainable growth?

Yamamoto Although we have established the Sixth Mediumterm Business Plan and drawn up future prospects with detailed targets, the global environment has seen vast transformation after the change in the U.S. administration, and we cannot expect smooth sailing ahead. Under these circumstances, we Directors must make keen observations on what kind of corrections are to be made to realize the Medium-term Business Plan, I would also like to offer the advice of speeding things up, if actions start to become sluggish.



Saiki Diversity is also a major ongoing issue. Currently, discussions are underway within the Board of Directors and the company on how diversity should be accelerated. As Mr. Yamamoto stated, I also want to keep close track on the ability to respond immediately when corrections are required for the Medium-term Business Plan, as there were drastic changes in the external environment even in the 12 months so far.

Ohyagi I still think there is an advantage in R&D initiated in Japan as a key to winning out over the intense global competition of the steel industry. It will be increasingly important to cover trends not only in the physical domain but also in the digital domain, always making sure to stay one step ahead. To that end, while ensuring firm governance, the company should move ahead with delegating decision-making authority so that everyone on-site can take the initiative.

Yoshida A corporation needs profit to stay in business, but merely generating profits will not make it a respected company. I believe that the ideal state of a company is one in which it contributes to the world through its business. In this sense, the company supports society through supplying the material steel and its efforts in the engineering field also greatly benefits the public. This company is one everyone should be proud of, as it certainly contributes to society through its business activities. I hope that it will proceed with an enthusiasm that will change steelmaking as we know it, and that it will aim high as if to leave a mark on history with its environmental responses and change the steel industry itself. This is my wish for the company's future.

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