



JFE

JFE Group
***Financial Results for First Half of
Fiscal Year 2020 ending March 31, 2021***

JFE Holdings, Inc.
November 9, 2020



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(April 1 to September 30, 2020)**
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This presentation material is for information and discussion purpose only.

Any statements in the presentation which are not historical facts are future projections based on certain assumptions and currently available information. Please note that actual performance may vary significantly due to various factors

**Consolidated Results for
First Half of Fiscal Year 2020
(April 1 to September 30, 2020)**

Financial Results for First Half of Fiscal Year 2020



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- The impact of the COVID-19 outbreak depressed economic conditions substantially both in Japan and overseas.
- Business Profit was -114.3 billion yen in 1H of FY2020, decreased by 163.3 billion yen year-on-year, due to lower production levels and lower earnings at subsidiaries in Steel Business.

(billion yen)	FY2019 1H(Apr-Sep)	FY2020 1H(Apr-Sep)	Change
Revenue	1,871.2	1,492.2	(379.0)
Business Profit	49.0	(114.3)	(163.3)
Finance Income/costs	(6.3)	(6.4)	(0.1)
Segment Profit	42.7	(120.7)	(163.4)
Exceptional Items	-	-	0.0
Profit before Tax	42.7	(120.7)	(163.4)
Tax Expense and Profit (Loss) Attributable to Non-Controlling Interests	(10.8)	15.0	25.8
Profit Attributable to Owners of Parent	31.9	(105.7)	(137.6)

Business profit is profit before tax excluding financial income and one-time items of a materially significant value. Segment profit is profit including financial income in business profit.



Financial Results for First Half of Fiscal Year 2020 (by Segment)

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(billion yen)	FY2019 1H(Apr-Sep)	FY2020 1H(Apr-Sep)	Change
Revenue			
Steel Business	1,353.1	1,027.2	(325.9)
Engineering Business	238.9	221.9	(17.0)
Trading Business	557.5	451.7	(105.8)
Adjustments	(278.3)	(208.6)	69.7
Total	1,871.2	1,492.2	(379.0)
Business Profit (A)	49.0	(114.3)	(163.3)
Finance Income/Costs (B)	(6.3)	(6.4)	(0.1)
Segment Profit			
Steel Business	17.7	(136.2)	(153.9)
Engineering Business	11.9	8.7	(3.2)
Trading Business	14.6	7.2	(7.4)
Adjustments	(1.5)	(0.4)	1.1
Total (A+B)	42.7	(120.7)	(163.4)

**Consolidated Financial Forecast for
Fiscal Year 2020
(April 1, 2020 to March 31, 2021)**



Financial Forecast for Fiscal Year 2020

Along with the recovery of customer activities, production volume in the steel business is expected to increase further (Crude steel production increased by 0.5 Mt/year from the previous forecast) . Business Profit of FY2020 is expected to increase 10.0 billion yen from the previous forecast.

(billion yen)	FY2020 (Previous Forecast Aug. 12, 2020)		FY2020 (Updated Forecast Nov. 9, 2020)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Revenue	1,460.0	3,170.0	1,492.2	3,170.0	32.2	0.0
Business Profit	(125.0)	(100.0)	(114.3)	(90.0)	10.7	10.0
Finance Income/costs	(7.0)	(15.0)	(6.4)	(15.0)	0.6	0.0
Segment Profit	(132.0)	(115.0)	(120.7)	(105.0)	11.3	10.0
Exceptional Items	-	-	-	-	0.0	0.0
Profit before Tax	(132.0)	(115.0)	(120.7)	(105.0)	11.3	10.0
Tax Expense and Profit (Loss) Attributable to Non-Controlling Interests	22.0	15.0	15.0	5.0	(7.0)	(10.0)
Profit Attributable to Owners of Parent	(110.0)	(100.0)	(105.7)	(100.0)	4.3	0.0

Financial Forecasts for Fiscal Year 2020 (by Segment)



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(billion yen)	FY2020 (Previous Forecast)		FY2020 (Updated Forecast)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Revenue						
Steel Business	1,010.0	2,240.0	1,027.2	2,200.0	17.2	(40.0)
Engineering Business	215.0	490.0	221.9	490.0	6.9	0.0
Trading Business	430.0	900.0	451.7	930.0	21.7	30.0
Adjustments	(195.0)	(460.0)	(208.6)	(450.0)	(13.6)	10.0
Total	1,460.0	3,170.0	1,492.2	3,170.0	32.2	0.0
Business Profit (A)	(125.0)	(100.0)	(114.3)	(90.0)	10.7	10.0
Finance Income/Costs (B)	(7.0)	(15.0)	(6.4)	(15.0)	0.6	0.0
Segment Profit						
Steel Business	(145.0)	(145.0)	(136.2)	(135.0)	8.8	10.0
Engineering Business	6.0	21.0	8.7	21.0	2.7	0.0
Trading Business	5.5	12.0	7.2	13.0	1.7	1.0
Adjustments	1.5	(3.0)	(0.4)	(4.0)	(1.9)	(1.0)
Total (A+B)	(132.0)	(115.0)	(120.7)	(105.0)	11.3	10.0



Financial Forecast for Fiscal Year 2020

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- Business profit for FY2020 is expected to be loss of -90.0 billion yen due to the impact of COVID-19 outbreak.
- Business profit for 2H of FY2020 is expected to be 24.3 billion yen:
 - Steel business is expected to eliminate the deficit along with the recovery of customer activities (mainly automobiles) and promotion of profit improvement measures.
 - Engineering and Trading business is expected to contribute to profitability.

(billion yen)	FY2019 (Actual)		FY2020(Forecast)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Revenue	1,871.2	3,729.7	1,492.2	3,170.0	(379.0)	(559.7)
Business Profit	49.0	37.8	(114.3)	(90.0)	(163.3)	(127.8)
Finance Income/costs	(6.3)	(12.5)	(6.4)	(15.0)	(0.1)	(2.5)
Segment Profit	42.7	25.3	(120.7)	(105.0)	(163.4)	(130.3)
Exceptional Items	-	(238.8)	-	-	0.0	238.8
Profit before Tax	42.7	(213.4)	(120.7)	(105.0)	(163.4)	108.4
Tax Expense and Profit (Loss) Attributable to Non-Controlling Interests	(10.8)	15.7	15.0	5.0	25.8	(10.7)
Profit Attributable to Owners of Parent	31.9	(197.7)	(105.7)	(100.0)	(137.6)	97.7

Financial Forecast for Fiscal Year 2020 (by Segment)

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(billion yen)	FY2019(Actual)		FY2020(Forecast)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Revenue						
Steel Business	1,353.1	2,681.3	1,027.2	2,200.0	(325.9)	(481.3)
Engineering Business	238.9	512.2	221.9	490.0	(17.0)	(22.2)
Trading Business	557.5	1,084.1	451.7	930.0	(105.8)	(154.1)
Adjustments	(278.3)	(548.0)	(208.6)	(450.0)	69.7	98.0
Total	1,871.2	3,729.7	1,492.2	3,170.0	(379.0)	(559.7)
Business Profit (A)	49.0	37.8	(114.3)	(90.0)	(163.3)	(127.8)
Finance Income/Costs (B)	(6.3)	(12.5)	(6.4)	(15.0)	(0.1)	(2.5)
Segment Profit						
Steel Business	17.7	(8.7)	(136.2)	(135.0)	(153.9)	(126.3)
Engineering Business	11.9	23.1	8.7	21.0	(3.2)	(2.1)
Trading Business	14.6	27.0	7.2	13.0	(7.4)	(14.0)
Adjustments	(1.5)	(15.9)	(0.4)	(4.0)	1.1	11.9
Total (A+B)	42.7	25.3	(120.7)	(105.0)	(163.4)	(130.3)

Progress of Cash Flow Improvements



FY2020

Consolidated Cash Flow Forecast

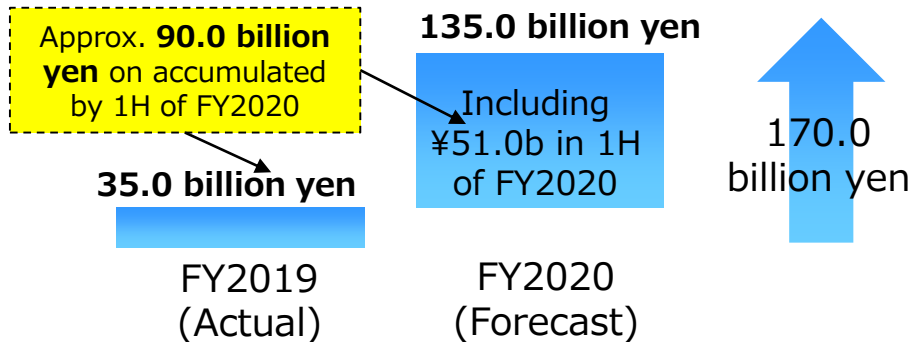
(billion yen)

Cash-in	Cash-out
Depreciation and Amortization 240.0	Net Loss 100.0
Asset Compression 135.0	CAPEX & Investments 400.0
Working Capital etc. 39.0	
Interest-bearing Debt Outstanding 86.0	

Measures for Maintaining Financial Strength

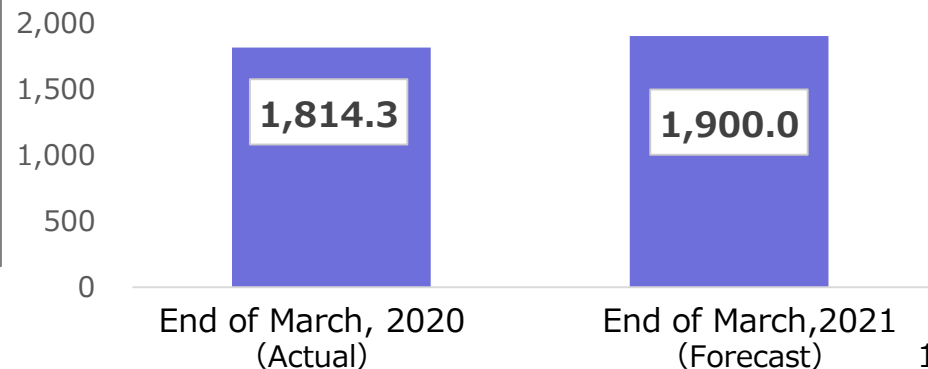
Following measures to be implemented as planned

- Asset compression of 170.0 billion yen mainly sourced from sales of cross-holding shares



- **Domestic CAPEX compression in steel business: 130.0 billion yen** (decision-making basis)

Interest-bearing Debt Outstanding (billion yen)



Dividends



Dividends

- JFE has decided that it unfortunately cannot pay a first-half dividend in response to current earnings.
- A decision regarding the year-end dividend has been postponed while the company carefully monitors its ongoing performance.

JFE Steel

Financial Results for First Half of Fiscal Year 2020 and Financial Forecast for Fiscal Year 2020

Financial Results for First Half of Fiscal Year 2020

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	Unit	FY2019					FY2020			Previous Forecast 1H
		1Q	2Q	1H	2H	Full Year	1Q	2Q	1H	
Revenue	billion yen	666.6	686.5	1,353.1	1,328.2	2,681.3	508.7	518.6	1,027.2	1,010.0
Segment Profit	billion yen	14.5	3.2	17.7	(26.4)	(8.7)	(57.8)	(78.4)	(136.2)	(145.0)
Excluding Inventory Valuation etc.*	billion yen	22.5	(0.8)	21.7	(0.4)	21.3	(34.8)	(33.4)	(68.2)	(82.0)
Crude Steel (Standalone)	Mt	7.00	6.79	13.79	12.94	26.73	4.79	5.38	10.17	10.00
Crude Steel (Consolidated)	Mt	7.36	7.13	14.50	13.59	28.09	5.09	5.68	10.77	10.60
Shipment (Standalone)	Mt	5.85	5.94	11.80	11.68	23.47	4.59	4.75	9.34	9.20
Export Ratio on Value Basis (Standalone)	%	39.9	42.1	41.0	42.1	41.5	44.2	40.2	42.2	43
Average Sales Price (Standalone)	000 yen/t	80.4	79.4	79.9	77.8	78.8	75.3	71.0	73.1	73
Exchange Rate	¥/\$	110.7	107.6	109.2	109.1	109.1	107.7	105.9	106.8	108
Exchange Rate (End of Term)	¥/\$	107.8	107.9	107.9	108.8	108.8	107.7	105.8	105.8	-

* Excluding inventory valuation, carry over of raw materials and foreign exchange valuation from segment profit



8.8 Billion Yen Increase in JFE Steel's Segment Profit (FY2020.1H(Forecast) vs. FY2020.1H(Actual))

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Segment profit improved by 8.8 billion yen thanks to increase in both crude steel production volume and profits of domestic and overseas subsidiaries

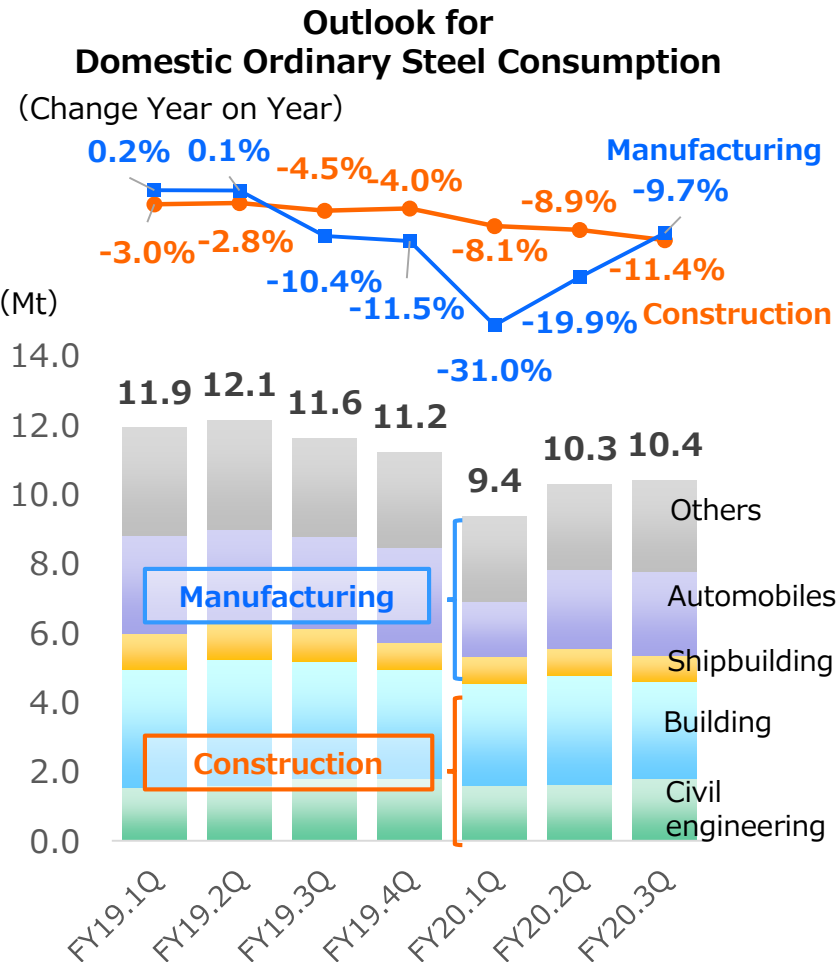
(billion yen)

JFE Steel	FY2020 1H Forecast	FY2020 1H Actual	Change 1H Forecast →Actual
Segment Profit	(145.0)	(136.2)	+8.8
1. Cost	±0.0		
2. Volume and Mix	+4.0	<ul style="list-style-type: none"> Increase in volume with recovery of demand (Crude steel (Standalone): 10.00⇒10.17Mt +0.17Mt) 	
3. Sales and Raw materials	±0.0		
4. Inventory valuation	(5.0)	<ul style="list-style-type: none"> Inventory valuation-3.0 (-55.0→-58.0) Carry over of raw materials ±0.0 (-6.0→-6.0) Foreign exchange valuation -2.0(-2.0→-4.0) 	
5. Others	+9.8	<ul style="list-style-type: none"> Increase in profit of domestic and overseas subsidiary companies, decrease in general expenses etc. 	

Domestic Market Environment

Market Outlook

Domestic steel demand is expected to **gradually recover by bottoming out from April-June** due to a **recovery in the activity level of the manufacturing industry, mainly the automobile industry**. Some sectors, including shipbuilding, are expected to take time to recover.



Sector	Outlook	FY20 1H vs FY19 2H	FY20 2H vs FY20 1H
Automobile	<ul style="list-style-type: none"> Automobile production shows clear signs of recovery Domestic automobile production is assumed to be about 8M units per year (1H:3.34M, 2H:4.66M) 	➡	➡
Shipbuilding	<ul style="list-style-type: none"> Shipbuilders are taking steps to receive a certain level of orders to secure a sufficient amount of construction on hand, but it will take time to recover demand for steel. 	➡	➡
Civil engineering	<ul style="list-style-type: none"> Demand is robust due to high level of government budget and expected to increase in 2H with seasonal factors 	➡	➡
Building	<ul style="list-style-type: none"> While redevelopment projects are expected to be robust, small and medium-sized projects will remain sluggish in 2H. Full recovery in this fiscal year is not expected 	➡	➡

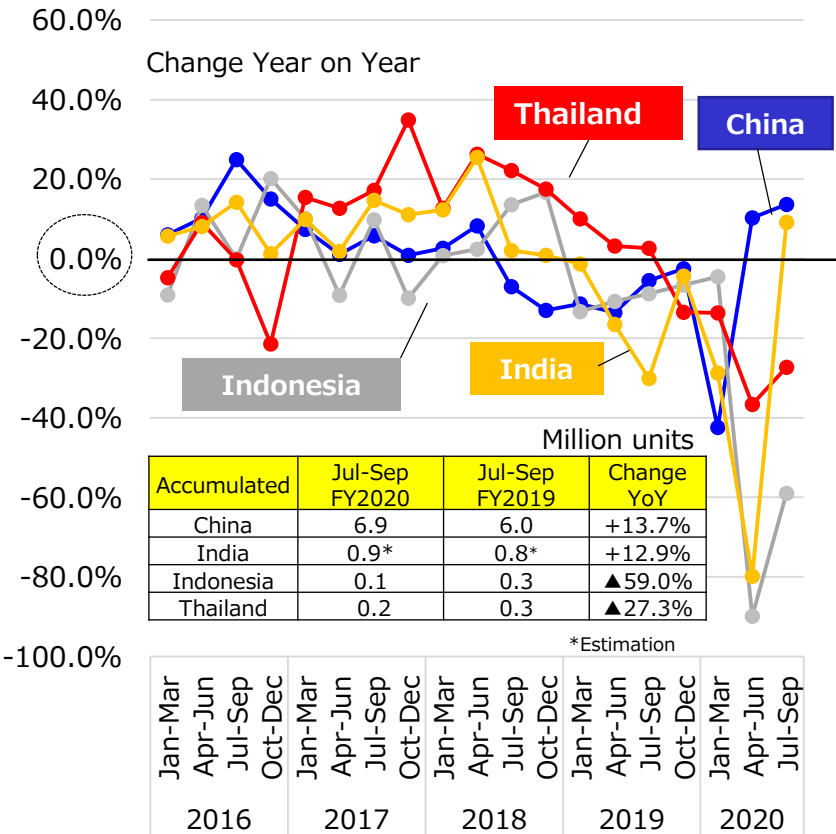
Source : Ministry of Economy, Trade and Industry, "Outlook for Steel Consumption" 7th Oct. 2020, (FY19.4Q and after is estimated results)

Overseas Market Environment

Market Outlook

Economic activities in main countries and **overseas steel demand are expected to gradually recover in 2H.** Regarding **automobile sales in Asia, China keeps high level** and other countries such as **Thailand and India are showing clear signs of recovery.**

【Automobile Sales】



Sector	Outlook	FY20 1H vs FY19 2H	FY20 2H vs FY20 1H
Auto mobile	<ul style="list-style-type: none"> Production and sales in China remain high, and sales in Europe and America is recovering Production in Thailand and India are showing recovery but need to be watched carefully whether it will continue 		
Steel sheet	<ul style="list-style-type: none"> Market price in Southeast Asia recovered to the level before COVID-19 thanks to recovery in demand in China and each country's policy to prioritize economic activities Increasing production in China and other countries need to be watched carefully 		
Ship building	<ul style="list-style-type: none"> Demand recovery will take time due to global overcapacity, stagnation in business and declining both orders and floating trade caused by economic stagnation 		
Energy	<ul style="list-style-type: none"> Although WTI crude oil price recovered to a certain extent after bottoming out in April, it will take time for demand to recover due to continuous low level oil production 		

Forecast of Production and Metal Spread

Crude Steel Production

- Due to a recovery in demand, particularly for automobiles, and early resumption of operation of Fukuyama No.4 Blast Furnace, **crude steel production (standalone) in FY2020** is expected to be increase by 0.5 M tons from the previous forecast to approx. 22.50M tons (approx. 12.30M tons in 2H)

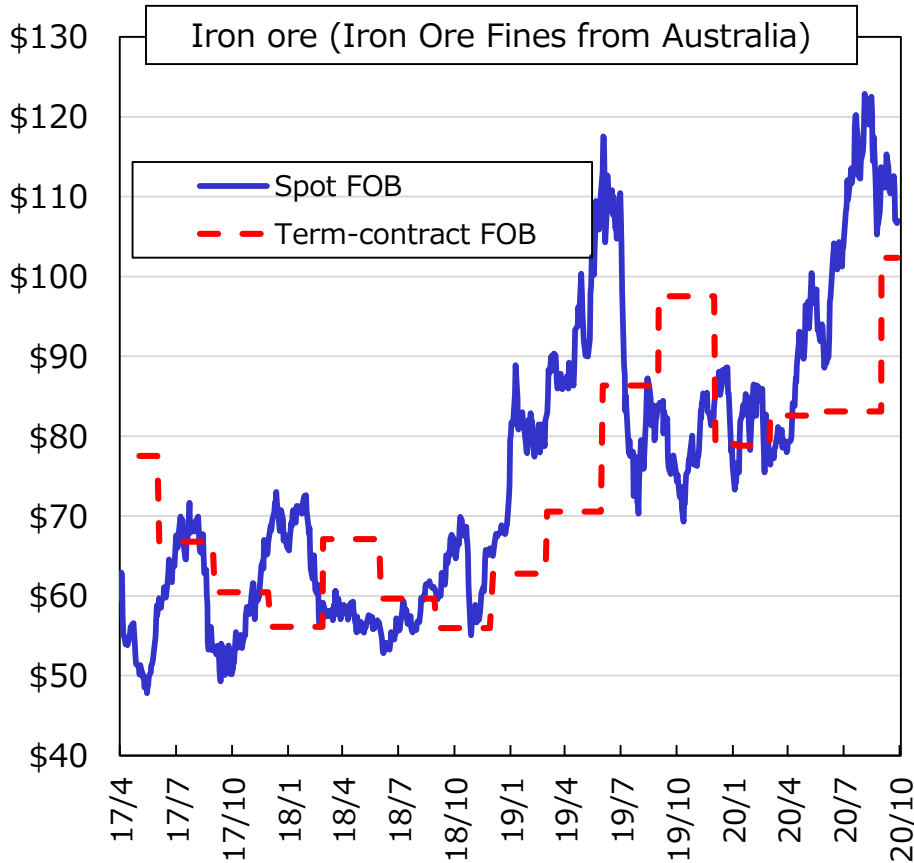
Metal Spread

- **Iron ore price** is expected to remain high due to China's strong demand
- **Coking coal price** rose temporarily but shows downward trend recently. The price is expected to increase in latter 2H due to both seasonal factors, and India's spot purchase that will increase in line with the recovery of world economy
⇒ Swiftly reflect the rise in raw materials cost in 2H in sales price
- **Metal spread of export HRC** is expected to slightly increase compared to 1H with the recovery of market price
- Domestic and overseas metal spread in total is expected to be the same as the previous financial forecast

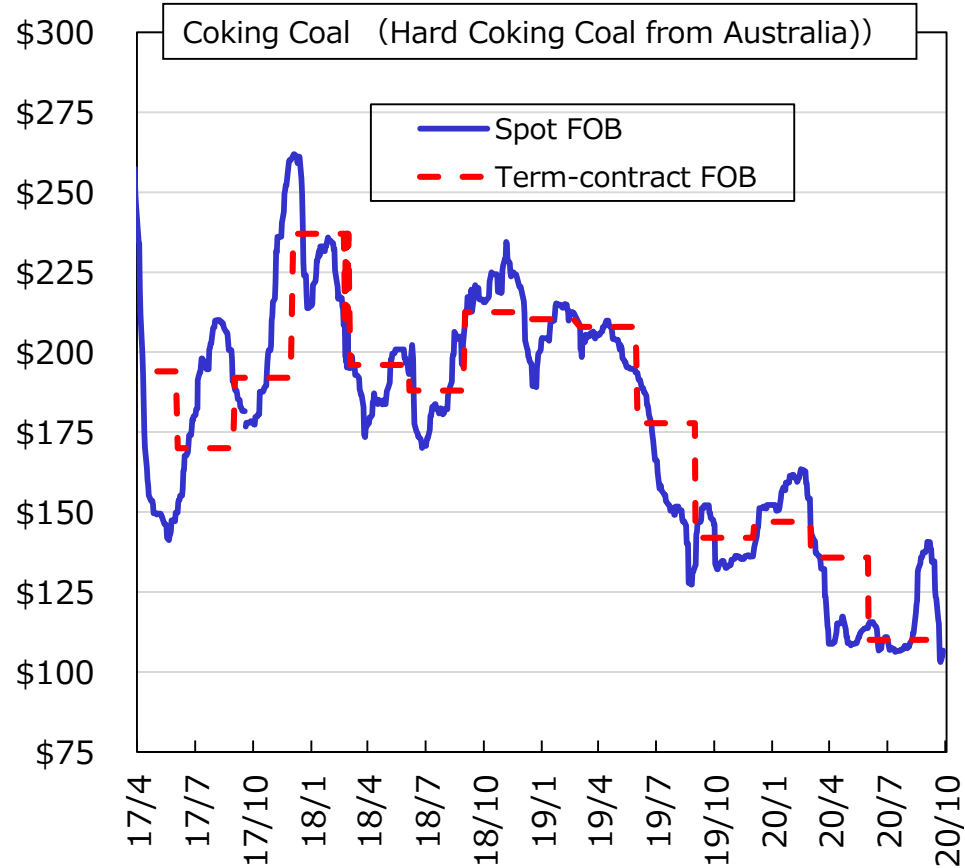
Raw Materials

Iron Ore and Coking Coal

(\$/DMT)



(\$/WMT)



Term-contract FOB	FY2020		
	Apr-Jun	Jul-Sep	Oct-Dec
\$/DMT	83	83	102

Term-contract FOB	FY2020	
	Apr-Jun	Jul-Sep
\$/WMT	136	110

Financial Forecast for Fiscal Year 2020

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	Unit	FY2019	FY2020			FY2020 Previous Forecast
		Full Year	1H	2H	Full Year	
Revenue	Billion yen	2,681.3	1,027.2	1,172.8	2,200.0	2,240.0
Segment Profit	Billion yen	(8.7)	(136.2)	1.2	(135.0)	(145.0)
Excluding Inventory Valuation etc. ^{*1}	Billion yen	21.3	(68.2)	(21.8)	(90.0)	(101.0)
Excluding one-off effect in FY2020 ^{*2}	Billion yen	-	(64.0)	(12.0)	(76.0)	
Crude Steel (Standalone)	Mt	26.73	10.17	Approx. 12.30	Approx. 22.50	Approx. 22.00
Crude Steel (Consolidated)	Mt	28.09	10.77			
Shipment (Standalone)	Mt	23.47	9.34			
Export Ratio on Value Basis (Standalone)	%	41.5	42.2			
Average Sales Price (Standalone)	000 yen/ t	78.8	73.1			
Exchange Rate	¥/\$	109.1	106.8	Approx. 105	Approx. 106	

*1 Excluding inventory valuation, carry over of raw materials and foreign exchange valuation from segment profit

*2 Excluding one-off effect and inventory valuation etc.^(*1)

10.0 Billion Yen Increase in JFE Steel's Segment Profit (FY2020 (Previous Forecast) vs. FY2020(Updated Forecast))

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Segment profit is expected to improve by 10.0 billion yen from the previous forecast of FY2020 thanks to increase in crude steel production volume with recovery of demand mainly in automobile sector

JFE Steel	FY2020 Previous Forecast	FY2020 Updated Forecast	(billion yen) Change Previous→Updated
Segment Profit	(145.0)	(135.0)	+ 10.0
1. Cost	±0.0		
2. Volume and Mix	+ 10.0	<ul style="list-style-type: none"> Increase in volume with recovery of demand mainly in automobile sector (Crude steel (Standalone): 22.00⇒22.50Mt +0.50Mt) 	
3. Sales and Raw materials	±0.0		
4. Inventory valuation	(1.0)	<ul style="list-style-type: none"> Inventory valuation + 2.0 (-47.0→-45.0) Carry over of raw materials -1.0 (+5.0→+4.0) Foreign exchange valuation -2.0(-2.0→-4.0) 	
5. Others	+ 1.0	<ul style="list-style-type: none"> Increase in profit of domestic and overseas subsidiary companies etc. 	

126.3 Billion Yen Decrease in JFE Steel's Segment Profit (FY2019 Actual vs. FY2020 Forecast)

Segment profit is expected to significantly decreased from the previous fiscal year amid decrease in production and sales volume, and decrease in profit of domestic and overseas subsidiary companies due to spread of COVID-19, although cost reduction of 100 billion yen is expected to be achieved.

JFE Steel	FY2019 Actual	FY2020 Forecast	(billion yen) Change
Segment Profit	(8.7)	(135.0)	(126.3)

1. Cost

+100.0

- Fixed cost reduction mainly sourced from repairing cost and labor cost
- Capital investment effect etc.

2. Volume and Mix

(109.0)

- Decreased in volume due to decline in demand (Crude steel (Standalone): 26.73⇒22.50Mt -4.23Mt)
- Deterioration of product mix

3. Sales and Raw materials

(23.0)

- (-1,100 yen/t-shipment)
- Narrowed metal spread with decreased steel price both in domestic and overseas market.

4. Inventory valuation

(15.0)

- Inventory valuation-23.0 (-22.0→-45.0)
- Carry over of raw materials +11.0 (-7.0→+4.0)
- Foreign exchange valuation-3.0(-1.0→-4.0)

5. Others

(79.3)

- Decrease in profit of domestic and overseas subsidiary companies etc.



137.4 Billion Yen Increase in JFE Steel's Segment Profit (FY2020.1H vs. FY2020.2H)

Segment profit in 2H will remarkably improve from 1H and eliminate the deficit, thanks to increase in crude steel production with recovery of demand mainly in automobile sector, and cancellation of the loss in inventory valuation in 1H etc.

JFE Steel	FY2020 Forecast			Change 1H→2H
	1H Actual	2H Forecast	Full Year	
Segment Profit	(136.2)	1.2	(135.0)	+137.4

(billion yen)

1. Cost

+15.0

- Shrink variable cost increase amid production reduction
- Fixed cost reduction mainly sourced from repairing cost and labor cost

2. Volume and Mix

+42.0

- Increase in volume with recovery of demand mainly in automobile sector
(Crude steel (Standalone): 10.17⇒12.30Mt +2.13Mt)

3. Sales and Raw materials

(5.0)

- (-500yen/t-shipment)
- Price hike of iron ore

4. Inventory valuation

+91.0

- Inventory valuation +71.0 (-58.0→+13.0)
- Carry over of raw materials +16.0 (-6.0→+10.0)
- Foreign exchange valuation +4.0 (-4.0→±0.0)

5. Others

(5.6)

- Increase in depreciation etc.



Countermeasures for Profit Improvement

➤ **Cost reduction (FY2020)**

Achieve **approx. 100.0 billion yen** in FY2020 as planned in the previous forecast, **including variable cost increase amid production reduction**

➤ **Measures to improve steel prices**

In addition to continuing efforts to reflect increase in various commodity prices, **conduct a comprehensive review of price extras for all products to realize appropriate sales price which meets product value and added value**

➤ **Profitability achievement in steel business in FY2021**

- **Steadily achieve profitability by further strengthening efficient production through cost-minimum operations, reducing costs through capital investment effects and fixed cost reductions, and continuously improving sales prices**

➤ **Steady execution of structural reforms** (Detail in the next page)

- Decided to **move up the targeted blow-in date of No. 6 blast furnace in Chiba district to December 2022** from 2023
- Decided to **shut down the upstream processes and hot rolling equipment in Keihin district by September 2023**

Steady Execution of Structural Reforms



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Revamping of No. 6 Blast Furnace in Chiba District

Cost : **approx. 43.0 billion yen**

Schedule : **Sep. 2022~Dec. 2022** (planned)

Post-revamp inner volume : **5,153m³**
(same as current inner volume)

Previous target: 2023
(released on 27th March)

Shutdown of Keihin's Upstream Processes and Hot Rolling

- **Shut down the upstream processes and hot rolling equipment in Keihin district by September 2023**

in accordance with the plan to complete the revamping of No. 6 blast furnace in Chiba district

Previous target: FY2023
(released on 27th March)

- **Realize early profit improvement totaling approx. 85.0 billion^{*1}** as a result of a series of structural reforms

*1 •Fixed cost reduction due to shutdown of facilities etc.: approx. 60.0 billion yen compared with FY2019
•Depreciation reduction due to impairment: approx. 25.0 billion yen compared with FY2019

- **Achieve an effect of approx. 26.0 billion yen in FY2020**

•Fixed cost reduction including repairing cost: **approx. 10.0 billion yen**
•Depreciation reduction due to impairment: **approx. 16.0 billion yen^{*2}**

*2 Including the effect of shortened useful life due to the shutdown of facilities

Status of Blast Furnace Operation and Schedule of Shutdown and Revamping

Steel Works (District)	Furnace	Inner volume (m ³)	Status	Schedule
East Japan Works (Chiba district)	No.6	5,153	in operation	<ul style="list-style-type: none"> To be revamped (targeted blow-in date: December 2022)
East Japan Works (Keihin district)	No.2	5,000	in operation	<ul style="list-style-type: none"> To be shut down in around September 2023
West Japan Works (Kurashiki district)	No.2	4,100	in operation	
	No.3	5,055	in operation	
	No.4	5,005	being revamped	<ul style="list-style-type: none"> Shut down in April 2020 and being revamped by December 2021
East Japan Works (Fukuyama district)	No.3	4,300	in operation	
	No.4	5,000	in operation	<ul style="list-style-type: none"> Temporarily shut down since latter June 2020 Resumed operation in latter August and shifted normal operation on 17th September
	No.5	5,500	in operation	

JFE Engineering

Financial Forecast for Fiscal Year 2020

Financial Forecast for Fiscal Year 2020

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Current Business Environment

- Domestic demands in environmental sector, and social infrastructure such as steel structures are expected to remain solid.
- Due to the impact of COVID-19, some overseas projects were suspended. Although new projects in domestic private sector and overseas may be suspended or orders may be postponed, the impact will be limited.
- Segment profit is expected to exceed 20.0 billion yen even under the spread of COVID-19, maintaining stable earnings.

(billion yen)	FY2019 (Actual)		FY2020 (Updated Forecast)		Change (FY2019 vs FY2020)		FY2020 (Previous forecast)	
	1H	Full Year	1H	Full Year	1H	Full Year	1H	Full Year
Orders	189.5	413.0	298.9	500.0	109.4	87.0	320.0	500.0
Revenue	238.9	512.2	221.9	490.0	(17.0)	(22.2)	215.0	490.0
Segment Profit	11.9	23.1	8.7	21.0	(3.2)	(2.1)	6.0	21.0

Compared to FY2019

<Full Year> · Orders	+87.0	Increase in large-scale orders for public works in environmental sector
· Revenue	(22.2)	Impact of COVID-19 and decrease in work volume
· Segment Profit	(2.1)	Decrease in revenue

Compared to the previous forecast of FY2020

<1H> · Orders	(21.1)	Decrease with change in schedule of contracts
· Revenue	+6.9	Increase due to the further ahead progression of works
· Segment Profit	+2.7	Increase in revenue and change in schedule of incurring costs

JFE Shoji
Financial Forecast
for Fiscal Year 2020



Financial Forecast for Fiscal Year 2020

JFE

Current Business Environment

- Although there are signs of recovery in automobile production in Japan, the demand for ship building remains weak.
- The demand for construction and building materials in North America bottomed out. However, demand for energy sector remains sluggish.
- The level of domestic and overseas business activities varies by regions and industries

Financial Forecast

(billion yen)	FY2019 (Actual)		FY2020 (Updated Forecast)		Change (FY2019 vs FY2020)		FY2020 (Previous forecast)	
	1H	Full Year	1H	Full Year	1H	Full Year	1H	Full Year
Revenue	557.5	1,084.1	451.7	930.0	(105.8)	(154.1)	430.0	900.0
Segment Profit	14.6	27.0	7.2	13.0	(7.4)	(14.0)	5.5	12.0

Compared to FY2019

<1H> Revenue and Segment profit decreased both in Japan and overseas due to significant drop in demand for steel caused by the spread of COVID-19.

<Full Year> Although gradual recovery of demand is expected from 2H, steel demand varies by regions and industries. Therefore, sales volume is expected to remain at a lower level, resulting in a decrease in revenue and profits.

Compared to the previous forecast of FY2020

<1H> The negative impact caused by the spread of COVID-19 was smaller than expected in 2Q. Revenue and Segment Profit in 1H exceeded the previous forecast.

<Full Year> Full-year profit is expected to be 13.0 billion yen (increased by 1.0 billion yen from the previous forecast), considering the sluggish North American energy market.

ESG Initiatives

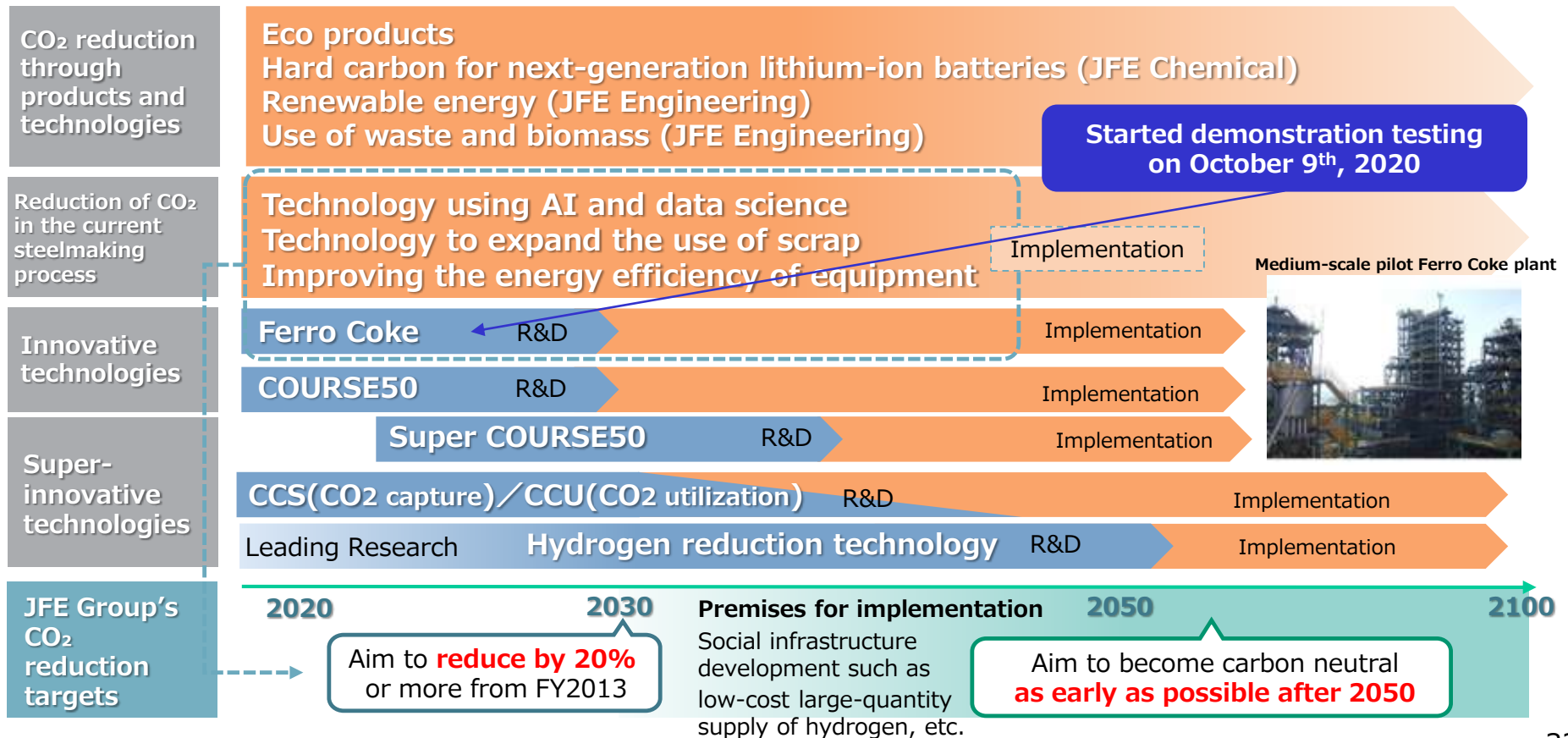


JFE Group's Initiatives for Climate Change Issues

JFE

Toward 2030 : Aiming to **reduce CO₂ emissions by 20% or more by FY2030 compared to FY 2013**, maximizing the use of the current technologies to reduce CO₂ emissions in steelmaking process and Ferro Coke production technology currently under development.

Toward 2050 : In line with the social transformation to establish carbon-free infrastructure over the long term, JFE will strive to be **carbon neutral within the JFE Group as soon as possible after 2050**.



Selected as a DX (Digital Transformation) Stock 2020



Selected as a DX Stock 2020, through active promotion of strategic IT investment

Released on August 25th, 2020

- ◆ JFE Group has been selected as “Competitive IT Strategy Company Stock Selection” for five consecutive years

* Competitive IT Strategy Company Stock Selection has been changed to DC Stock Selection with a focus on digital transformation (DX) to realize new growth and enhance competitive strength by fundamentally transforming business models based on digital technology.

- ◆ JFE Group actively promotes to utilize DX to resolve crucial management issues, and builds **a strong and resilient business structure that can flexibly respond to changes** in the business environment by **dramatically increasing the Group's competitiveness** and **establishing a stable profit base.**



DX Strategy (1) Controlling Blast Furnace Operation with AI

Introducing Data Science Technology at All Steelworks Blast Furnaces

- Converting its eight blast furnaces in Japan to cyber-physical system (CPS) that are managed with computer-based algorithms. Each blast furnace has approx. 2,000 sensors which collect operational data
- Allowing to predict heat conditions and anomalies and air permeability, which were difficult to predict
- **Greatly contributing to smooth and quick restart of No. 4 Blast Furnace at the West Japan Works (Fukuyama district)** which had been banking

Grasp furnace conditions and predict anomalies

Realize stable and efficient operation

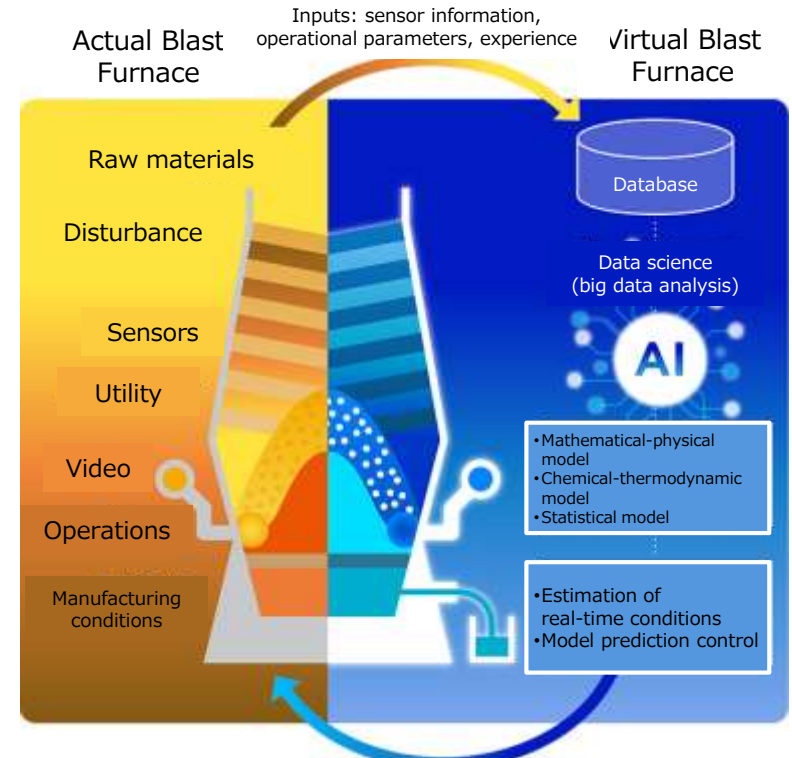
Contributing to saving energy consumption of blast furnace

Reduce CO₂ emissions from Steelworks

Cyber Physical System (CPS)

- Collect enormous sensor data from physical space such as actual manufacturing processes and products into virtual (cyber) space
- Feed back results of analysis by various methods to physical space in real time
- Contribute to improving productivity and stability by feeding back internal conditions of facilities that are unable to be observed in reality and future predictions

■ Blast Furnace CPS Concept



Feed Back and Feed Forward

DX Strategy (2) Established JDXC™

Released on July 20th, 2020

Establishing the JFE Digital Transformation Center: a base for promoting DX

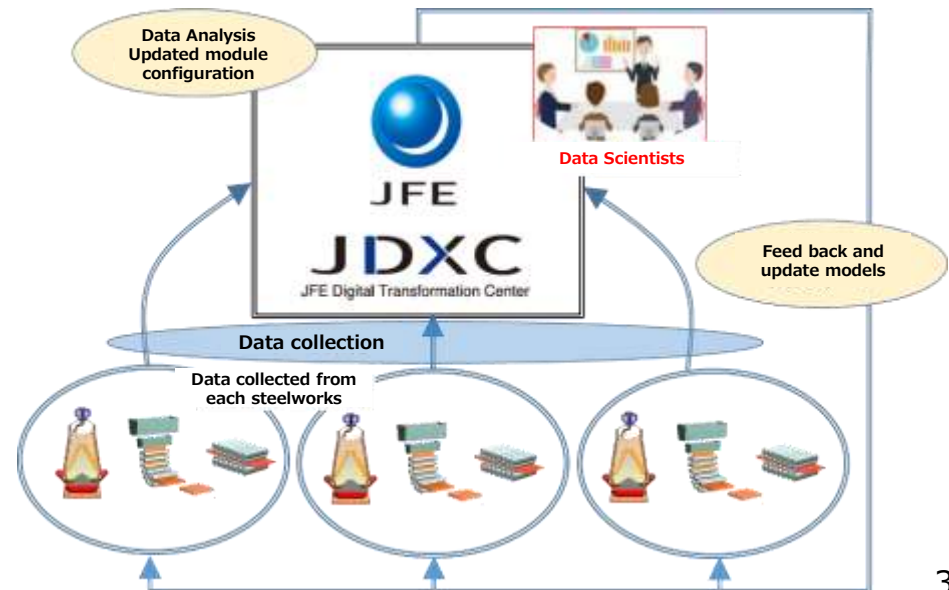
<**The first facility in the Japanese steel industry** capable of comprehensive utilization of data from all steelworks and other works>

1. Promoting **productivity increase** and **cost reduction** by collecting data from all the facilities from all steelworks and other districts and data sharing between districts.
2. **Improving entire steelmaking technology further** by accelerating standardization of production process models.
3. **Training and increasing data scientists** centered around JDXC™ through sharing knowledge and experiences of in-house data scientists and solving problems

Inside of JDXC™



JDXC™ structure

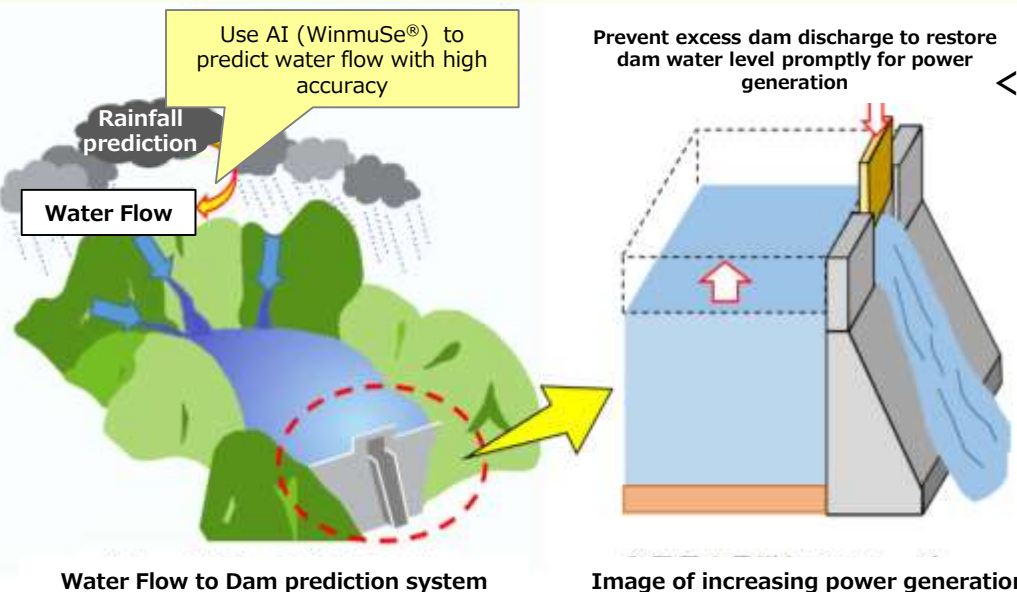


Joint Development of "Dam Optimal Operation System" using AI with Hokuriku Electric Power Co.

<Use AI to predict inflow into dams and optimize collected data to help further increase hydropower generation>

1. The AI engine named WinmuSe[®] originally developed by JFE Engineering predicts the inflow in advance when there is a possibility of an increase in inflow due to localized torrential rain, etc.
2. WinmuSe[®] has been let the actual rainfall and inflow records related to Asaida Dam. Additionally, the prediction know-how of Hokuriku Electric Power Company has enabled the prediction accuracy to improve significantly.
3. The forecast increased power generation by 5M kWh per year by optimizing dam operation and preventing excess dam discharge.

→ We will develop this system further to greatly increase hydropower electric generation which does not emit CO₂.



<Testing site in 2019: Asaida Dam in Toyama Prefecture>



Increase power generation by harnessing water discharged from the gates

JFE Group Report 2020, CSR Report, and ESG Briefing

JFE

Published JFE Group Report 2020 (September 24th) and CSR Report (September 30th)



1. JFE's measures to realize sustainable society

English version is coming soon

~Initiatives for Climate-related Risks~

- Setting JFE Group's targets for reducing CO₂ emissions
- Presenting the JFE Group's road map for CO₂ reduction to achieve carbon neutrality

2. Measures for increasing sustainable value ~Business Strategy Features~

- Strengthening competitiveness by promoting Digital Transformation (DX)
- Establishing a stable profit base.
- JFE Group's Human Resource's strategy etc.



Starting this fiscal year, JFE's CSR Report has changed from a paper-based report to a comprehensive information disclosure on its website, with the aim of improving the readability of the latest information and linking it with other published materials.

English version is coming soon

1. Material CSR Issues of the JFE Group

2. Initiatives for ESG Issues, ESG Data

- Environmental : Climate change issues, measures for water security etc.
- Social : Responsibility to customers, occupational safety measures etc.
- Governance : Compliance, risk management etc.

Held ESG Briefing on October 8th, 2020

See the presentation material and Q&A Summary on JFE Holdings' Website.



Appendix



Main Financial Data

JFE

J-GAAP

	FY12	FY13	FY14	FY15	FY16	FY17	FY18
(bn. Yen, times)							
Ordinary Income	52.2	173.6	231.0	64.2	84.7	216.3	221.1
EBITDA	260.6	368.9	421.5	254.4	279.9	388.8	405.9
ROS	1.6%	4.7%	6.0%	1.9%	2.6%	5.9%	5.6%
ROE	2.7%	6.3%	7.7%	1.8%	3.7%	7.6%	8.3%
ROA	1.6%	4.5%	5.5%	1.7%	2.3%	5.2%	5.1%
Debt Outstanding	1,596	1,534	1,501	1,379	1,375	1,331	1,450
Debt/EBITDA Ratio	x6.1	x4.2	x3.6	x5.4	x4.9	x3.4	x3.6
D/E Ratio	76.9%	67.9%	59.0%	56.9%	51.4%	58.1%	62.0%
Profit attributable to owners of parent (yen/share)							
	71.2	177.4	241.6	58.4	117.8	250.8	285.0
Dividend (yen/share)	20	40	60	30	30	80	95
Pay-out Ratio	28.1%	22.5%	24.8%	51.4%	25.5%	31.9%	33.3%

IFRS

Forecast

	FY18	FY19	FY20
(bn. Yen, times)			
Business profit	232.0	37.8	-90.0
EBITDA * 1	428.2	269.4	150.0
ROS * 2	6.0%	1.0%	-2.8%
ROE * 3	8.6%	-11.1%	-6.3%
ROA * 4	5.0%	0.8%	-2.0%
Interest-bearing debt outstanding	1,524	1,814	1,900
Debt/EBITDA multiple	x3.6	x6.7	x12.7
D/E Ratio * 6	68.2%	96.4%	106.6%
Profit attributable to owners of parent (yen/share)			
	283.8	-343.4	-174
Dividend (yen/share)	95	20	TBD
Pay-out Ratio	33.5%	-	TBD

Notes
[IFRS]

- * 1 EBITDA = Business profit + Depreciation and Amortization
 - * 2 ROS = Business profit / Revenue
 - * 3 ROE = Profit attributable to owners of parent company / Equity
 - * 4 ROA = Business profit / Total assets
 - * 5 Debt/EBITDA ratio = Interest-bearing debt outstanding / EBITDA
 - * 6 D/E ratio = Interest-bearing debt outstanding / Equity attributable to owners of parent
- For debt having a capital component, a portion of its issue price is deemed to be capital, as assessed by rating agency -



153.9 Billion Yen Decrease in JFE Steel's Segment Profit (FY2019.1H⇒FY2020.1H)

JFE Steel	FY2019.1H Actual	FY2020.1H Actual	(billion yen) Change
Segment Profit	17.7	(136.2)	(153.9)

1. Cost	+46.0	<ul style="list-style-type: none"> Fixed cost reduction mainly sourced from repairing cost and labor cost Capital investment effect etc.
2. Volume and Mix	(84.0)	<ul style="list-style-type: none"> Decrease in volume with demand decline (Crude steel (Standalone): 13.79⇒10.17Mt -3.62Mt) Deterioration of product mix
3. Sales and Raw materials	(9.0)	(-1,000yen/t-shipment) <ul style="list-style-type: none"> Narrowed export spread
4. Inventory valuation	(64.0)	<ul style="list-style-type: none"> Inventory valuation -52.0 (-6.0→-58.0) Carry over of raw materials -11.0 (+5.0→-6.0) Foreign exchange valuation-1.0(-3.0→-4.0)
5. Others	(42.9)	<ul style="list-style-type: none"> Decrease in profit of domestic and overseas subsidiary companies etc.



109.8 Billion Yen Decrease in JFE Steel's Segment Profit (FY2019.2H(Actual) vs. FY2020.1H(Actual))

JFE

(billion yen)

JFE Steel	FY2019 2H(Actual)	FY2020 1H(Actual)	Change FY2019.2H →FY2020.1H
Segment Profit	(26.4)	(136.2)	(109.8)

1. Cost**+40.0**

- Fixed cost reduction mainly sourced from repairing cost and labor cost
- Capital investment effect, shrink cost increase due to reduced production etc.

2. Volume and Mix**(68.0)**

- Decrease in volume with demand decline
(Crude steel (Standalone): 12.94⇒10.17Mt -2.77Mt)
- Deterioration of product mix

3. Sales and Raw materials**(10.0)**

- (-1,100 yen/t-shipment)
- Narrowed spread due to price decline in overseas steel market

4. Inventory valuation**(42.0)**

- Inventory valuation -42.0 (-16.0→-58.0)
- Carry over of raw materials +6.0 (-12.0→-6.0)
- Foreign exchange valuation -6.0 (+2.0→-4.0)

5. Others**(29.8)**

- Decrease in profit of domestic and overseas subsidiary companies

20.6 Billion Yen Decrease in JFE Steel's Segment Profit (FY2020.1Q(Actual) vs. FY2020.2Q(Actual))

JFE

JFE Steel	FY2020			Change FY2020.1Q →FY2020.2Q
	1Q(Actual)	2Q(Actual)	1H	
Segment Profit	(57.8)	(78.4)	(136.2)	(20.6)

(billion yen)

1. Cost

+15.0

- Fixed cost reduction mainly sourced from repairing cost and labor cost
- Capital investment effect, shrink cost increase due to reduced production etc.

2. Volume and Mix

+6.0

- Decrease in volume with demand decline
(Crude steel (Standalone): 4.79 ⇒ 5.38Mt +0.59Mt)

3. Sales and Raw materials

(12.0)

- (-3,700 yen/t-shipment)
- Narrowed spread with price decline in overseas steel market despite of price decline of coking coal

4. Inventory valuation

(22.0)

- Inventory valuation -16.0 (-21.0→-37.0)
- Carry over of raw materials -6.0 (±0→-6.0)
- Foreign exchange valuation±0 (-2.0→-2.0)

5. Others

(7.6)

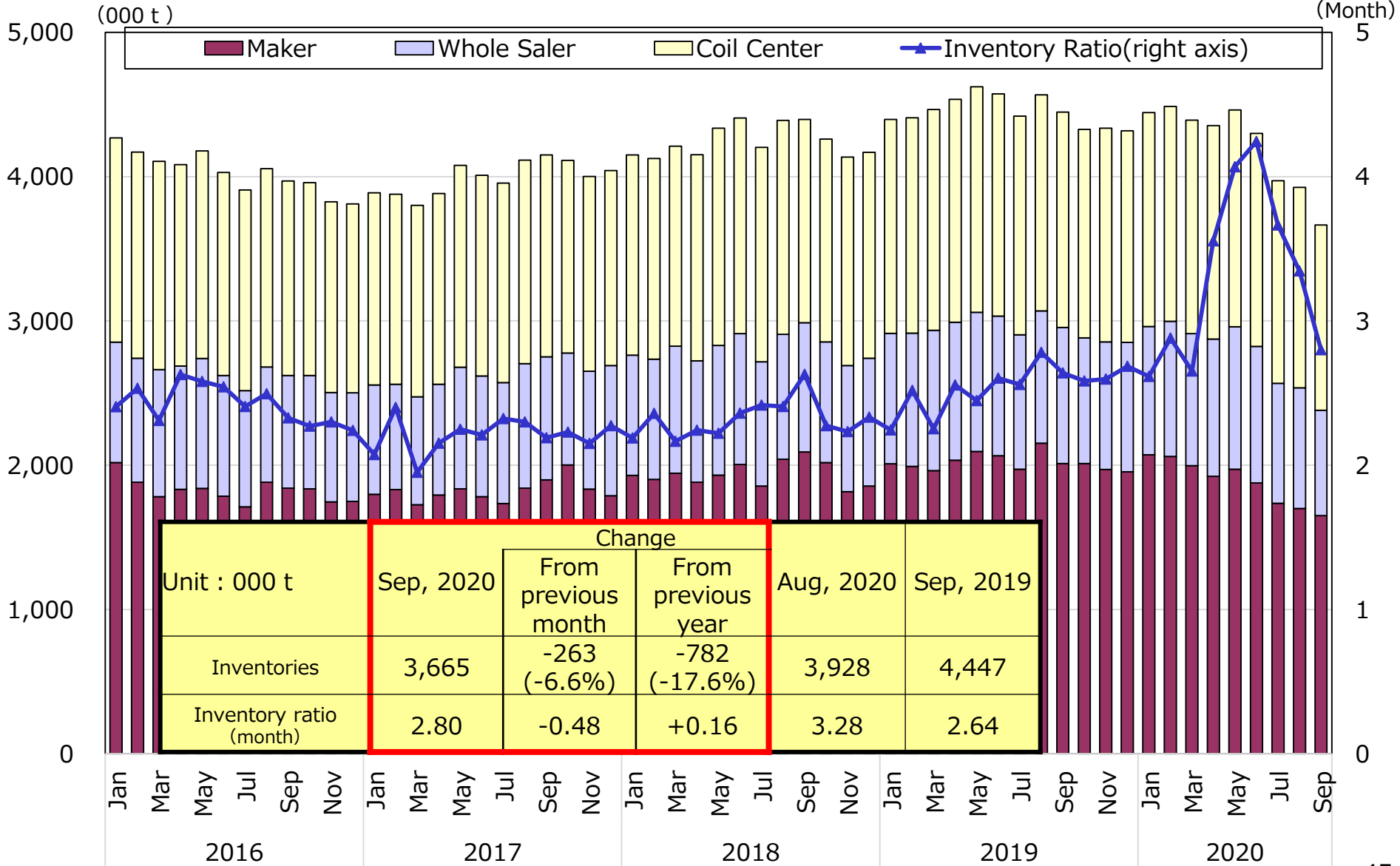
Main Facilities Scheduled for Shutdown

District	Facility	Details	Original Startup	Shutdown Timing
Keihin	No.2 Blast Furnace	Furnace volume: 5,000m ³	Mar. 2004	Around September 2023*
	Shaft Furnace	Furnace volume: 172m ³	Aug. 2008	
	No.1 Sintering Machine	Grate area: 450m ²	Oct. 1976	
	No.1 Coke Oven	124 chambers	Nov. 1976	
	No.2 Coke Oven	74 chambers	Jul.1979	
	Feedstock Facilities	Facilities for loading, inventory intake/ distribution, etc.		
	Converters	2 × 328 t /ch	Nov. 1976	
	No.1 Electric Arc Furnace	1 × 50 t /ch	Apr. 1979	
	No.1 Continuous Casting Machine	2 -strand (slab)	Nov. 1976	
	No.3 Continuous Casting Machine	2 -strand (slab)	Mar. 1979	
	No.5 Continuous Casting Machine	6 -strand (billet)	Dec. 1982	
	Hot Rolling Facilities (excl. pickling line and skinpass mill)	Thickness: 1.2~25.4mm Width: 600~2,300mm	Mar. 1979	
	*No.1 Tandem Cold Mill	Thickness: 0.12~1.65mm Width: 600~1,305mm	Apr. 1961	March 2020
*No.3 CGL	Thickness: 0.27~2.3mm Width: 610~1,250mm	Apr. 1983		
Chiba	No.2 Tandem Mill	Thickness: 0.1~0.6mm Width: 600~1,100mm	May. 1963	Around September 2022*
	No.2 CAL	Thickness: 0.17~0.6mm Width: 600~1,250mm	Jul. 1980	March 2020
	No.4 CAL	Thickness: 0.15~0.4mm Width: 600~1,067mm	Mar. 1990	Around September 2022*
	TFL	Thickness: 0.1~0.6mm Width: 457~1,067mm	Jun. 1983	
	No.2 ETL	Thickness: 0.1~0.6mm Width: 600~1,067mm	Nov. 1972	March 2020

*Indicates decided shutdown schedule this time

Domestic Market Environment

Combined Inventories of HR, CR and Coated Steel Sheet

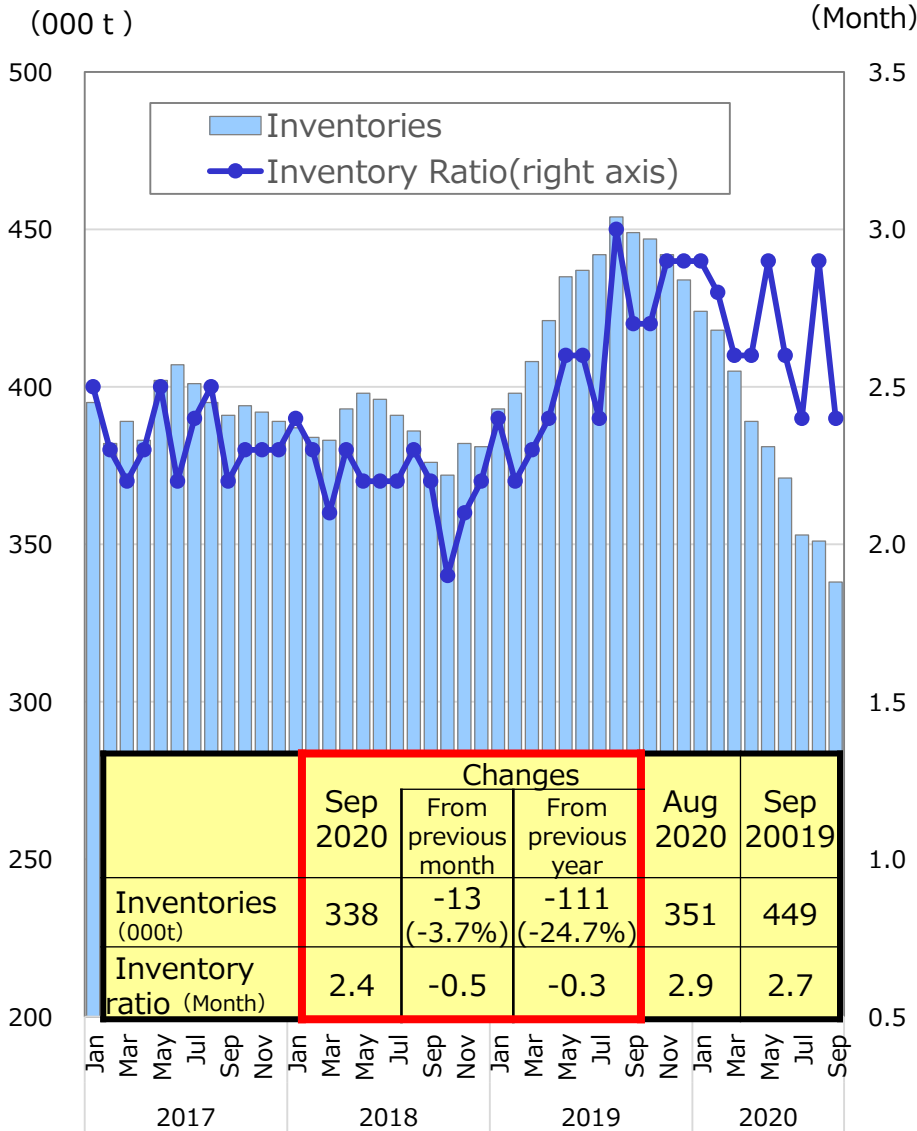




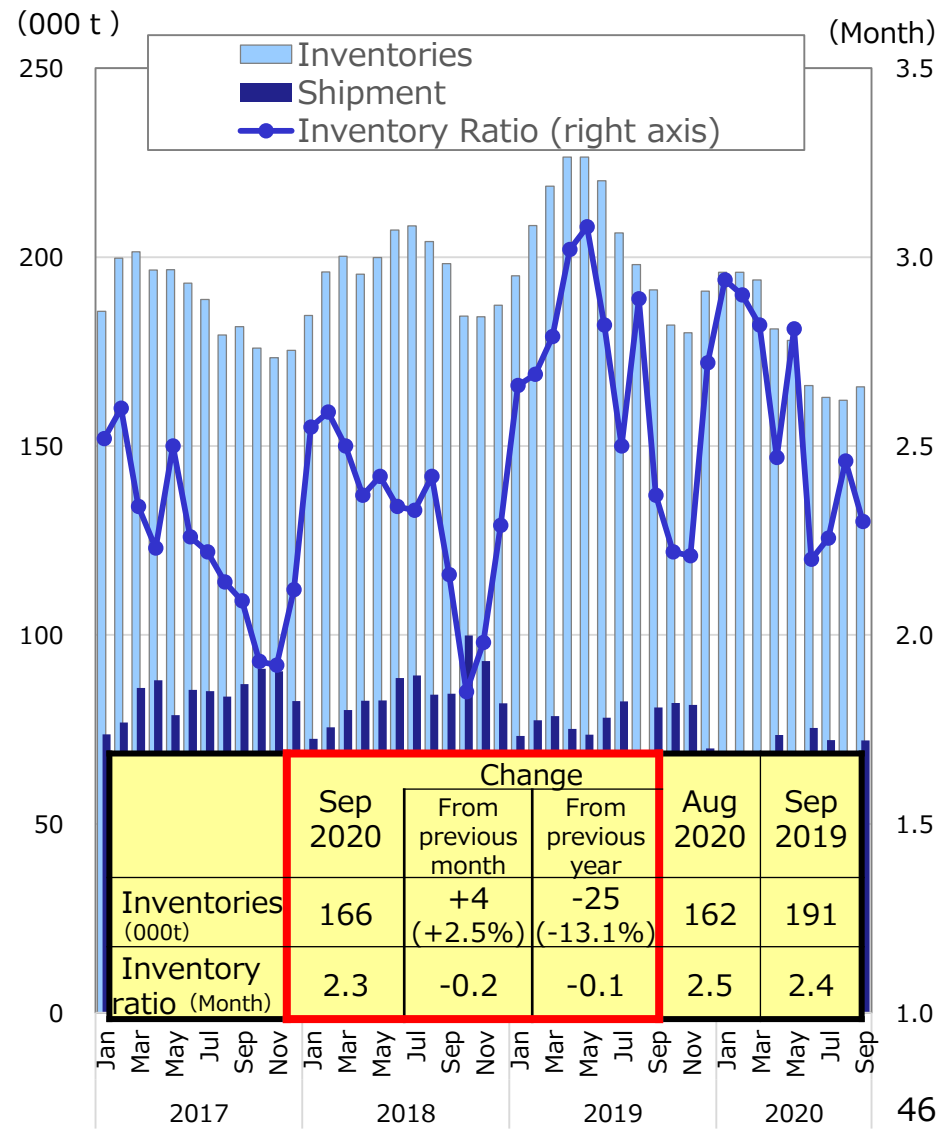
Domestic Market Environment

Inventories of Plate (Plate Shear) and Wide Flange Shapes

Inventories of Plate (Plate Shear)



Inventories of Wide Flange Shapes

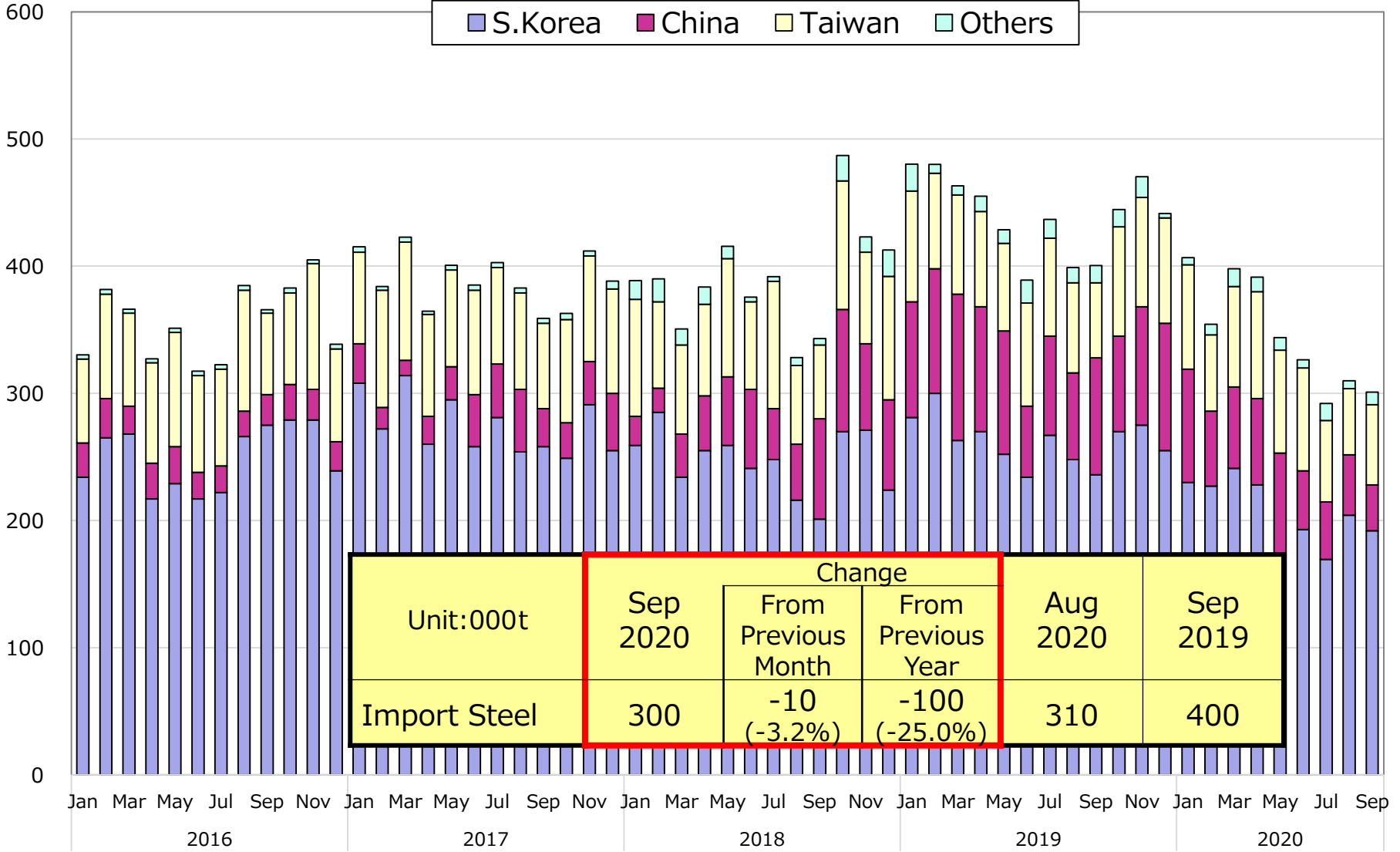


Domestic Market Environment

Trend of Import Steel (Ordinary Steel)



(千 t)



Unit:000t	Sep 2020	Change		Aug 2020	Sep 2019
		From Previous Month	From Previous Year		
Import Steel	300	-10 (-3.2%)	-100 (-25.0%)	310	400



Overseas Market Environment

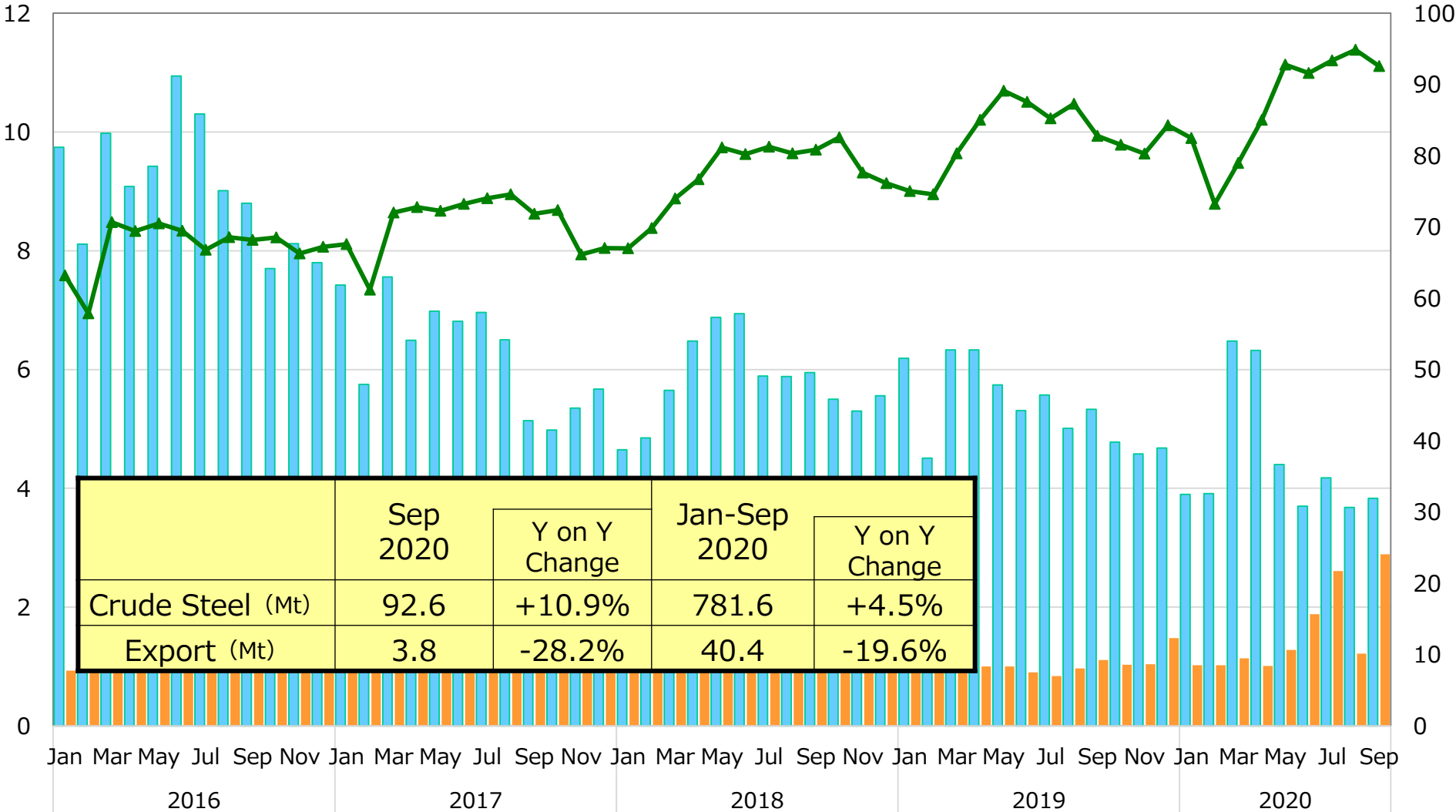
Crude Steel & Im/Export, China

(Mt)

Export (Left axis)

Import (Left axis)

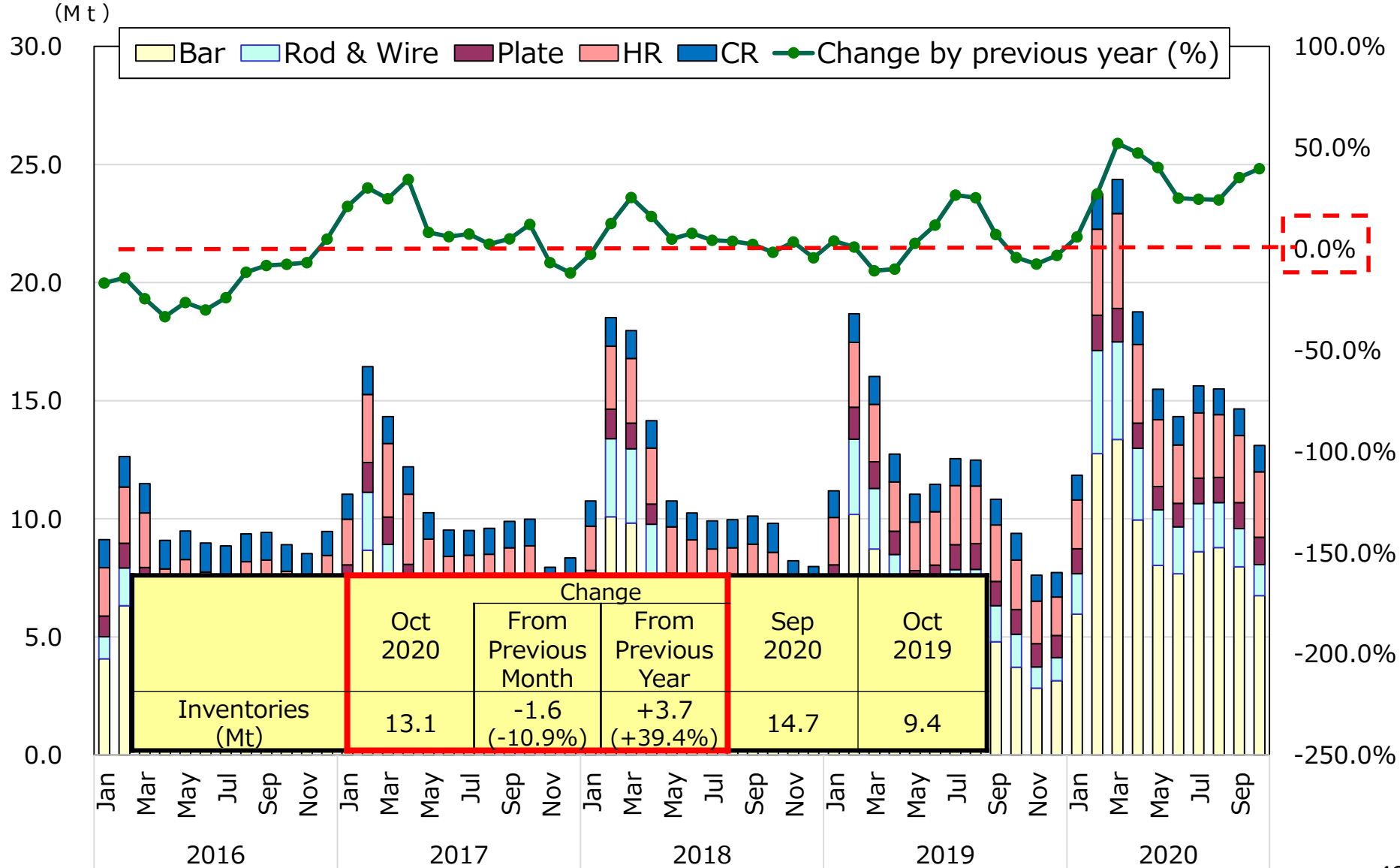
(Mt)



Crude steel in Jan. and Feb.: WSA's estimation

Overseas Market Environment

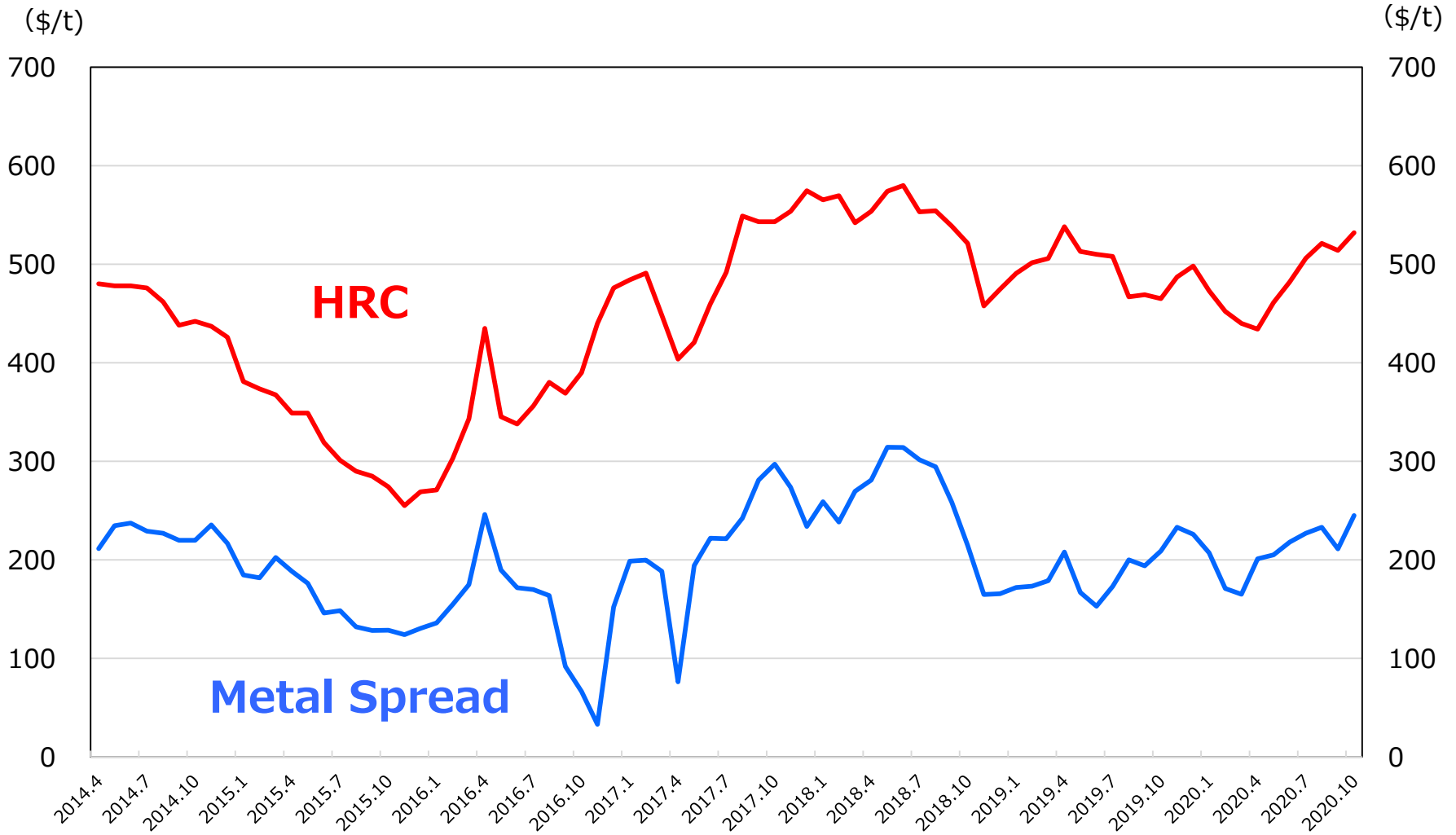
Inventories in China by Product





Overseas Market Environment

Metal Spread Trend (Chinese Spot Basis)



Metal Spread = HRC Price – Raw Materials Cost

*HRC Price : Chinese Spot basis

Raw Materials Cost : Calculated from market price of Iron Ore and Hard Coking Coal

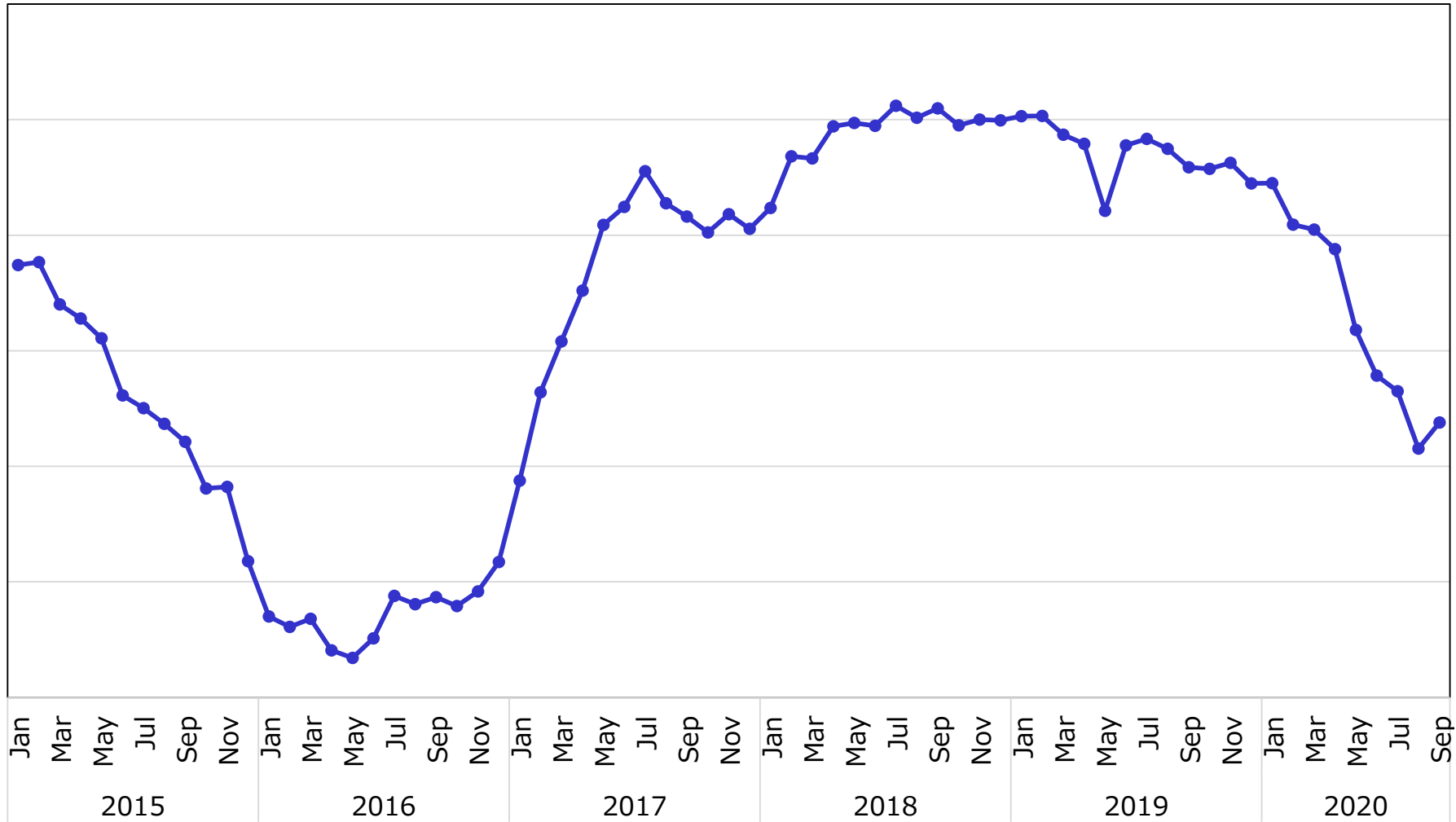


Domestic Market Environment

Price Trend of Import Steel

JFE

(000 yen/ ton)

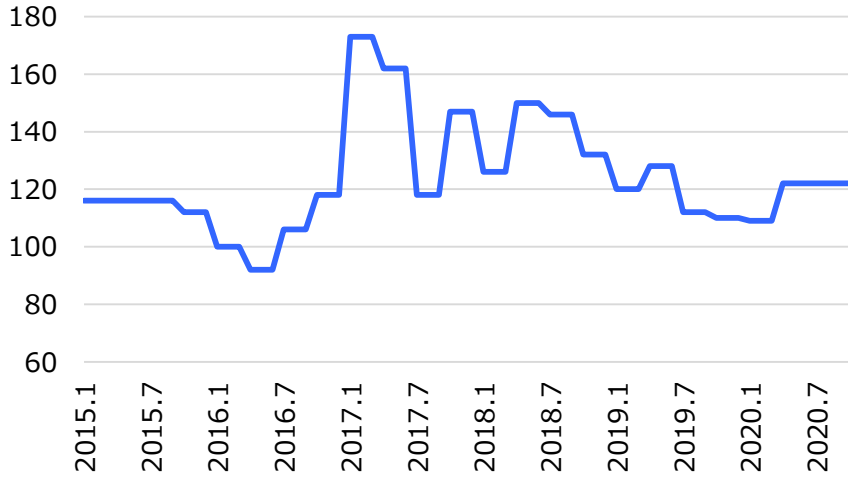


Raw Materials

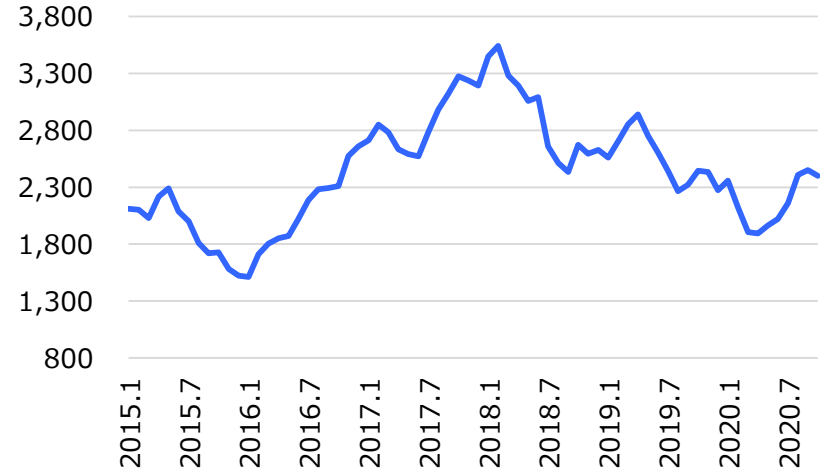
Trend of Metal's Market Price



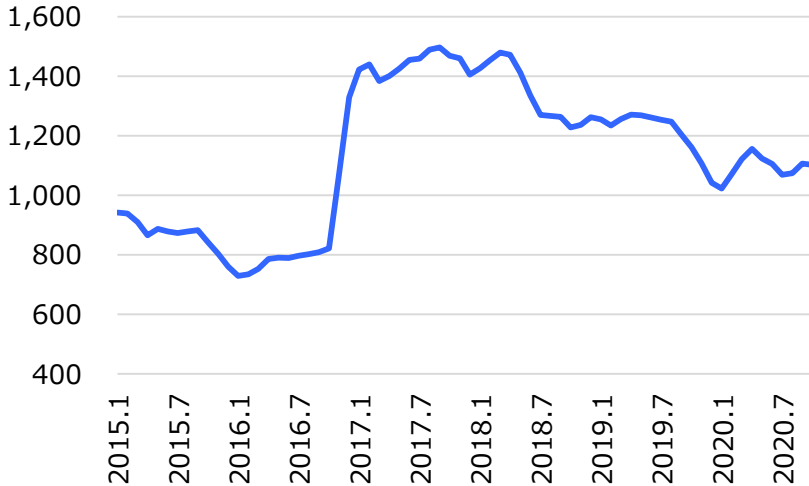
(¢/lb) FeCr



(U\$/t) Zn



(U\$/t) FeMn



(U\$/lb) Mo

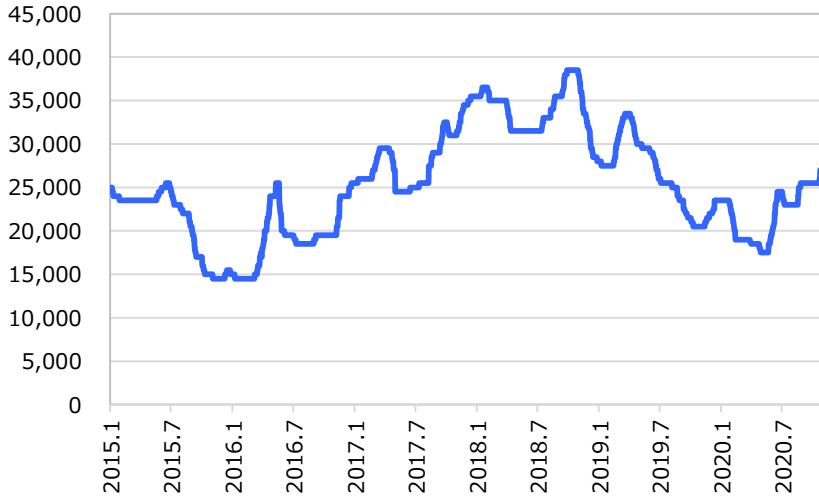




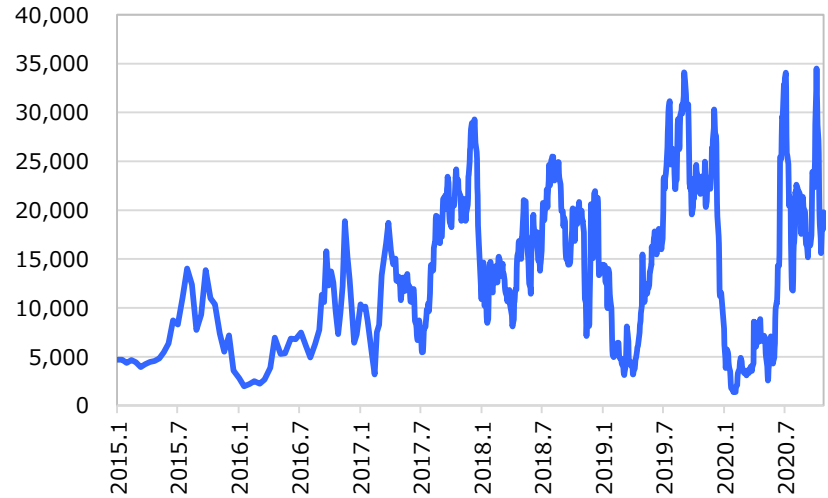
Raw Materials

Trend of Sub Material's Market Price

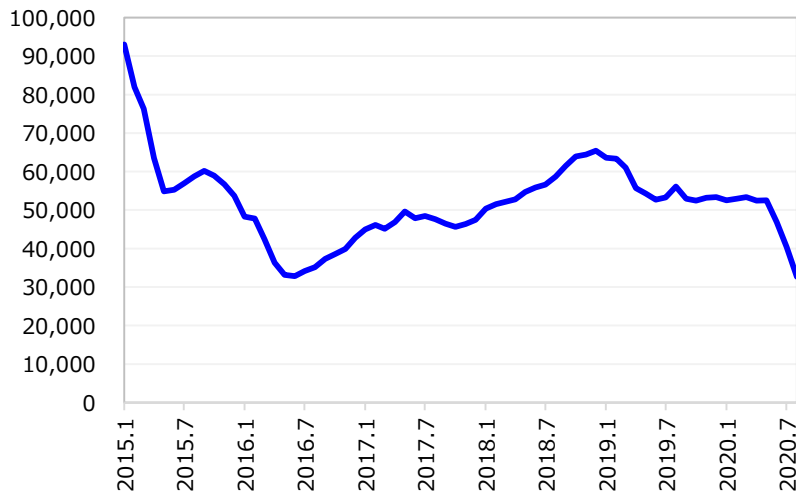
(円/ t) Scrap



(\$/B) Spot Bulker



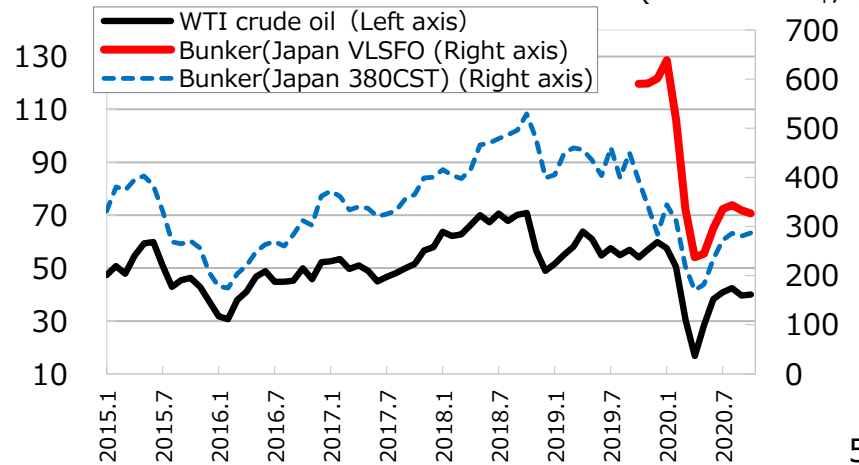
(円/ t) LNG



Oil

(crude oil: \$/bbl)

(bunker oil: \$/t)





Orders by Business Field

JFE

(billion yen)

Business Field	FY2019 Actual	FY2020 Forecast	Change	Main orders received in FY2020 1H ★...New projects received in FY2020 2Q
Environment	187.1	260.0	72.9	<ul style="list-style-type: none"> ➤ Construction of waste treatment plant [Fukui, Fukuyama★, Kurashiki★, Okayama★] ➤ Improvement works of waste treatment plant [Hiroshima, Yamato★] ➤ Improvement works of Tsubame-Yahiko water purification plant [Niigata]
Energy	109.8	120.0	10.2	<ul style="list-style-type: none"> ➤ Construction of BOG treatment related facility [Sakai, Osaka]
Social infrastructure etc.	116.1	120.0	3.9	<ul style="list-style-type: none"> ➤ Reconstruction works of domestic bridges [No.1 Shimizu grade Yasaka viaduct, Shizuoka]
Total	413.0	500.0	8.7	

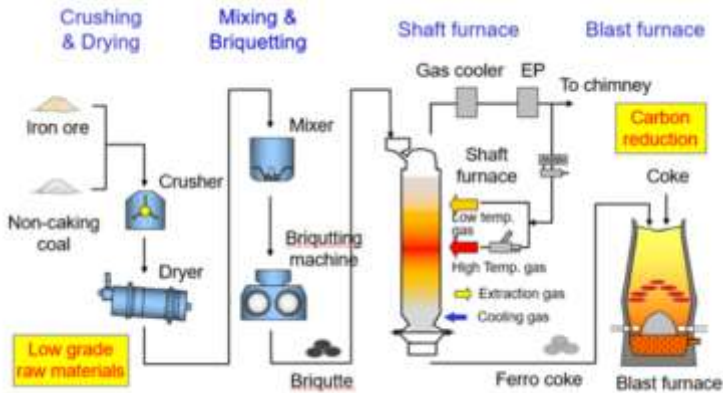


Started Demonstration Testing of Ferro Coke Production at Medium-scale Facility

Promote the development of innovative technologies to achieve decarbonization ahead of the rest of the world

- Innovative material for a blast furnace produced from low-ranked iron ore and coal
- Energy saving technology that **significantly reduces the amount of use of cokes in blast furnace** by catalysis of metallic iron inside ferro-coke
- Completed construction of medium-scale ferro-coke production facility with a daily production capacity of 300 tons in JFE Steel’s West Japan Works in Fukuyama district, and started its demonstration testing on October 9th. (Released on October 12th, 2020)
- Pursue **10% reductions of energy consumptions and CO2 emissions of iron-making process** and **expand the use of low-rank materials**

■ Ferro-coke production process



■ Medium-scale facility



■ Ferro coke and its cross section



- Actively take measures to achieve decarbonization by promoting development of energy-saving steelmaking process to make it more efficient
- Contribute to realizing sustainable society through further development of innovative steelmaking technology



JFE