

# FY 2017 / JGP2020

Business Results for the Fiscal Year Ended March 31, 2018  
Medium-Term Management Plan “JGP2020”

May 18, 2018

The Japan Steel Works, LTD.

Naotaka Miyauchi, Representative Director & President

**JSW**

The performance forecasts and other forward-looking statements included in this report are based on the information that was available to The Japan Steel Works, LTD. (the “Company”) and certain assumptions deemed to be reasonable at the time this report was prepared, and the actual results may differ significantly from these forecasts due to a variety of reasons.

Unless otherwise noted, “previous forecast values” are those released on November 15, 2017.

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### Reference (52~54) :

Trends of Net Sale, Operating Income and Profit/Trends of assets situation and cash flow/ Corporate Code of Behavior of JSW (revised on April 1, 2018)



# Financial Results for the Fiscal Year Ended March 31, 2018 and Review of JGP2017





Order received and net sales were better than expected, and profit increased, reflecting improvement in costs

(Unit : Billions of yen)

	FY2016 (A)	FY2017		Compared to the previous year (C) - (A)	Compared to the previous forecast (C) - (B)
		Previous forecast (B)	Actual results (C)		
Order received	177.5	220.0	236.0	58.5	16.0
Net sales	212.4	210.0	212.9	0.5	2.9
Operating income (ratio)	12.3 5.8%	18.0 8.6%	21.3 10.0%	9.0	3.3
Ordinary income	12.1	18.0	22.1	10.0	4.1
Profit(Loss)	△4.9	11.0	10.7	15.6	△0.3
Profit(Loss) per share(yen)	△67.61※1	149.68	145.77	213.38	△3.91
Dividends per share(yen)	25.0※1	35.0	37.5※2	12.5	2.5

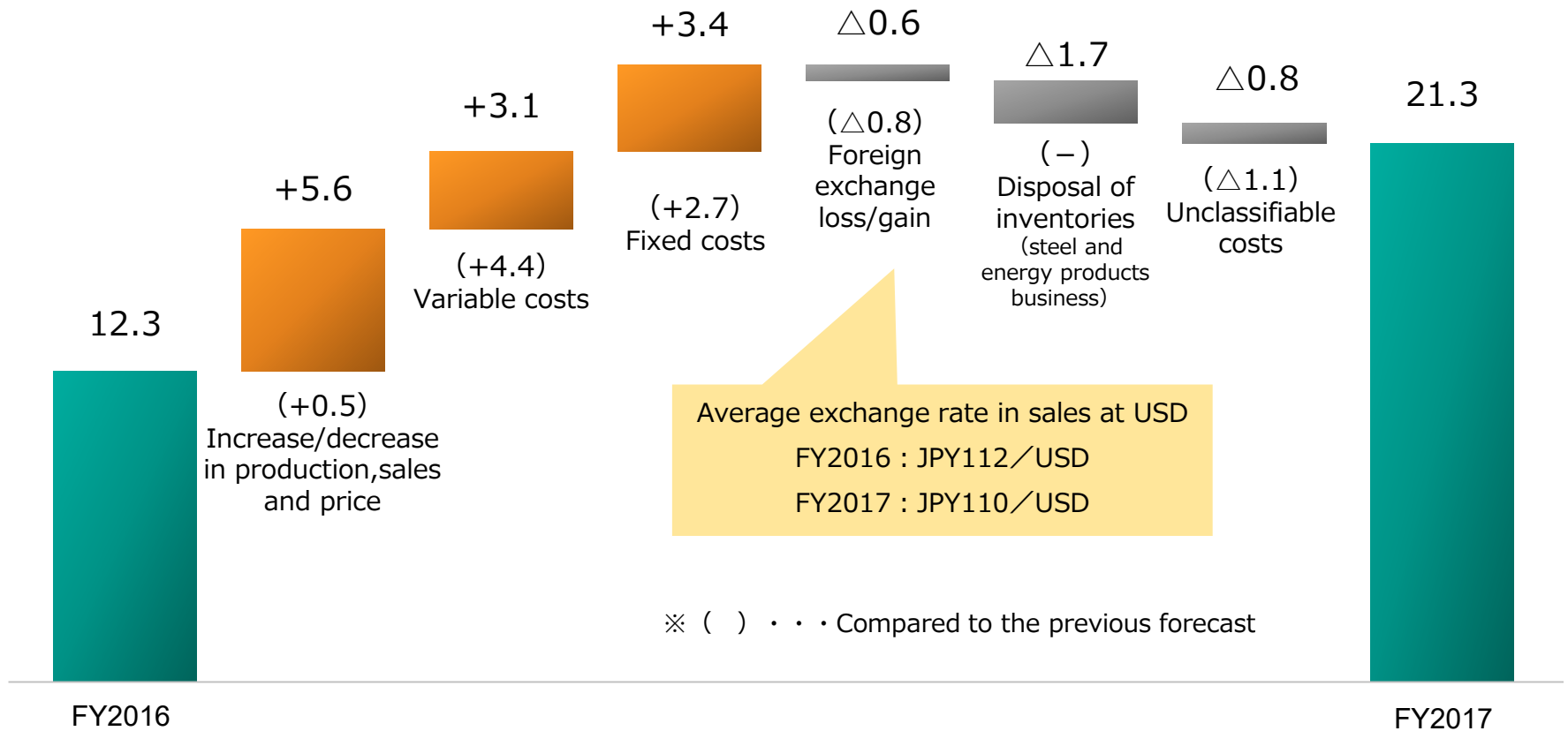
※1 The company conducted a 1-for-5 reverse common stock split effective on October 1, 2016. For the sake of simplicity, the profit (loss) per share and dividends per share in the table above are calculated using the number of shares after the reverse stock split.

※2 The dividend for the fiscal year ended March 31, 2018 consists of an ordinary dividend of 35 yen per share, which is a combination of 17.50 yen per share paid at the end of the second quarter and another 17.50 yen per share paid at the end of the fiscal year, and the 110<sup>th</sup> anniversary commemoration dividend of 2.50 yen per share.

# Increase/Decrease in Operating Income for FY2017

Operating income increased 73% year on year thanks to increased production and sales in Industrial Machinery Product Business and improvement in costs.

(Unit : Billions of yen)



Industrial Machinery Products Business posted gains in sales and income on the back of strong orders received, while Steel and Energy Products Business recorded decreased sales.

(Unit : Billions of yen)

## Steel and Energy Products Business

	FY2016 (A)	FY2017		Compared to the previous year (C) - (A)	Compared to the previous forecast (C) - (B)
		Previous forecast (B)	Actual results (C)		
Orders received	19.5	60.0	47.5	28.0	△12.5
Net sales	51.2	44.0	40.8	△10.4	△3.2
Operating income (ratio)	△2.8 -5.5%	0.3 0.7%	△1.5 -3.7%	1.3	△1.8

## Industrial Machinery Products Business

	FY2016 (A)	FY2017		Compared to the previous year (C) - (A)	Compared to the previous forecast (C) - (B)
		Previous forecast (B)	Actual results (C)		
Orders received	156.2	158.5	186.9	30.7	28.4
Net sales	159.3	164.5	170.2	10.9	5.7
Operating income (ratio)	15.1 9.5%	19.0 11.6%	23.8 13.9%	8.7	4.8

Net sales tumbled despite brisk solid orders received overall, including growth of orders for clad steel pipes.

(Unit : Billions of yen)

## Net sales · Operating income

	FY2016 (A)	FY2017		Compared to the previous year (C) - (A)	Compared to the previous forecast (C) - (B)
		Previous forecast (B)	Actual results (C)		
Electric and nuclear power	19.3	17.5	17.2	△2.1	△0.3
Pressure vessels for oil refineries	1.7	1.0	1.0	△0.7	0
Clad steel plates and pipes	13.5	10.0	7.0	△6.5	△3.0
Wind turbines	3.9	1.0	1.6	△2.3	0.6
Other	5.3	6.0	5.5	0.2	△0.5
Consolidated group companies, etc.	7.5	8.5	8.5	1.0	0
Total	51.2	44.0	40.8	△10.4	△3.2
Operating income(loss)	△2.8	0.3	△1.5	1.3	△1.8

## Orders received

	FY2016 (D)	FY2017		Compared to the previous year (F) - (D)	Compared to the previous forecast (F) - (E)
		Previous forecast (E)	Actual results (F)		
	11.1	15.0	13.0	1.9	△2.0
	0.5	1.0	3.6	3.1	2.6
	8.2	29.0	13.9	5.7	△15.1
	△13.3	1.0	1.5	14.8	0.5
	5.4	6.0	7.0	1.6	1.0
	7.6	8.0	8.5	0.9	0.5
Total	19.5	60.0	47.5	28.0	△12.5

※failed in the contract of planned project in 3Q



Growth was driven by continued strong performances in film and sheet manufacturing equipment and molding machines.

(Unit : Billions of yen)

## Net sales, Operating income

## Orders received

	FY2016 (A)	FY2017		Compared to the previous year (C) - (A)	Compared to the previous forecast (C) - (B)	FY2016 (D)	FY2017		Compared to the previous year (F) - (D)	Compared to the previous forecast (F) - (E)
		Previous forecast (B)	Actual results (C)				Previous forecast (E)	Actual results (F)		
Plastic production and processing machinery	36.1	50.0	50.2	14.1	0.2	44.7	50.0	63.8	19.1	13.8
Molding machines(consol idated)	57.6	61.0	64.5	6.9	3.5	57.5	60.0	72.4	14.9	12.4
Other	46.8	35.5	37.0	△9.8	1.5	34.2	30.0	30.5	△3.7	0.5
Consolidated group companies,etc.	18.8	18.0	18.5	△0.3	0.5	19.8	18.5	20.2	0.4	1.7
Total	159.3	164.5	170.2	10.9	5.7	156.2	158.5	186.9	30.7	28.4
Operating income	15.1	19.0	23.8	8.7	4.8					

Steel and Energy Products Business looks set to return to profitability in FY2018, and Industrial Machinery Products Business achieved targets early and is expected to grow even further.

## Historical results

### Steel and Energy Products Business

Strategy for steady business growth and renewed growth after JGP2017 through "defensive management"

(Billions of yen)	FY2016	FY2017	JGP2017 (FY2017 forecast)
<b>Net Sales</b>	51.2	40.8	60.0
<b>Operating income</b>	△2.8	△1.5	0

Although fixed costs were reduced due to an impairment loss, an operating loss was posted, reflecting a significant decrease in sales of clad steel pipes for natural gas.

Impairment loss treatment was undertaken for the third straight year. Its effect and the movements of staff led to the shrinkage of deficits. Even so, the target was not met due to a sales decline. Improvement efforts will be continued to attain profitability in the next fiscal year.

### Increase profitability of existing businesses

- Achieved higher productivity and lower costs in film and sheet manufacturing systems and injection molding machines through capital investment
- Profitability also improved through expansion of service business
- Although market conditions in Steel and Energy Products Business are challenging, a return to profitability through the reduction of fixed costs is in sight in FY2018.



### Industrial Machinery Products Business

Identify growth opportunities and accelerate business expansion through "offensive management"

(Billions of yen)	FY2016	FY2017	JGP2017 (FY2017 forecast)
<b>Net Sales</b>	159.3	170.2	158.0
<b>Operating income</b>	15.1	23.8	14.0

Both net sales and operating income in FY2016 achieved the targets for the final fiscal year of the medium-term management plan a year ahead of schedule on the back of strong orders.

Performance will be strong, driven by film and sheet manufacturing equipment and molding machines. Net sales and operating income further exceeded the medium-term management plan targets reached in FY2016.

### Foster new products & businesses and make them competitive as soon as possible

- Slow in fostering new businesses generally
- R&D Headquarters was reorganized into New Business Promotion Headquarters on 2<sup>nd</sup> half of FY2017 to promote development. Need to promote and increase fostering of new businesses.

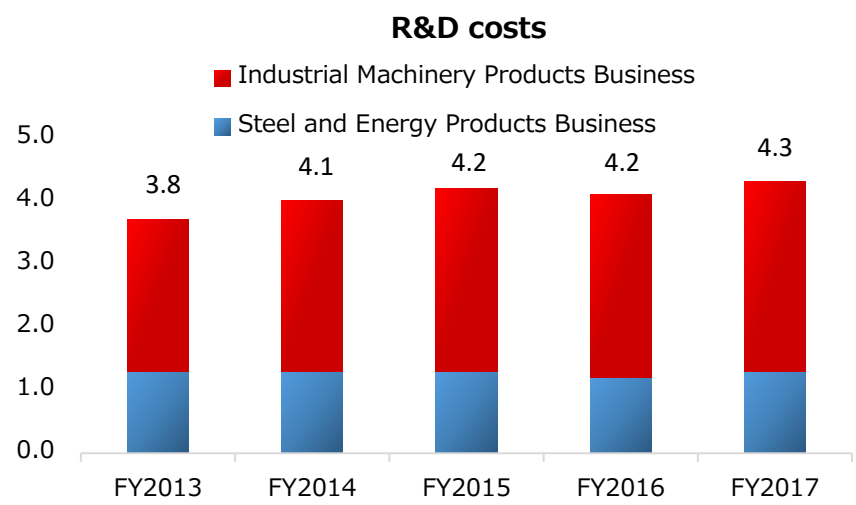
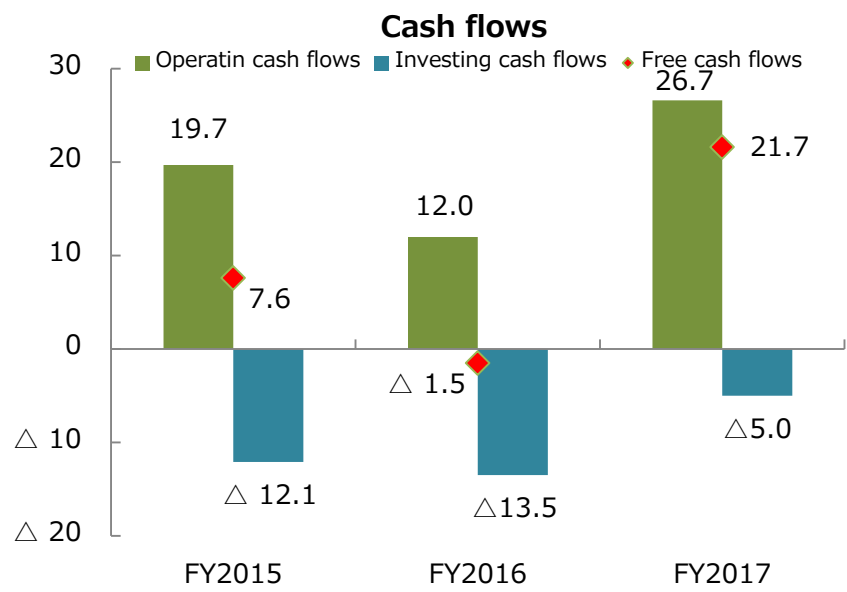
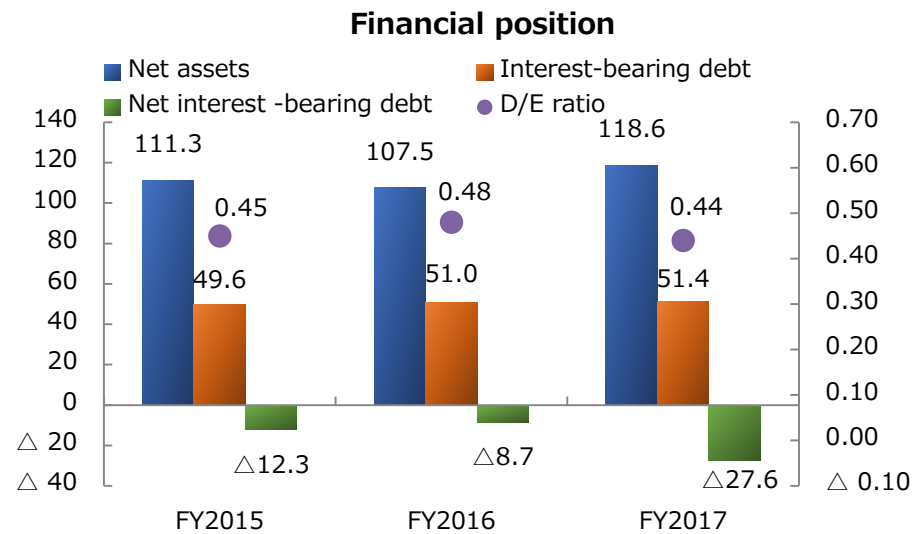
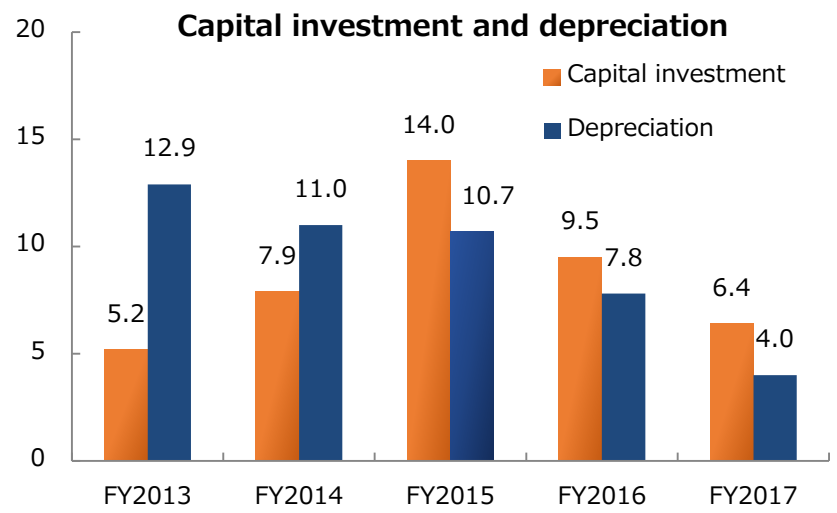


### Reinforce Group management and promote alliances

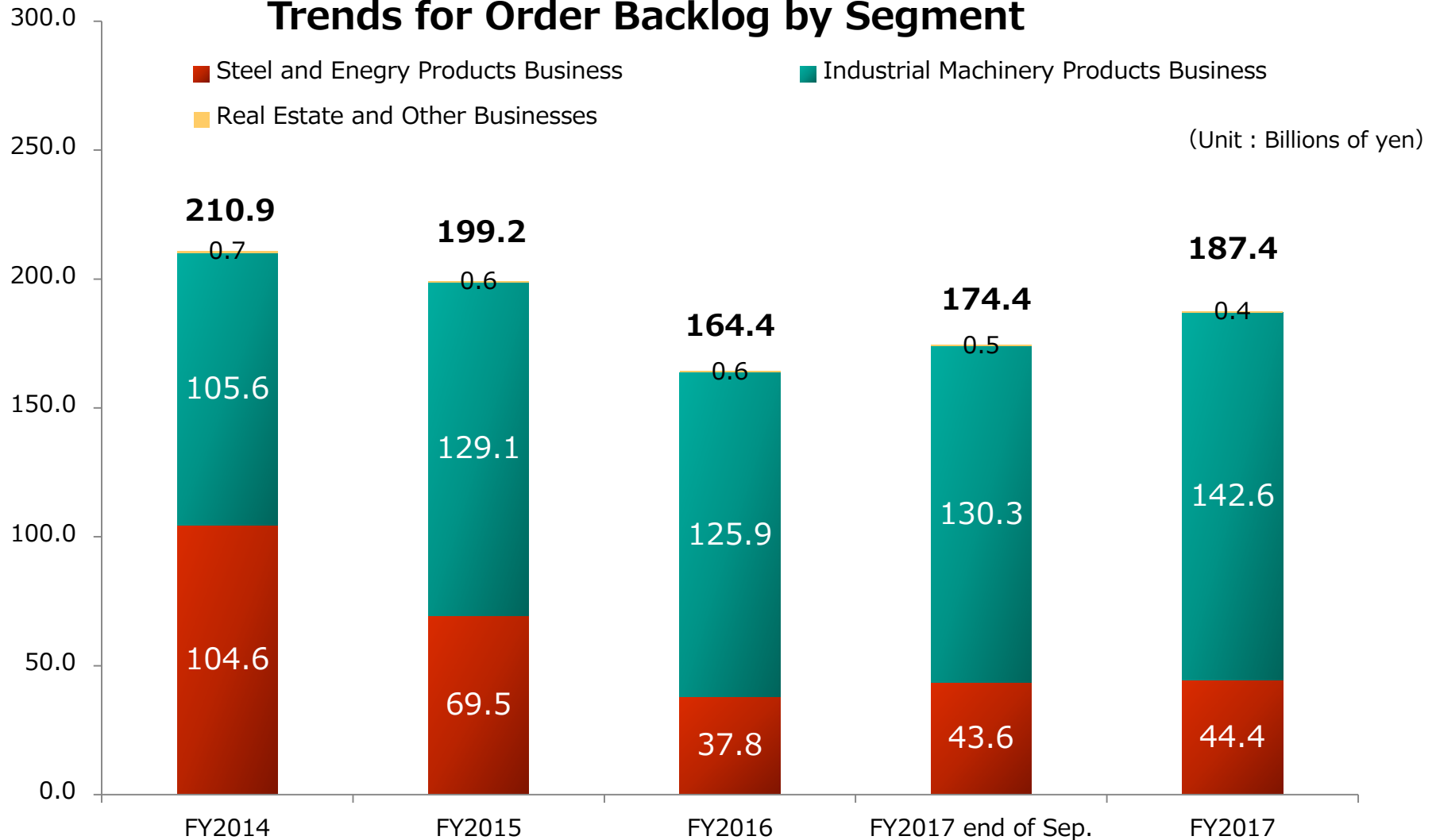
- Made steady progress investing management resources in Hiroshima Plant, improving profitability of affiliated companies, and strengthening corporate governance.
- Although small business acquisitions are underway, far-reaching initiatives to strengthen alliances are lacking.
- Muroran reconstruction project is advancing steadily.



(Unit : Billions of yen)



## Trends for Order Backlog by Segment





# — JGP2020 MEDIUM-TERM MANAGEMENT PLAN — JSW's History

JSW's Past, Present and Future





A nighttime photograph of an industrial cityscape, likely a steel mill, with numerous lights and buildings. In the background, a large suspension bridge is visible against a dark sky with some clouds. The overall scene is illuminated by the city lights, creating a warm, golden glow.

# 市場を創るものづくり

Innovation / Market Creation



JSW started as a pioneering joint venture involving overseas businesses.

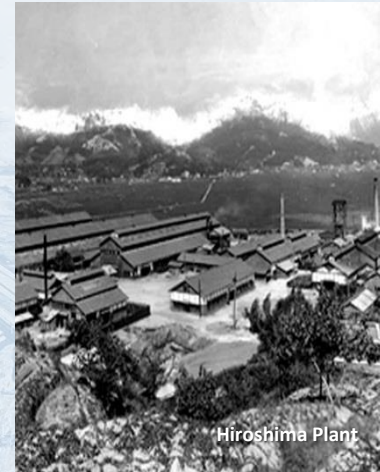
JSW was founded through the joint investment of three companies – Hokkaido Colliery & Steamship Co., Ltd. and two British firms, namely Sir W G Armstrong Whitworth & Co Ltd and Vickers Ltd. Its head office and plant were located in the Hokkaido city of Muroran. Its business was started as a national project aimed at resolving the issue of attaining the domestic production of weapons. Later, it enhanced its technologies and skills in materials and machinery products.

1907

1930

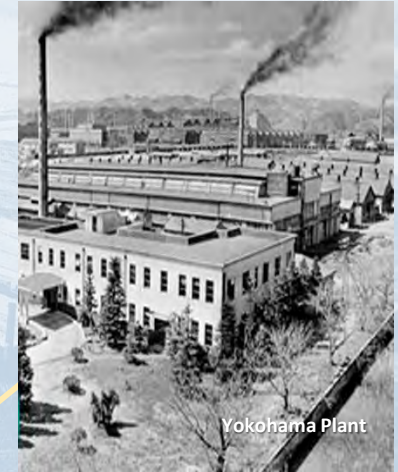


JSW manufactured forged steel and bulletproof steel plates from which the main guns of battleships were produced. It worked hard to establish a method of manufacturing large-sized steel ingots for large diameter gun barrels.



The Hiroshima Plant engaged in machining and assembling gun barrels, while the Yokohama Plant undertook the production of machine guns.

Through integrated production from materials, JSW accumulated technologies and skills for both materials and machinery products.



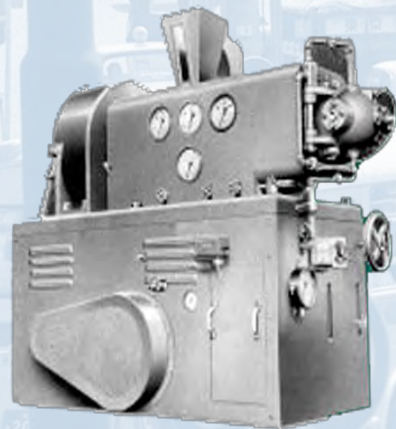


### Using excellent manufacturing steel technologies for general industry

After World War II, JSW began to meet civilian demand with the use of technologies and skills nurtured through weaponry manufacturing. It expanded its business horizons into power generation, the chemical industry, steel manufacture, shipbuilding and other domains to solidify its footing as a civilian manufacturer. In addition, it introduced the latest technologies from overseas in accurate anticipation of needs in the days towards the high growth period and embarked on the manufacture and sales of injection molding machines. With its high level of prescience, JSW established its foundation to stand as today's general plastic machinery manufacturer.

1940

1960



Extruder

JSW manufactured extruders with the use of machining and control technologies it had accumulated since the pre-war period through artillery production. This triggered JSW's expansion of the plastic business.



Injection Molding Machine

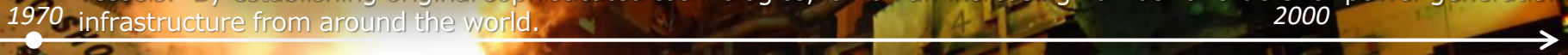
JSW introduced technologies from West Germany to embark on the manufacture of injection molding machines. It subsequently enriched its lineup of blow molders and various other molding machines. With plastic and rubber manufacturing systems, it established its position as a general plastic machinery manufacturer.



## Serving all industrial domains as a general materials and mechatronics company

In the high growth period, JSW was highly regarded in Japan and overseas for its long-accumulated forging and welding technologies.

With growing demand for clad steel pipes and overseas sales of pressure vessels for oil refining, it developed a special forging method to become the world's first company to succeed in forging integrated materials for nuclear reactor pressure vessels. By establishing original sophisticated technologies, it won an increasing number of orders for power generation infrastructure from around the world.



Demand for clad pipes increased for the transportation of natural gas. They became a mainstay product. Based on forging and welding technologies, large pressure vessels for oil refining were highly rated outside Japan.



JSW developed a special forging method for manufacturing large diameter ring materials. It paved the way for integrated forging from large steel ingots. This brought a massive increase in orders for power generation infrastructure to JSW.



## Establishing a brand-new JSW with its growth driven by the Industrial Machinery Products Business

Amid the change in industrial structure following the spread of information and communication technologies, JSW attains considerable sales growth of large-sized pelletizers, twin-screw extruders, film and sheet equipment, injection molding machines and other plastic machinery, and has gained a large market share. JSW will be making a bigger leap toward being a world-leading general plastic machinery manufacturer with its growth driven by these products.

2000

2018



JSW has an extensive lineup of film and sheet equipment that meets a wide range of needs, including the need for sheets for general and industrial use, packaging materials, separators and other materials for industrial use and high functional films for optical applications.

JSW offers electric injection molding machines of various sizes, from small ones to ultra-large ones. Among others, large and ultra-large ones are the driving force of the industry. While primarily meeting the needs of the automotive industry, they are also matched with many different areas including home electric appliances, electronic devices, daily necessities, precision devices and medical equipment.

A company that, alongside its customers, embarks on “first steps” that are ahead of the times

JSW is a company that “creates value” through “monozukuri” (good manufacturing practices). DNA that refuses to compromise on quality plus a high level of technological strength demonstrated even when faced with unprecedentedly difficult requests, attention to detail distinctive of Japanese companies, and a strong customer base built up precisely because JSW has tirelessly continued to meet highly technical requirements - this is why customers choose JSW as their partner when embarking on first steps.

技術力  
Technology

The DNA of a “monozukuri” company is to make products that are durable, unbreakable and good quality

先見力  
Prescient

Accurately reading the current of the times and resolutely taking on unprecedented challenges

イノベーション力  
Innovation

Leveraging technological strength and expertise to establish new technologies and open up new markets



“Mastery” supporting JSW in Becoming “No. 1 Global Company in Monozukuri”



## Hiroshima Plant

As an expert in plastic machinery, JSW has been successively creating cutting-edge machinery with high precision, high reliability and high energy efficiency. Supplying a broad array of pelletizers, twin-screw extruders, film and sheet equipment and injection molding machines of various sizes from small ones to ultra-large ones, this plant drives the world leading general plastic manufacturer.



## Muroran Plant

Since founding, the Muroran Plant has played a valuable part in the development of Japan's heavy and chemical industries as a steel products production center. Making use of large production facilities, such as a 14,000-ton hydraulic press, and cutting-edge equipment, including a 150-ton electroslag remelting furnace, the plant supplies the world with high-quality products that include variety of sizes of cast and forged steel products, steel plates and pipes and others for the energy field.



## Yokohama Plant

Our excimer laser annealing (ELA) system for IT products, enabling mass production of high-quality LCD panels and organic EL panels, has the top share of its market. And they're major products in Yokohama plant. We are also developing and commercializing systems for the needs for the next generation of panels.





# JSW's Value Creation

JSW's "四方よし(Yonpo Yoshi)" management



The ideal image of a corporation to which to aspire :  
A company that creates changes with creative technology,  
and contributes to the development of society

Management philosophy

Management philosophy

- 1) Continue to provide clients with surprise and excitement
- 2) Coexist with society and sustain profits
- 3) Believe in constant change

Mission

Mission

四方よし  
*Yonpo yoshi*

「While aiming to achieve stable growth as a company through *monozukuri* and value creation, we will contribute to society by performing our obligations on four different fronts, ensuring satisfaction for customers, employees and shareholders as well as fulfilling our responsibilities to society.

Corporate code of behavior

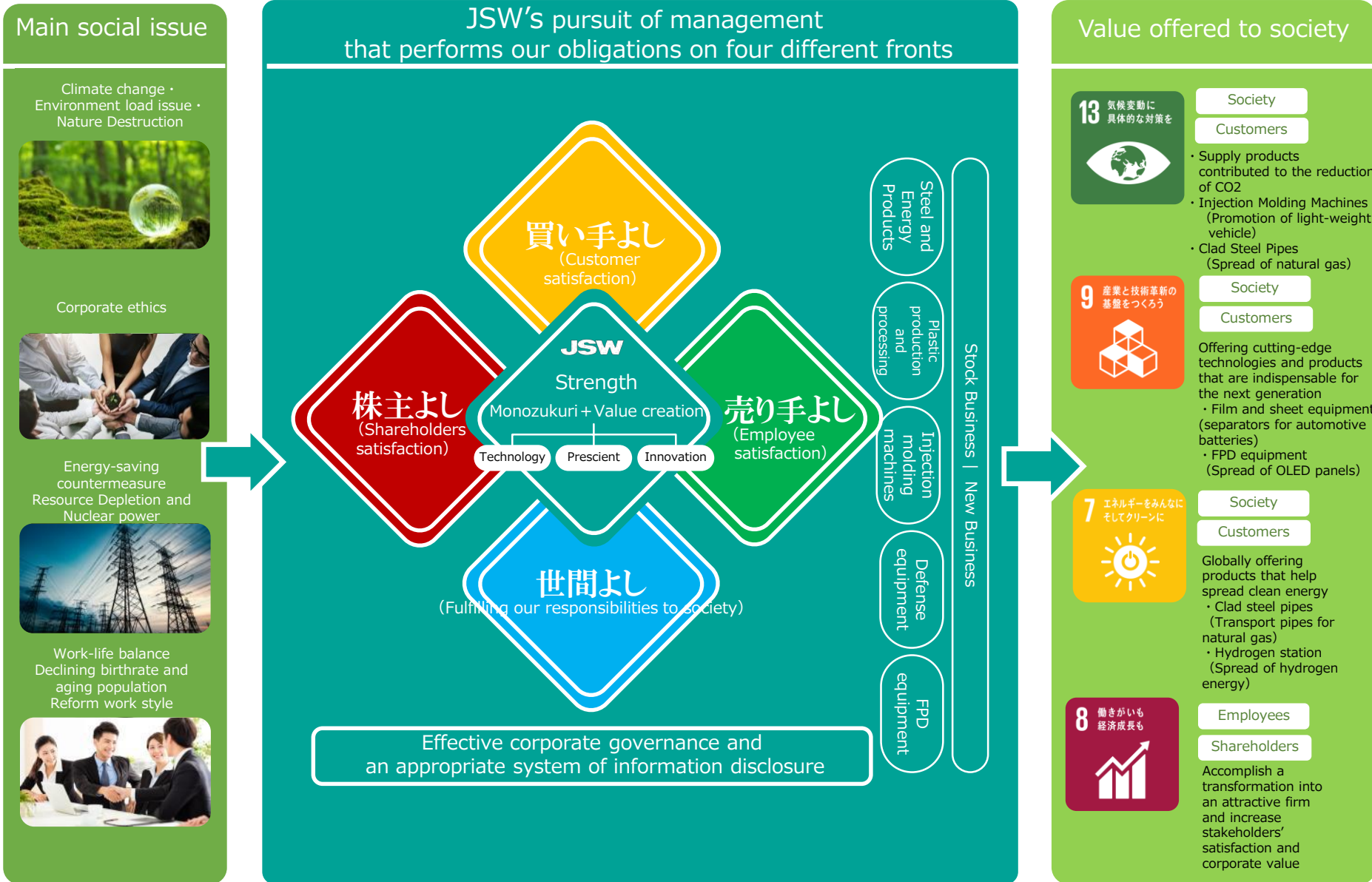
Corporate code of behavior

With the understanding that the unflinching observance of the Corporate Code of Behavior is the way of meeting our corporate social responsibility for achieving a sustainable society, we will pursue management in consideration of the environment, society and governance (ESG).

Aiming to achieve stable growth as a company through “monozukuri” and “value creation”.



Representative Director & President  
NAOTAKA MIYAUCHI





– Aiming to be an earth-friendly “monozukuri” company –



## Environmentally friendly actions

### ● Environment Management

Acquire and continuously maintain of ISO14001 at each plant (since 1998)

### ● Activities for Environment Management

Formulate and implement a medium-term environmental plan

### ● Reduction of environmental load substances

Comply with the standards for the emission of air pollutants, water contaminants and specified chemical substances

### ● Prevention of Global Warming

Reduction of consumption of energy and carbon dioxide discharge

### ● Reduction of waste

Promotion for 3R (Reuse/Reduce/Recycle)

## Environmentally friendly products

### ▷ Electric Injection Molding Machine

- Compared to the conventional hydraulic type
- Variation in molding mass reduced by 80%
- Cut power consumption (1/2~1/3)

### ▷ Film and Sheet equipment

Helping increase the use of high capacity lithium-ion batteries for electric vehicles

### ▷ Clad Steel Pipes

Pipelines for natural gas as clean energy for which high demand is expected

### ▷ Accumulator and Unit for Hydrogen Station

Products necessary for the development of infrastructure for fuel cell vehicles as



Package Unit for Hydrogen Station

## - Actions for Fulfilling Social Responsibility -



### Reform work style

Enabling work styles in which employees' diversity, dignity and personality are respected and ensuring favorable working environments

- **Improvement in labor productivity**  
Promotion of improvement by utilizing IT tools etc.  
⇒ Building the foundations for corporate development
- **Actions for diversity**
  - **Empowerment of women**  
Increase the number of female employees, create an employment environment where female staff can work enthusiastically and promote them actively
  - **Continue recruiting personnel from around the world to strengthen the development and exchange of personnel of foreign nationalities**
- **Improvement in employees satisfaction**  
Encouragement to take paid leave, reduction of overtime work, and examine flexible work style

### Community contribution activities

Participate in the community and contribute to its development as a corporate citizen.

- **Regional exchange**  
Regularly exchange with community through cleanup campaigns and other events
- **Plant tours, vocational experience**  
Welcoming schoolchildren from neighboring elementary and junior high schools for plant tours, Vocational experience events open to the public



Plant tours, welcoming schoolchildren from the elementary school



## Establish effective corporate governance and an appropriate system of information disclosure



Motonobu Sato  
Outside Director

### Establishing governance for a new era

JSW is required to conduct bold management in drastically changing markets. For this purpose, it is vital to establish solid governance. Outside directors understand that their duties are to attend weekly strategic meetings in addition to Board of Directors' meetings and to take an active role in substantial discussions on the basis of earning capacity as the basis of governance.

With a long history and technologies accumulated throughout its history, JSW is capable of achieving further growth that can be attained by long-established companies. We will make utmost efforts to establish governance for a new era and lead the reforms of existing businesses.



Kazuya Jono  
Outside  
Corporate Auditor

### Appropriate risk management and compliance

JSW's Board of Directors has been undertaking active discussions, and outside executives vigorously express their views. Two of the four corporate auditors are from outside the JSW Group.

We will closely exchange information at the Board of Corporate Auditors, work with the audit corporation and the internal audit department, take part in different meetings and carry out individual audits in a continuous effort to monitor corporate management from outsiders' point of view to ensure appropriate risk management, compliance, and management effectiveness and efficiency.



# NEW MEDIUM-TERM MANAGEMENT PLAN “JGP2020”

JSW's Future Vision



## JGP2020

### Building foundations for new growth

Building foundations to ensure the unfailing growth of the JSW Group for the next ten years

FY2030

- Industrial Machinery Products Business
- Steel and Energy Products Business

~JGP2017

JGP2020

Toward a stable business portfolio

New business, M&A

Expand business scale

Foster new business

Expand existing business

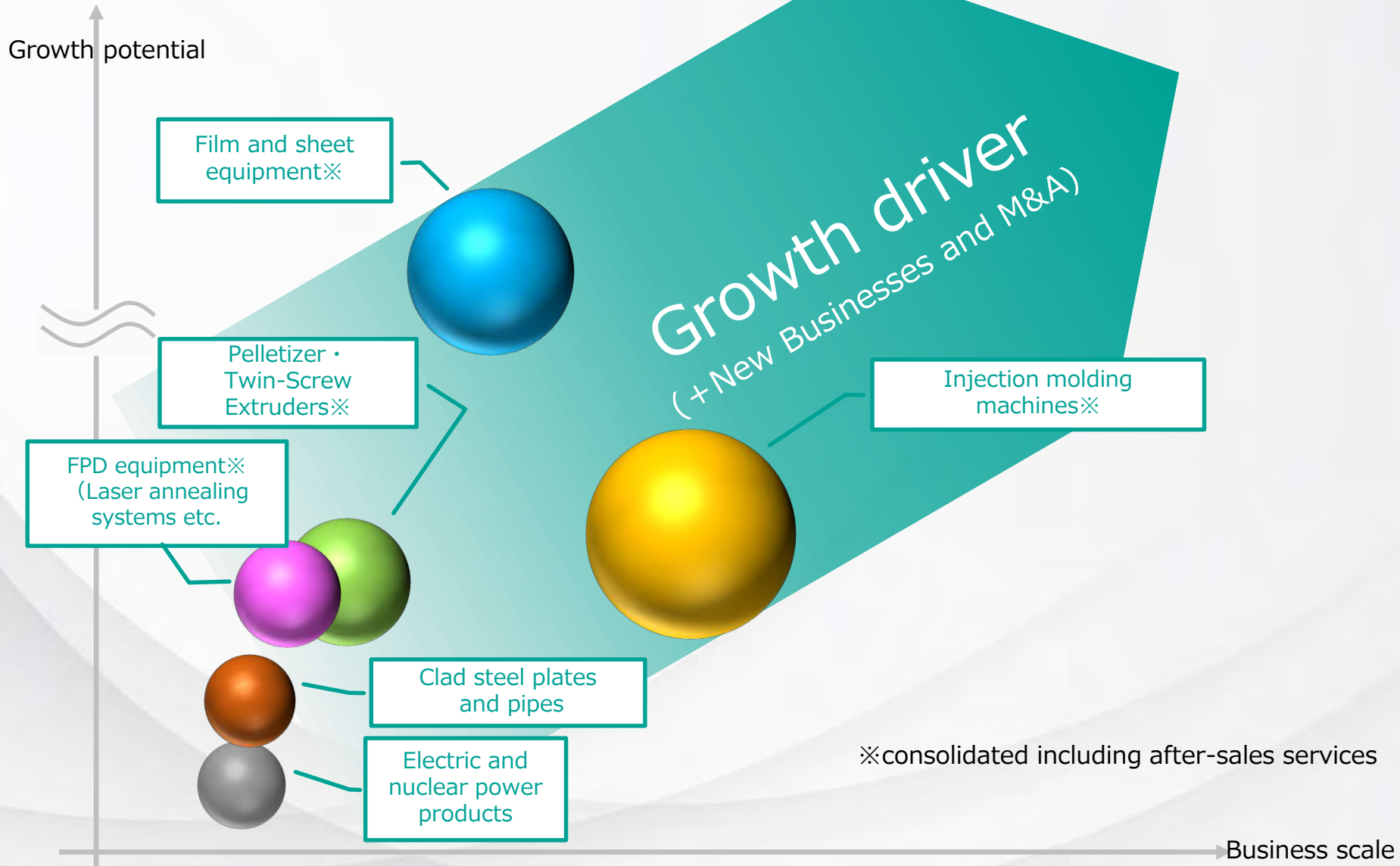
『Aggressive management』  
Sowing and nurturing seeds for expanding business domains

Promotion of restructuring of production system

Attaining stable profitability with the current business scale  
Discovering and developing opportunities for growth

Firmly maintaining existing businesses

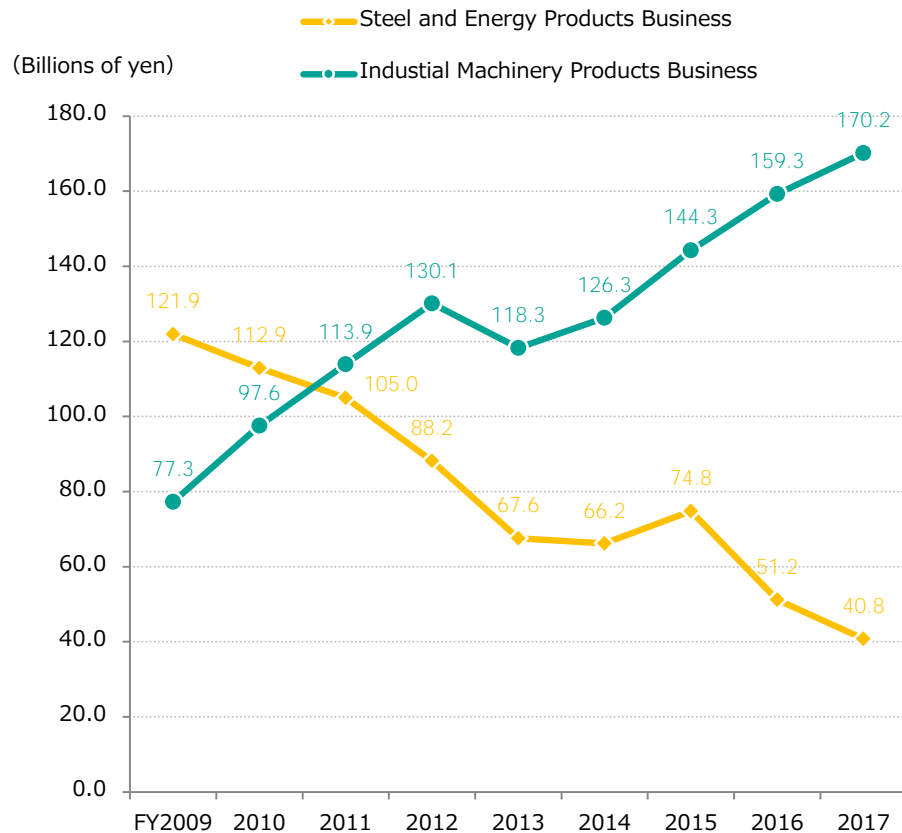
# Basic Concept Behind JGP2020 – Business scale and growth potential by each products



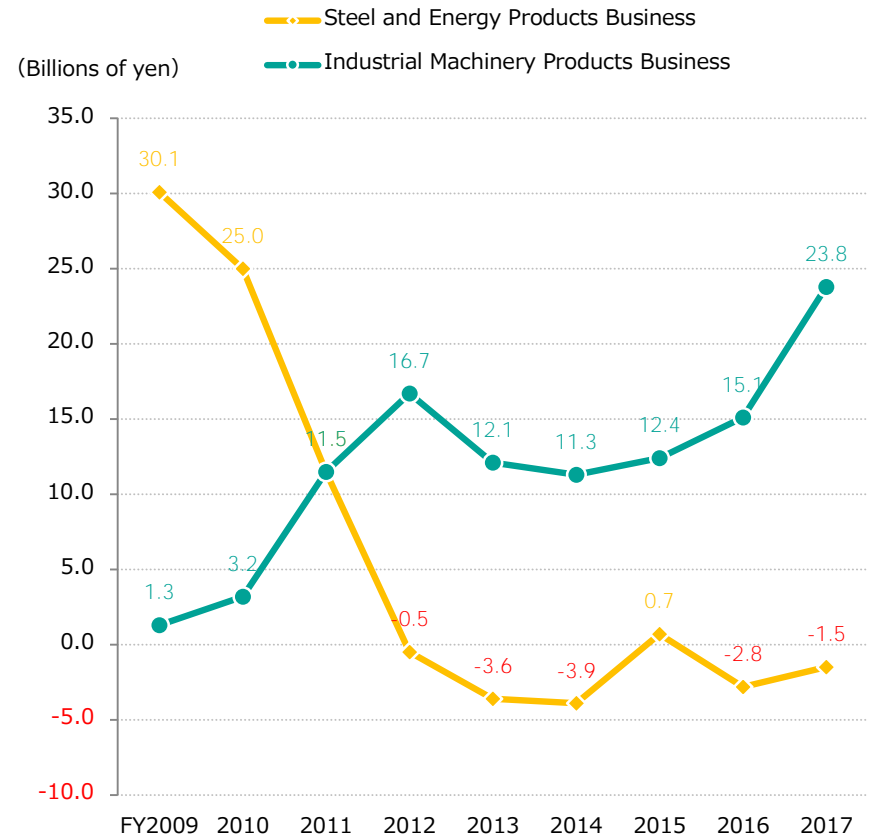


## Major business changed from steel energy products to industrial machinery products

### Net sales



### Operating income



“Growth” in Industrial Machinery Products Business, “Rebirth” in Steel and Energy Products Business

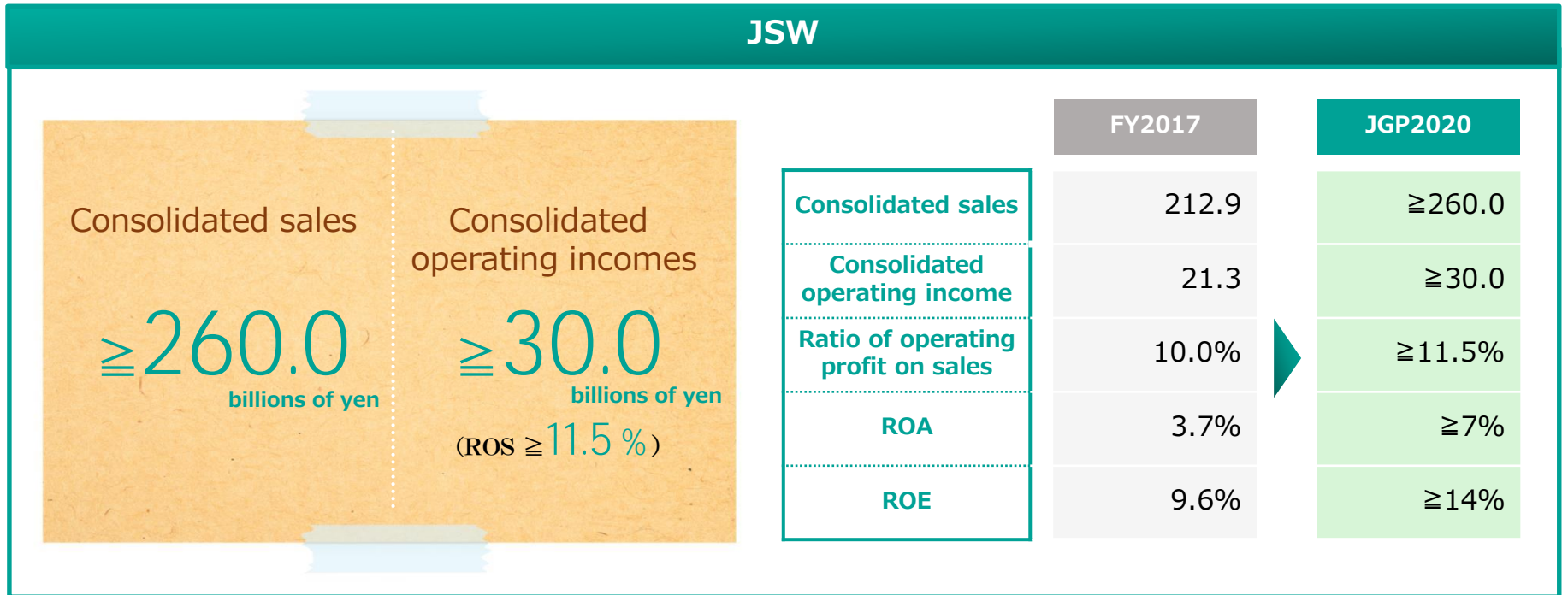
Industrial Machinery Products Business

Steel and Energy Products Business

# Growth Rebirth



(Unit : Billions of yen)



## Industrial Machinery Products Business

	FY2017	JGP2020
Consolidated sales	170.2	≥205.0
Operating income	23.8	≥28.0
Ratio of operating profit on sales	13.9%	≥13.6%

## Steel and Energy Products Business

	FY2017	JGP2020
Consolidated sales	40.8	≥45.0
Operating income	△1.5	≥3.0
Ratio of operating profit on sales	-3.7%	≥6.6%

## JGP2020 ~Lay foundations looking ahead to 2030~

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### ◆ “Growth” in Industrial Machinery Products Business, “Rebirth in Steel and Energy Products Business

#### (1) Optimize management resources and strengthen alliances

Rationalization through reallocation of management resources

⇒ Actively invest in Industrial Machinery Products Business and restructure Steel and Energy Products Business according to sales

Scale up business by promoting alliances and M&A

⇒ Move away from principle of self-sufficiency

#### (2) Strengthen after-sales services (stock-based business)

Strengthen foundations of service structure focusing on Industrial Machinery Products Business

⇒ Generate stable profits and increase customer satisfaction

Build strong customer base through service business

⇒ Lay foundations for next businesses

#### (3) Increase exploration and fostering of new businesses

Explore new businesses with an eye on megatrends

Foster and develop business in four areas: aircraft components, hydrogen, crystal device and deposition systems



## ① Steel and Energy Products Business

### Basic policy

- Building a structure for stable profitability toward FY2019 with the current business portfolio and scale
- Commercializing products in new domains

### Measures

#### 1 Collaboration in manufacturing field with Tsukishima Kikai Co.,Ltd. .

- ▶ Establishment of cooperative framework to start operation from April,2019

#### 2 Improvement of fixed costs

- ▶ Downsizing 150 employees in Muroran plant group
- ▶ Liquidation of idle equipment for rightsizing

#### 3 Rapid launch of new businesses

- ▶ Strengthen framework of new business promotion, building of foundations for growth

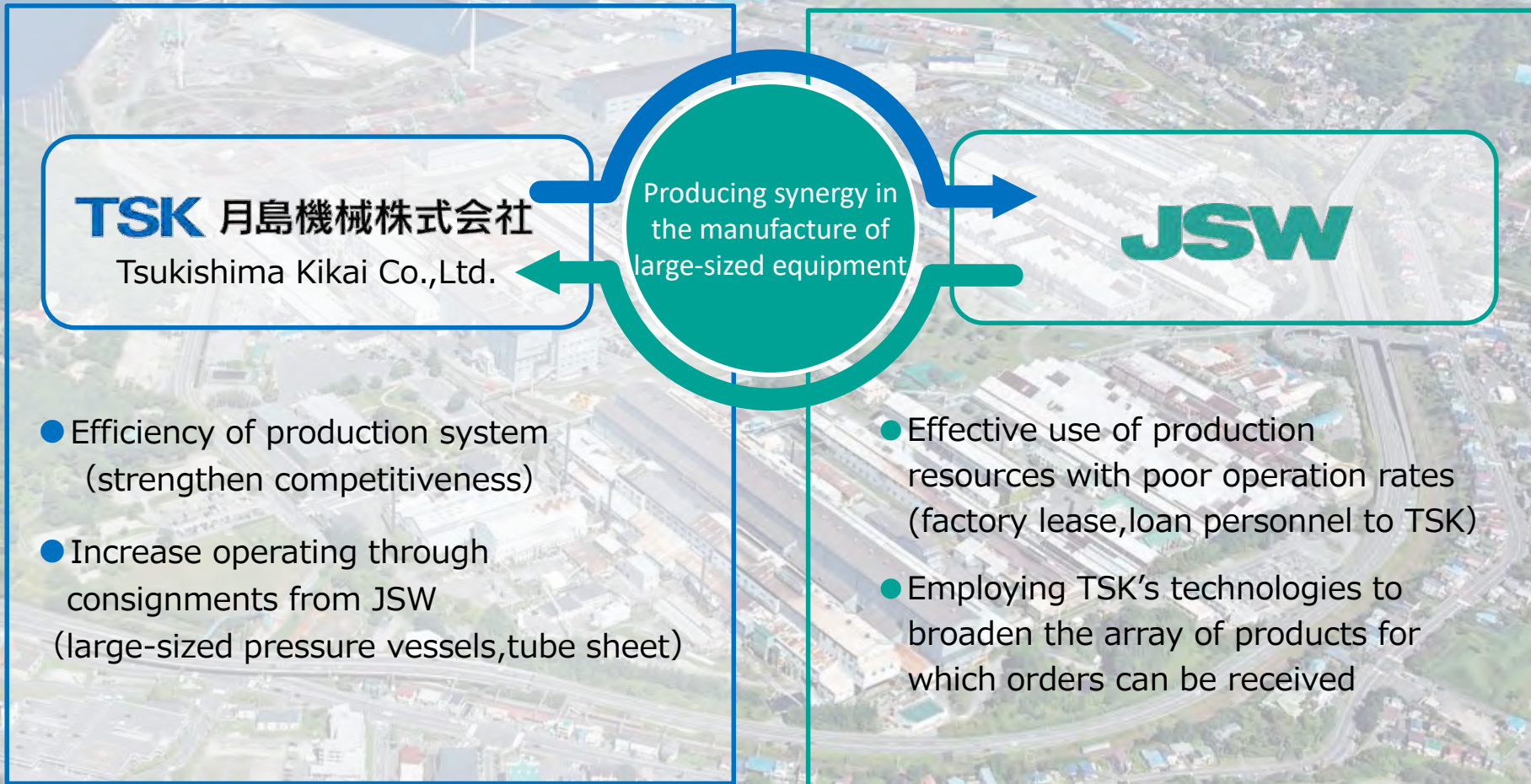
(Billions of yen)	FY2017 Results	FY2018 Plan	FY2020 Plan
Net sales	40.8	45.0	≥ 45.0
Operating income	△1.5	0.5	≥ 3.0



# ① Steel and Energy Products Business

## — Collaboration with Tsukishima Kikai Co.,Ltd. —

Concluded a basic agreement regarding collaboration in manufacturing field with Tsukishima Kikai Co.,Ltd.



## ② Film and sheet equipment

### Basic policy

- Establish a system for increased production to meet strong demand for separators
- Enrich the product lineup with an eye on future hit products to follow the separator

### Measures

#### 1 Early establishment of increased production system

##### Doubling production capacity compared to FY 2017

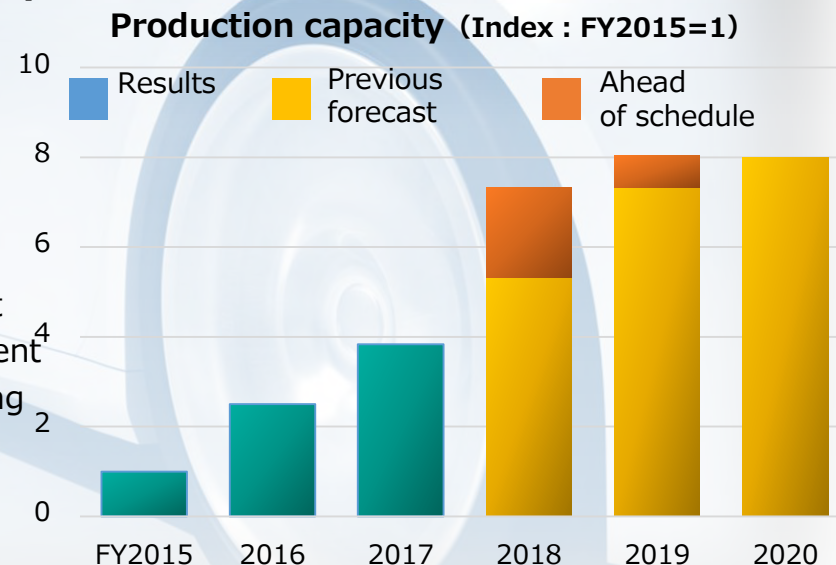
- ▶ Further increase production capacity to meet special demand for separators

#### 2 Technology development in anticipation of market needs

- ▶ Rapidly ascertain market needs with an eye on future hit Products to follow the separator through joint development with leading companies and create optimal products using the latest technologies

#### 3 Introduce peripherals and technologies

- ▶ Expand the business by M&A and alliance etc.





## ③ Injection Molding Machines

### Basic policy

- Build well-established JSW molding machine brands through mass customization strategy

### Measures

#### 1 Bolster products that meet demand for lower weight and are suited to the era of electric vehicles

##### - Increase small-, large- and ultra-large-sized equipment

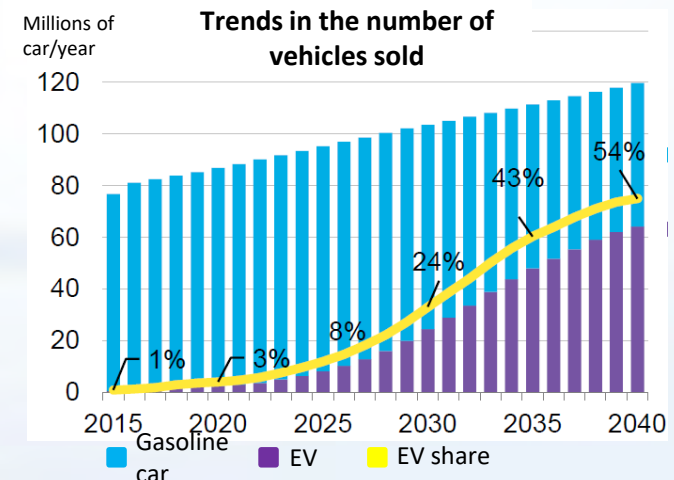
- ▶ Expand sales of small-sized products (e.g. for sensors for automotive cameras)
- ▶ Rapidly market large-sized magnesium injection molding machines (e.g. lamps, electronic devices and casings)
- ▶ Introduce ultra-large equipment with space-saving features (two-platen)
- ▶ (Shift to large interior and exterior items made of resin)

#### 2 Focus strength on 4 priority regions : Japan ,North America,China and Southesast Asia

- ▶ Increase production capacity in Hiroshima plant
- ▶ Increase the production capacity of plants in China and the models that they can produce
- ▶ Build up local customization capacity in the United States

### [Mass customization strategy]

Provide differentiated, customized machines based on a common base to meet the needs of areas and customers



Source : Bloomberg New Energy Finance

## ④ Laser annealing systems

### Basic policy

- Enhance existing products by means of differentiation
- Introduce new products through the evolution of proprietary technologies and M&A/alliances

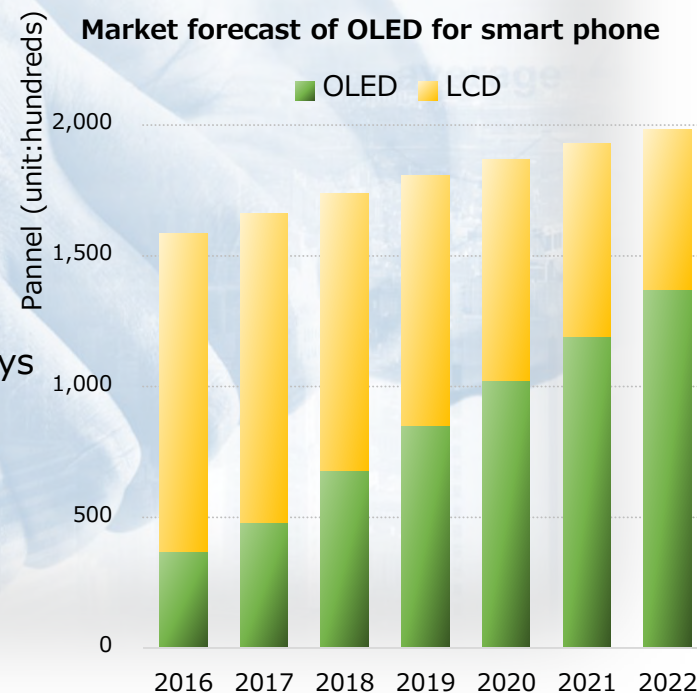
### Measures

#### 1 Implement a differentiation strategy

- ▶ Broaden the product lineup (support for OLED, improvement of productivity and upsizing)

#### 2 Commercialize products under development and create new products

- ▶ Commercialize systems supporting next-generation displays
- ▶ Rapidly commercialize OLED laser applications
- ▶ Complement technologies through M&A/alliances



(Source: JSW)

- Strengthen the foundations for a service structure focusing on the Industrial Machinery Products Business  
-> Generate stable profits and increase customer satisfaction
- Build a strong customer base through the service business -> Lay the foundations for the next businesses

## Measures

### Plastic production and processing

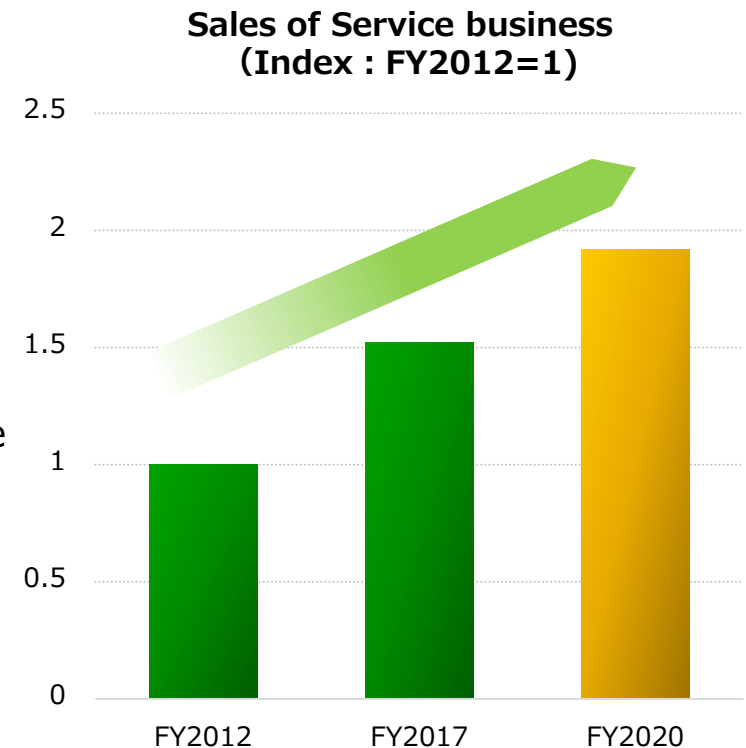
- ▶ Expand business by strengthening service structure
- ▶ Establish of short lead time system

### Injection molding machines

- ▶ Strengthen global structure
- ▶ Strengthen proposal-based services using IoT and others for expanding business (e.g. preventive maintenance and other maintenance services)

### Laser plasma related equipment

- ▶ Enhance the technical support system in the Chinese market and rapidly establish a system for the instant delivery of components



- Search for new businesses in view of major trends  
⇒ Foster and develop businesses in four segments  
(aircraft, hydrogen, crystal, and deposition system) and an additional segment

## New Business Promotion Headquarters



Aircraft

Under the guidance of a partner company, JSW will build a factory for aircraft components, make capital investments and acquire certification to produce cladding metal products and multi-material products at Muroran. JSW will construct a mass production system for multi-material products for commercial aircraft for which demand is expected to grow in the future.



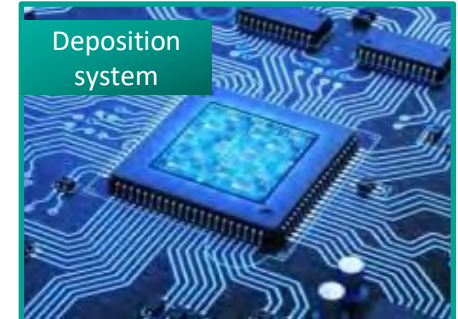
Hydrogen

JSW will expand and step up the hydrogen station business centered on pressure accumulators and compressors, incorporating its own hydrogen-resistant material technologies. JSW will spread MH tanks based on hydrogen storing alloy technologies into the domains of energy storage and supply systems and fuel cell applications.



Crystal

The development of infrastructure and terminals ready for the fifth-generation communication standard (5G) is gathering pace. The applications of crystal materials have expanded in the areas of optical communication, wireless communication and sensing. JSW is working to develop composite substrates for SAW devices, composite substrates for optical communication and gallium nitride (GaN) crystal substrates matched with the aforementioned applications.



Deposition system

The electron cyclotron resonance (ECR) deposition system deposits high quality films such as semiconductor laser coatings with expanding applications and protection layers for electronic devices. JSW will work to further expand sales of ECR systems and broaden the lineup of different deposition systems for wafers, including atomic layer deposition (ALD) systems and electron beam evaporation systems.

Enhance corporate value by strengthening cash-generating ability and utilizing cash flows effectively.

**FY2020**  
**ROA  $\geq 7\%$**   
**ROE  $\geq 14\%$**

**Improvement of asset efficiency**

- Improvement of CCC (Cash Conversion Cycle)
- Evaluation of profitability based on ROIC

**Increase operating income**

- Target of operating income (FY2020) over 30 billions of yen
  - Improve gross profit
  - Enhance productivity
  - Cut costs



**Returning to shareholders**

- Implement stable dividends (Target : 30% payout ratio)

※Consider total-return ratio in balance with growth investment

**Investment in Growth**  
 Effective investment of management resources

**【Capital Investment】**

- Systematic capital investment **30** billions of yen
- Improvement of productivity and expansion of capacity

**【R&D Investment】**

- Fostering of new businesses **20** billions of yen
- Strengthening of basic technologies

**【Alliance】**

- M&A, capital alliance, business alliances, production alliances **20** billions of yen

**Creation of new seeds**





# PROJECTION FOR THE FISCAL YEAR ENDING MARCH 31, 2019



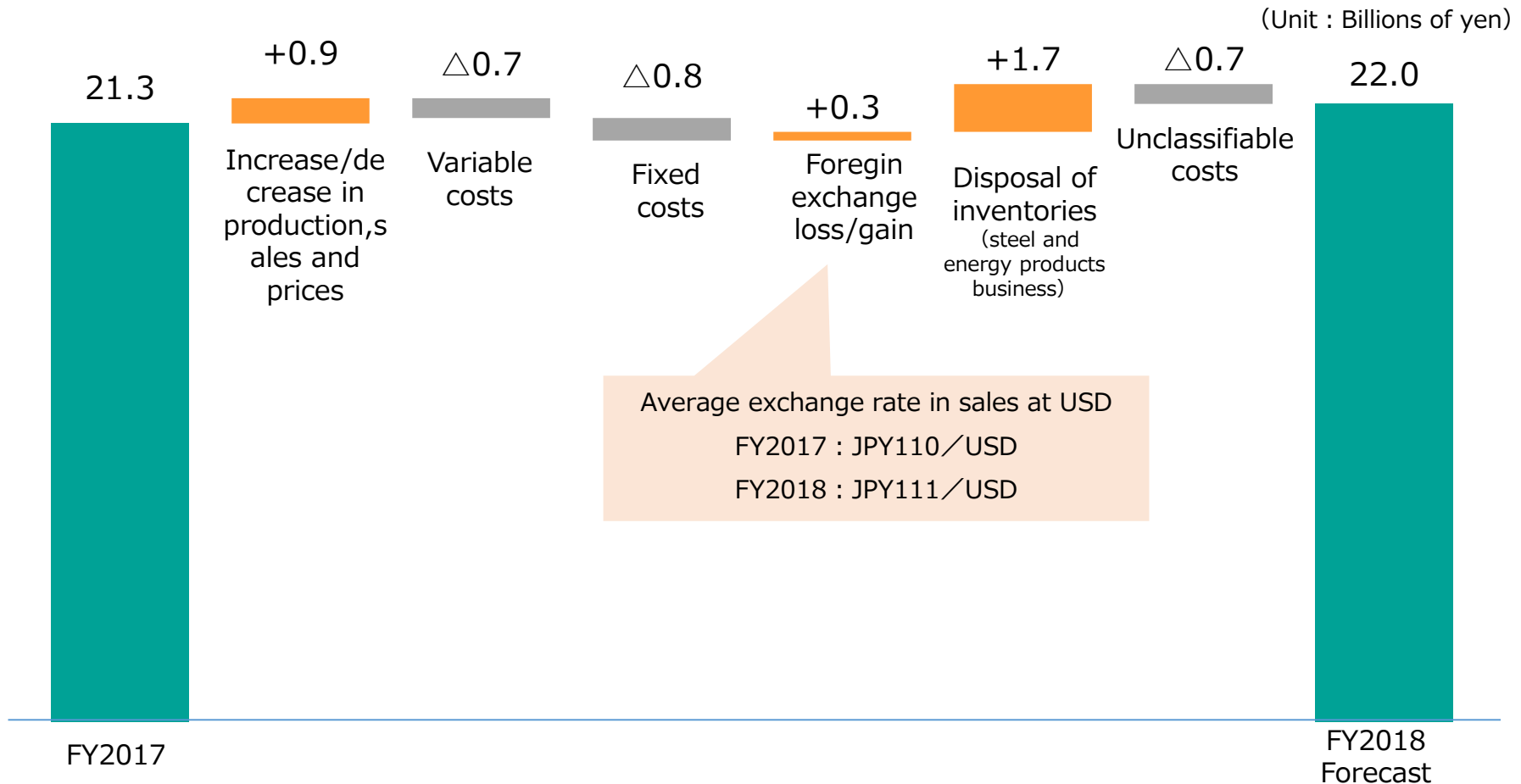
Net sales and operating income are forecast to remain at the high levels attained in the preceding year.

(Unit : Billions of yen)

	FY2017 (A)	FY2018 forecast			Compared to the previous year (B) - (A)
		First fiscal half	Second Fiscal half	Full year (B)	
Order received	236.0	110.0	120.0	230.0	△6.0
Net sales	212.9	110.0	110.0	220.0	7.1
Operating income (ratio)	21.3 10.0%	10.0 9.1%	12.0 10.9%	22.0 10.0 %	0.7
Ordinary income	22.1	10.0	12.0	22.0	△0.1
Profit(Loss)	10.7	8.0	7.0	15.0	4.3
Profit(Loss) per share(yen)	145.77	108.86	95.25	204.11	58.34
Dividends per share(yen)	37.5	25	25	50	12.5

# Forecast for Increase/Decrease in Operating Income for FY2018

Operating income will grow 3% year on year, despite negative factors such as soaring procurement expenses and investment in increased production.



## by Main Product

### Industrial Machinery Products Business

Former disclosure categories(~FY2017)	New disclosure categories(FY2018~)
Plastic production and processing machinery	Plastic production and processing machinery
Molding machines(consolidated)	Molding machines(consolidated)
Other	FPD equipment (consolidated) ※
Consolidated group companies ,etc.	Other
	Consolidated group companies,etc.

※FPD (Flat Panel Display) equipment(consolidated) :  
Laser annealing systems+Laser applications+Related services

Products,affiliated companies	Disclosure categories former⇒new
Laser annealing system (including applications)	Other ⇒FPD equipment(consolidated)
JSW IT Service Co.	Affiliated companies⇒FPD equipment (consolidated)
1 affiliated company	Consolidated group companies ⇒Other Business

### Steel and Energy Products Business

Former disclosure categories(~FY2017)	New disclosure categories(FY2018~)
Electric and nuclear power	Electric and nuclear power
Pressure vessels for oil refineries	Clad steel plates and pipes
Clad steel plates and pipes	Other
Wind turbines	Consolidated group companies,etc.
Other	
Consolidated group companies ,etc.	

Products,related companies	Disclosure categories former⇒new
Pressure vessels for oil refineries	Pressure vessels for oil refineries⇒Other
Wind turbines	Wind turbines⇒Other Business
3 affiliated companies	Consolidated group companies ⇒Other Business

### Real Estate and Other Business

Former disclosure categories(~FY2017)	New disclosure categories(FY2018~)
Real estate and Other business	Other Business (Real estate will be non-operating )



# Projected Orders received, Net sales and Operating income by Segment for FY2018

The Industrial Machinery Products Business will continue to achieve high performance, driving profit, and the Steel and Energy Products Business will attain profitability.

(Unit : Billions of yen)

## Industrial Machinery Products Business

	FY2017 ※1 (A)	FY2018 Forecast (B)	Compared to the previous year (B) - (A)
Orders received	185.5	180.0	△5.5
Net sales	168.9	170.0	1.1
Operating income (ratio)	23.7 14.0%	23.5 13.8%	△0.2 -0.2%

※1 : excluding 1 affiliated company

## Steel and Energy Products Business

	FY2017 ※2 (A)	FY2018 Forecast (B)	Compared to the previous year (B) - (A)
Orders received	43.0	45.0	2.0
Net sales	36.3	45.0	8.7
Operating income (ratio)	△0.9 -2.5%	0.5 1.1%	1.4 3.5%

※2 : excluding wind turbines and 3 affiliated companies

Sales of plastic production and processing machinery will compensate for the decline in sales of defense-related equipment.

(Unit : Billions of yen)

## Net sales, Operating income

## Orders received

	FY2017※ (A)	FY2018 Forecast (B)	Compared to the previous year (B) - (A)	FY2017※ (C)	FY2018 Forecast (D)	Compared to the previous year (D) - (C)
Plastic production and processing machinery	50.2	61.0	10.8	63.8	67.0	3.2
Molding machines (consolidated)	64.5	65.0	0.5	72.4	67.0	△5.4
FPD equipment (consolidated)	15.1	15.0	△0.1	14.2	17.0	2.8
Other	28.4	18.0	△10.4	22.9	18.0	△4.9
Consolidated Group companies, etc.	10.7	11.0	0.3	12.2	11.0	△1.2
Total	168.9	170.0	1.1	185.5	180.0	△5.5
Operating income	23.7	23.5	△0.2			

※ excluding 1 affiliated company

Net sales, operating income and orders received are expected to increase year on year due to increased sales in clad steel pipes.

(Unit : Billions of yen)

## Net sales, Operating income

## Orders received

	FY2017※ (A)	FY2018 Forecast (B)	Compared to the previous year (B) - (A)
Electric and nuclear power	17.2	16.0	△1.2
Clad steel plates and pipes	7.0	13.0	6.0
Other	6.2	10.0	3.8
Consolidated Group companies, etc.	5.9	6.0	0.1
Total	36.3	45.0	8.7
Operating income	△0.9	0.5	1.4

	FY2017※ (C)	FY2018 Forecast (D)	Compared to the previous year (D) - (C)
	13.0	15.0	2.0
	13.9	15.0	1.1
	10.3	9.0	△1.3
	5.8	6.0	0.2
	43.0	45.0	2.0

※ excluding wind turbines and 3 affiliated companies





答えはいつも先にある。  
 後ろを振り返るよりも、  
 一步でも前に突き進む。  
 ものづくりの未来を変える。

**JSW**  
 THE JAPAN STEEL WORKS, LTD.  
 日本製鋼所



速  
 速いだけの速歩なら、  
 何処まで行けるか？  
 速いから遅いからが速歩だ。  
 ものづくりの未来を変える。

**JSW**  
 THE JAPAN STEEL WORKS, LTD.  
 日本製鋼所



柔  
 柔らかいだけの柔歩は、  
 遠くまで行けるか？  
 柔らかいから硬いからが柔歩だ。  
 ものづくりの未来を変える。

**JSW**  
 THE JAPAN STEEL WORKS, LTD.  
 日本製鋼所



超  
 超えただけの超歩は、  
 何処まで行けるか？  
 超えるから超えるからが超歩だ。  
 ものづくりの未来を変える。

**JSW**  
 THE JAPAN STEEL WORKS, LTD.  
 日本製鋼所



攻  
 攻めただけの攻歩は、  
 何処まで行けるか？  
 攻めるから攻めるからが攻歩だ。  
 ものづくりの未来を変える。

**JSW**  
 THE JAPAN STEEL WORKS, LTD.  
 日本製鋼所

A hand with a finger pointing towards a circular button. The button has the text 'FUTURE' above a horizontal line and 'START' below it. The background is dark and textured.

FUTURE  
START

**JSW** 日本製鋼所



# REFERENCE





# Trends of Net sale, Operating income and Profit

(Unit : Billions of yen)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Net Sales	220.6	188.7	194.6	223.3	212.4	212.9
Steel and Energy Products Business	88.2	67.6	66.2	74.8	51.2	40.8
Electric and nuclear power	37.4	22.6	27.4	19.2	19.3	17.2
Pressure vessels for oil refineries	4.3	4.1	4.2	1.4	1.7	1
Clad steel plates and pipes	29.3	26.7	16.2	39.3	13.5	7
Wind turbines	1.1	1.7	5.7	1.2	3.9	1.6
Other	12.3	7.2	7	6.9	5.3	5.5
Consolidated Group companies, etc.	3.8	5.3	5.7	6.8	7.5	8.5
Industrial Machinery Products Business	130.1	118.3	126.3	144.3	159.3	170.2
Plastic production and processing machinery	37	28.3	32.5	36.4	36.1	50.2
Molding machines(consolidated)	40.9	47	53.6	56.4	57.6	64.5
Other	37.7	31.8	25	32.6	46.8	37
Consolidated Group companies, etc.	14.5	11.2	15.2	18.9	18.8	18.5
Real Estate and Other Businesses	2.2	2.7	2	4	1.8	1.7
Operating Income	16.6	8.8	7.5	14.4	12.3	21.3
Steel and Energy Products Business	-0.5	-3.6	-3.9	0.7	-2.8	-1.5
Industrial Machinery Products Business	16.7	12.1	11.3	12.4	15.1	23.8
Real Estate and Other Businesses	0.8	1.1	0.9	2	0.9	0.8
Profit	8.2	5.5	-5.3	-16.6	-4.9	10.7

(Unit : Billions of yen)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Total assets	303.9	293.1	319.6	293.1	275.3	297.4
Steel and Energy Products Business	120.2	111.5	111.4	60.2	37.5	40.3
Industrial Machinery Products Business	96.8	99.3	108.4	124.3	123.7	128.1
Real Estate and Other Businesses	13.3	12.9	13.0	12.0	11.8	11.7
Net assets	134.3	139.2	138.2	111.3	107.5	118.6
Net assets per share (JPY) ※Since FY2016, amount is after reserve split of stocks	359.29	372.83	368.81	299.41	1,446.44	1,592.47
Equity ratio (%)	43.83	47.09	42.72	37.53	38.6	39.3
ROE (%)	6.35	4.07	-3.88	-13.46	-4.6	9.6
Operating cash flow	23.7	11.5	11.5	19.7	12.0	26.7
Investing cash flow	-5.8	-5.7	-2.6	-12.1	-13.5	-5.0
Financial cash flow	-15.2	-15.0	-2.9	4.7	-1.2	-2.4
Cash and cash equivalents at end of period	50.9	42.2	49.1	61.4	58.6	77.8

(revised on April 1, 2018)

At The Japan Steel Works, Ltd., we will comply with all laws and international rules, both to the letter and in spirit, and fulfill our social responsibilities with a strong sense of ethics in Japan and overseas as a company that aims to realize a sustainable society based on the following ten principles.

1. To promote sustainable economic growth and the resolution of social issues, we will develop useful products, technologies and services that give consideration to safety through innovation and provide them to society.
2. We will conduct appropriate transactions and responsible procurement based on fair and free competition. We will also maintain sound relationships with political and government bodies.
3. To enhance our corporate value, we will make appropriate corporate information available to the public willingly and fairly and have constructive dialogues with a wide range of stakeholders.
4. We will respect the human rights of all people.
5. We will earn the trust and satisfaction of society and customers by responding promptly to inquiries from customers after reflecting the market and customer needs in our products, technologies and services.
6. We will provide a sound working environment by developing workstyles that respect the diversity, personality and individuality of employees.
7. We will take actions proactively, recognizing that addressing environmental issues is an important duty for us as a company.
8. We will participate in the community and contribute to its development as a corporate citizen.
9. We will conduct thorough and systematic crisis management against antisocial forces, terrorism, cyberattacks and natural disasters, etc. that will pose a threat to civil society and corporate activities.
10. Recognizing the realization of the spirit of this code of behavior as its own role, our management will make it fully known to the employees of the Company and its affiliates after establishing effective governance and encourage the chains to perform acts based on the spirit of this code of behavior.  
If any situation that will lose the trust of society occurs in conflict with the spirit of this code of behavior, our management will take the initiative in solving the problem, investigating the cause and preventing recurrence to fulfill our responsibility.