



JFE Group
*Financial Results in First Half of
Fiscal Year 2019 ending March 31, 2020*

JFE Holdings, Inc.
November 12, 2019

1. JFE Holdings' Financial Results in First Half of Fiscal Year 2019 (April 1 to September 30, 2019) and Financial Forecasts for Fiscal Year 2019 (April 1, 2019 to March 31, 2020)
 - JFE Steel
 - JFE Engineering
 - JFE Shoji Trade
2. Dividends

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 in First Half
of Fiscal Year 2019
(April 1 to September 30, 2019)**



Financial Results in First Half of Fiscal Year 2019

JFE

(billion yen)	FY2018 * 1H (Apr-Sep)	FY2019 1H (Apr-Sep)	Change
Revenue	1,892.3	1,871.2	(21.1)
Business Profit	154.6	49.0	(105.6)
Financial Income/Costs	(6.2)	(6.3)	(0.1)
Segment Profit	148.4	42.7	(105.7)
Exceptional Items	—	—	—
Profit before Tax	148.4	42.7	(105.7)
Tax Expense and Profit (Loss) Attributable to Non-Controlling Interests	(39.6)	(10.8)	28.8
Profit Attributable to Owners of Parent	108.8	31.9	(76.9)

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.

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.



Financial Results in First Half of Fiscal Year 2019 (by Segment)

JFE-HD

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(billion yen)	FY2018 * 1H (Apr-Sep)	FY2019 1H (Apr-Sep)	Change
Steel Business	1,402.5	1,353.1	(49.4)
Engineering Business	202.1	238.9	36.8
Trading Business	570.6	557.5	(13.1)
Adjustments	(282.9)	(278.3)	4.6
Revenue	1,892.3	1,871.2	(21.1)
Business Profit (A)	154.6	49.0	(105.6)
Financial Income/Costs (B)	(6.2)	(6.3)	(0.1)
Segment Profit			
Steel Business	117.3	17.7	(99.6)
Engineering Business	7.7	11.9	4.2
Trading Business	19.3	14.6	(4.7)
Adjustments	3.9	(1.5)	(5.4)
Total (A+B)	148.4	42.7	(105.7)

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.

**Consolidated Financial Forecasts
for Fiscal Year 2019
(April 1, 2019 to March 31, 2020)**



Financial Forecasts for Fiscal Year 2019

JFE

(billion yen)	FY2019 (Previous Forecast Aug. 9 2019)		FY2019 (Updated Forecast Nov. 12 2019)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Revenue	1,870.0	3,960.0	1,871.2	3,730.0	1.2	(230.0)
Business Profit	55.0	140.0	49.0	60.0	(6.0)	(80.0)
Financial Income/Costs	(5.0)	(15.0)	(6.3)	(13.0)	(1.3)	2.0
Segment Profit	50.0	125.0	42.7	47.0	(7.3)	(78.0)
Exceptional Items	–	–	–	–	–	–
Profit before Tax	50.0	125.0	42.7	47.0	(7.3)	(78.0)
Tax Expense and Profit (Loss) Attributable to Non-Controlling Interests	(15.0)	(35.0)	(10.8)	(14.0)	4.2	21.0
Profit Attributable to Owners of Parent	35.0	90.0	31.9	33.0	(3.1)	(57.0)



Financial Forecasts for Fiscal Year 2019 (by Segment)

JFE

(billion yen)	FY2019 (Previous Forecast Aug. 9 2019)		FY2019 (Updated Forecast Nov. 12 2019)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Steel Business	1,400.0	2,900.0	1,353.1	2,690.0	(46.9)	(210.0)
Engineering Business	230.0	520.0	238.9	520.0	8.9	0
Trading Business	553.0	1,200.0	557.5	1,120.0	4.5	(80.0)
Adjustments	(313.0)	(660.0)	(278.3)	(600.0)	34.7	60.0
Revenue	1,870.0	3,960.0	1,871.2	3,730.0	1.2	(230.0)
Business Profit (A)	55.0	140.0	49.0	60.0	(6.0)	(80.0)
Financial Income/Costs (B)	(5.0)	(15.0)	(6.3)	(13.0)	(1.3)	2.0
Segment Profit						
Steel Business	26.0	70.0	17.7	0	(8.3)	(70.0)
Engineering Business	9.0	23.0	11.9	23.0	2.9	0
Trading Business	15.0	36.0	14.6	32.0	(0.4)	(4.0)
Adjustments	0.0	(4.0)	(1.5)	(8.0)	(1.5)	(4.0)
Total (A+B)	50.0	125.0	42.7	47.0	(7.3)	(78.0)



Financial Forecasts for Fiscal Year 2019

JFE

(billion yen)	FY2018 (Actual)		FY2019 (Forecast)		Change	
	1H *	Full Year	1H	Full Year	1H	Full Year
Revenue	1,892.3	3,873.6	1,871.2	3,730.0	(21.1)	(143.6)
Business Profit	154.6	232.0	49.0	60.0	(105.6)	(172.0)
Financial Income/Costs	(6.2)	(12.5)	(6.3)	(13.0)	(0.1)	(0.5)
Segment Profit	148.4	219.5	42.7	47.0	(105.7)	(172.5)
Exceptional Items	–	(10.2)	–	–	–	10.2
Profit before Tax	148.4	209.3	42.7	47.0	(105.7)	(162.3)
Tax Expense and Profit (Loss) Attributable to Non-Controlling Interests	(39.6)	(45.8)	(10.8)	(14.0)	28.8	31.8
Profit Attributable to Owners of Parent	108.8	163.5	31.9	33.0	(76.9)	(130.5)

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.



Financial Forecasts for Fiscal Year 2019 (by Segment)

JFE

(billion yen)	FY2018 (Actual)		FY2019(Forecast)		Change	
	1H *	Full Year	1H	Full Year	1H	Full Year
Steel Business	1,402.5	2,830.6	1,353.1	2,690.0	(49.4)	(140.6)
Engineering Business	202.1	485.8	238.9	520.0	36.8	34.2
Trading Business	570.6	1,125.8	557.5	1,120.0	(13.1)	(5.8)
Adjustments	(282.9)	(568.6)	(278.3)	(600.0)	4.6	(31.4)
Revenue	1,892.3	3,873.6	1,871.2	3,730.0	(21.1)	(143.6)
Business Profit (A)	154.6	232.0	49.0	60.0	(105.6)	(172.0)
Financial Income/Costs (B)	(6.2)	(12.5)	(6.3)	(13.0)	(0.1)	(0.5)
Segment Profit						
Steel Business	117.3	161.3	17.7	0	(99.6)	(161.3)
Engineering Business	7.7	20.1	11.9	23.0	4.2	2.9
Trading Business	19.3	35.7	14.6	32.0	(4.7)	(3.7)
Adjustments	3.9	2.3	(1.5)	(8.0)	(5.4)	(10.3)
Total (A+B)	148.4	219.5	42.7	47.0	(105.7)	(172.5)

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.

JFE Steel Financial Results in First Half of Fiscal Year 2019



Production and Shipment

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	Unit	FY2018							FY2019			FY2019 (Previous Forecast)
		1Q	2Q	1H	3Q	4Q	2H	Full Year	1Q	2Q	1H	1H
Crude Steel (Standalone)	Mt	7.10	6.94	14.04	6.39	5.88	12.27	26.31	7.00	6.79	13.79	Approx. 14.00
Crude Steel (Consolidated)	Mt	7.51	7.33	14.84	6.79	6.25	13.04	27.88	7.36	7.13	14.50	Approx. 14.70
Shipment (Standalone)	Mt	6.13	5.93	12.06	6.24	5.48	11.72	23.78	5.85	5.94	11.80	Approx. 12.20
Export Ratio (Value Basis, Standalone)	%	42.4	44.2	43.3	43.5	36.0	40.1	41.7	39.9	42.1	41.0	Approx. 41
Average Sales Price (Standalone)	⁰⁰⁰ yen/t	79.3	81.9	80.6	82.9	82.0	82.5	81.5	80.4	79.4	79.9	Approx. 80
Exchange Rate	¥/\$	108.1	110.9	109.5	113.4	110.3	111.9	110.7	110.7	107.6	109.2	Approx. 109
Exchange Rate (End of Term)	¥/\$	110.5	113.6	113.6	111.0	111.0	111.0	111.0	107.8	107.9	107.9	



8.3 billion Yen Decrease in JFE Steel's Segment Profit (FY19 1H (Forecast) vs. FY19 1H (Actual))

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(billion yen)

JFE Steel	FY2019 1H Forecast	FY2019 1H Actual	Change 1H Forecast → Actual
Segment Profit	26.0	17.7	(8.3)

- **Cost** - 5.0
- **Sales Volume and Mix** - 9.0
- **Sales Prices and Raw materials** + 4.0
- **Inventory valuation etc.** + 3.0
- **Others** - 1.3

- Inventory valuation +4.0 (-10.0 → -6.0)
- Carry over of raw materials -1.0 (+6.0 → +5.0)
- Foreign exchange valuation ±0.0 (-3.0 → -3.0)

TOTAL - 8.3

Segment profit in 1H of FY2019 was 17.7billion yen, decreased by 8.3 billion, compared to the previous forecast.

◆ Cost : -5.0 billion yen

Maintenance cost increased due to the impacts of typhoons and small operating issues.

◆ Sales Volume and Mix : -9.0 billion yen

Decrease of steel demand and the drop in price in the overseas market caused the production adjustment, which decreased both the volume of crude steel production and shipment.

Crude steel (Standalone) -0.21Mt (14.00⇒13.79Mt)

Shipment (Standalone) -0.40Mt (12.20⇒11.80Mt)

◆ Sales Prices and Raw materials (Metal spread):+4.0 billion yen (+300 yen/t-shipment)

Metal spread increased through price fall in coking coal.

◆ Inventory valuation etc.: +3.0 billion yen

◆ Others : -1.3 billion yen



99.6 billion Yen Decrease in JFE Steel's Segment Profit (FY18 1H (Actual) vs. FY19 1H (Actual))

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(billion yen)

JFE Steel	FY2018 1H* Actual	FY2019 1H Actual	Change FY2018 1H → FY2019 1H
Segment Profit	117.3	17.7	(99.6)

- **Cost** + 13.0
- **Sales Volume and Mix** - 7.0
- **Sales Prices and Raw materials** - 51.0
- **Inventory valuation etc.** - 20.0
- **Others** - 34.6

- Inventory valuation -26.0 (+20.0 → -6.0)
- Carry over of raw materials +14.0 (-9.0 → +5.0)
- Foreign exchange valuation -8.0 (+5.0 → -3.0)

TOTAL - 99.6

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.

Segment profit in 1H of FY2019 was 17.7 billion yen, decreased by 99.6 billion year-on-year.

◆ Cost : +13.0 billion yen

◆ Sales Volume and Mix : -7.0 billion yen

Decrease of steel demand and the drop of price in overseas market caused the production adjustment, which decreased both crude steel production and shipment decreased year-on-year.

Crude steel (Standalone) -0.26Mt (14.04⇒13.79Mt)

Shipment (Standalone) -0.26Mt (12.06⇒11.80Mt)

◆ Sales Prices and Raw materials (Metal spread):-51.0 billion yen (-4,300 yen/t-shipment)

Metal spread decreased through fall in steel price in overseas market and increase in raw material (mainly iron ore) price.

◆ Inventory valuation etc.: -20.0 billion yen

◆ Others : -34.6 billion yen

- Increase in depreciation cost with strengthening manufacturing capabilities
- Increase in sub materials, logistics, and outsourcing costs
- Decrease in profit of subsidiary companies etc.

JFE Steel Financial Forecasts for Fiscal Year 2019



Current Business Environment (Overview)

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Steel Demand-Supply

- Domestic : ➤ Industrial machinery sector and construction sector show **further decrease in demand.**
- Decrease of demand and the certain amount of imported steel keep **inventory level high.**
- Overseas : ➤ Intensified trade friction between US and China etc **decreases steel demand all over the world.**
- While steel export from China remains low, crude steel production in China keeps high level, which requires to be watched cautiously.

Steel Market Price

- Decrease of steel demand and export drive from Russian and Indian mills **intensifies price competition,** which **drops down the overseas market price more.**



**Adjusting production in accordance with
decreased demand and overseas market price**

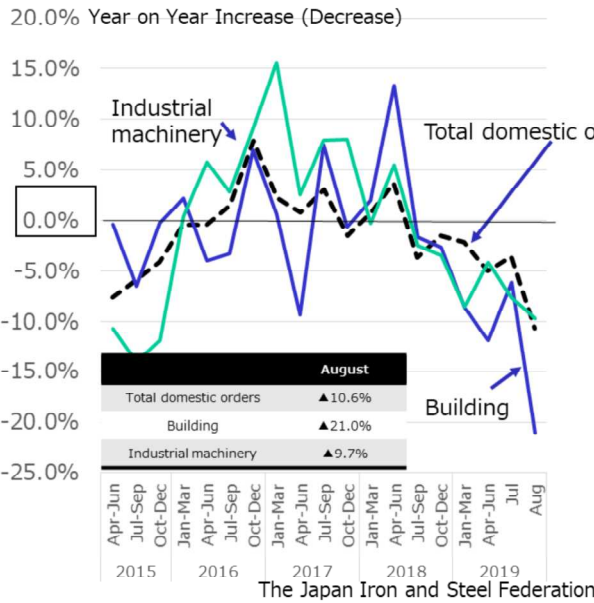


Current Business Environment (Domestic)

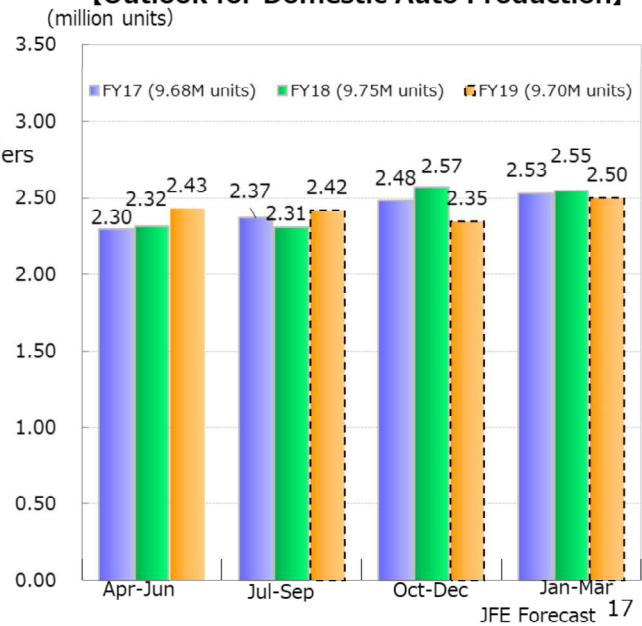
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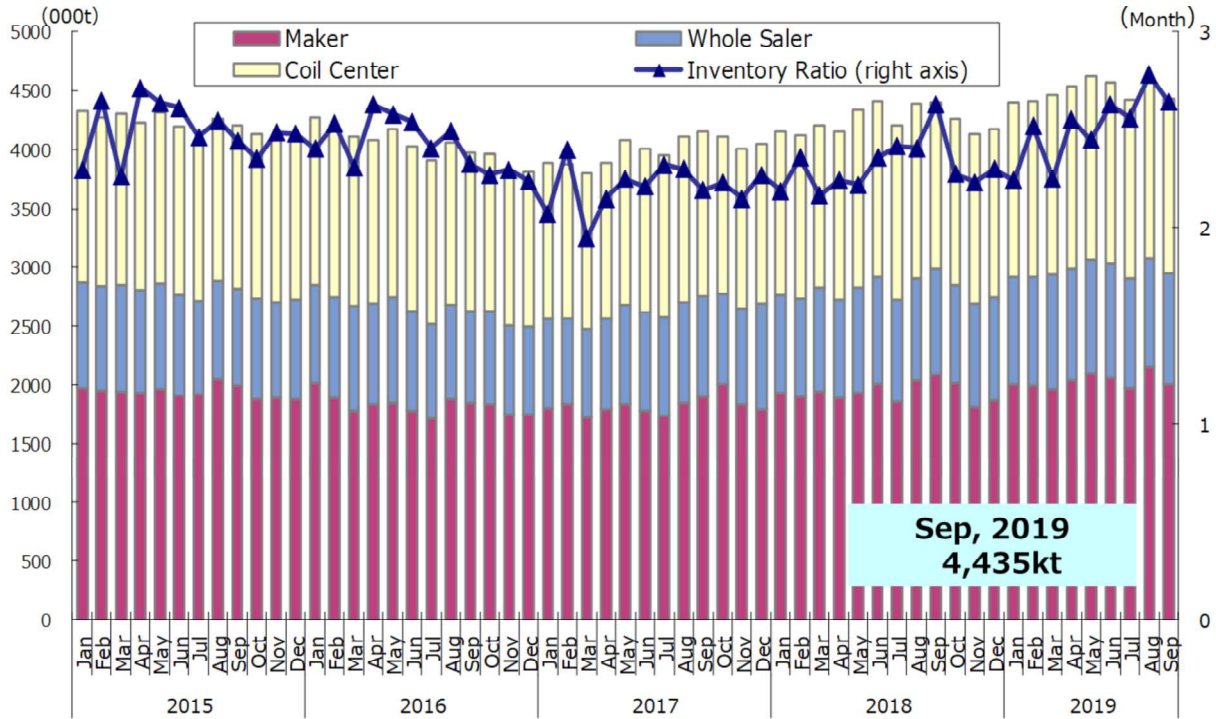
- Domestic ordinary steel orders in this August **decreased significantly by 10.6% from the previous year.**
- Demand in shipbuilding, industrial machinery and building sectors shows slowing down furthermore.

[Trend of Ordinary Steel Orders]



[Outlook for Domestic Auto Production]





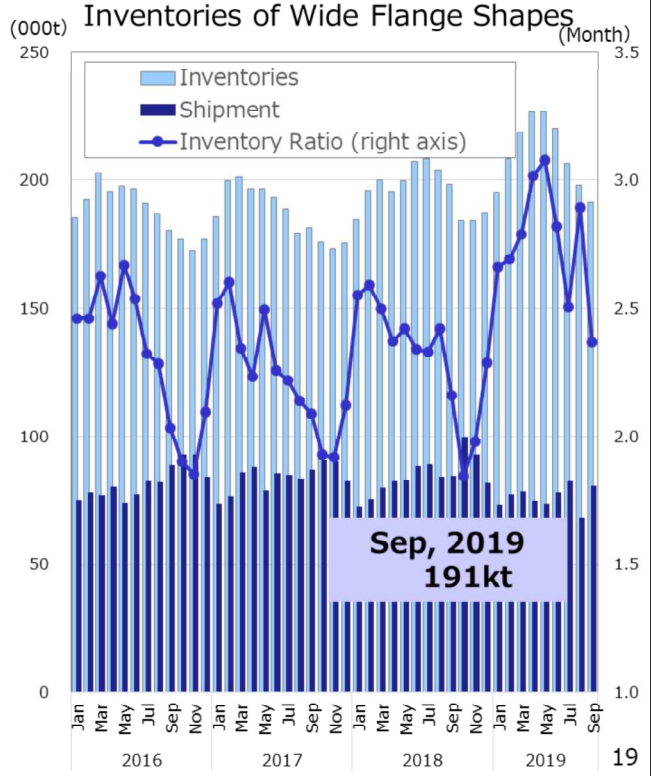
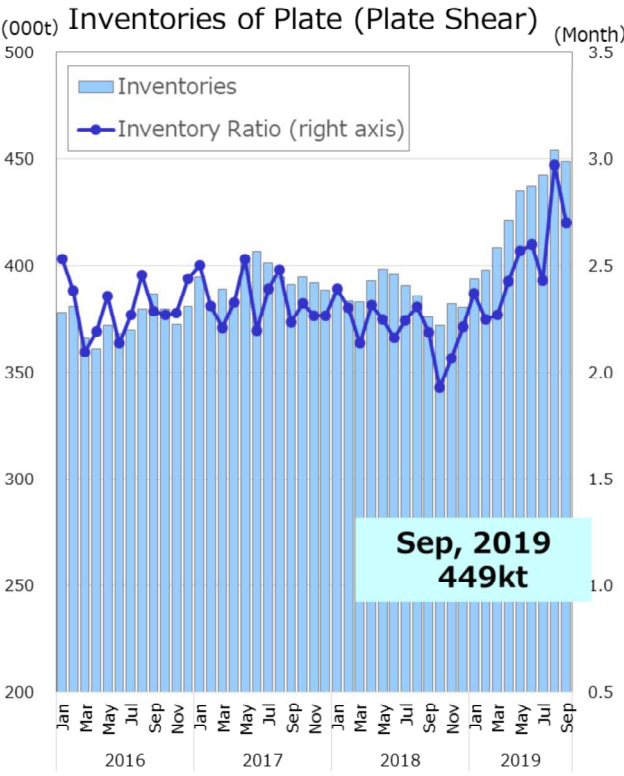
Combined inventories of HR, CR and Coated Steel as of the end of September 2019 were 4,435K tons.

From August 2019 : 132K tons decrease

From September 2018: 39K tons increase

A certain amount of imported steel maintains the inventory level higher.

The demand-supply state needs to be watched cautiously due to decreasing domestic steel demand. Production needs to be adjusted flexibly to meet the ongoing demand.



[Inventories of Plate (Plate Shear)]

Inventories of plate shear as of the end of September 2019 was 449K tons.

From August 2019 : 5K tons decrease

From September 2018: 73K tons increase

Although the inventory had been increasing under the weak demand until the end of this August, the inventory at the end of September 2019 decreased slightly from the previous month.

[Inventories of Wide Flange Shapes]

Inventories of wide flange shapes as of the end of September 2019 was 191Ktons.

From August 2019 : 7K tons decrease

From September 2018: 7K tons decrease

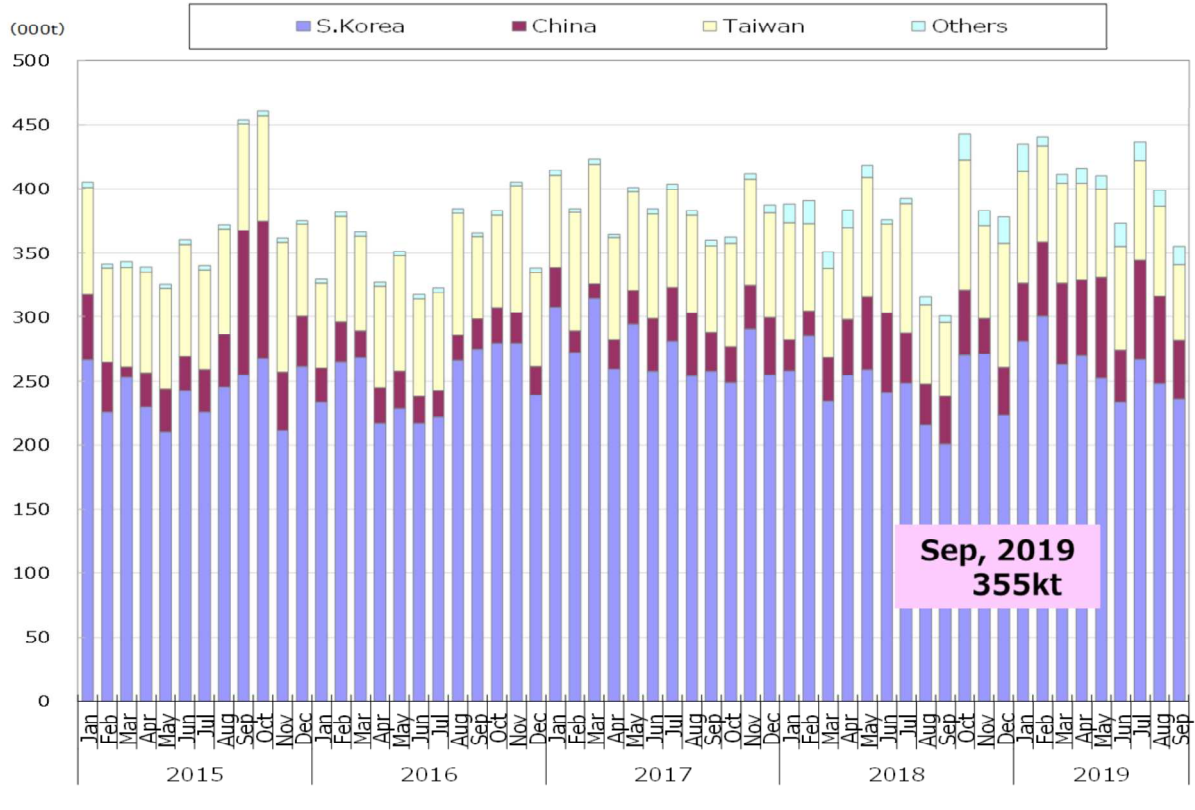
Due to the increase in the volume of shipping and appropriate stocking enough to meet the demand, the amount of the inventory at the end of this September decreased. The decreasing of the inventory has continued for 4 months.

The inventory ratio also dropped to slightly over the 2-month level.



Trend of Import Steel (Ordinary Steel)

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20

The volume of imported ordinary steel in September 2019 was 355K tons.

From August 2019: 17K tons decrease

From September 2018: 55K tons increase

A certain amount of steel has been imported continuously.

Steel products from China and Korea seem to be flowing into the Japanese market because of the decrease of the Asian market price.

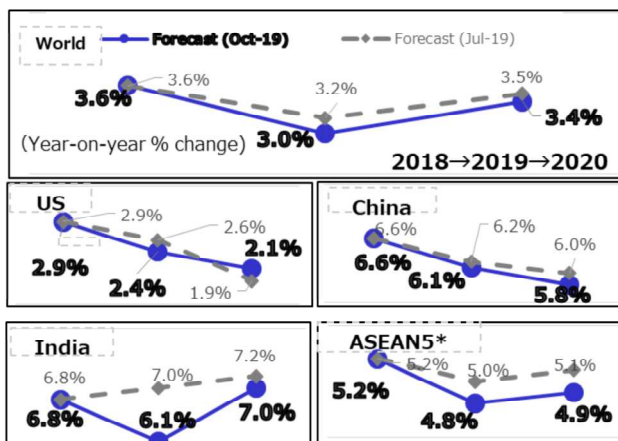


Current Business Environment (Overseas)

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- Global growth of Real GDP revised downward from the previous forecast.
- Signs of a slow down is glowing in the whole global economy.
- Escalated uncertainty coming from trade friction is spreading to the global economy, which makes the perception of economic state worse rapidly.
- The number of automobile sales in Asian countries also shows the trend of rapid deceleration.

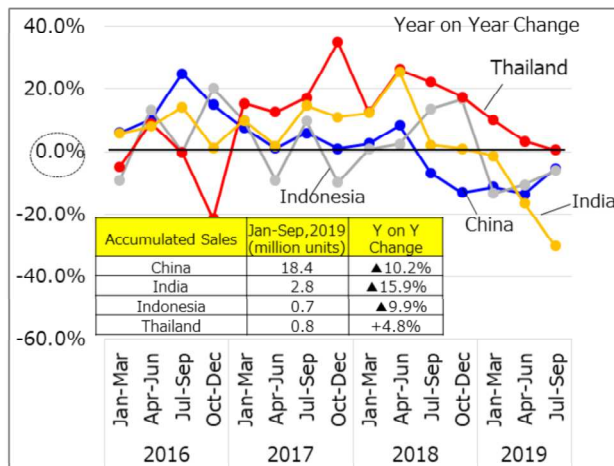
[Real GDP growth forecast]



Source : IMF World Economic Outlook Update Published in 23/7/2019, 15/10/2019

*ASEAN5 : Thailand, Malaysia, Indonesia, Philippine, Vietnam

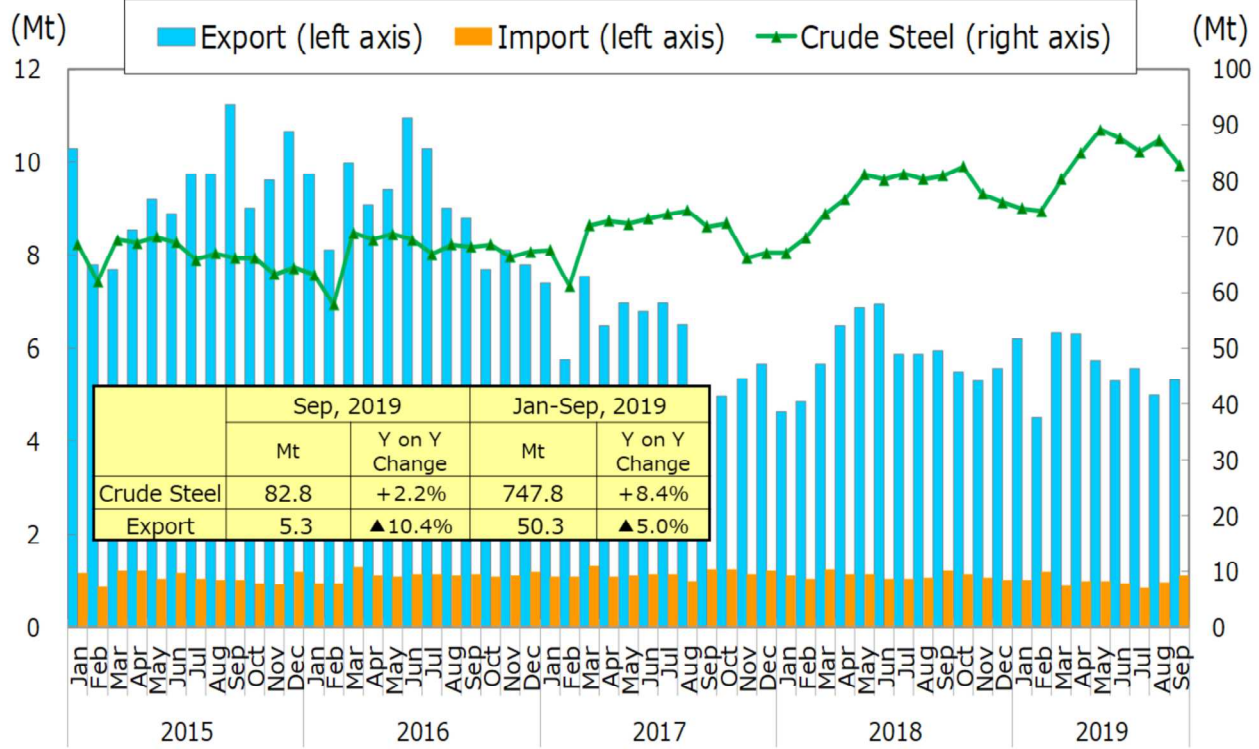
[Automobile Sales]





Crude Steel & Im/Export, China

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Crude steel in Jan. and Feb.: WSA's estimation 22

Crude steel production in September 2019 in China was 82.8M tons (2.8M tons on daily basis: slightly decreased compared to the previous month. However, it still remains high.).

From August 2019: 1.6M tons decrease

From September 2018: 7.3M tons increase

Export of steel from China in September 2019 was 5.3M tons.

From August 2019: 0.3M tons increase

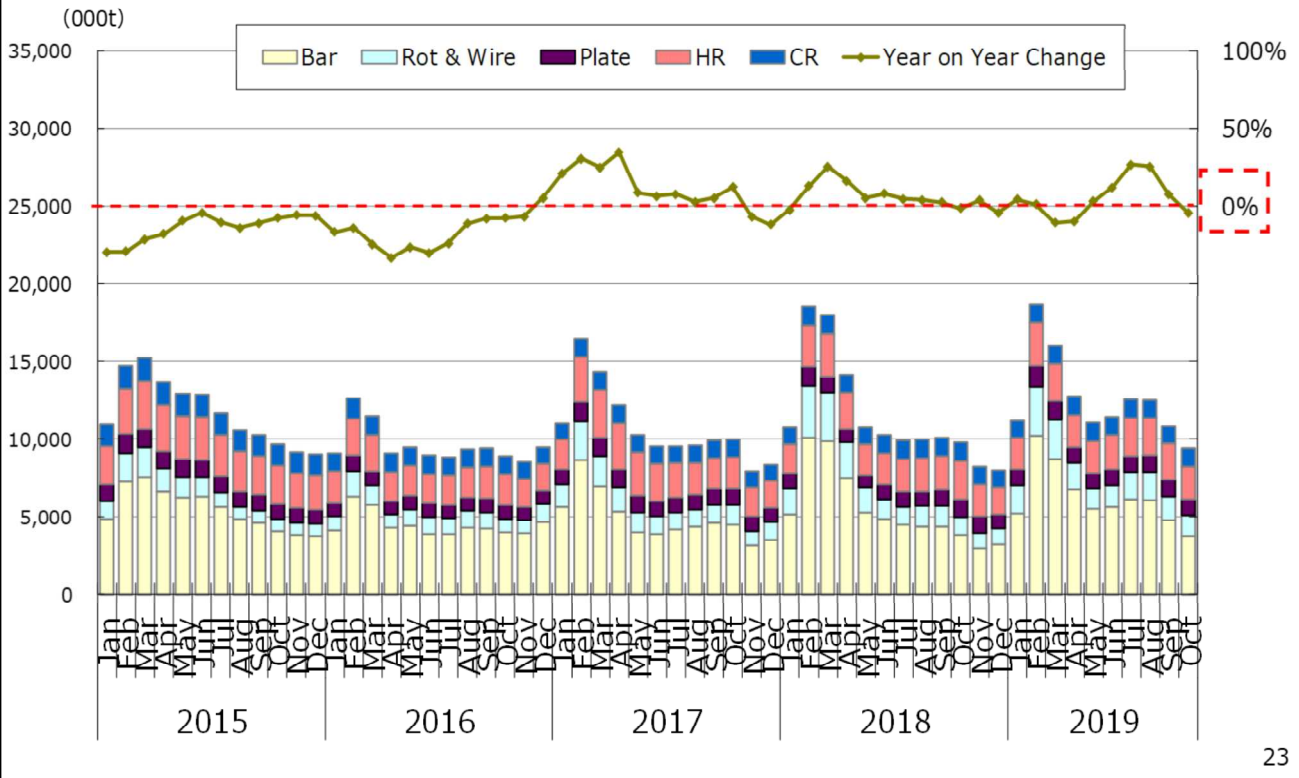
From September 2018: 0.6M tons decrease

Although the volume of steel export still remains low, crude steel production remains high. Additionally, the price of main raw materials and the domestic steel market price in China are falling down. Therefore, whether the Chinese mills might increase the volume of exports should be watched cautiously.



Inventories in China by Product

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23

Inventories in China as of the end of October 2019 was approximately 9.4M tons.

From September 2019: 13.4% decrease

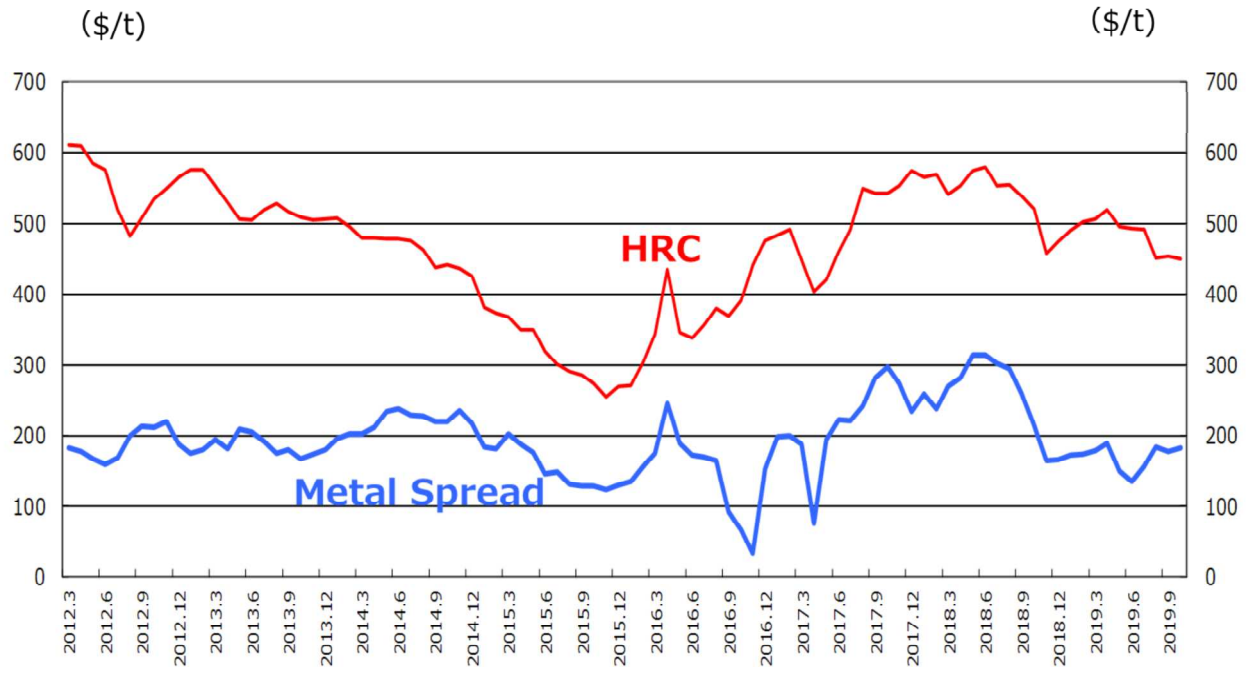
From October 2018: 4.3% decrease

After Chinese New Year, the volume of inventories decreased as the seasonal pattern, and it remained high for a while. However, currently, it tends to decrease again.

The amount of exports from China still remains low, from which demand-supply is well-balanced under the stable domestic demand at this point.



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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

Metal spread, calculated based on Chinese spot market price of HRC and international spot market prices of iron ore and hard coking coal, dropped below \$150/t in this June and July due to the decrease of the HRC price and the rise of the iron ore price.

Afterwards, metal spread increased to \$180/t due to decrease of the raw material price, and it remains the same level. The signs of recovery of the market price are not observed yet.

It is necessary to watch cautiously how much metal spread will recover in a coming demand season and environmental regulating season in winter.



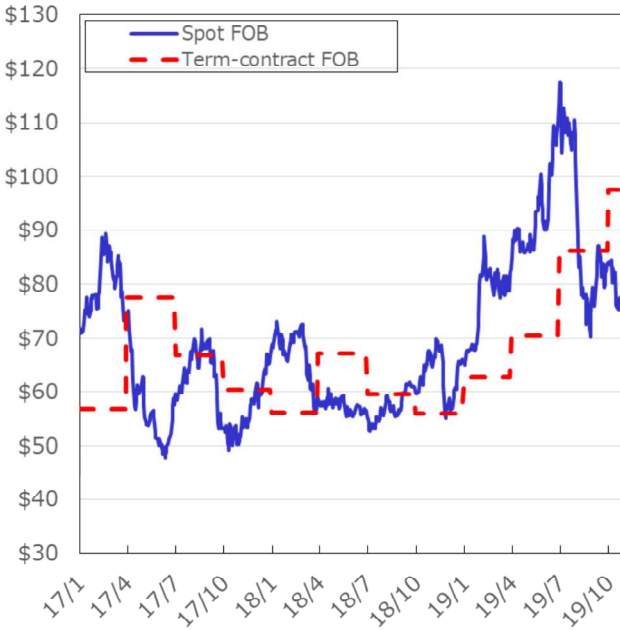
Raw Materials

Raw Materials Price

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Iron ore (iron ore fines from Australia)

(\$/DMT)



Coking Coal (Hard Coking Coal from Australia)

(\$/WMT)



Hard Coking Coal Term-contract FOB since Apr-Jun quarter 2017
 (Apr-Jun : Mar-May spot FOB average, Jul-Sep : Jun-Aug spot FOB average,
 Oct-Dec : Sep-Nov spot FOB average, Jan-Mar : Dec-Feb spot FOB average)



Financial Forecasts for FY2019 of JFE Steel

JFE

	Unit	FY2018	FY2019			FY2019
		Full Year (Actual)	1H (Actual)	2H (Forecast)	Full Year (Forecast)	Full Year (Previous Forecast)
Revenue	billion Yen	2,830.6	1,353.1	1,336.9	2,690.0	2,900.0
Segment Profit	billion yen	161.3	17.7	(17.7)	0	70.0

Crude Steel (Standalone)	Mt	26.31	13.79	13.20	Approx. 27.00	Approx. 28.00
Crude Steel (Consolidated)	Mt	27.88	14.50			
Shipment (Standalone)	Mt	23.78	11.80			
Export Ratio (Value basis, Standalone)	%	41.7	41.0			
Average Sales Price	000/t	81.5	79.9			
Exchange Rate	¥/\$	110.7	109.2	Approx. 105	Approx. 107	



70.0 Billion Yen Decrease in JFE Steel's Segment Profit (FY2019 (Previous Forecast) vs. FY2019 (Updated Forecast))

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(billion yen)			
JFE Steel	FY2019 Previous	FY2019 Updated	Change FY19→FY19
Segment Profit	70.0	0.0	(70.0)

- **Cost** - 10.0
- **Sales Volume and Mix** - 30.0
- **Sales Prices and Raw Materials** - 3.0
- **Inventory Valuation etc.** - 30.0
- **Others** + 3.0

- | |
|--|
| <ul style="list-style-type: none"> • Inventory valuation -16.0 (+2.0→-14.0) • Carry over of raw materials -11.0(+6.0→-5.0) • Foreign exchange valuation -3.0(-3.0→-6.0) |
|--|

Total -70.0

Segment profit forecast for FY2019 is 0 billion yen, decreasing by 70.0 billion yen from the previous forecast.

◆ Cost reduction: -10.0 billion yen

Maintenance cost increased due to the impacts of the typhoons and small operating issues.

◆ Sales Volume and Mix : -30.0 billion yen

- Decrease in production volume and product mix deterioration are estimated due to decrease in domestic and overseas steel demand as well as decrease in steel price in the overseas market.
- Crude steel (Standalone) -1.00Mt (28.00⇒27.00Mt)

◆ Sales Prices and Raw materials (Metal spread):-3.0 billion yen (-100 yen/t-shipment)

• Mainly, the decrease in steel price in overseas market shrank metal spread.

◆ Inventory valuation etc.: -30.0 billion yen

◆ Others : +3.0 billion yen



161.3 Billion Yen Decrease in JFE Steel's Segment Profit (FY2018 (Actual) vs. FY2019 (Forecast))

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(billion yen)			
JFE Steel	FY2018 Actual	FY2019 Forecast	Change FY18→FY19
Segment Profit	161.3	0.0	(161.3)

■ Cost	+ 50.0	⇒	<ul style="list-style-type: none"> • Cost reduction +28.0 • One-off effect in FY2018 +22.0
■ Sales Volume and Mix	± 0.0		
■ Sales Prices and Raw Materials	- 96.0		<ul style="list-style-type: none"> • Inventory valuation -49.0 (+35.0→-14.0) • Carry over of raw materials -4.0(-1.0→-5.0) • Foreign exchange valuation -9.0(+3.0→-6.0)
■ Inventory Valuation etc.	- 62.0	⇒	
■ Sub materials cost etc.	- 15.0	⇒	<ul style="list-style-type: none"> • Increase in sub materials, logistics, and outsourcing costs etc.
■ Others	- 38.3	⇒	<ul style="list-style-type: none"> • Increase in depreciation with strengthening manufacturing capabilities • Decrease in profit of subsidiary companies etc
Total	- 161.3		

28

Segment profit forecast for FY2019 is 0 billion yen, decreasing by 161.3 billion yen year on year.

◆ Cost : +50.0 billion yen

Cost reduction : +28.0 billion yen: Cost effects of investment in West Japan works etc.

One-off effect in FY2018 : +22.0 billion yen

◆ Sales Volume and Mix : ±0 billion yen

While the volume of crude steel production is estimated to increase due to the recovery from the operating issues last year, the product mix is estimated to deteriorate as well.

Crude steel (Standalone) +0.69Mt (26.31⇒27.00Mt)

◆ Sales Prices and Raw materials (Metal spread):-96.0 billion yen (-4,100 yen/t-shipment)

Metal spread is expected to shrink with price down of steel in the overseas market due to escalating trade friction between the US and China.

◆ Inventory valuation etc.: -62.0 billion yen

◆ Sub materials cost etc. : -15.0 billion yen

•Sub materials : -5.0billion yen •Logistics : -4.0billion yen •Outsourcing : -5.0billion yen

◆ Others : -38.3 billion yen

•Decrease in profit of subsidiary companies

•Increase in depreciation cost with strengthening manufacturing capabilities

•Increase in loss of disposal of asset etc.



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

JFE

JFE Steel	FY2019 Forecast			Change 1H→2H
	1H	2H	Full Year	
Segment Profit	17.7	(17.7)	0	(35.4)

(billion yen)

■ Cost	+ 14.0	
■ Sales Volume and Mix	- 10.0	
■ Sales Prices and Raw Materials	- 14.0	<ul style="list-style-type: none"> • Inventory valuation -2.0 (-6.0→-8.0) • Carry over of raw materials -15.0(+5.0→-10.0) • Foreign exchange valuation ±0.0(-3.0→-3.0)
■ Inventory Valuation etc.	- 17.0	
■ Others	- 8.4	<ul style="list-style-type: none"> • Increase in depreciation with strengthening manufacturing capabilities etc
Total	- 35.4	

Segment profit forecast for 2H of FY2019 is -17.7 billion yen, decreasing by 35.4 billion yen from 1H of FY2019.

◆ Cost : +14.0 billion yen

Cost effects of investment in West Japan works etc.

◆ Sales Volume and Mix : -10.0 billion yen

- Crude steel production is estimated to decrease with the fall of both domestic and overseas steel demand.
- Crude steel (Standalone) -0.57Mt (13.79⇒13.21Mt)

◆ Sales Prices and Raw materials (Metal spread):-14.0 billion yen (-1,200 yen/t-shipment)

Metal spread is expected to shrink due to the decrease of the market price mainly in the overseas market along with the escalating trade friction between the US and China.

◆ Inventory valuation etc.: -17.0 billion yen

◆ Others : -8.4 billion yen

- Increase in depreciation cost with strengthening manufacturing capabilities etc.

**JFE Engineering
Financial Forecasts for Fiscal Year 2019**



Financial Forecasts in FY2019 of JFE Engineering

JFE

(billion yen)

	FY2019 (Previous Forecast)		FY2019 (Updated Forecast)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Orders	180.0	450.0	189.5	450.0	+9.5	0
Revenue	230.0	520.0	238.9	520.0	+8.9	0
Segment Profit	9.0	23.0	11.9	23.0	+2.9	0

【Change】

(1H)

- Orders +9.5 Increase with change in schedule of receiving orders
- Revenue +8.9 Increase with progress of construction
- Segment Profit +2.9 Increase with increase in revenue and
change in schedule of incurring costs

(Full Year)

As planned in the previous forecast



Financial Forecasts in FY2019 of JFE Engineering

JFE

(billion yen)

	FY2018 (Actual)		FY2019 (Forecast)		Change	
	1H*	Full Year	1H	Full Year	1H	Full Year
Orders	271.8	482.8	189.5	450.0	(82.3)	(32.8)
Revenue	202.1	485.8	238.9	520.0	+36.8	+34.2
Segment Profit	7.7	20.1	11.9	23.0	+4.2	+2.9

【Change】

(Full Year)

Orders	(32.8)	Decrease in large-scale orders in environmental and energy sector ※Large-scale orders were concentrated in FY2018 1H
Revenue	+34.2	Increase with increase in orders in the previous year
Segment profit	+ 2.9	Increase with increase in revenue

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.



Classification of placed orders

JFE

(billion yen)

Category	FY2018 (Actual)	FY2019 (Forecast)	Change	Main Orders (FY2019 1H) ★: New projects received in FY2019 Q2
Environment	212.6	200.0	(12.6)	<ul style="list-style-type: none"> ➤ Reconstruction of facility of the water purification plant ➤ Improvement work of the waste treatment plant [Shizuoka ★] ➤ Construction of waste-to-energy power plants [UK★]
Energy	132.8	110.0	(22.8)	<ul style="list-style-type: none"> ➤ Reconstruction of facility of the geothermal power plant ➤ Construction of the gas pipeline
Social Infrastructure etc.	137.4	140.0	+2.6	<ul style="list-style-type: none"> ➤ Reconstruction of the bridge (Metropolitan expressway)
Total	482.8	450.0	(32.8)	

33

**JFE Shoji Trade
Financial Forecasts for Fiscal Year 2019**



Financial Forecast in FY2019 of JFE Shoji Trade

JFE

(billion yen)

	FY2019 (Previous Forecast)		FY2019 (Updated Forecast)		Change	
	1H	Full Year	1H	Full Year	1H	Full Year
Revenue	553.0	1,200.0	557.5	1,120.0	+4.5	(80.0)
Segment Profit	15.0	36.0	14.6	32.0	(0.4)	(4.0)

【Change】

(1H) As planned in the previous forecast

(Full Year) Decrease in revenue and segment profit with decrease in sales volume and spread in US business due to continuing trade friction between US and China, as well as the impact of economic downturn in other regions



Financial Forecast in FY2019 of JFE Shoji Trade

JFE

(billion yen)

	FY2018 (Actual)		FY2019 (Forecast)		Change	
	1H*	Full Year	1H	Full Year	1H	Full Year
Revenue	570.6	1,125.8	557.5	1,120.0	(13.1)	(5.8)
Segment Profit	19.3	35.7	14.6	32.0	(4.7)	(3.7)

【Change】

(1H)

Decrease in revenue and segment profit mainly with decrease in sales volume and price in US business

*Demand and sales prices in US increased due to US's trade policy in FY2018

(Full Year)

Decrease in revenue and segment profit with decrease in sales volume and spread in US and other regions mainly due to continuing trade friction between US and China

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.

JFE Holdings

Financial Forecasts for Fiscal Year 2019



Financial Forecasts for Fiscal Year 2019

JFE

(billion yen)	FY2018 (Actual)		FY2019 (Forecast)		Change	
	1H*	Full Year	1H	Full Year	1H	Full Year
Revenue	1,892.3	3,873.6	1,871.2	3,730.0	(21.1)	(143.6)
Business Profit	154.6	232.0	49.0	60.0	(105.6)	(172.0)
Financial Income/Costs	(6.2)	(12.5)	(6.3)	(13.0)	(0.1)	(0.5)
Segment Profit	148.0	219.5	42.7	47.0	(105.7)	(172.5)
Exceptional Items	–	(10.2)	–	–	–	10.2
Profit before Tax	148.4	209.3	42.7	47.0	(105.7)	(162.3)
Tax Expense and Profit (Loss) Attributable to Non-Controlling Interests	(39.6)	(45.8)	(10.8)	(14.0)	28.8	31.8
Profit Attributable to Owners of Parent	108.8	163.5	31.9	33.0	(76.9)	(130.5)

Previous Forecast (August 9, 2019) Business Profit of Full year: 140.0

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the First Half of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the First Half of Fiscal 2018 may change depending on the results of future quarterly reviews.



JFE

Under the severe business environment, consider the following items to maintain financial strength.

1. Generate cash flow by asset compression approx.150 billion yen

- Compression of inventories
- Sale of holding shares (over 100 billion yen)

Will be applied during 6th med-term business plan (until the end of FY 2020)

2. Compress CAPEX in steel business

Compress the domestic CAPEX by approximately 100 billion yen (approx. 10%), compared to the CAPEX plan, 1 trillion yen (based on decision-making), referred in 6th medium-term business plan

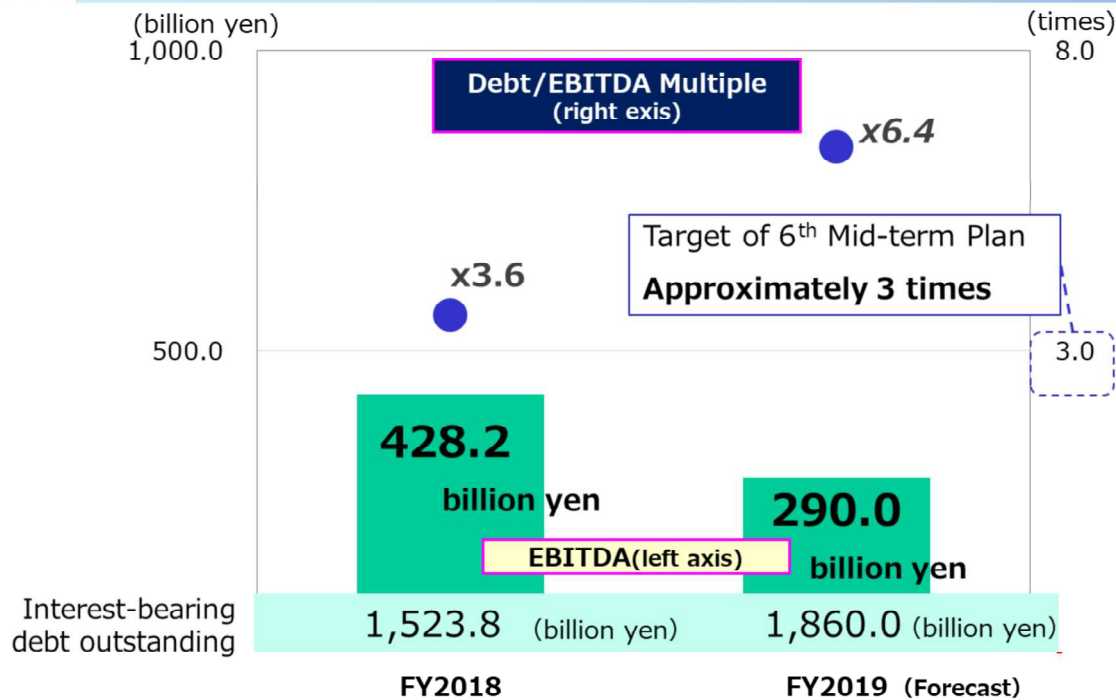


By applying the measures above, interest-bearing debt outstanding at the end of FY 2019 is expected to be 1,860 billion yen.



Debt/EBITDA Multiple

JFE



※Including 105.7 billion yen (change at the beginning of FY 2019) due to application of IFRS 16 Lease

■ EBITDA = Business profit + Depreciation and amortization

■ Debt/EBITDA Ratio = Interest-bearing debt outstanding / EBITDA

Dividends

Dividends

- JFE Holdings has decided to pay an interim dividend of 20 yen per share at its Board of Directors.
- The company is withholding its decision regarding the year-end dividend to carefully observe performance going forward.

Topics



① Kurashiki No.4 BF* Project outline

1. Cost: Approx. 50 billion yen
2. Schedule: Sep. 2021 – Dec. 2021 (planned)
3. Other: Post-revamp inner volume will be 5,100 m³ (currently 5,005 m³)

*BF: Blast Furnace

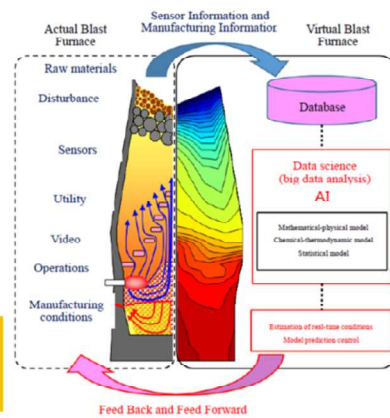


② Introduction of Data Science Technology to All Steelworks BFs

- Deploying advanced data science technology with the aim of converting BFs to cyber physical systemization
- Fast detection of the anomalies
- Prediction of the furnace-heat conditions
- Guide to the optimal action for operation

➔ **Aiming to realize innovative productivity and stable operations across steel manufacturing operations**

Blast Furnace CPS Concept





Initiatives for Improving Corporate Value in Mid to Long-term

JFE

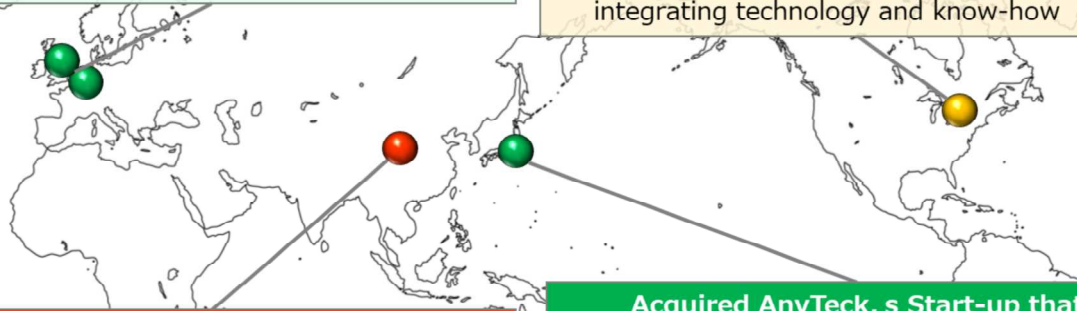
● JFE Steel ● JFE Engineering ● JFE Shoji Trade

Standardkessel Baumgarte GmbH Received Large-scale Orders in Belgium and Scotland

- Expands orders with proven ability and technology, which contributes to improving the profitability of overseas businesses

Acquires Cogent, an Electrical Steel Processing Company in Canada

- Achieves one of the world's leading processing and distribution functions for core processing for transformers
- Strengthens competitiveness by globally integrating technology and know-how



JFE Chemical Establishes a JV of Anode Materials for EV Battery in China

- Captures the demand of anode materials in the rapidly growing Chinese EV market

Acquired AnyTeck, a Start-up that Developed "DeepLiquid", the World's First AI for Water Quality Monitoring

- Creates new businesses by collaborating with the start-up of water quality monitoring AI

ESG initiatives



JFE Holdings endorsed the final report of the TCFD* in May 2019, and **has conducted and disclosed results of scenario analysis.**

2°C Scenario	4°C scenario
<ul style="list-style-type: none"> ➤ <u>Bold policies and technological reforms</u> will hold the increase in temperature <u>below 2°C</u> ➤ <u>Societal changes associated with the transition</u> to de-carbonization will <u>affect business</u> 	<ul style="list-style-type: none"> ➤ Even with the new policies in various countries stipulated, <u>temperature will rise up to 4°C</u> ➤ <u>Climate changes</u> such as rising temperatures <u>will affect business</u>

The analysis results show that JFE’s business strategies are adaptive to managing climate-related risks and seizing opportunities.

Details are disclosed on the latest CSR Report* and JFE Group Report*
*English versions will become available shortly.

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%

- 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-

IFRS

(Forecast)

	FY18	FY19
(bn. Yen, times)		
Business profit	232.0	60.0
EBITDA * 1	428.2	290.0
ROS * 2	6.0%	1.6%
ROE * 3	8.6%	1.7%
ROA * 4	5.0%	1.2%
Interest-bearing debt outstanding	1,524	1,860.0
Debt/EBITDA multiple	x3.6	x6.4
D/E Ratio * 6	68.2%	85.3%
Profit attributable to owners of parent (yen/share)		
	283.8	57.3
Dividend (yen/share)	95	(*) 20
Pay-out Ratio	33.5%	

(※)interim dividend



Cash Flow Forecast for FY2019

JFE

Consolidated

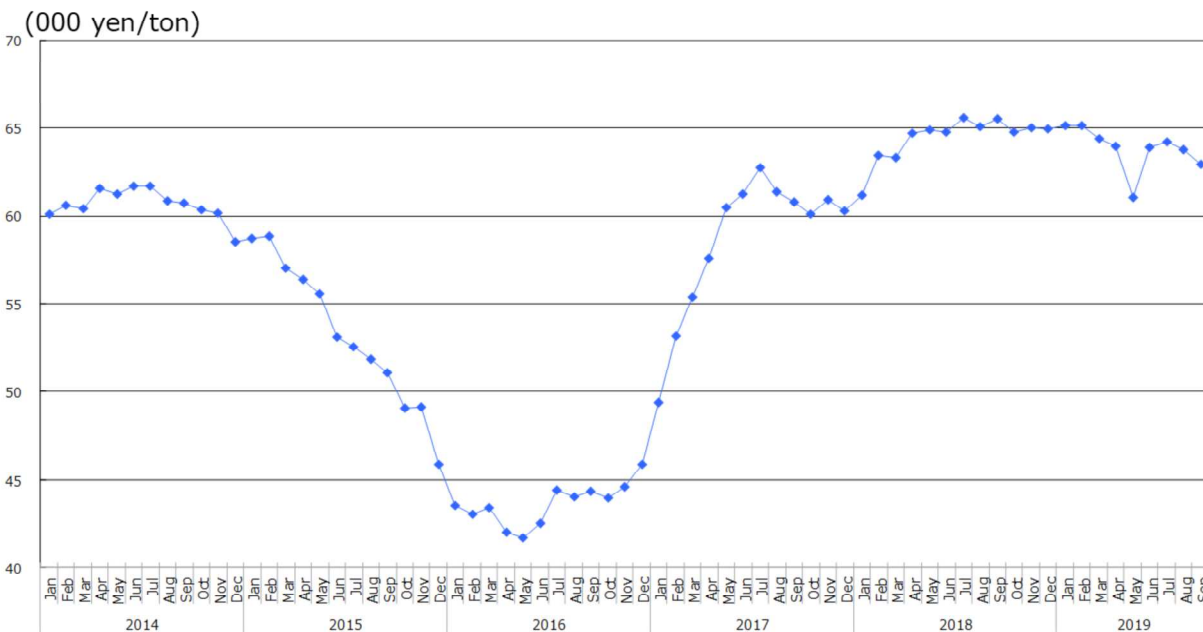
(billion yen)

Source		Usage	
Net Income	33.0	Dividends	40.0
Depreciation & Amortization	230.0	Capex, Investments	410.0
Interest-bearing debt outstanding	230.0		
		Working Capital etc	43.0
Impact of application of IFRS 16 Lease		Fixed asset (right-of-use assets) etc	
	110.0		110.0



Price Trend of Import Steel

JFE



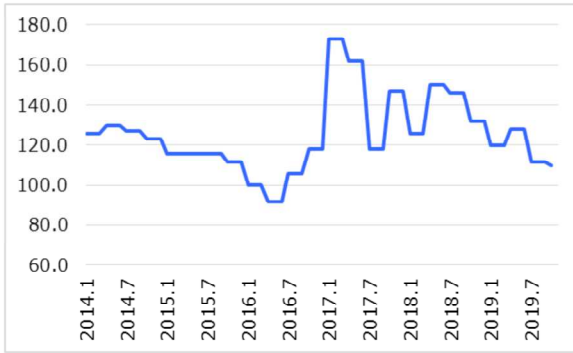
Data: The Japan Iron and Steel Federation
Import Steel from S. Korea



Trend of Metal's Market Price

JFE

(¢ /lb) FeCr



(US\$/t) Zn



(US\$/t) FeMn



(US\$/lb) Mo





Raw Materials

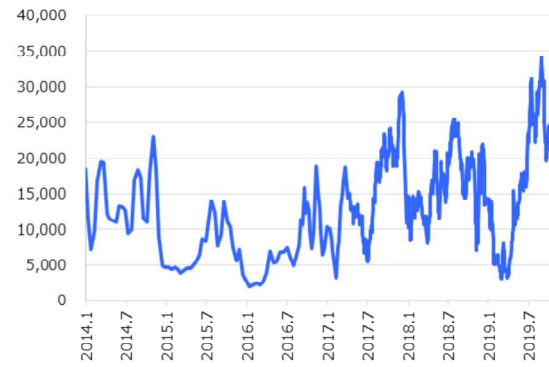
Trend of Sub Material's Market Price

JFE

(yen/t) Scrap

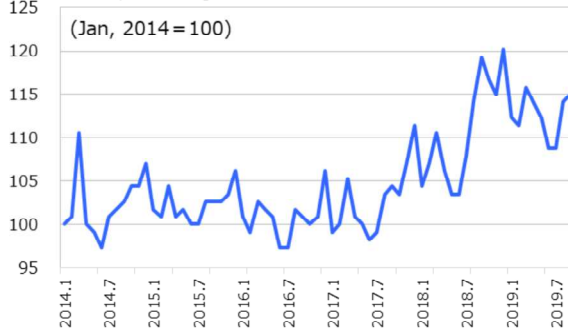


(\$/B) Spot Bulker

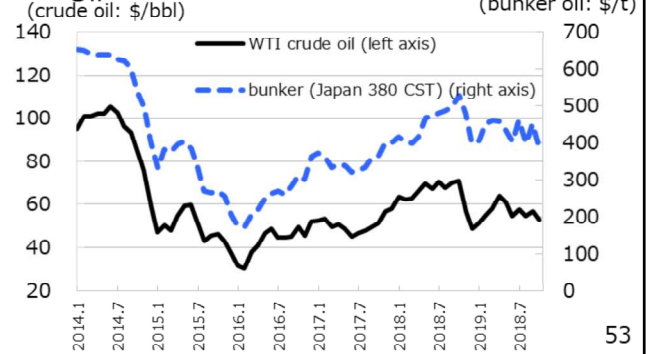


Freight Index

Data: Japan Tracking Association



Oil





26.3 Billion Yen Decrease in JFE Steel's Segment Profit (FY2018 2H (Actual) vs. FY2019 1H (Actual))

JFE

JFE Steel	(billion yen)		
	FY2018 2H* (Actual)	FY2019 1H (Actual)	Change FY2018 2H →FY20191H
Segment Profit	44.0	17.7	(26.3)

- **Cost** + 23.0
- **Sales Volume and Mix** + 17.0
- **Sales Prices and Raw Materials** - 31.0
- **Inventory Valuation etc.** - 25.0
- **Others** - 10.3

<ul style="list-style-type: none"> · Inventory valuation -21.0 (+15.0 → -6.0) · Carry over of raw materials -3.0 (+8.0 → +5.0) · Foreign exchange valuation -1.0 (-2.0 → -3.0)

Total - 26.3

*As of Fiscal 2018, the Company adopted IFRS. Consolidated figures of the Second Quarter of Fiscal 2018 are therefore also presented on an IFRS basis. Actual results of IFRS for the Second Quarter of Fiscal 2018 may change depending on the results of future quarterly reviews. 54

Segment profit result for 1H of FY2019 was 17.7 billion yen, decreasing 26.3 billion yen compared to that for 2H of FY2018.

◆ Cost : +23.0 billion yen

◆ Sales Volume and Mix : +17.0 billion yen

Recovery of the crude steel production from the operating issues in FY2018

Crude steel (Standalone) +1.52Mt (12.27⇒13.79Mt)

Shipment (Standalone) +0.08Mt (11.72⇒11.80Mt)

◆ Sales Prices and Raw materials (Metal spread):-31.0 billion yen (-2,600 yen/t-shipment)

Metal spread was shrunk due to the decrease in steel price in overseas market and increase in iron ore price.

◆ Inventory valuation etc.: -25.0 billion yen

◆ Others : -10.3 billion yen

Mainly, decrease in profit of subsidiary companies etc.



11.3 Billion Yen Decrease in JFE Steel's Segment Profit (FY2019 1Q (Actual) vs. FY2019 2Q (Forecast))

JFE

JFE Steel	FY2019 (Actual)			(billion yen)
	1Q Actual	2Q Actual	1H Actual	Change 1Q→2Q
Segment Profit	14.5	3.2	17.7	(11.3)

- **Cost** - 3.0
- **Sales Volume and Mix** - 7.0
- **Sales Prices and Raw Materials** - 7.0
- **Inventory Valuation etc.** + 12.0
- **Others** - 6.3

⇒
 •Inventory valuation +6.0 (-6.0 → ±0.0)
 •Carry over of raw materials +3.0 (+1.0 → +4.0)
 •Foreign exchange valuation +3.0 (-3.0 → ±0.0)

Total - 11.3

Segment profit for 2Q of FY2019 was 3.2 billion yen, decreasing 11.3 billion yen from 1Q in FY2019.

◆ Cost : -3.0 billion yen

◆ Sales Volume and Mix : -7.0 billion yen

The volume of crude steel production went down due to the production adjustment along with the decrease in steel demand and decline of the price in the overseas market.

Crude steel (Standalone) -0.22Mt (7.00⇒6.79Mt)

Shipment (Standalone) +0.09Mt (5.85⇒5.95Mt)

◆ Sales Prices and Raw materials (Metal spread):-0.7 billion yen (-1,200 yen/t-shipment)

Metal spread decreased mainly through increase in iron ore price and decrease of the steel price in overseas market.

◆ Inventory valuation etc.: +12.0 billion yen

◆ Others : -6.3 billion yen

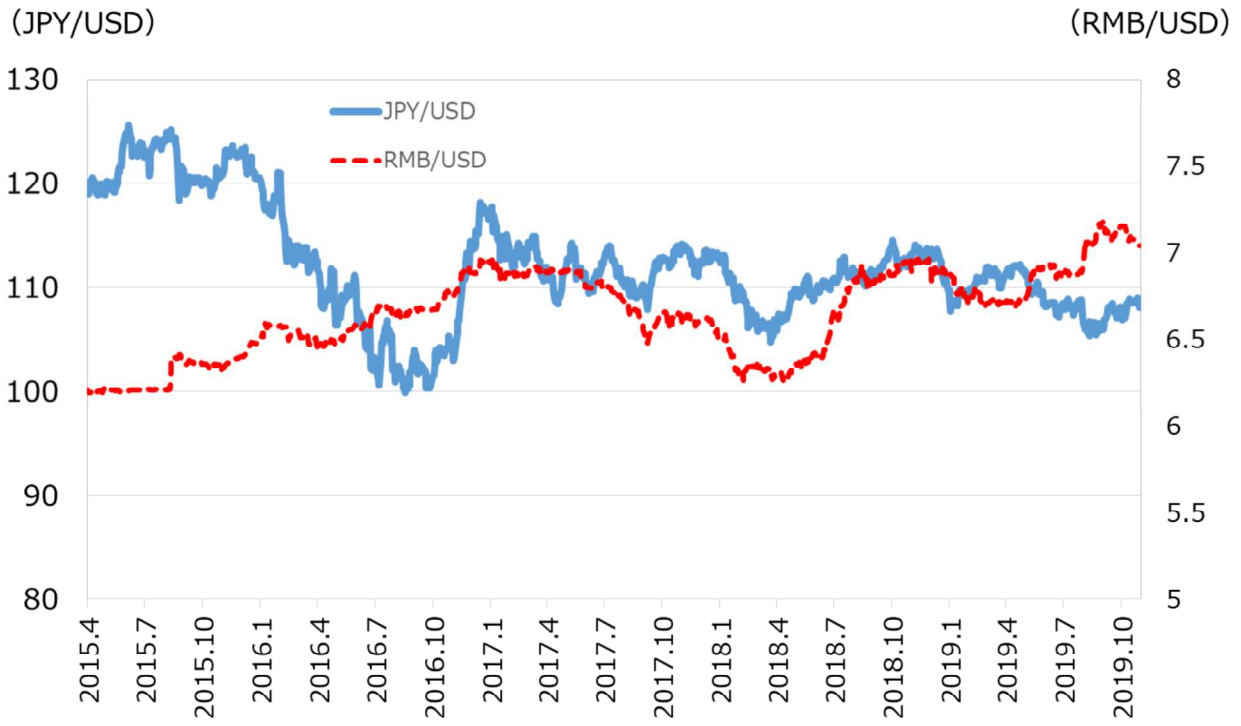
•Decrease in dividends received

•Increase in depreciation cost etc.



Trend of exchange rate (USD against JPY RMB)

JFE





JFE

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