Securities Code: 5411.T



# JFE Group Financial Results through Third Quarter of Fiscal Year 2018 ending March 31, 2019

JFE Holdings, Inc. February 1, 2019



- JFE Holdings' Financial Results through Third Quarter of Fiscal Year 2018 (April 1 to December 31, 2018) and Financial Forecasts for Fiscal Year 2018 (April 1, 2018 to March 31, 2019)
  - JFE Steel
  - JFE Engineering
  - JFE Shoji
  - Dividends
    - Adoption of International Financial Reporting Standards (IFRS)

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



# Summary

#### □ Financial Forecasts for Fiscal Year 2018

JFE Holdings Inc. revises downward its ordinary income forecast to <u>220.0</u> <u>billion yen</u> (<u>30.0 billion yen</u> decrease from previous forecast) mainly due to decrease in crude steel production volume of <u>1 million tons</u> from previous forecast related to operation troubles of blast furnaces in Steel Business.

#### □ Year end dividend

The company decided to maintain its plan to pay <u>a year end dividend of</u> <u>50 yen per share</u>, which would bring the annual dividend of 95 yen per share.

#### □ Adoption of International Financial Reporting Standards (IFRS)

The company decided to adopt IFRS from <u>the close of accounts for the</u> <u>fiscal year 2018 ending March 31, 2019</u>.



### Consolidated Results through Third Quarter of Fiscal Year 2018 (April 1 to December 31, 2018)



Financial Results through Third Quarter of Fiscal Year 2018

			(billion yen)
	FY2017 Through 3Q	FY2018 Through 3Q	Change
Net Sales	2,670.8	2,939.1	268.3
Operating Income (Loss)	172.3	170.8	(1.5)
Non-operating Income (Expenses)	(1.8)	30.4	32.2
Ordinary Income (Loss)	170.4	201.2	30.8
Extraordinary Profit (Loss)	22.1	(5.7)	(27.8)
Profit (Loss) before Income Taxes	192.6	195.4	2.8
Tax Expense and Profit Attributable to Non-controlling Interests	(53.9)	(44.3)	(9.6)
Profit (Loss) Attributable to Owners of Parent	138.6	151.0	12.4



Financial Results through Third Quarter of Fiscal Year 2018 (by Segment)

(billion yen)

-				
		FY2017	FY2018	Change
		Through 3Q	Through 3Q	Change
	Steel Business	1,991.9	2,126.2	134.3
	Engineering Business	256.6	317.9	61.3
	Trading Business	1,410.5	1,558.6	148.1
	Adjustments	(988.2)	(1,063.6)	(75.4)
N	et Sales	2,670.8	2,939.1	268.3
	Steel Business	150.2	157.0	6.8
	Engineering Business	6.0	11.8	5.8
	Trading Business	26.0	28.4	2.4
	Adjustments	(11.9)	3.8	15.7
0	rdinary Income (Loss)	170.4	201.2	30.8



# Forecasts of Consolidated Financial Results in Fiscal Year 2018 (April 1, 2018 to March 31, 2019)



# Financial Forecasts for Fiscal Year 2018

						(billion yen)
	Previous Forecasts (Oct. 30. 2018)		Updated Forecasts (Feb. 1. 2019)			Change
	Full year	Apr-Dec	Jan-Mar	Full year		Full year
Net Sales	4,000.0	2,939.1	960.9	3,900.0		(100.0)
Operating Income	220.0	170.8	19.2	190.0		(30.0)
Non-operating Income (Expenses)	30.0	30.4	(0.3)	30.0		0.0
Ordinary Income (Loss)	250.0	201.2	18.8	220.0		(30.0)
Extraordinary Profit (Loss)		(5.7)	(4.3)	(10.0)		(10.0)
Profit (Loss) before Income Taxes and Minority Interests	250.0	195.4	14.6	210.0		(40.0)
Tax Expense and Profit Attributable to Non-controlling Interests	(75.0)	(44.3)	(5.7)	(50.0)		25.0
Profit (Loss) Attributable to Owners of Parent	175.0	151.0	9.1	160.0		(15.0)

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						(b	illion yen)
		Previous Forecasts (Oct. 30. 2018)		dated Forecas (Feb. 1. 2019)			Change
		Full year	Apr-Dec	Jan-Mar	Full year		Full year
	Steel Business	2,880.0	2,126.2	703.8	2,830.0		(50.0)
	Engineering Business	480.0	317.9	162.1	480.0		0.0
	Trading Business	2,120.0	1,558.6	491.4	2,050.0		(70.0)
	Adjustments	(1,480.0)	(1,063.6)	(396.4)	(1,460.0)		20.0
Ν	et Sales	4,000.0	2,939.1	960.9	3,900.0		(100.0)
	Steel Business	190.0	157.0	3.0	160.0		(30.0)
	Engineering Business	22.0	11.8	10.2	22.0		0.0
	Trading Business	35.0	28.4	6.6	35.0		0.0
	Adjustments	3.0	3.8	(0.7)	3.0		0.0
	rdinary ncome (Loss)	250.0	201.2	18.8	220.0		(30.0)



		(billion yen)			
	FY2017 (A) FY2018 (F)				Change
	Full year	Apr-Dec	Jan-Mar	Full year	Full year
Net Sales	3,678.6	2,939.1	960.9	3,900.0	221.4
Operating Income	246.6	170.8	19.2	190.0	(56.6)
Non-operating Income (Expenses)	(30.3)	30.4	(0.3)	30.0	60.3
Ordinary Income (Loss)	216.3	201.2	18.8	220.0	3.7
Extraordinary Profit (Loss)	(2.9)	(5.7)	(4.3)	(10.0)	(7.1)
Profit (Loss) before Income Taxes and Minority Interests	213.3	195.4	14.6	210.0	(3.3)
Tax Expense and Profit Attributable to Non-controlling Interests	(68.7)	(44.3)	(5.7)	(50.0)	18.7
Profit (Loss) Attributable to Owners of Parent	144.6	151.0	9.1	160.0	15.4



						(b	illion yen)
		FY2017 (A)		FY2018 (F)			Change
		Full year	Apr-Dec	Jan-Mar	Full year		Full year
	Steel Business	2,715.4	2,126.2	703.8	2,830.0		114.6
	Engineering Business	391.3	317.9	162.1	480.0		88.7
	Trading Business	1,907.9	1,558.6	491.4	2,050.0		142.1
	Adjustments	(1,336.1)	(1,063.6)	(396.4)	(1,460.0)		(123.9)
Ν	let Sales	3,678.6	2,939.1	960.9	3,900.0		221.4
	Steel Business	198.8	157.0	3.0	160.0		(38.8)
	Engineering Business	19.3	11.8	10.2	22.0		2.7
	Trading Business	33.0	28.4	6.6	35.0		2.0
	Adjustments	(34.9)	3.8	(0.7)	3.0		37.9
	ordinary ncome (Loss)	216.3	201.2	18.8	220.0		3.7



# JFE Steel Financial Results through Third Quarter of Fiscal Year 2018

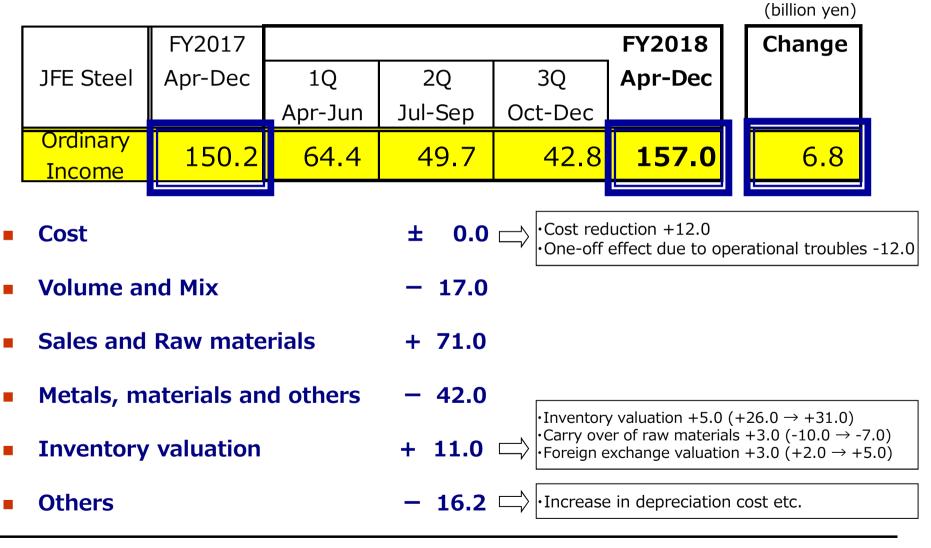


## Production and Shipment

			FY2017					FY2018	
	Unit	1Q	2Q	3Q	4Q	Full year	1Q	2Q	3Q
Crude Steel (Standalone)	Mt	7.12	6.98	7.23	7.14	28.46	7.10	6.94	6.39
Crude Steel (Consolidated)	Mt	7.53	7.38	7.63	7.52	30.06	7.51	7.33	6.79
Shipment (Standalone)	Mt	6.14	6.28	6.38	6.50	25.30	6.13	5.93	6.24
Export Ratio on Value Basis (Standalone)	%	42.1	44.2	45.1	45.9	44.4	42.4	44.2	43.5
Average Sales Prices (Standalone)	000 yen / t	74.4	73.3	77.0	76.5	75.3	79.3	81.9	82.9
Exchange Rate	¥/\$	111.5	110.9	112.6	109.7	111.2	108.1	110.9	113.4
Exchange Rate (End of Term)	¥/\$	112.0	112.7	113.0	106.2	106.2	110.5	113.6	111.0



6.8 billion Yen increase in JFE Steel's Ordinary Income (FY17 through 3Q vs. FY18 through 3Q)



JFE Steel



# JFE **Steel** Financial Forecasts for Fiscal Year 2018

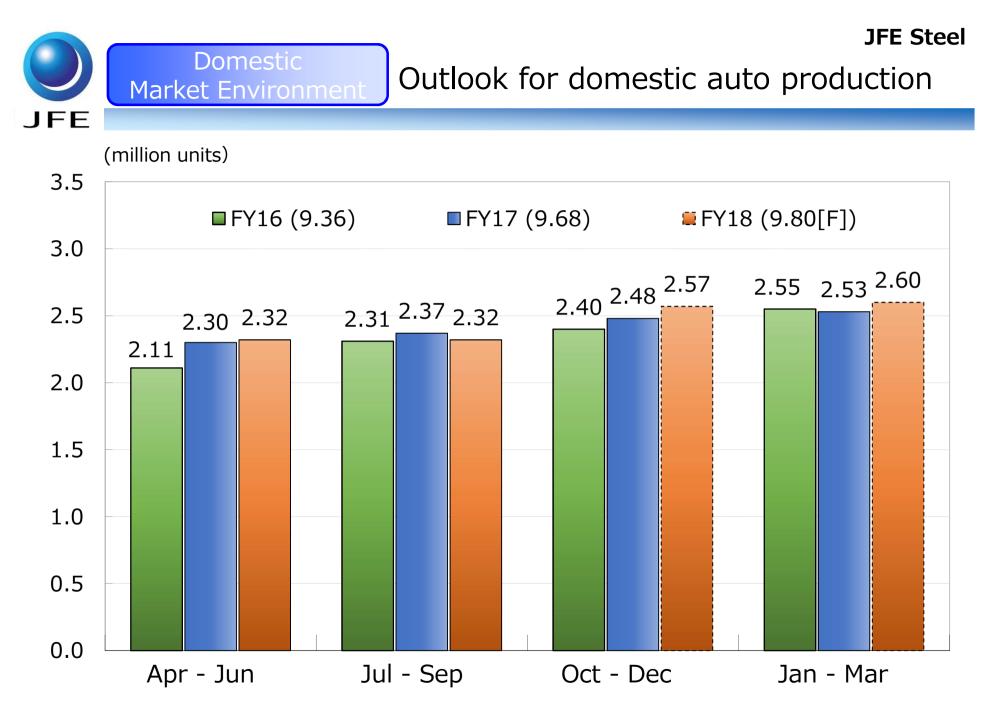


#### Domestic business environment

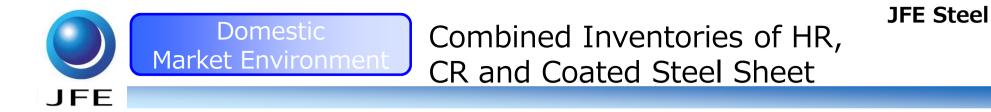
- Domestic steel demand remains robust. But, there is a risk of slowdown of foreign demand including the impact of trade friction.
- In construction sector, demand of non-residential building is expected to remain solid with urban redevelopment and capital expenditures in private sector.
- In manufacturing sector, demand of automobile and industrial machinery is also expected to remain robust.

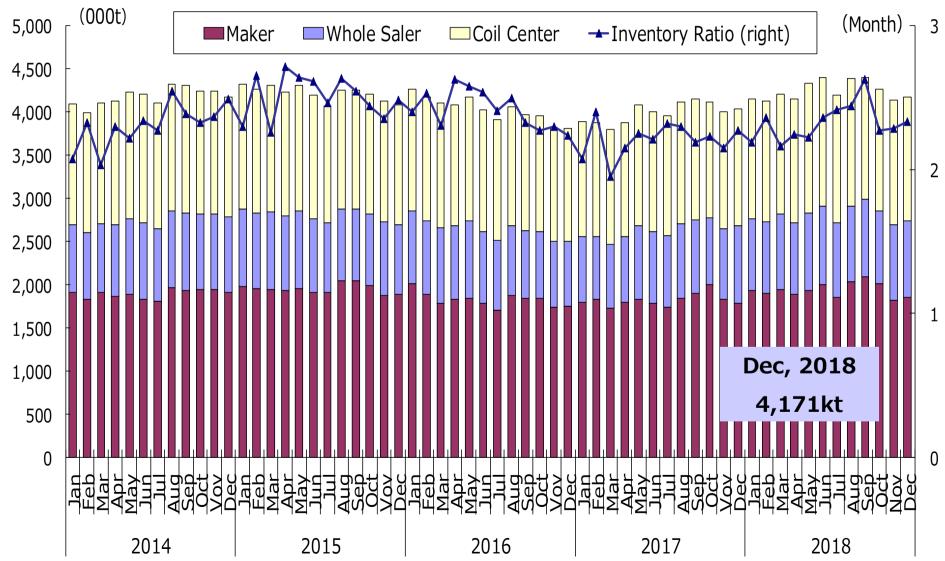
#### **D**verseas business environment

- Overseas steel demand is forecast to remain stable despite of risk of slowdown of China's economy related to trade friction etc.
- Sales price and metal spread in China is showing signs of having bottomed out. Market trend after Chinese New Year needs to be watched carefully.

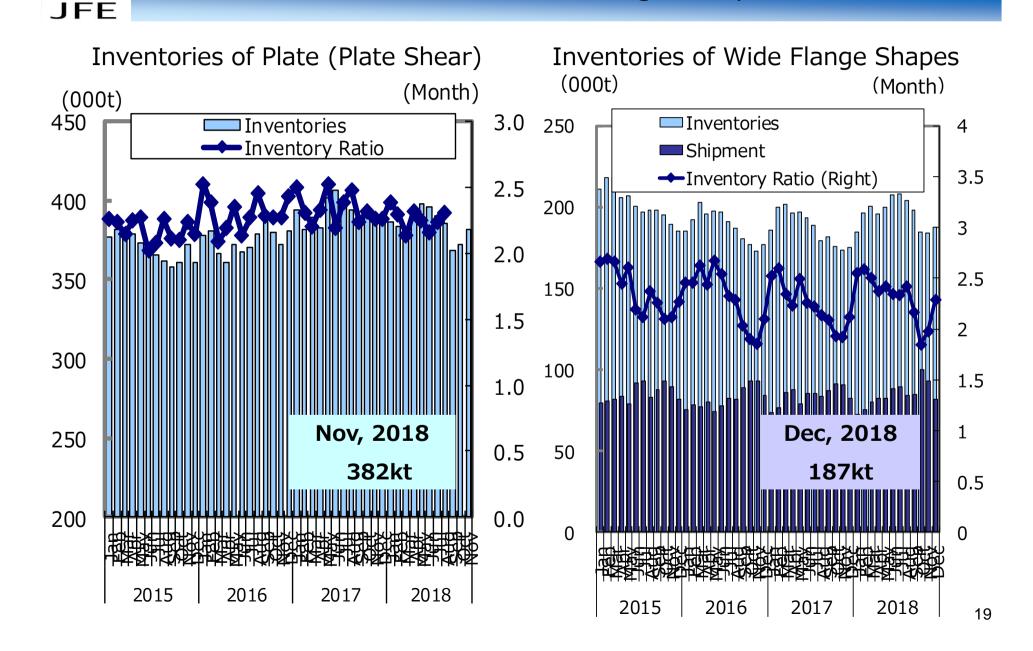


JFE Forecast 17





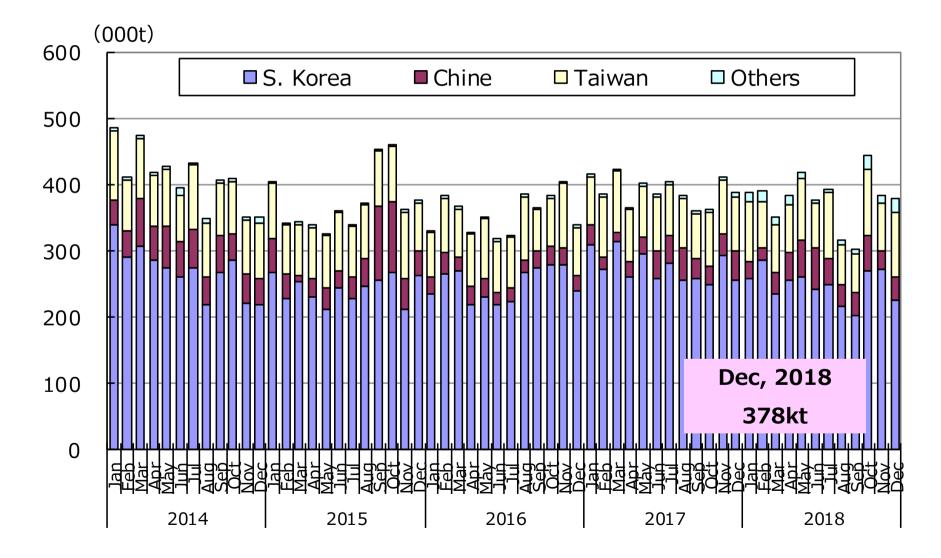
#### JFE Steel Inventories of Plate (Plate Shear) and Wide Flange Shapes

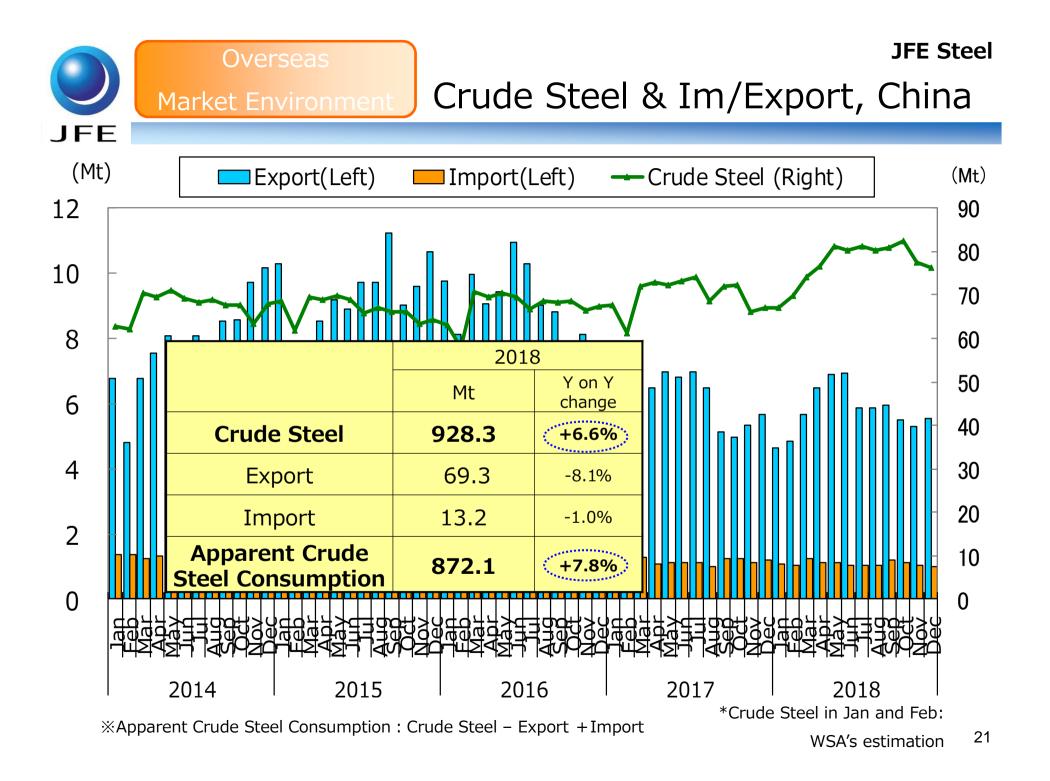


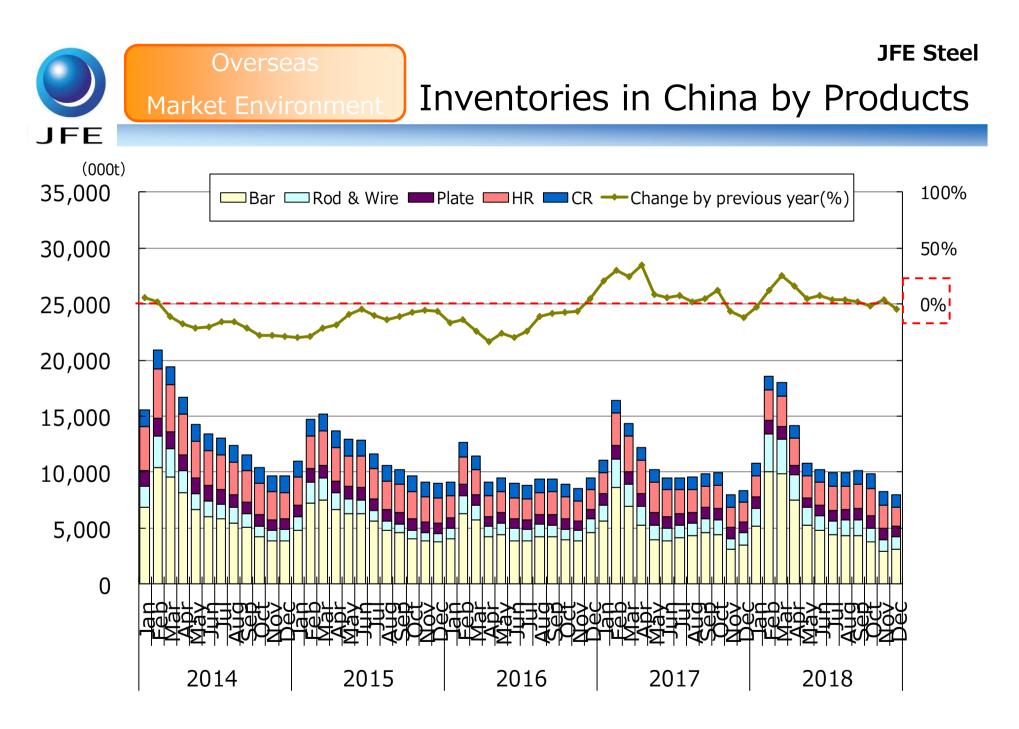
Domestic

Market Environment

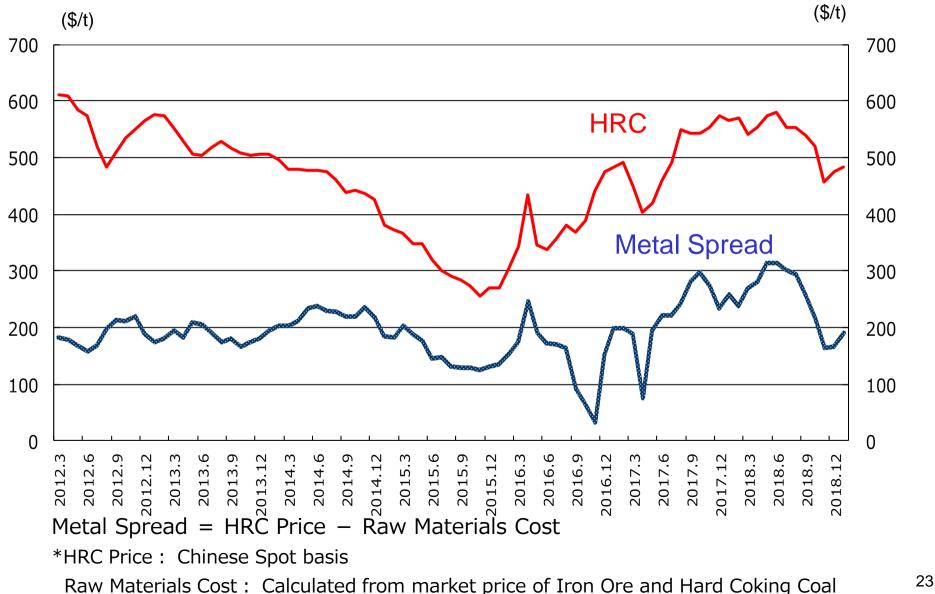








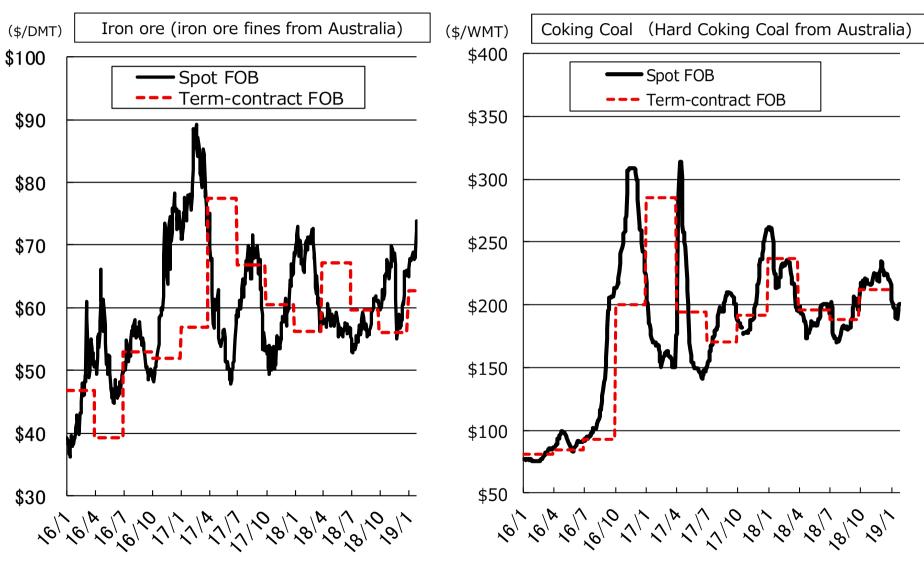
#### Metal Spread Trend Overseas Market Environment (Chinese Spot Basis) JFE



JFE Steel

Raw Materials Raw Materials Price

JFE



Hard Coaking 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)

JFE Steel



# Financial Forecasts for FY2018 of JFE Steel

JFE

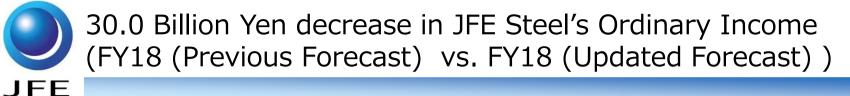
		FY2018			FY2018	3			
									Full year
		Full year	1H	3Q	4Q	2H	Full year		Change
		Previous Forecast	Actual	Actual	Forecast	Forecast	Updated Forecast		
Net Sales	Billion Yen	2,880.0	1,386.6	739.6	703.8	1,443.4	2,830.0		(50.0)
Ordinary Income	Billion yen	190.0	114.1	42.8	3.0	45.9	160.0		(30.0)
Crude Steel (Standalone)	Mt	Approx. 28.00	14.04	6.39	Approx. 6.57	Approx. 12.96	Approx. 27.00	ļ	(1.00)
Average Sales Prices (Standalone)	000 yen / t		80.6	82.9	80	81	81		
Exchange rate	¥/\$	Approx. 110	109.5	113.4	110	112	111		

Breakdown of 1.0Mt decrease in crude steel due to operational troubles

- •Kurashiki No.2 Blast Furnace (0.3Mt) (annual total (0.7Mt))
- •Chiba No.6 Blast Furnace (0.4Mt) % resumed its operation

•Fukuyama No.4 Blast Furnace (0.3Mt)

**JFE Steel** 



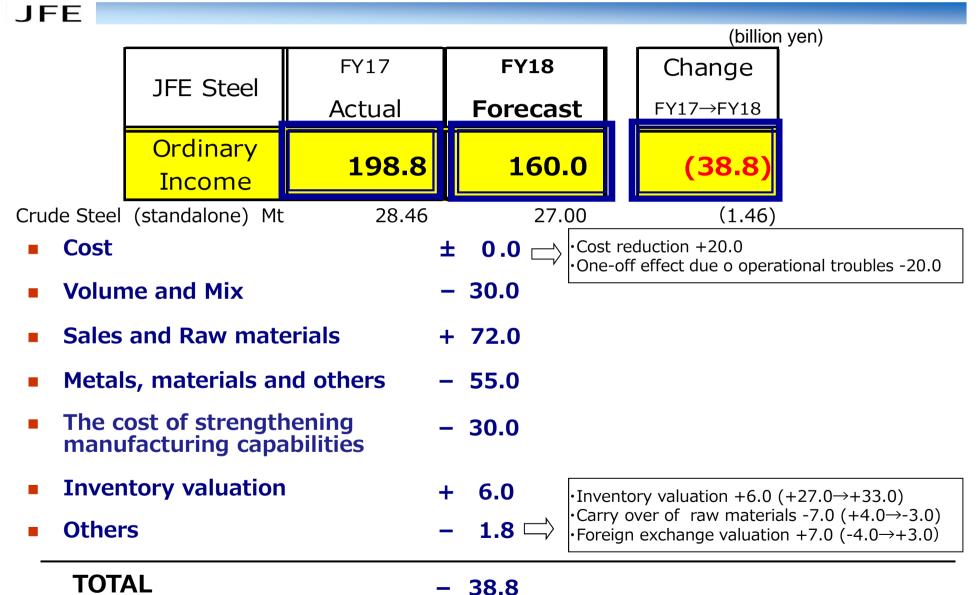
(billion yen) FY18 **FY18** Change JFE Steel Updated Previous FY18→FY18 Ordinary 160.0 190.0 30.0 Income (1.00)Crude Steel (standalone) Mt 28.00 27.00 Annual total one-off effect on ordinary income by natural disasters and operational troubles Decrease in crude steel -2.00Mt (29.00  $\rightarrow$  27.00Mt) per year Cost - 15.0 •Cost -20 -60 Volume and Mix •Volume and Mix -40 - 20.0 Sales and Raw materials - 10.0 •Inventory valuation +13.0 (+20.0 $\rightarrow$ +33.0) •Carry over of raw materials +3.0 (-6.0 $\rightarrow$ -3.0) **Inventory valuation** + 16.0Foreign exchange valuation  $\pm 0.0 (+3.0 \rightarrow +3.0)$ **Others** 1.0

30.0

TOTAL

JFE Steel

38.8 Billion Yen decrease in JFE Steel's Ordinary Income (FY17 (Actual) vs. FY18 (Forecast) )



## JFE Engineering Financial Forecasts for Fiscal Year 2018



### Financial Forecasts for FY18 of JFE Engineering

(billion yen)

	FY2018	(Previous)	FY2018	(Updated)	Change		
	2H	Full year (F)	2H	Full year (F)	2H	Full year	
Orders	228.2	500.0	228.2	500.0	±0	±0	
Net Sales	287.2	480.0	287.2	480.0	±0	±0	
Ordinary Income	15.1	22.0	15.1	22.0	±0	±0	



### Financial Forecasts for FY18 of JFE Engineering

(billion yen)

	FY2017 (A)		FY20	18 (F)	Change		
	2H	Full year	2H	Full year	2H	Full year	
Orders	273.3	495.5	228.2	500.0	(45.1)	4.5	
Net Sales	231.0	391.3	287.2	480.0	56.2	88.7	
Ordinary Income	16.8	19.3	15.1	22.0	(1.7)	2.7	

[Change (Full year)]

- Sales: Increase with increase in orders in the previous year
- Ordinary income: Increase with increase in net sales etc.



# Classification of placed orders

	(billion yen)									
Category	FY2017 (A)	FY2018 (F)	Change	Main Orders (FY2018)						
Environment	234.2	210.0	- (24.2)- - -	<ul> <li>Construction of waste incineration plants in Tottori and Shimane</li> <li>Improvement works of the waste incineration plant in Miyagi</li> <li>Construction of the treatment facility of seepage water at final waste disposal site in Tottori</li> <li>Volume reduction works of disaster waste</li> <li>Construction of the wastewater treatment plant [Hanoi, Vietnam]</li> </ul>						
Energy	126.9	130.0	3.1-	<ul> <li>Construction of the LNG station</li> <li>Construction of the Pipeline (1<sup>st</sup> phase of the Southern part line [Aichi] )</li> </ul>						
Social Infrastructure etc.	134.4	160.0	- 25.6	<ul> <li>Construction of the bridges (Haruta No.3 bridge [Nagoya], Izushima bridge [Miyagi], Joyo Nishi bridge [Kyoto])</li> <li>Reconstruction of the bridges (Metropolitan expressway, Shibuya station west entrance pedestrian bridge)</li> <li>Emergency repair work of the bridge [Yamaguchi]</li> <li>Construction of the container cranes [Shizuoka, Kochi]</li> <li>Construction of the transport and storage facility of woody biomass [Yamaguchi]</li> <li>Construction of the smart-agriculture plant [Tochigi]</li> </ul>						
Total	495.5	500.0	4.5							

# JFE Shoji Trade Financial Forecasts for Fiscal Year 2018



(billion yen)

JFE Shoji Trade

	FY2018 (Previous)		FY2018 (	Updated)	Change Change	
	2H	Full year (F)	2H	Full year (F)	2H	Full year
Net Sales	1,101.8	2,120.0	1,031.8	2,050.0	(70.0)	(70.0)
Ordinary Income	15.9	35.0	15.9	35.0	± 0	± 0

[Change]

(Full year)

- •Sales: Decrease in sales volume with decrease in crude steel production of JFE Steel
- •Ordinary income: Increase in profitability of subsidiaries in North America covers the impact of sales volume decrease.



(billion yen)

	FY2017 (Actual)		FY2018 (Forecast)		Change	
	2H	Full year	2H	Full year	2H	Full year
Net Sales	991.7	1,907.9	1,031.8	2,050.0	+40.1	+142.1
Ordinary Income	16.8	33.0	15.9	35.0	(0.9)	+2.0

[Ordinary Income Change]

(Full year)

•Increase with increase in profitability of foreign subsidiaries and sales price hike



# Net Sales of JFE Shoji Trade (by Segment)

(billion yen)		FY2017 (Actual)		FY2018 (Forecast)		Change	
Domestic Business		966.9		1,050.0		+83.1	
Overseas Business	Export	461.7	779.3	480.0	820.0	+18.3	+40.7
	ss Foreign Operation		//9.5	340.0	820.0	+22.4	+40.7
Raw Materials, Equipment etc.		161.7		180.0		+18.3	
TOTAL		1,907.9		2,050.0		+142.1	

### JFE Holdings Financial Forecasts for Fiscal Year 2018

JFE-HD

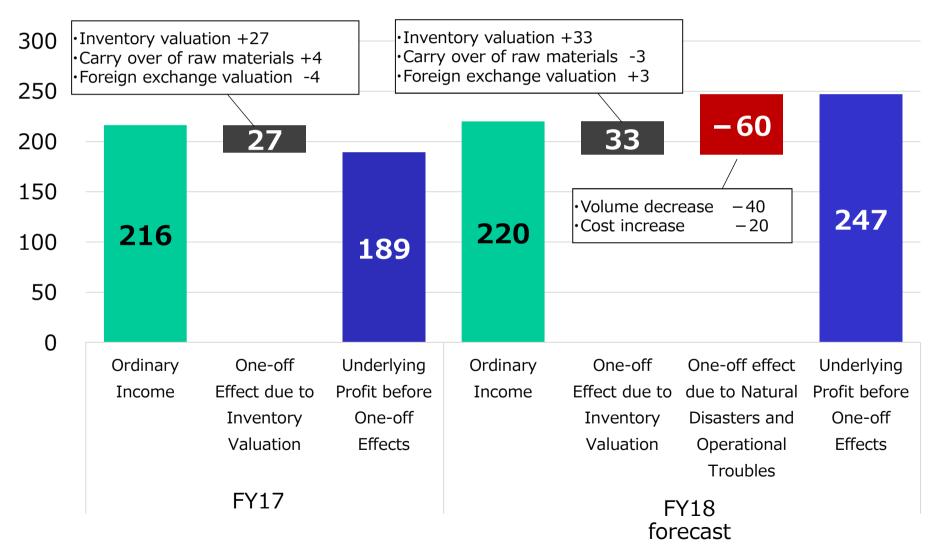


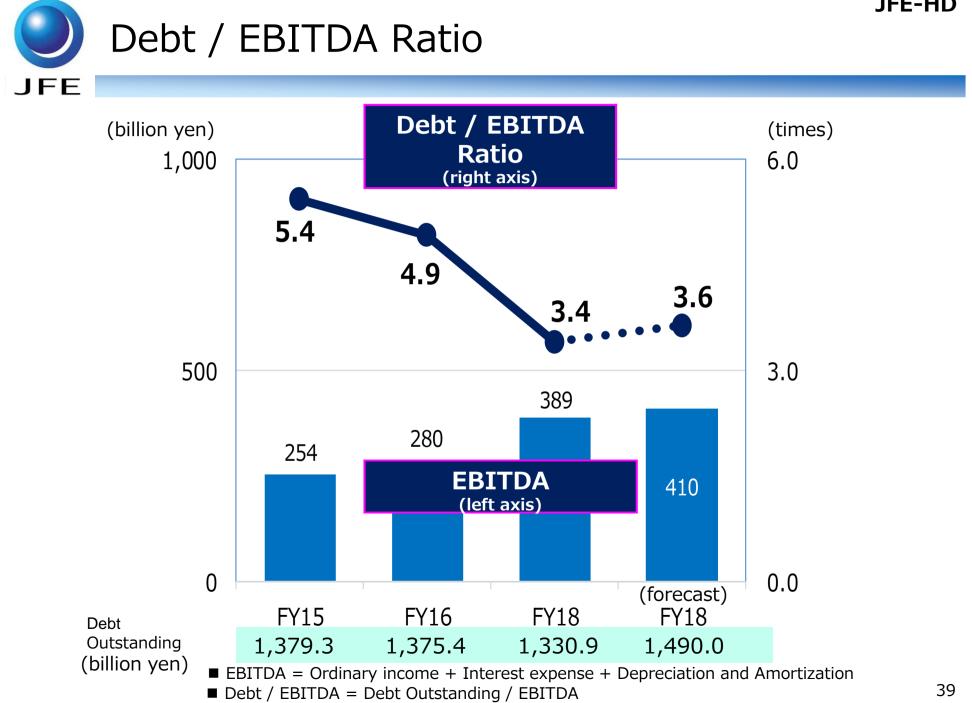
(billion yen)							
	FY2017 (A)		FY2018 (F)			Change	
	Full year	Apr-Dec	Jan-Mar	Full year		Full year	
Net Sales	3,678.6	2,939.1	960.9	3,900.0		221.4	
Operating Income	246.6	170.8	19.2	190.0		(56.6)	
Non-operating Income (Expenses)	(30.3)	30.4	(0.3)	30.0		60.3	
Ordinary Income (Loss)	216.3	201.2	18.8	220.0		3.7	
Extraordinary Profit (Loss)	(2.9)	(5.7)	(4.3)	(10.0)		(7.1)	
Profit (Loss) before Income Taxes and Minority Interests	213.3	195.4	14.6	210.0		(3.3)	
Tax Expense and Profit Attributable to Non-controlling Interests	(68.7)	(44.3)	(5.7)	(50.0)		18.7	
Profit (Loss) Attributable to Owners of Parent	144.6	151.0	9.1	160.0		15.4	



### Underlying Profit before One-off Effects

(billion yen)







(billion yen)

Sourc	e	Usage	9
		Dividends	55
Net Income	160		
Depreciation	180	Capex, Investments	310
Debt	160	Working Capital etc.	135

## Dividends



JFE Holdings has decided to propose at its general meeting of shareholders a year end dividend of 50 yen per share, which would bring the annual dividend of 95 yen per share.

# Adoption of International Financial Reporting Standards (IFRS)



#### Adoption of International Financial Reporting Standards

JFE Holdings, Inc. announces herewith that its board of directors passed a resolution approving the company's adoption of International Financial Reporting Standards (IFRS), replacing the Japanese Generally Accepted Accounting Principles (JGAAP) that had been applied until this time, for consolidated financial statements starting from the close of accounts for the fiscal year 2018 ending March 31, 2019. The change is aimed at facilitating the international comparability of the company's financial statements in capital markets as the company continues to develop its global business, and to strengthen group management by standardizing accounts processing.

#### Scheduled disclosures for adoption of IFRS

Accounting	Period	Documents disclosed	Accounting standard applied
Fiscal Year 2018	3Q	Quartarly financial results	JGAAP
Ending March 31,		Quartarly reports	
2019	End of	Financial results	IFRS
fiscal year		Consolidated financial statements	
		Securities reports	



#### Comparative Table of JGAAP and IFRS

-JFE Holdings Financial Forecast for FY2018-

JGAAP						
Net Sales	3,900.0					
Operating Income	190.0					
Non-operating Income						
(Expenses)	30.0					
Ordinary Income (Loss)	(220.0)					
Steel Business	160.0					
Engineering Business	22.0					
Trading Business	35.0					
Adjustments	3.0					
Extraordinary Income (Loss)	(10.0)					
Profit Before Income Taxes	210.0					
Profit Attributable to Owners of Parent	160.0					

	IFRS								
Sa	les Revenue	3,800.0							
Bu	siness Income	233.0							
Fi	inancial Income	(13.0)							
Se	gment Income	A+B	220.0						
	Steel Business		160.0						
	Engineering Business		22.0						
	Trading Business		35.0						
	Adjustments		3.0						
E	xceptional Items	(10.0)							
Pro	fit Before Income Taxes	210.0							
	it Attributable to Owners arent	160.0							

► **Business Income** : Income that exclude financial income and exceptional items from profit before income taxes

**Segment Income** : Income that add financial income to Business Income

**Exceptional Items** : Items with transient nature of importance the amount

(billion yen)





#### Main Financial Data

JFE													
												(F	orecast
	FY03	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
(bn. Yen, times)													
Ordinary Income	218.3	502.9	400.5	69.2	165.8	52.9	52.2	173.6	231.0	64.2	84.7	216.3	220.0
EBITDA *1	432.3	741.4	670.8	337.1	428.9	306.3	260.6	368.9	421.5	254.4	279.9	388.8	410.0
ROS *2	8.8%	14.2%	10.2%	2.4%	5.2%	1.7%	1.6%	4.7%	6.0%	1.9%	2.6%	5.9%	5.6%
ROE *3	15.9%	17.5%	13.7%	3.3%	4.1%	-2.6%	2.7%	6.3%	7.7%	1.8%	3.7%	7.6%	8.1%
ROA *4	6.5%	13.0%	10.0%	2.2%	4.6%	1.7%	1.6%	4.5%	5.5%	1.7%	2.3%	5.2%	5.1%
Debt Outstanding *5	1,837	1,281	1,768	1,468	1,496	1,593	1,596	1,534	1,501	1,379	1,375	1,331	1,490
Debt/EBITDA Ratio	x4.3	x1.7	x2.6	x4.4	x3.5	x5.2	x6.1	x4.2	x3.6	x5.4	x4.9	x3.4	x3.6
D/E Ratio *6	246.2%	61.4%	98.9%	75.5%	76.5%	83.5%	76.9%	67.9%	59.0%	56.9%	51.4%	58.1%	63.9%
Profit attributable to owners of parent (yen/share)	185.8	450.5	355.6	86.3	110.7	-68.7	71.2	177.4	241.6	58.4	117.8	250.8	277.7
Dividend (yen/share)	30	120	90	20	35	20	20	40	60	30	30	80	95
Pay-out Ratio	16.1%	26.6%	25.3%	23.2%	31.6%	-	28.1%	22.5%	24.8%	51.4%	25.5%	31.9%	34.2%

\*1 EBITDA = Ordinary income + Interest expense + Depreciation and Amortization

\*3 ROE (full year) = Profit attributable to owners of parent / Shareholders' equity

\* 4 ROA (full year) = Ordinary income before interest expense / Total assets (average),
 ROA (first half) = Ordinary income before interest expense x 2 / Total assets (average)

\*5 Debt/EBITDA ratio = Debt outstanding / EBITDA

\*6 D/E ratio = Debt outstanding / Shareholders' equity. Debt having a capital component is deemed to be capital, as assessed by rating agencies.

\*2 ROS = Ordinary income / Net sales

*Debt having a capital component (subordinated borrowings)								
	Borrowing Amount Execution Date Borrowed		Assessment of Equity Content	Amount Deemed to be Capital				
	June 30, 2016	200.0 billion yen	25%	50.0 billion yen				
	March 19, 2018	300.0 billion yen	25%	75.0 billion yen	<i>Δ</i> 7			
					-T I			



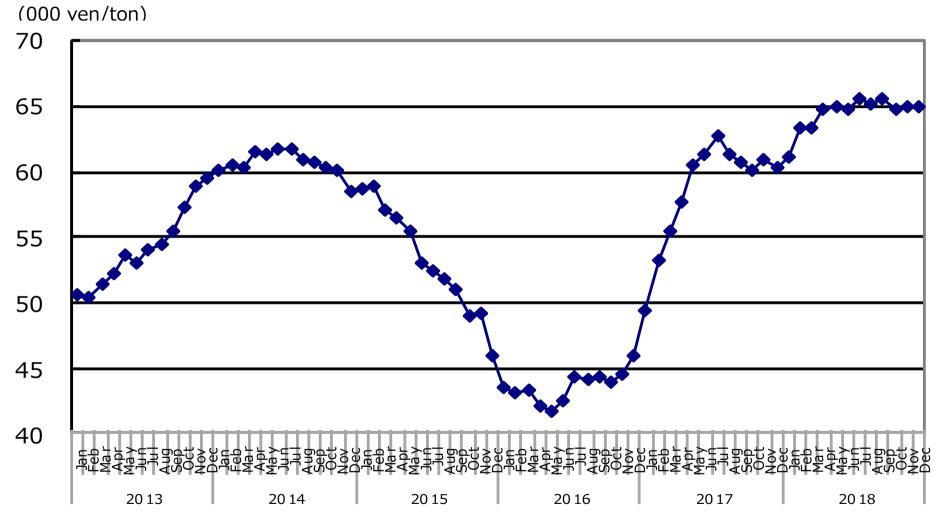
Adoption of International Financial Reporting Standards

#### Comparative Table of JGAAP and IFRS Profit and Loss statement

JGAAP		IFRS
Net Sales	Sales	Revenue
Cost of Sales	Cost	of Sales
Gross Profit	Gross	s Profit
Selling, general and administrative expenses	Selli	ng, general and administrative expenses
Operating Income	<b>→</b> Othe	r Income (Expenses)
Non-operating Income (Expenses)		e of profit of entities accounted for using ity method
Ordinary Income	۱ Busin	ess Income
Extraordinary Income (Loss)	Exce	ptional Items
	Opera	ating Income
	Final	ncial Income (Expenses)
Profit Before Income Taxes	Profit	Before Income Taxes
Income Taxes	Inco	me Taxes
Net Income	Net I	ncome
Profit Attributable to Non-controlling Interests	Profit	Attributable to non-controlling interests
Profit Attributable to Owners of Parent	Profit	Attributable to Owners of Parent

Gain or Loss on sales of securities and gain or loss on valuation of securities are reclassified to other comprehensive income 48



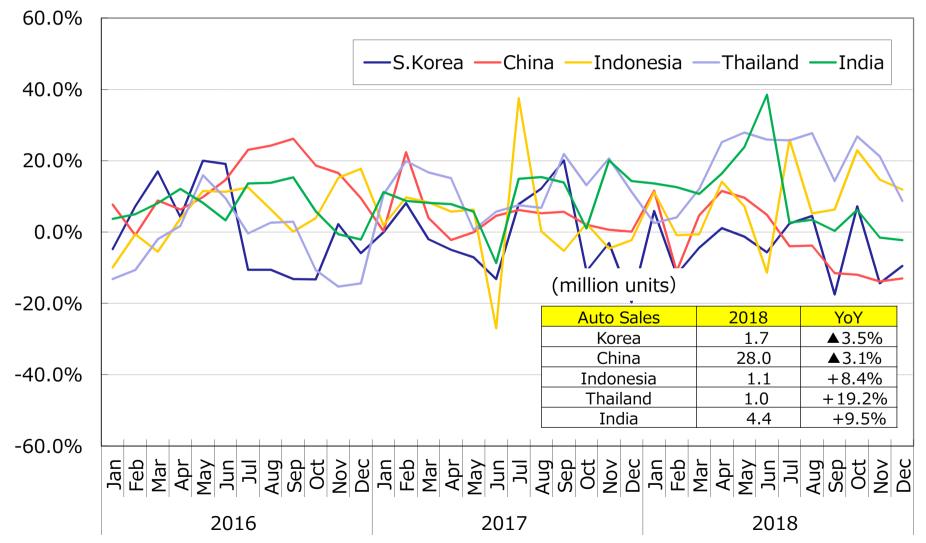


Data: Japanese Steel Association

Import Steel from S. Korea



Automobile Sales in Key Countries (YoY Change)



# Steel Raw Materials Trend of Metals' Market Price

JFE







2018.1

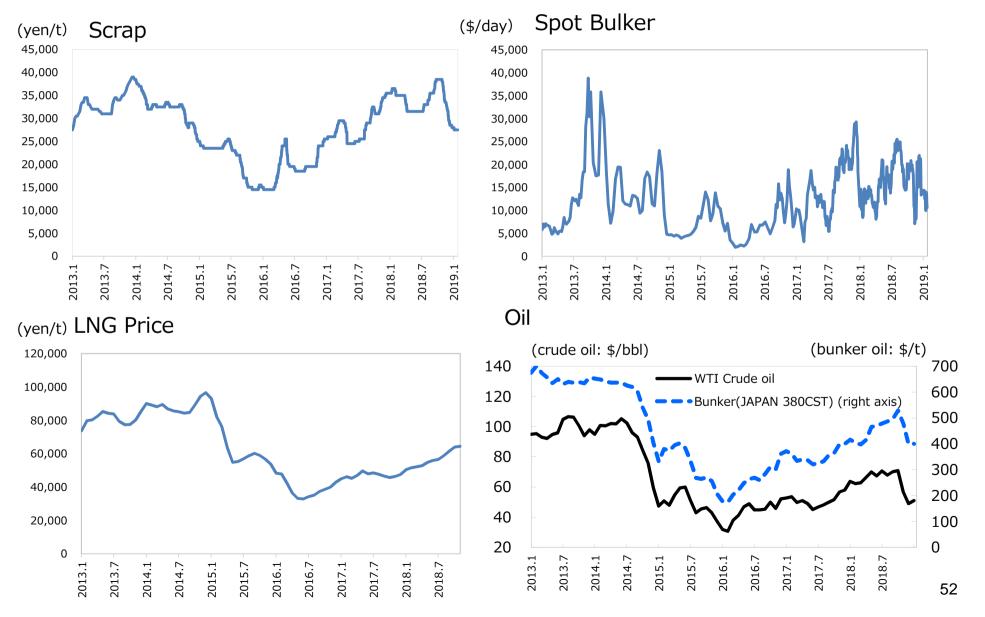
2018.7

2019.1

JFE Steel

Raw Materials Trend of Market Price

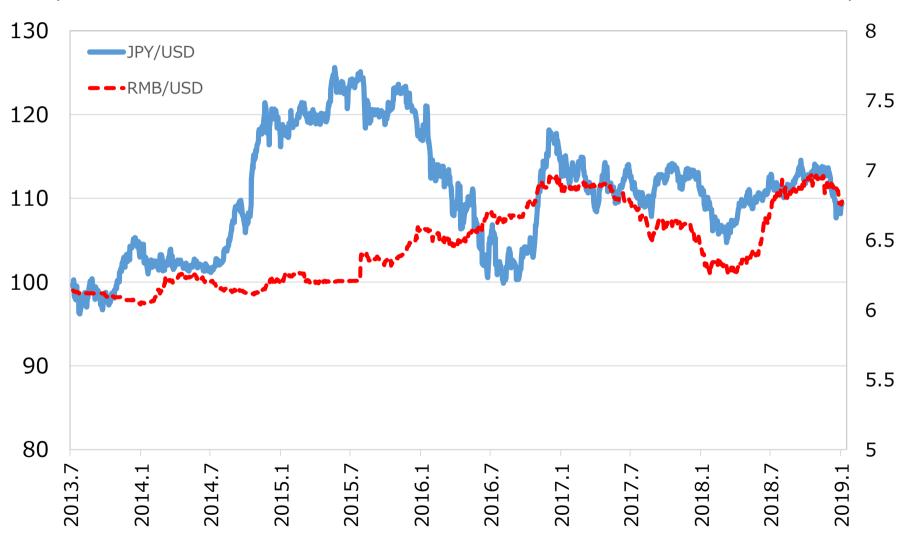
JFE





(JPY/USD)

(RMB/USD)





(billion yen)



# 6.9 billion Yen decrease in JFE Steel's Ordinary Income (FY18 2Q vs. FY18 3Q)

JFE Steel	1Q Apr-Jun	2Q Jul-Sep	3Q Oct-Dec	4Q Jan-Mar	FY2018	Change 2Q →3Q
Ordinary Income	64.4	49.7	42.8	3.0	160.0	<mark>(6.9)</mark>

•	Cost	-	3.5	
•	Volume and Mix	—	4.5	
•	Sales and Raw materials	-	8.0	
•	Inventory valuation	+	6.0 ⊐>	•Inventory valuation +2.0 (+9.0 $\rightarrow$ +11.0) •Carry over of raw materials +6.0 (-4.0 $\rightarrow$ +2.0) •Foreign exchange valuation -2.0 (+2.0 $\rightarrow$ ±0.0)
•	Others	+	3.1	

TOTAL



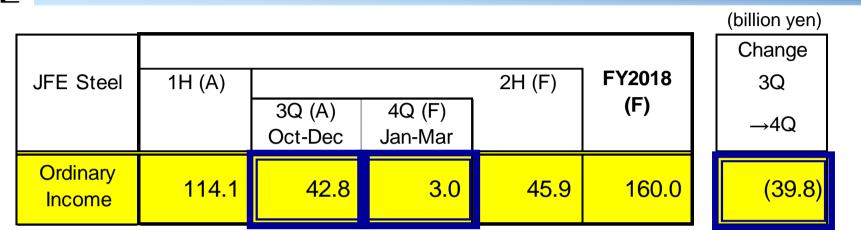
68.2 Billion Yen decrease in JFE Steel's Ordinary Income (FY18 1H (Actual) vs. 2H (Forecast))

					(billion yen)			
		FY	2018 (Forec	ast)	Change			
	JFE Steel	1H (A)	2H (F)	Total	1H→2H			
	Ordinary Income	114.1	45.9	160.0	<mark>(68.2)</mark>			
•	Cost	_	10.0 🖙	•Cost reduction +4 •One-off effect due	.0 e to operational troubles -14.0			
•	Volume and Mix – 14.0							
•	Sales and Raw	les and Raw materials – 20.0 • Inventory valuation -7.0 (+20.0 $\rightarrow$ +13.0) • Raw materials carry over +15.0 (-9.0 $\rightarrow$ +6.0						
	Inventory valu	ation +	1.0 □⇒		nge valuation -7.0 (+5.0 $\rightarrow$ -2.0)			
•	Others	_	25.2 ⊏>	<ul> <li>Increase in depreciation cost</li> <li>Increase in material cost including refracto and fuel etc.</li> <li>Decrease in dividends received etc.</li> </ul>				
	TOTAL		- 68.2					

**JFE Steel** 



39.8 Billion Yen decrease in JFE Steel's Ordinary Income (FY18 3Q (Actual) vs. FY18 4Q (Forecast))



- Volume and Mix + 2.0
- Sales and Raw materials
- Inventory valuation

- 20.0 - 9.0  $\rightarrow$  ·Inventory valuation -9.0 (+11.0 $\rightarrow$ +2.0) ·Carry over of raw materials +2.0 (+2.0 $\rightarrow$ +4.0) ·Foreign exchange valuation -2 (±0.0 $\rightarrow$ -2.0)
- Others 12.8 rightarrow 12.8 rightarr

JFE Steel



**JFE Steel** (Topics) Product development for enhancing competitiveness of automotive steel

~ "GI JAZ<sup>TM</sup>" High-lubricity GI Steel Sheet for Automobiles ~

(released on November 15, 2018)

57

#### Surface treatment "GI JAZ<sup>™</sup>" High-lubricity GI Steel Sheet for Automobiles

Begun producing "GI JAZ" high-lubricity hot-dip galvanized (GI) steel sheet, which offers dramatically improved press formability for use in European and American automobile bodies.

GI JAZ allows automobile manufacturers greater freedom in vehicle structure and design, and helps them to stabilize press processes and reduce defects.

- GI JAZ incorporates the high-lubricity technology used in "JAZ" (JFE Advanced Zinc) on GA steel sheet.
- > GI JAZ achieves formability equal to that of EG Prephos based on cost effective GI steel sheet.

Good←Friction coefficient Compared to normal GI; 0.3 GI © Friction coefficient 0.2 EG GI [approx. 60% improvement] JAZ Prephos 0.1 Range of blank holding force
 Part made of "GI JAZ" pressformed with fender model die 0.0 [approx. dobouled]



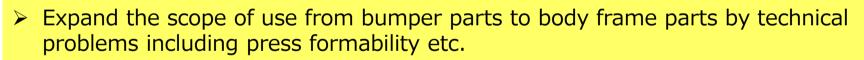
**JFE Steel** (Topics) Product development for enhancing competitiveness of automotive steel

 $\sim$  1310 MPa High-tensile Steel Sheet Adopted for First Time  $\sim$ 

(released on January 10, 2019)

High-<br/>tensile1310 MPa High-tensile Steel Sheet Adopted for First Time in Cold-press-<br/>forming Vehicle Body-frame Parts

- Adopted first time for cold-press-forming body-frame parts. Its strength as vehicle body-frame parts formed by cold-press forming is of the world's highest level.
- Contribute to the continued enhancement of <u>vehicle safety and environmental</u> <u>friendliness</u>.



Achieved minimized addition of alloy by utilizing the high cooling capacity of its proprietary JFE-CAL water-quenching continuous annealing process in Fukuyama.

Images of body frame of parts

© World's highest level as vehicle body-frame parts formed

by cold-press forming

 $[1180MPa \rightarrow \underline{1310MPa}]$ 



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