TYO: 5401

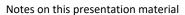
OTC: NPSCY(ADR)



FY2020 2Q Earnings Summary

Nov. 6th, 2020

NIPPON STEEL CORPORATION



Unless otherwise noted, all volume figures are presented in metric tons Unless otherwise noted, all financial figures are on consolidated basis

Agenda

- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

FY2020.2Q Earnings Summary and FY2020 Forecast

		1								
	FY2019	19.2H ⇒20.1H	20.1H	vs. prev. 20.1H(f) as of Aug. 4 th	20.1H ⇒20.2H	20.2H (f)	vs. prev. 20.2H(f) as of Aug. 4 th	FY2020(f)	FY2020 (f)	vs. prev. FY2020(f) as of Aug. 4 th
Non-consol. crude steel production (MMT)	41.85 *1	-5.66	14.64	-0.26	Approx. +3.46	Approx. 18.10	Approx. +1.20	Approx. -9.15	Approx. 32.70	Approx. +0.90
Non-consol. steel shipment (MMT)	38.70 *1	-4.38	14.46	+0.36	Approx. +2.04	Approx. 16.50	Approx.+ 0.90	Арргох. -7.70	Approx. 31.00	Approx. +1.30
Consol. Business profit (loss) (Bn. JPY)	(284.4) 76.5 excl. impairment loss	(vs. before impairment loss etc.) -110.0	(106.5)	+43.5	Approx. +153.0	Approx. 46.5	Approx. +16.5	(vs. before impairment loss etc.) -137.0	Approx. (60.0)	Approx. +60.0
Net profit (loss) (Bn. JPY) *2	(431.5)	+279.1	(191.1)	+8.9	Approx. +212.2	Approx. 21.1		Approx. +261.5	Approx. (170.0)	

^{*1} Nippon Steel + Ex-Nippon Steel Nisshin

■ Volume Forecast ➤ Demand has decreased rapidly due to COVID-19 impacts and is expected to increase in 2H but still in lower level comparing to before pandemic. Forecast has been revised upward compared to the previous forecast as of Aug. 4th, mainly for auto sector.

Profit Forecast

- Consolidated business profit was in large deficit in 1H due to rapid decrease of volume, but is expected to be surplus in 2H. (+60.0 bn. JPY/Y compared to the previous forecast as of Aug. 4th.)
- Cost reduction of more than 50 bn. JPY in variable cost and 210 bn. JPY in fixed cost is planned in FY2020 to realize non-consolidated operating profit as soon as possible.
- Cost increase due to production decrease is planned to be offset by further cost reduction of fixed cost and variable cost taking advantage of low operation rate on the top of 50 bn. and 210 bn. JPY.

^{*2} Profit (loss) attributable to owners of the parent

	FY2019 2H* 3.4	FY2020 1H (f) (150.0)	FY2020 1H (106.5)	FY2019* 76.5	Prev. FY2020 (f) Approx. (120.0)
	↓ FY2020 1H (106.5)	↓ Result (106.5)	↓ FY2020 2H (f) _{Approx.} 46.5	↓ FY2020 (f) Approx. (60.0)	↓ FY2020 (f) Approx. (60.0)
Business profit variance	-110.0	+43.5	Approx. +153.0	Арргох137.0	Approx. +60.0
Volume	- 152.0	+3.0	+75.0	- 254.0	+26.0
Steel prices, product mix, raw materials	+5.0	+11.0	-5.0	-45.0	+8.0
Group companies, non- steel business	-61.0	+30.0	+33.0	-107.0	+12.0
Cost reduction, depreciation cost	+103.0	+3.0	+19.0	+260.0	+10.0
Others	-6.0	-4.0	+31.0	+9.0	+4.0

^{*} Excl. impairment loss etc.

			•
Variable cost reduction	+	50.0	
Fixed cost (cash basis) reduction	+	90.0	
DEP	+1	120.0	
Fixed cost reduction	+2	210.0	
Cost increase due to volume decline Cost reduction taking advantage	>	±0	
of low production rate)		

FY2020 Net Profit Forecast and Interim Dividend

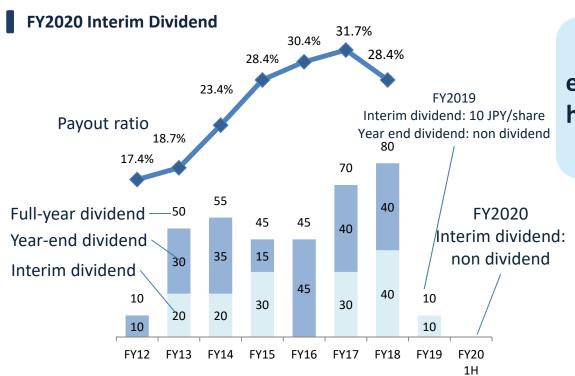
FY2020 Net Profit Forecast

(bn. JPY)	FY2019	1H	2H(f)	FY2020 (f)
Consolidated Business Profit	(284.4)	(106.5)	46.5	(60.0)
Additional Line Items	(121.7)	(42.2)		
Net Profit*	(431.5)	(191.1)	21.1	(170.0)

^{*} Profit attributable to owners of the parent

FY2020.2Q Additional Line Items

Losses on inactive facilities (Kyushu Works Yawata Area (Kokura) upstream facilities, etc.)



With severe financial result expected this year, Nippon Steel has decided to forgo the interim dividend payment.

Nippon Steel will rebuild profit structure and improve financial status as soon as possible, and return profit to shareholders.

Agenda

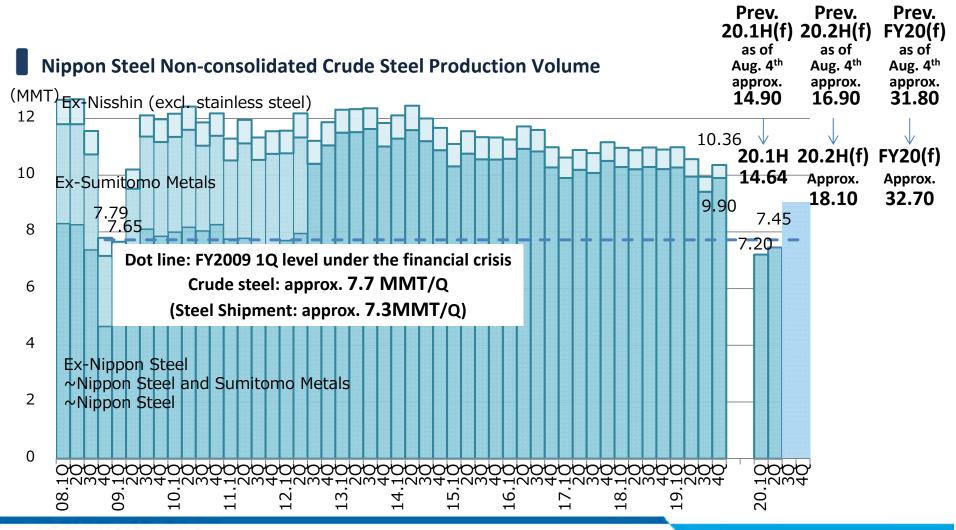
- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment

(COVID-19 Impacts & Our Actions)

- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

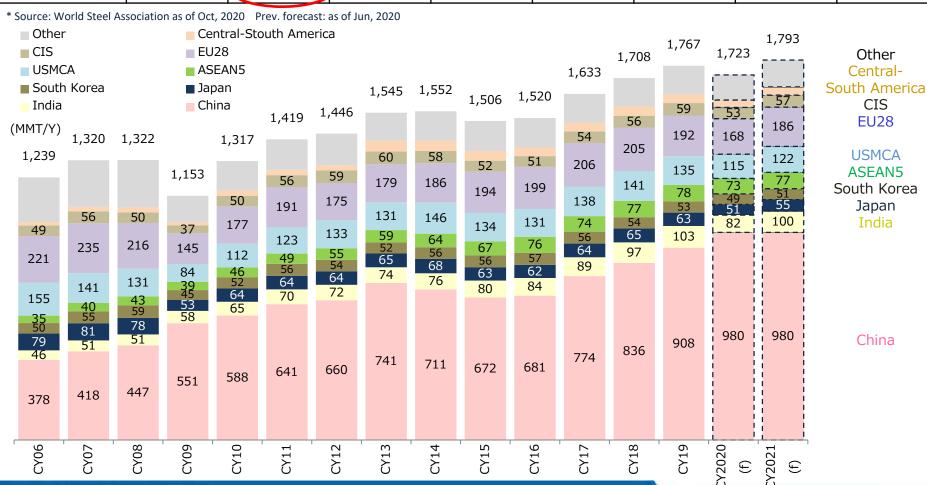
FY2020 Production Level

We have adopted prompt reduction of production such as BF banking for response to sharp decrease of steel demand due to COVID-19 impacts in FY20.1H. It is planned to blow in some BFs for response to demand recovery in 2H. Non-consolidated crude steel production in FY20.1H was in a low level 14.64MMT, and is expected to increase to approx. 18.10MMT in 2H.

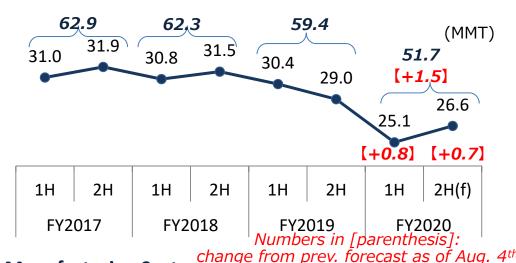


World Steel Demand

_	(MMT/Y)	World	Japan	China	South Korea	ASEAN5	India	USMCA	EU28
	CY2019	1,767	63	908	53	78	103	135	158
ĺ	CY2020 (f)*	1,723	51	980	49	73	82	115	134
	vs. as of Jun	+69	-0	+64	+2	-3	-1	+7	+1
Ī	CY2019->20	-44	-12	+73	-4	-5	-21	-21	-24
	Change	-2.5%	-19.6%	+8.0%	-8.1%	-6.0%	-20.2%	-15.3%	-15.1%



Domestic Steel Demand



Manufacturing Sector

Demand had been declining since FY2019 mainly in indirect exports, and the decline gathered speed due to COVID-19 impacts in FY20.1H. It is expected to recover toward the 2H mainly in automotive sector. Compared to the previous forecast as of Aug. 4th, demand recovery is expected to accelerate in auto sector along with distributers' restocking.

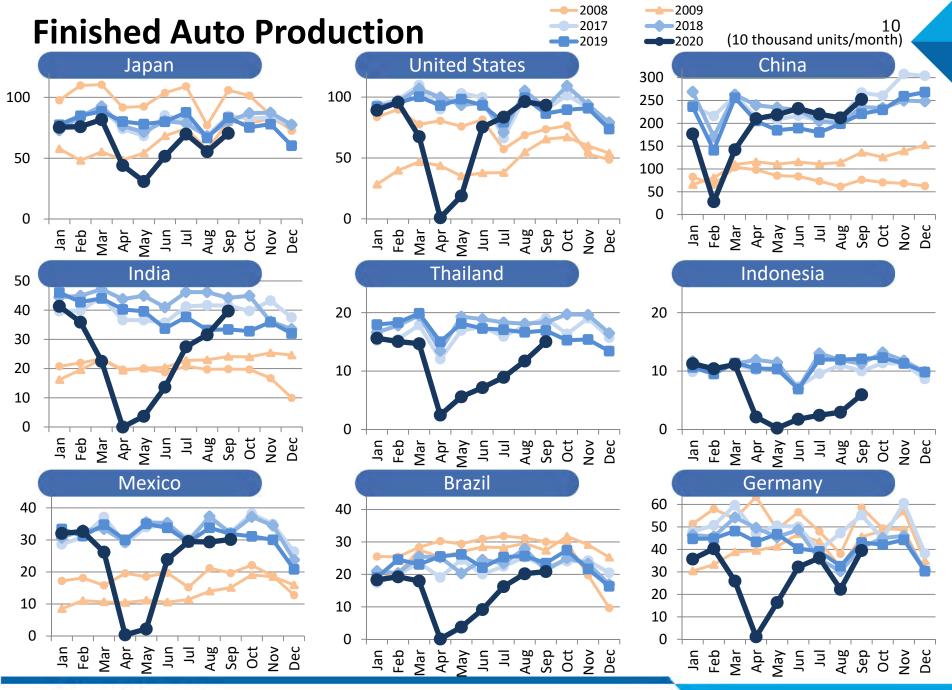
Civil Engineering and Construction

Construction stagnation due to COVID-19 impacts is limited. In the FY2020.2H, demand is expected to increase in civil engineering sector. On the other hand, close attention is needed to be paid for construction sector.

Manufacturing Sector

		20 E		20.4				(MMI)
	19.9	20.5	20.0	20.4	19.6	18.4			
	10.6	11.0	10.6 Oth	10.8 ners	10.5	9.9		8.4	17.3 + 0.7] 8.8 [- 0.1]
	9.3		9.3 uton			8.5	_	6.7 + 0.2	8.5 (+ 0.8)
h	1H	2H	1H	2H	1H	2H		1H	2H(f)
	FY2	017	FY2	018	FY2	019		FY2	020

Civil Engineering and Construction



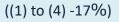
Production Capacity Adjustment BFs *Banking is a measure to temporarily stop BF production but make it possib

*Banking is a measure to temporarily stop BF production but make it possible to restart production at a later date by stopping the air blast flow

Steel works	Steel Area (1) Inner		Inner	(2) Present status	(3) FY2020 2H plan	(4) After restructuring of production facilities	
Muroran		2BF	2,902	Under refurbishment since Jul. 8 th ahead of the original schedule	Nov.: Completion of refurbishment and blowing-in		
	Kashima	1BF	5,370	From Apr. 15 th : Banking	Banking continues		
East	KdSIIIIId	3BF	5,370				
Nippon	Kimitsu	2BF	4,500	From June 14 th : Banking	Late Nov.: Blowing-in		
Killiitsu	4BF	5,555					
Nagova		1BF	5,443				
Nagoya		3BF	4,300				
Kansai	Wakayama	1BF	3,700	From Apr. 25 th : Banking	Banking continues	2022 1H: Shutdown	
Kalisai	vvakayama	2BF	3,700				
Setouchi	Kure	1BF	2,650			2021 1H: Shutdown	
	Ruie	2BF	2,080	From Feb. 15 th : Banking	Banking continues	2021 1H: Shutdown	
	Yawata	4BF	5,000				
Kyushu	(Kokura)	2BF	2,150	From Jul. 18 th : Banking -> The end of Sep: Shutdown	Already been shut down		
	Oita	1BF	5,775				
	Uita	2BF	5,775				
	Total	15 BFs	64,270	9 BFs 43,568m3	From late Nov.: 11 BFs 50,970m3	From the end of 2022 1H: 11 BFs 53,690m3	

(1) to (2): -32% (2) to (3): +17% ((1) to (3): -21%)

(3) to (4): +5%





Agenda

- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

Variable Cost Reduction

More than 50 bn. JPY/Y in FY2020

On top of operational improvement and capital investment planned in the mediumterm management plan to reduce variable cost, additional improvement measures, operation optimization accompanying facility structural measures, etc. are planned.

Fixed Cost Reduction

Approx. 210 bn. JPY/Y in FY2020 (incl. a part of the effect of facility structural measures 33 bn. JPY/Y)

Depreciation cost: 120 bn. JPY approx. 60 JPY/Y due to impairment loss, approx. 50 JPY/Y (non-consol.) due to change in depreciation method from declining balance to straight –line Other fixed cost (cash basis): 90 bn. JPY: Selective input of maintenance cost, thorough management of facility inspection with advanced IT, enhancement of maintenance efficiency in reorganized steelworks, etc.

Additional Cost Reduction To Offset **Cost Increase** due to Low **Production**

Variable cost demerits under low production:

Almost offset with the following actions

- 1) Efforts to minimize the disadvantages
- 2) Additional variable cost reduction taking advantage of production cutback (expansion of utilization of cheap raw materials, etc.)
- 3) Additional fixed cost reduction (temporary off-days for employees, employment adjustment grants, reduction of repair costs due to lower operating rate, etc.)
- * 2) and 3) are not included in variable cost reduction of more than 50 bn. JPY/Y and fixed cost reduction of approx. 210 bn. JPY/Y.

Further Profit-Oriented production. **Production**

Thorough Execution of Placing great importance on profitability in accepting order and

Implementing flexible adjustment of production volume.

Long-term Contractual Steel **Prices Improvement**

"Fair sharing of burden across the supply chain for increasing costs other than main raw materials", and "appropriate sales price reflecting values of Nippon Steel's products and comprehensive contributions to customers".

ex.) deterioration of unit cost at a low

energy structure due to a decrease in

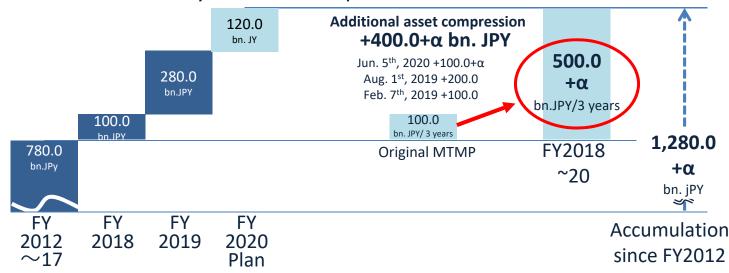
the amount of by-product gas, etc.

productivity of BF, change in the

Cash and Financial Action

Implementing asset compression of 120.0 bn. JPY in FY2020. 50.0 bn. JPY has already been accomplished in FY20.1H.

Further Asset Compression



Further CAPEX Reduction

Examining more efficient CAPEX based on long-term refurbishing plan. Selection and concentration of CAPEX on sectors and regions that will promisingly contribute to profit in the future.

Total CAPEX for 3 years (2018-2020) will be 300 bn. JPY less than the original MTMP.

Original MTMP: **1.7** trillion JPY/3 years -> May 8th,2020: **1.5** trillion JPY/3 years -> Aug. 4th, 2020: **1.4** trillion JPY/3 years

(There is a time lag between decision making and cash-out, and cash-out suppression will be from FY2021)

(Adjustment page)

Agenda

- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

Medium-Long Term Measures to Improve Profitability

Production Facility
Structural Measures
and Reinforcement
of Competitiveness

Shutdown of inferior facilities and concentrated production with superior facilities

- Implementing structural measures announced on Feb. 7th, 2020, aiming for earlier realization of 100 bn. JPY/year profit contribution. (35 bn. JPY/Y in FY2020)
- > BF in Kyushu Works Yawata Area (Kokura) has been shut down at Sep-end.
- ➤ Hot strip mill and precision product lines in Nippon Steel Stainless Kinuura Works have already been shut down.

(Precision product lines: Sep-end) (Hot strip mill: Oct-end, 2 months ahead of the original schedule)

- Decided to bring forward the schedule of shutdown of steel plate mill in Nagoya Works by a year. (Originally by around FY2022 2H -> by around the end of FY2021)
 - > Steel plate production at Nagoya Works will be transferred to Kyushu Works Oita Area, East Nippon Works Kashima Area and Kimitsu Area
- Considering additional structural measures and earlier schedule of restructuring as needed.
 Outline of structural measures ⇒ refer to pp.47-50

Improvement of production efficiency through concentrated and selective investment on more competitive facilities

Decided to refurbish #3 BF in Nagoya Works (Announced on Jun. 5th.)

Reinforcement of Globally-competitive
Strategic Products

Lower dependence on low-profit products and expansion of world-class high-value added products

Investments for electrical steel sheets capacity & quality improvement

Decided to make another investment in Hirohata as 4th step.

Total amount for 4 investments 104.0 bn. JPY. (incl. 1st and 3rd: Yawata, 2nd: Hirohata)

Respond to increasing demand and quality requirement for electrical steel sheet in vehicle motors and power plant sectors.

FY2023 1H: Full operation (capacity increases by 40%)

Electrical Steel Sheets ⇒ **refer to pp.22-23**

Medium-Long Term Measures to Improve Profitability

Overseas
Business
Reinforcement
Responding to
Local
Consumption
Trend

We have been implementing expansion of businesses in demand-growing regions and sectors where our technology and products are preferred, and withdrawal from unprofitable businesses where great synergy with domestic businesses is no longer expected.

- **Construction of EAF in AM/NS Calvert is under feasibility study.**
- We, together with ArcelorMittal, intend to concentrate our resources on AM/NS Calvert, which has one of the most distinguished equipment capabilities in the United States.
- We plan to further strengthen the supply capability of full range of products including the state-of-the-art steel products.
- Acquiring knowledge on EAF leads to increases in our choices on global business strategy.

Studying Construction of EAF in AM/NS Carvert

⇒ refer to pp.19-20

AM/NS India ⇒ refer to p.24

Actions for Tackling the Climate Change Through Innovation

We have been taking efforts to tackle climate change issues through development of three ecological and innovative technologies while responding to global steel demand growth.

At the cross-departmental "Zero Carbon Steel Committee" in which all representative director and vice presidents participate, our scenario for **decarbonization (2030 target, 2050 vision)**, research and development on low CO2 technology, etc. have been under consideration since April this year. our specific scenario **will be announced within FY2020**.

Our Challenges toward Zero Carbon Steelmaking ⇒ refer to p.21

Digital Transformation

We have also been promoting value creation through production process reforms and business process reforms through active utilization of data and digital technologies

- Started demonstration of private network system aiming for development of local 5G network system in manufacturing site. (Announced on Aug. 12th)
- Implementation of AI image recognition technology, etc.

Digital Transformation Strategy ⇒ refer to pp.25-26

Studying Construction of EAF in AM/NS Calvert

Further enhancement of competitiveness of AM/NS Calvert

- To address stricter import restrictions on semifinished steel products
- To secure orders and reduce slab inventory by shortening lead time to procure slabs
- To increase hot-charge of slabs to hot strip mill

Favorable business environment in the USA to utilize EAF

Stable supply of low cost electricity, and ample supply of various raw material for EAF cf. EAF share in US steel production: 70%

To construct EAF in AM/NS Calvert

(Detailed study is ongoing)

Secure new option in global business strategy

To acquire knowledge on integrated production process of steel sheets with EAF, Including production of Gen 3 advanced high-tensile steel sheets (980Mpa and above)

Nippon Steel Corporation, together with ArcelorMittal, intends to concentrate their resources on AM/NS Calvert, which has one of the most distinguished equipment capabilities in the United States, and further to strengthen its supply capability of full range of products including the state-of-the-art steel products.

Cf. Outlines of Steel Sheet Manufacturing Bases in the USA for Auto Makers

AM/NS Calvert

Equity ratio: Nippon Steel 50% ArcelorMittal 50%

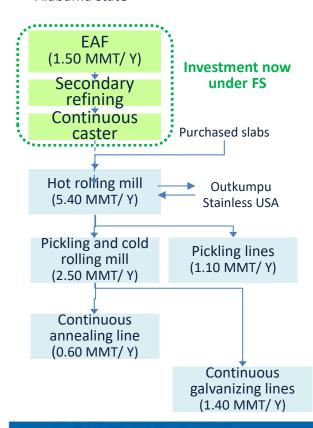
Operation started in 2010

2014: Joint acquisition of ThyssenKrupp USA

2016: Investment on highly formable ultra-

high-tensile steel sheets

Alabama state





I/N Tek

Equity ratio: Nippon Steel 40%

ArcelorMittal 60%

Operation started in 1990

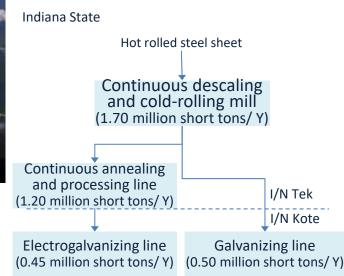
I/N Kote

Equity ratio: Nippon Steel 50%

ArcelorMittal 50%

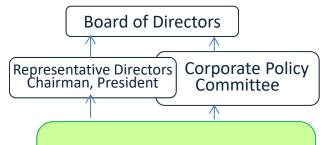
Operation started in 1991





Our Challenges toward Zero Carbon Steelmaking

Planning to publish our individual company scenario for decarbonization (2030 target, 2050 vision) later in FY2020



Zero Carbon Steel Committee

All representative director and executive vice presidents participate.

A cross-departmental committee consisting of managers from corporate planning div., environment div, engineering div., R&D div, accounting & financing div., raw materials div., sales div., etc.

At "Zero Carbon Steel Committee", our medium-long term action for decarbonization has been under consideration since April this year.

Our individual company scenario to be released later in FY2020 includes...

- Maximum utilization of existing low-carbon technology
- Development and early introduction of the innovative steelmaking process "COURSE50" that partially utilizes hydrogen reduction, which is a technology we have been researching and developing ahead of competitors in the world.
- R&D for 100% hydrogen reduction
- Carbon neutralization measures by CCUS
 * Carbon dioxide Capture, Utilization, and Storage
- Pursuit of all possibilities for low carbon

We are going to formulate our decarbonization strategy with the government policy of 2050 carbon neutral in mind, while comprehensively considering how the burden and roles for R&D and infrastructure development should be shared socially, such as carbon-free hydrogen, zero-emission electricity procurement, CCS technology, etc.

Electrical Steel Sheets Investments

Decided to make further investment at Setouchi Works Hirohata Area in order to respond to growing demand and higher grades of grain-oriented electrical steel sheets mainly for electric power and non-oriented electrical steel sheets for eco-cars. Through the series of investments so far, we will establish a system to stably supply products of the world's top quality.

Amounts of Investments

Kyushu Works Yawata Area

#1 46.0 bn. JPY (Published on Aug. 1st, 2019)

#2 10.0 bn. JPY (Published on May 8th, 2020)

Setouchi Works Hirohata Area

#1 14.0 bn. JPY (Published on Nov. 1st, 2019)

#2 35.0 bn. JPY (Published on Nov. 6th, 2020)

Total 104.0 bn. JPY

Facilities to Invest on

Remodeling and new installation of pickling lines, cold-rolling lines, annealing lines, refining lines, and logistics system for electrical steel sheets production

Date of Full Operations Start

By FY2023.1H

Target

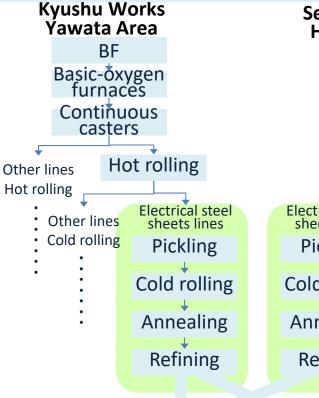
Capacity increase: Approx. 40%

CO₂ reduction: Approx. 3MMT- CO₂/Y

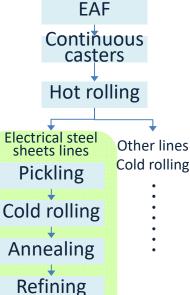
(Effect of eco-car increase which is enabled

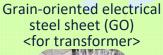
by increased supply of non-oriented

electrical steel sheets)



Setouchi Works Hirohata Area





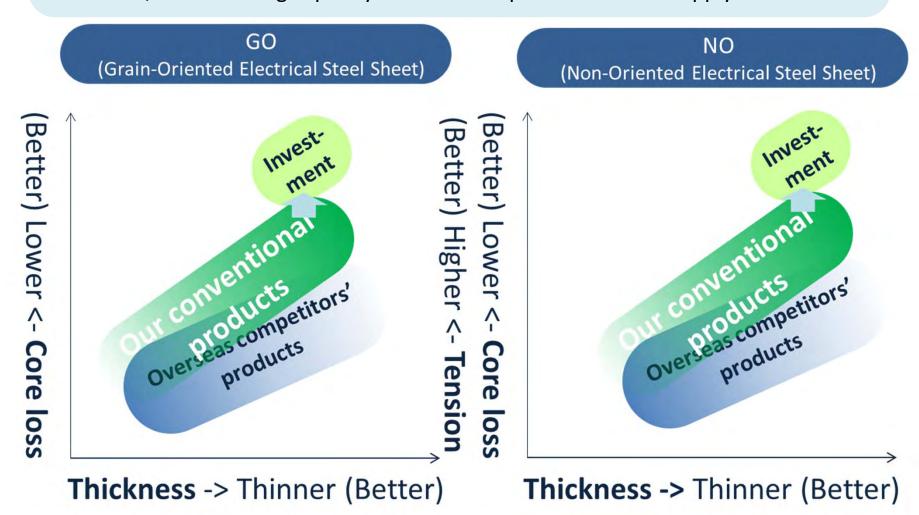


Non-oriented electrical steel sheets (NO) <for motors and power generator>



Performance of Our Electrical Steel Sheets

With this series of investments, it is possible to improve the quality and performance of our electrical steel sheets, which are already at the top level in the world for both GO and NO, to further high-quality zones and to provide a stable supply.



AM/NS India Updates

Status of Operation

In addition to the gradual recovery of domestic demand, the production level recovered to the pre-Corona (January) level by June due to the increase in export orders. Currently, the transition to domestic shipment from export is continuing due to the gradual recovery of domestic demand.

Production and Profit

EBITDA secured a profit even in the most difficult situation from April to June while exporting pellet and reducing costs. Furthermore, CAPEX saving is implemented.

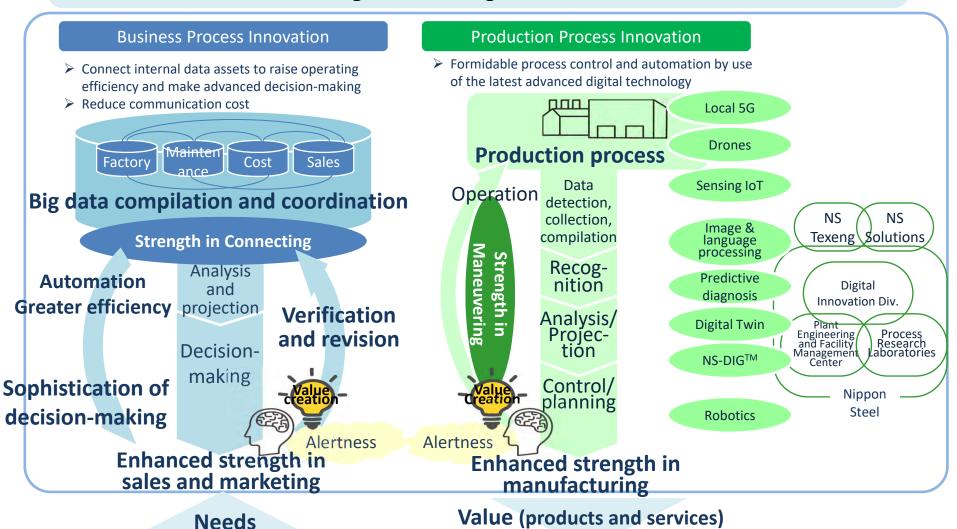
implemented.	JanMar. 2020	AprJun. 2020	JulSep. 2020
Crude steel production (MMT)	1.70	1.20	1.76
EBITDA (million USD)	140	107	176



25

Our Actions of Digital Transformation

Promote value creation through process reforms of administration and production by active utilization of data and digital technologies

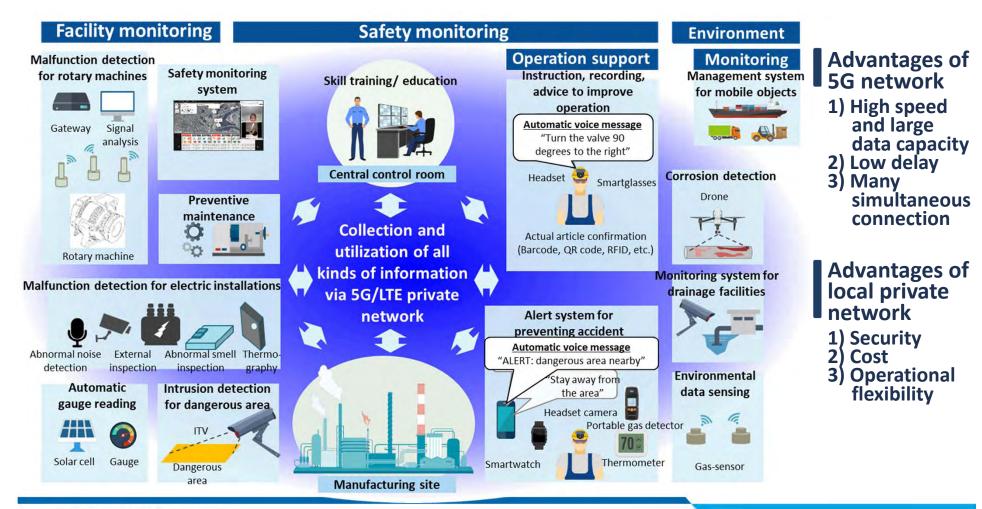


cus

Customers

Started in Muroran Works with NS Solutions Corporation (Announced on Aug. 14th, 2020)

1st Step; Basic data collection of remote-driving of diesel trains running in the steelworks
 2nd Step; Establishment of remote-driving technology, digital twin plants, and smart factories
 -> Aim for sharing of the technologies to the other steelworks and Nippon Steel group companies



Response to Working Style Change



Decided to establish 6th daycare center for infants in East Nippon **Works Kashima Area**

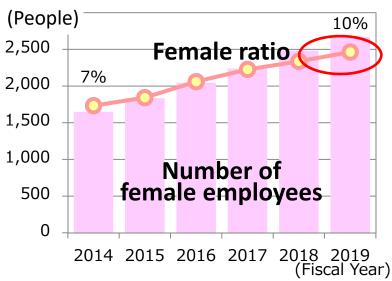
- Opening: Sep, 2021 (planned)
- Opening hour: Mon-Fri 6:00 ~24:00 (planned) Consider shifting to 24-hour childcare according to needs such as the use of shift workers
- Childcare management will be implemented in collaboration with the adjacent Nippon Steel clinic



Cf. Support for balancing work and family life

- Working from home system
- Transfer exemption measure Leave system for spouse's oversea transfer
- Career return system (re-employment system for retired workers)
- Establishment of daycare centers for infants where childcare is possible at night, etc.

Cf. Number of female employees





Agenda

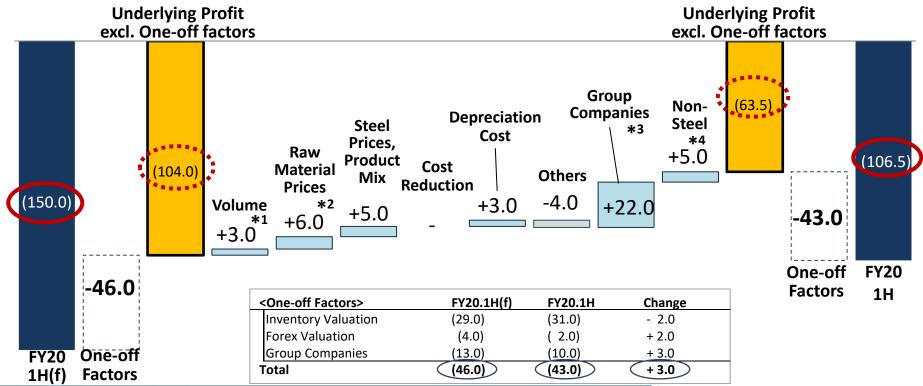
- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

Business Profit Variance Analysis [Prev. FY20.1H(f) vs. FY20.1H] ²⁹

(bn. JPY)		Prev. FY20 1H(f) [A]	FY20 1H [B]	change [A→B]
В	usiness Profit	(150.0)	(106.5)	+43.5
<1	Underlying Profit>	<(104.0)>	<(63.5)>	<+40.5>
	Steel	(155.0)	(116.7)	+38.3
	Non-Steel	9.0	14.2	+5.2
	Adjustment	(4.0)	(3.9)	+0.1

- *1 Crude steel production: approx.-0.26MMT (approx. 14.90→14.64)

 Steel shipment: approx. +0.36MMT (approx. 14.10→14.46)
- *2 Incl. Carry over -2.0 $(0.0 \rightarrow -2.0)$
- *3 <Improve> Operational support companies, EAFs, domestic and overseas re-rollers, etc.
- ***4** Engineering +1.2, Chemical s & Materials +2.9, System Solutions +1.1



(FY19.2H: Before impairment losses etc.)

(bn. JPY)	FY1 2H [A	i	FY20 1H [B]	change [A→B]
Business Profi	t	3.4	(106.5)	-109.9
<underlying profit<="" th=""><th>></th><th>2.4></th><th><(63.5)></th><th><-95.9></th></underlying>	>	2.4>	<(63.5)>	<-95.9>
Steel		13.6)	(116.7)	-103.1
Non-Steel		23.8	14.2	-9.6
Adjustment		(6.8)	(3.9)	+2.9

Volume

Forex Valuation

Total

Group Companies

Other One-off Factors

1 Crude steel production: .-5.66MMT (20.30→14.64)

Excl. One-off Factors: -5.85MMT

FY19.2H excl. One-off Factors: 20.49*MMTSteel shipment: -4.38MMT ($18.84* \rightarrow 14.46$)

Excl. One-off Factors: -4.63MMT

FY19.2H excl. One-off Factors: 19.09*MMT

*FY19.2H incl. ex-Nippon Steel Nisshin (overlaps eliminated)

One-off factors

PPON STEEL CORPORATION All Rights Reserved.

***2** Incl. Carry over +26.0 (-28.0 \rightarrow -2.0)

- 2.0

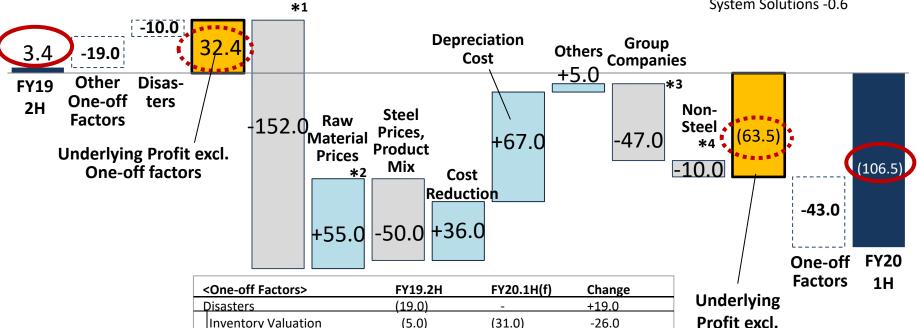
- 5.0

-33.0

-14.0

*3 < Deteriorate > Operational support, mines, EAFs, domestic and overseas re-rollers, etc.

*4 Engineering +1.6, Chemical s & Materials -10.7,
System Solutions -0.6



(5.0)

(10.0) (29.0) (2.0)

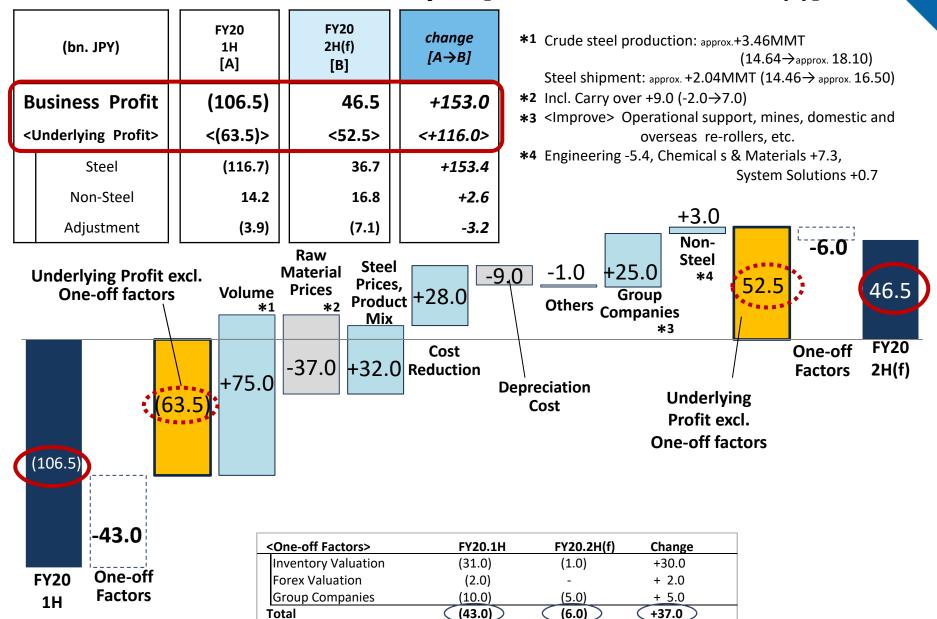
(10.0)

(43.0)

(43.0)



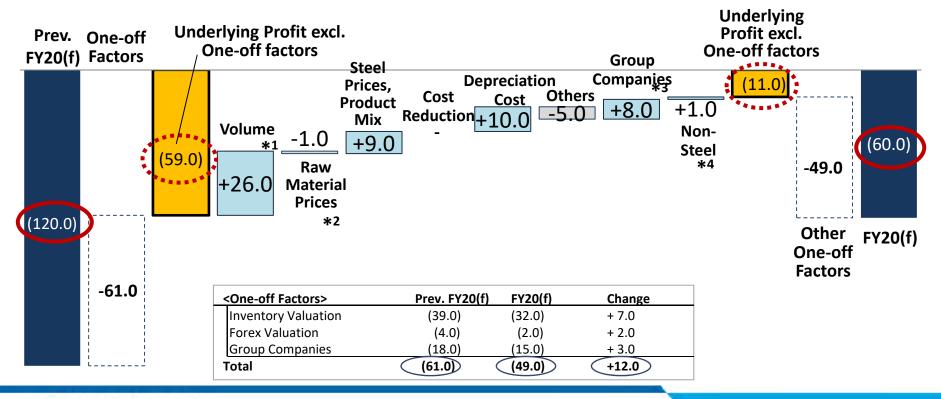
Business Profit Variance Analysis [FY20.1H vs. FY20.2H(f)]



Business Profit Variance Analysis [Prev. FY20(f) vs. FY20(f)]

(bn. JPY)	Prev. FY20(f) [A]	FY20(f) [B]	change [A→B]
Business Profit	(120.0)	(60.0)	+60.0
<underlying profit=""></underlying>	<(59.0)>	<(11.0)>	<+48.0>
Steel	(130.0)	(80.0)	+50.0
Non-Steel	30.0	31.0	+1.0
Adjustment	(20.0)	(11.0)	+9.0

- ***1** Crude steel production: .approx. +0.90MMT (approx. 31.80*→approx. 32.70)
 - Steel shipment: approx. +1.30MMT
 - (approx. 29.70* → approx. 31.00)
- ***2** Incl. Carry over -2.0 (7.0→5.0)
- *3 <Improve> Mines, domestic and overseas re-rollers, etc. <Deteriorate> Stainless business, etc.
- *4 Engineering +1.0, Chemicals & Materials -, System Solutions -



Business Profit Variance Analysis [FY19 vs. FY20(f)]

FY20(f) **FY19** change (bn. JPY) [A] [B] $[A \rightarrow B]$ **Business Profit** (60.0)76.5 -136.5 <126.5> <(11.0)> <-137.5> <Underlying Profit> 35.6 (80.0)-115.6 Steel -24.3 55.3 31.0 Non-Steel +3.4 (11.0)Adjustment (14.4)

(FY19: Before impairment losses etc.)

***1** Crude steel production: .approx. -9.15MMT (41.85*→approx. 32.70)

Excl. One-off Factors: approx. -9.84MMT FY19 excl. One-off Factors: 42.54*MMT

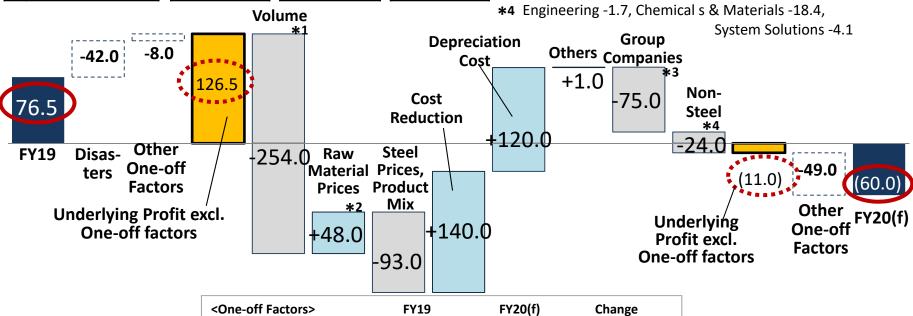
Steel shipment: approx. -7.70MMT (38.70*→ approx. 31.00)

Excl. One-off Factors: approx. -8.00MMT FY19 excl. One-off Factors: 39.00*MMT

*FY19 incl. ex-Nippon Steel Nisshin (overlaps eliminated)

- *2 Incl. Carry over +23.0 (-18.0 \rightarrow 5.0)
- *3 < Deteriorate > Operational support, mines, EAFs, domestic and overseas re-rollers, etc.

(AM/NS India is expected to be in profit)



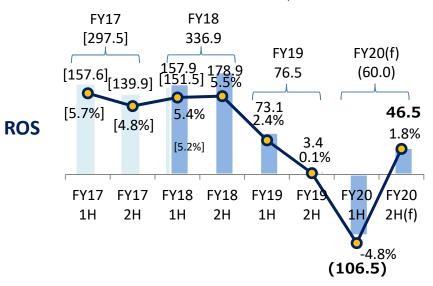
<one-off factors=""></one-off>	FY19	FY20(f)	Change
Disasters	(42.0)	_	+42.0
Inventory Valuation	(1.0)	(32.0)	-31.0
Forex Valuation	-	(2.0)	- 2.0
Group Companies	(7.0)	(15.0)	- 8.0
Other One-off Factors	(8.0)	(49.0)	-41.0
Total	(50.0)	(49.0)	+ 1.0



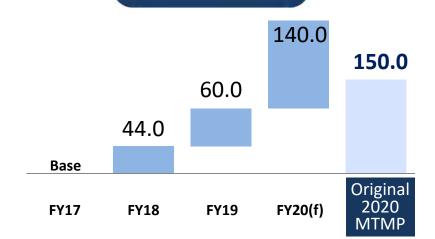
Key Indicators (bn. JPY)

Business Profit

Figures in parentheses = Ordinary Profit (JGAAP) FY19, FY19 2H = Before impairment loss etc.



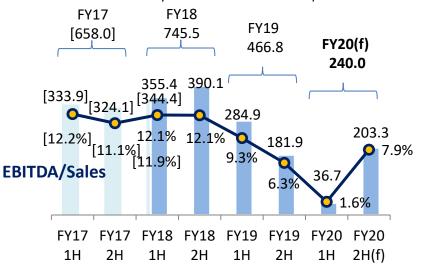
Cost Reduction



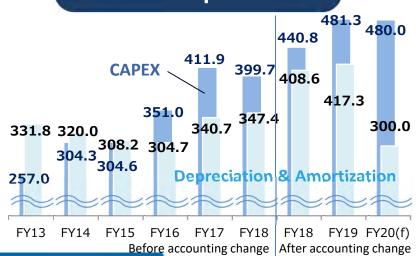
EBITDA

Figures in parentheses = JGAAP

IFRS: Business Profit + Depreciation + Amortization + Impairment loss JGAAP: Ordinary Profit + Net Interest + Depreciation + Amortization



CAPEX & Depreciation

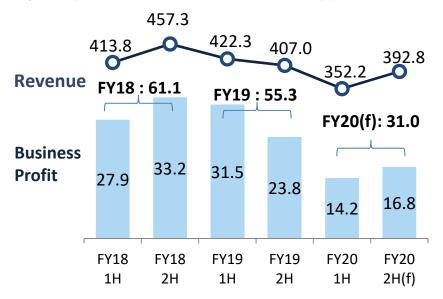


(Bn. JPY)

Non-Steel Businesses

Revenue & Business Profit (3 Non-steel businesses total)

Figures in parentheses = JGAAP basis (Sales, Ordinary profit) (Bn. JPY)



Change in Business Profit (FY19vs. FY20(f))

Engineering & Construction	Profit is expected to decline due to economic uncertainty due to COVID-19 impact and sluggish electricity business.
Chemicals & Materials	Profit is expected to decline due to chemical products margin decline and decrease in sales of needle coke etc.
System Solutions	Profit in 2H is expected to be on par with FY19.2H due to a recovery trend of sales which have declined due to the COVID-19 impact, but FY20(f) profit is still lower than FY19 due to the profit decline in 1H.

Engineering &	2019			2020			FY19→
Construction	2Q	1H	FY	2Q	1H	FY(f)	FY20(f)
Revenue	79.4	157.9	340.4	78.2	151.5	320.0	-20.4
Business Profit	1.2	5.1	10.7	1.8	7.2	9.0	-1.7

Chemicals	2019			2020			FY19→
& Materials	2Q	1H	FY	2Q	1H	FY(f)	FY20(f)
Revenue	59.7	114.1	215.7	41.8	78.9	170.0	-45.7
Business Profit	7.7	11.3	18.4	(0.4)	(3.6)	0.0	-18.4

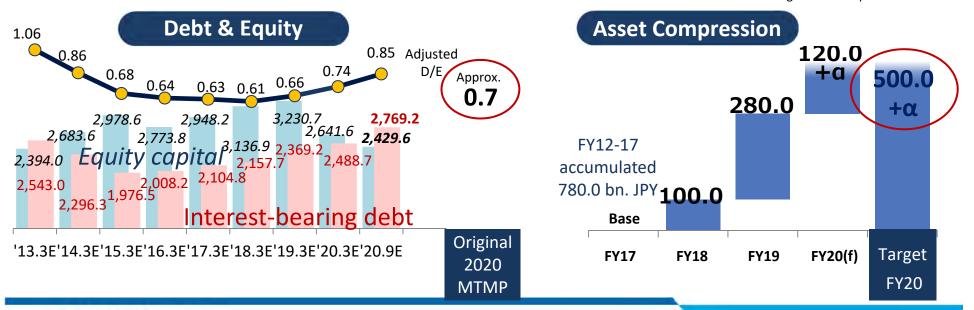
System	2019			2020			FY19→
Solutions	2Q	1H	FY	2Q	1H	FY(f)	FY20(f)
Revenue	68.1	150.2	273.2	62.6	121.7	255.0	-18.2
Business Profit	7.0	14.9	26.1	5.4	10.6	22.0	-4.1

Balance Sheet

		(Bn. JPY)	End of Mar. 2020	End of Sep. 2020	
	C	Current Assets	2,784.9	2,518.1	
		Inventories	1,532.1	1,390.8	
	F	ixed Assets	4,659.9	4,664.3	
		Tangible fixed assets	2,812.5	2,858.1	
		Investments accounted for using the equity method	878.2	797.9	
		Investment in securities	418.5	470.2	
Δ	\S:	sets	7,444.9	7,182.5	

	(Bn. JPY)	End of Mar. 2020	End of Sep. 2020
	Liabilities	4,448.3	4,400.3
	Interest-bearing debt	2,488.7	2,769.2
	Net Assets	2,996.6	2,782.1
	Equity capital	2,641.6	2,429.6
	Unrealized gains on available-for-sale securities *	111.9	120.6
	Non-controlling interest in consolidated subsidiaries	355.0	352.5
Li	abilities & net assets	7,444.9	7,182.5

* Fair value of financial assets measured at fair value through other comprehensive income



(Adjustment page)

Agenda

- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results

Appendix 1. "Challenge Zero" Innovations

Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)

Appendix 3. Progress of Management Strategy Measures

Appendix 4. Related Indicators

3 Ecos and Innovative R&D



Eco Process

The way we manufacture is eco-friendly



Nippon Steel uses world-leading resources and energy efficiency to manufacture steel products and aims to develop eco-friendly steelmaking processes by further improving efficiency



Eco Products® What we produce is eco-friendly

We produce and offer eco-friendly "products" using our world-leading technological capabilities, thus conserving resources and energy and thereby contributing towards building a sustainable society.

Eco SolutionSharing our eco-solutions

We contribute to the reduction of CO2 emissions and other environmental burdens on a global scale by diffusing our Group's world-class environmental and energy-saving technologies in Japan and overseas.

Innovative Technology: COURSE50
Super Innovative Technology: Hydrogen Steel
Making Process, CCS, CCU, etc.

"Challenge Zero" Innovations



We support the "Challenge Zero" declaration announced by the Japan Federation of Economic Organizations in June 2020 to realize carbon-free society, and through this we have announced 10 concrete innovation initiatives.

(As of July 2020, 143 companies/organizations have participated and reported a total of 320 case studies. Only 4

companies including our company have reported 10 or more cases.)

Our Innovation Initiatives Contributing to Realization of Carbon-Free Society	Net Zero Emission	Transi- tion	Adaptation / Resilience
Development of Hydrogen Steelmaking Process for Zero Emission	•		
Development of CO ₂ emission reduction technology using hydrogen in BF steelmaking		•	
Development of low-cost CO ₂ separation technology	•		
Contributing the hydrogen infrastructure formation by spreading usage of the specialized steel for hydrogen station	•		
Development and dissemination of Eco Products TM that contribute to reductions in CO ₂ emissions at the point of product use (NSafe TM -AutoConcept; electrical steel sheet)		•	
Enhanced efficiency in recycling of waste plastics		•	
Establishment of dimethyl carbonate (DMC) production method using CO ₂ as raw material	•		
Zero emission hydrogen production technology by artificial photosynthesis	•		
CO ₂ uptake and carbon storage as blue carbon by utilizing steel slag	•		
Provision of solutions for "National Resilience" aimed at adaptation to climate change			•

Net Zero Emission Technology: Technology to stop, absorb, or utilize greenhouse gases.

<u>Transition Technology</u>: Technology which is necessary in the process of realizing carbon-free society, such as innovative energy-saving technology that contributes to the significant reduction of greenhouse gases in the world including emerging countries

Adaptation / Resilience Technology: Technology that contributes to adaptation (preparation for mitigation of climate change impacts) and resilience etc.

Details of each innovations

⇒ refer to pp. 41-46





URL: https://challenge-zero.jp/en/

A new framework of Japan Business Federation published in June 2020 that supports innovations of companies/organizations in collaboration with the Japanese government toward the realization of a "carbon-free society", which the international climate change framework "Paris Agreement" defines as a long-term goal. As of July 2020, 143 companies/organizations have participated and reported a total of 320 case studies.

We support "Challenge Zero" program, and have released 10 innovative challenges toward realization of a "carbon-free society".

(There are only 4 companies that have released more than 10 challenges)

Our Innovative challenges

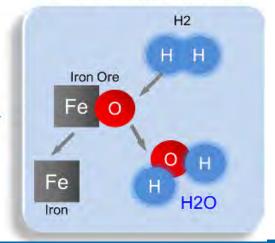
1) Development of Hydrogen Steelmaking Process for Zero Emission

https://challenge-zero.jp/en/casestudy/528

Reduction of Iron Ore by Carbon



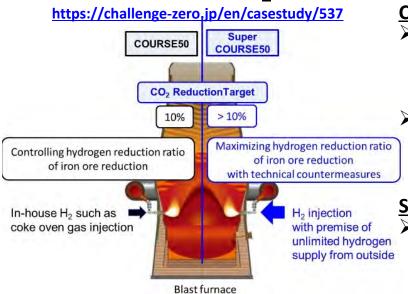
Reduction of Iron Ore by Hydrogen



- We are challenging to develop hydrogen reduction ironmaking technology, in which iron ore is reduced by hydrogen instead of coking coal.
- It is necessary to establish a technology to supply a large amount of hydrogen gas and heat to the reactor stably because reduction by hydrogen is an endothermic reaction.

We are challenging 30% reduction of CO₂ emissions through following 2 challenges

2) Development of CO₂ emission reduction technology using hydrogen in BF steelmaking



COURSE50

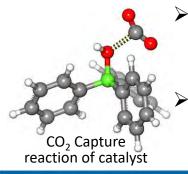
- As a transition technology until the establishment of 100% hydrogen reduction steelmaking, we are developing technology to replace a part of carbon reduction with hydrogen reduction in BFs.
- We have developed a technology to reduce CO₂ emissions from BFs by 10% using 3D mathematical model of BF and test BF with a volume of 12m³ (about 1/500th the scale of an actual BF) constructed at our East Nippon Works Kimitsu Area

Super COURSE50

As a next step, assuming that a large amount of hydrogen can be supplied, we are developing technology to use a large amount of hydrogen-based gas outside the steelworks to dramatically increase the reduction by hydrogen and reduce CO₂ emission from BFs, over the target set in COURSE50.

3) Development of low-cost CO₂ separation technology

https://challenge-zero.jp/en/casestudy/533



- The <u>chemical absorption method</u> is a process in which CO_2 is absorbed by special absorption liquid and then separated/collected as the liquid is heated. The majority of CO_2 capture cost arises from the energy required for absorbent regeneration, i.e. the release of CO_2 from the absorbent.
- In our preceding investigations, we have successfully developed high-performance aqueous absorbents that could reduce the energy consumption for CO₂ separation to 2.3 GJ/t-CO₂. On the basis of these investigations, we continue our research to further reduce the energy consumption to 1.6 GJ/t-CO₂, the theoretical minimum.

"Challenge Zero" Program of Japan Business Federation

and Our Innovations Toward Carbon-Free Society

4) Contributing the hydrogen infrastructure formation by spreading usage of the specialized

HYDREXEL.

steel for hydrogen station

https://challenge-zero.jp/en/casestudy/530



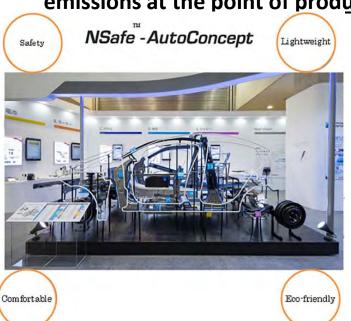
Conventional steel

New material

Type 316(L) HYDREXEL™

- ➤ HYDREXEL TM is free from hydrogen brittleness even in the high pressure hydrogen environment to bring the longer lifetime and higher safeness of hydrogen stations, indispensable infrastructure for hydrogen society.
- ➤ It also brings enlargement of inner tube diameter realizing larger flow and higher speed pumping of hydrogen, and contribution to construction of compact hydrogen stations and cost reduction of construction and maintenance.
- ➤ We are now developing welding procedure to spread usage of HYDREXEL TM.

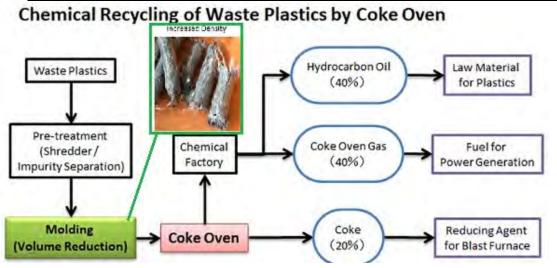
5) Development and dissemination of Eco ProductsTM that contribute to reductions in CO₂ emissions at the point of product use (NSafe TM-AutoConcept; electrical steel sheet)



https://challenge-zero.jp/en/casestudy/532

- ➤ We provide steel products and services which help users' products be lightweight, high-performance, and durable thus minimize CO₂ emissions over their entire life cycle.
- Prime examples include <u>our NSafe™-AutoConcept</u>, which uses high-strength steel and other advanced materials and their processing technology solutions, and our <u>highly-efficient non-oriented electrical steel sheet</u>, which enhances energy efficiency.
- ➤ These Eco ProductsTM have the potential for further enhancement of their properties and we will take up various R&D challenges

6) Enhanced efficiency in recycling of waste plastics https://challenge-zero.jp/en/casestudy/536



- For over 20 years, we have strived to carry out and expand chemical recycling of waste plastics, using a coke oven process, with the aim of reducing emissions of global greenhouse gases (totally 3.07 million tons of CO₂ reduction).
- In response to further requests from society, we are taking up the challenge to make high-density waste plastic moldings in order to moderate the operating impact of coke ovens when handling waste plastics in vast volume.

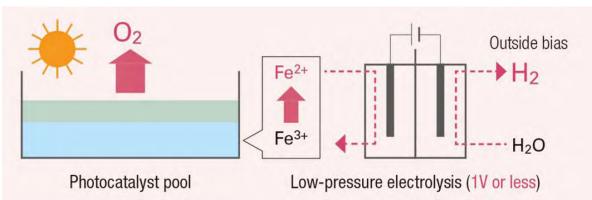
7) Establishment of dimethyl carbonate (DMC) production method using CO2 as raw material

https://challenge-zero.jp/en/casestudy/534

- Carboxylation CO₂ CH₃OH H₂O CeO2 Hydration 2-picolinamido 2-cyanopyridine
- We have been developing new DMC (Dimethyl Carbonate) process directly producing from CO₂ with Tohoku University and chemical companies. DMC is widely used for source of high-performance engineering plastics and Li batteries electrolyte, etc.
- We have established process not only effectively using CO₂ but also safe and with low cost. By replacing current DMC production with this technology, we aim to reduce about 1 million tons of CO₂ emission.

8) Zero emission hydrogen production technology by artificial photosynthesis

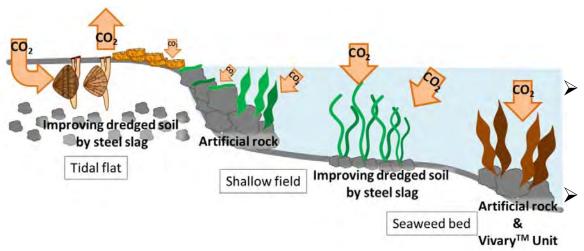
https://challenge-zero.jp/en/casestudy/535



- We are challenging to develop an artificial photosynthesis technology to produce hydrogen directly from water using sunlight as an energy source and photocatalysts.
- We have developed a new photocatalyst and confirmed the world's top efficiency.
- We are now challenging to develop more efficient photocatalyst.

9) CO₂ uptake and carbon storage as blue carbon by utilizing steel slag

https://challenge-zero.jp/en/casestudy/529



*1 Blue Carbon: CO₂ uptake and carbon storage by coastal ecosystem

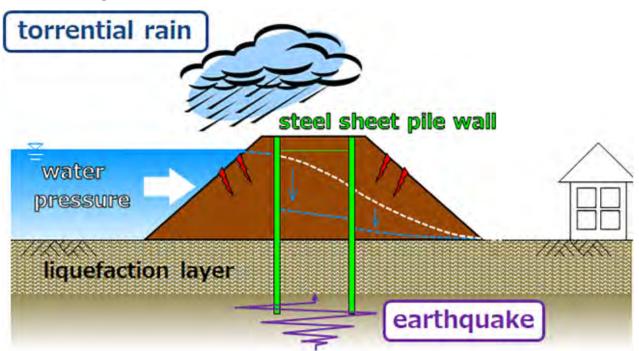
- We have developed coastal environment improvement technologies that utilize steel slag, a by-product of the steelmaking process. Steel slag provides iron needed for seaweeds to flourish.
 - Focusing on the function of the coastal environment as a blue carbon ecosystem, we are challenging to improve our technology to contribute to CO₂ reduction.
 - We are also challenging to establish an evaluation system of the carbon stock capacity of coastal ecosystems using large aquarium laboratories in our R&D center.

10) Provision of solutions for "National Resilience"

aimed at adaptation to climate change

https://challenge-zero.jp/en/casestudy/531

Ex) Reinforcement of Reservoir embankment



- In recent years natural disasters have intensified in Japan.
- Our group is striving to enhance our technologies and products, which can contribute to National Resilience, and make proposals to clients and design consulting firms.
- We have been making steady achievements, including the adoption of our technologies and products.

We aim at contributing to the progress of society through pursuit of world-leading technology development and manufacturing strength, and activities that match the United Nations' Sustainable Development Goals (SDGs), in particular the Goal 9 of building infrastructure for industrialization and innovation.

Agenda

- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

Structural Measures to Realize Lean and Optimal

Production Framework

Legends:

Further measures

	<u>Underlined items</u> are updates from	n prev. announcements
Purpose	Relevant Steelworks and Facilities	Time of Closure
(1) Strengthening	1) Setouchi Works Kure Area/ Shutdown of upstream facilities	
of competitiveness	(BF, sintering, and steelmaking)	By around the end of FY2021 1H
in upstream	/ all other facilities (incl. hot strip mill and pickling line)	By around the end of FY2023 1H
integrated	2) Kansai Works Wakayama Area/ Shutdown of #1 BF, #5-1 sin	
production	machine, #4/5 coke ovens, and part of #3 continuous of	aster By around FY2022 1H
	3) Kyushu Works Yawata Area (Kokura)/ Shutdown of	The end of FY2020 1H (done)
	upstream facilities	The end of F12020 In (dolle)
(2) Upstream	4) Setouchi Works Hirohata Area/ Shutdown of	- LEV0000 411
facility reformation	a melting furnace, installation of EAF	By around FY2023 1H
	5) Nippon Steel Structural Shapes/	usly: By around the end of FY2019
	Cancellation of steelmaking facility shutdown ⇒Operation to be	continued (Shutdown cancelled)
(3) Efficiency	6) Setouchi Works Hanshin Area (Sakai)/ Shutdown of continuo	us annealing and process-
enhancement of the steel	ing line, electro-galvanizing line, and #1 continuous aluminizing line	By around the end of FY2020
sheet production system		
(4) Strengthening of the tinplate business	7) Setouchi Works Hirohata Area/ Shutdown of tinplate mill	By around the end of FY2020
		Previously: By FY2022 2H
(5) Strengthening of the steel plate business	8) Nagoya Works/ Shutdown of steel plate mill	⇒ By around FY2021 2H
	9) Kansai Works Osaka Area/ Shutdown of titanium round bar	
(6) Withdrawal from		By around the end of FY2022
unprofitable titanium	10) Kyushu Works Oita Area (Hikari)/	By around the end of FY2021 1H
business	Shutdown of titanium ERW line	
(7) Strengthening of	• • • • •	y: By around the end of Dec-2020
the stainless steel	/ Shutdown of hot strip mill	<u>⇒ Oct-2020 (done)</u>
business	/ Shutdown of precision product lines Already been sh	ut down at the end of FY2020 1H
(8) Strengthening of	12) East Nippon Works Kashima Area/ Shutdown of UO pipe mil	Oct-2019 (done)
the pipe & tube	13) East Nippon Works Kimitsu Area (Tokyo)/ Shutdown of small-dia	ameter seamless pipe mill
business	7 11	May-2020 (done)

Effect of measures decided so far

Before After



Number of BF

-4 furnaces

15 ⇒ 11 furnaces

Already announced: Kure #2, Yawata (Kokura) Decided this time: Kure #1, Wakayama #1

Crude steel production capability

-5 MMT/Y

Cf. FY2018 crude steel production Nippon Steel (non-consolidated): 41.00MMT Ex-Nippon Steel Nisshin (Kure): 2.73MMT Nippon Steel (consolidated) : 47.84MMT



Expected profit improvement

100 bn. JPY/Y

Effects of measures decided this time: +76 bn. JPY

Effects of measures already announced: +24 bn. JPY

Extra effect: CAPEX reduction due to facility shutdowns

CAPEX for around next 10 years to BFs, coke ovens, sintering machines, and energy generation facilities etc. can be partially avoided.

Future efforts

In addition to the series of structural measures decided on Feb. 7th, 2020 as the first step, Nippon Steel is pursuing further measures as next steps to build more competitive, leaner, and optimal production framework.

- Nippon Steel will implement selection and concentration of CAPEX
- Assessing domestic and overseas S&D balance and Nippon Steel's expected profit under such circumstance, Nippon Steel will implement further measures in accordance with business environment changes.

Production Facility Structural Measure

In addition to striving to realize effects of the structural measures (announced on February 7) ahead of schedule, we will pursue further optimal production framework and implement additional measures as necessary.

Breakdown of Cost Reduction

Maintenance cost: Suppressing input prior to shutdown while maintaining facility soundness until shutdown

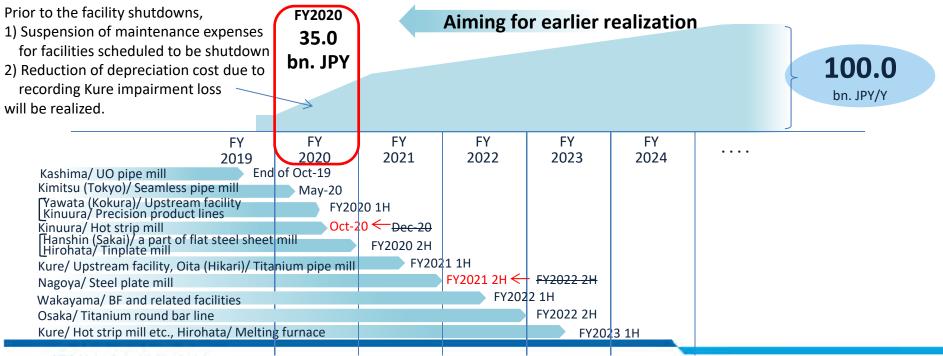
Labor cost: Reduction by suppressing new employment. (No early discharge)

Depreciation cost: Reduction due to facility shutdown

Variable cost: Cost reduction by transferring production from facilities shutdown to highly competitive facilities

Variable cost nance nance cost Deprecibn. JPY/Y ation cost cost

Cost Reduction Curve (Rough Estimation)



Agenda

- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

Progress: Selection and Concentration of Facilities, Products, and Businesses

*BF = Blast Furnace

Legend: New measure ☆ Plan ★ Done ☆ Cancelled

Early transition to domestic optimal production system and strengthening of competitiveness

Action	Publication	~FY19	FY20	FY21	FY22	FY23~			
(Kure) Close Upstream Process and Hotrolling Line	Feb-20		End of FY21 1H: Upstream closure End of FY23 Others close						
(Wakayama) Close BF and Related Facilities	Feb-20				tend o	FY22 1H: Closure			
(Yawata) Optimize Upstream (Tobata) - Start new continuous casting facility (Tobata) - Close continuous casting facility (Kokura) - Close upstream process - Move up the schedule	Mar-16 Feb-20	★ May-19 : Complet	tion	End of F\	e operation /20 : Closure /20 : Closure				
(Nagoya) Close Steel Plate Mill	Feb-20				FY FY	22 2H : Closure			
Move up the schedule	Nov-20	End of FY21: Closure							
(Hanshin Sakai) Close a part of Flat Steel Sheet Mill	Feb-20	End of FY20: Closure							
(Oita) Close Titanium Pipe Mill (Osaka) Close Titanium Round Bar Line	Feb-20			🛨 End	d of FY21 1H:	Closure End of FY22: Closure			
(NIPPON STEEL Stainless Steel Kinuura) Close Hot Strip Mill -> Moved up the schedule and Precision Product Lines	Feb-20 Nov-20 Feb-20		Oct	End of Dec-2 :-20 : Closure -20 : Closure	e				
(Hirohata) Close Tinplate Mill	Nov-19			<u></u>	FY21 2H : Cl	osure			
Move up the schedule	Feb-20		-	End of F	/20: Closure				
(Kimitsu) Close Small-diameter Seamless Pipe & Tube Mill	Mar-18		•		transfer its kayama Wo	rks			
(Kashima) Close UO Pipe Mill	May-19	★ Oct-		d & transfe to Kimitsu	rred its prod Works	duction			

Progress: Selection and Concentration of Facilities, Products, and Businesses

*BF = Blast Furnace

Legend : New measure ☆ Plan ★ Done ☆ Cancelled

Early transition to domestic optimal production system and strengthening of competitiveness

Action	Publication	~FY19	FY20	FY21	FY22	FY23~			
(Wakayama) BF Switch	Mar-18	★ Mid Feb-19 : Switch from 5BF to New 2BF							
(HOKKAI IRON & COKE CORP. in Muroran) Reline 2BF	Nov-18	★ FY20. 2H: Completion							
(Nagoya) Reline 2BF	Jun-20				☆ FY22.	1H: Completion			
Coke Oven Construction (Kashima) 2E Coke Oven	Sep-15	★ May-18 :	Completio	n					
Coke Oven Refurbishment									
(Kimitsu) 5 Coke Oven	Apr-16	★ Feb-19 :	•						
(Hokkai) 5 Coke Oven	Jun-17		19 : Compl ompleted re		ent for all co	oke ovens in Hokkai)			
(Nagoya) 3 Coke Oven	Nov-18	·	·	A	L.1H: Compl	·			
(Yawata) New Continuous Casting Facility	Mar-16	★ May-19	: Completi	on					
(Hirohata) Scrap Melting Process	Nov-19	FY22 1H: EAF Completion FY23 1H: Melt furnace closur							
(NIPPON STEEL Structural Shapes)		4	End of F	Y19: Close	steelmakin _{	g facility and transfer			
Close Steelmaking Mill	Mar-18	its production to Wakayama Works							
Cancellation	Feb-20	C	Cancelled t	he shutdo	own of the	steelmaking facility			

Legend: New info ★ Plan ★ Done ★ Cancelled Strengthen Quality and Volume of Globally-competitive Strategic Products

Action	Publi- cation	~FY18	FY19	FY20	FY21~
for capacity & quality improve Step 1: Yawata (1) Step 2: Hirohata (1) Step 3: Yawata (2)	Step 2: Hirohata (1) Nov-19		★ Nov-19	APEX decision in Ya I: CAPEX decision in May-20: CAPEX dec	Hirohata ision in Yawata
Step 4: Hirohata (2) Super High-tensile Steel Shee (Kimitsu) 6 CGL	Nov-20 ts Apr-18		: CAPEX decision in Hirohata FY20. 4Q: Completion		

Strengthen Overseas Business Responding to Local Consumption Trend

Action	Publi- cation	~FY18	FY19	FY20	FY21~
AM/NS India	Mar-18		CoC declared AM as Mar-19 : AM's reso ★ Nov- Cour ★ De	rt. c-19: Joint acquis Mar-20: Loan ag	cant ditionally approved by NCLT. ion plan was Indian Supreme sition completed greement with JBIC uisition of OSPIL*
AM/NS Carvert New EAF	Nov-20				Under Feasibility Study

*OSPIL: Odisha Slurry Pipeline Infrastructure Limited
Company managing the Odisha state slurry pipeline which AM/NS India uses to transport fine ore from a beneficiation plant to a pelletization plant owned by AM/NS India



Progress: Actions for Tackling the Climate Change Through Innovation

Legend : New Info → 🛧 Plan 🖈 Done 🛣 Cancelled

Action	~FY18	FY19	FY20~
Eco-Process	★ Nov-:		national standard (ISO 20915) cycle inventory calculation methodology for steel products
_	igh-Tensile January Ja	★ Aug-19: ★ Nov ★Sep-19: E	"NSafe®-AutoConcept" "Our Mission, Designing the Future of Automobiles " FY2020 4Q: Start operation of 6CGL in Kimitsu Area Electrical steel sheets CAPEX (Yawata #1) determined 7-19: Electrical steel sheets CAPEX (Hirohata) determined May-20: Electrical steel sheets CAPEX (Yawata #2) determined Nov-20: Electrical steel sheets CAPEX (Hirohata #2) determined Beverly®Unit won the Excellence Award in EcoPro 2019 (Japanese preeminent environmental exhibition) c-19: 9 H-beams products were awarded EcoLeaf environmental label Mar-20: Mega NSHyper Beam ™ was awarded EcoLeaf Oct-20: 3 tinplate products were awarded EcoLeaf Feb-20: Nsafe™-Hull was awarded Okochi Memorial Production Prize
Eco-Solution		ved a cumulative	total of 50 CDQ* orders in China (73 as of the end of FY18) total of 100 CDQ* orders overseas nd of FY18, 20.74 MMT-CO2 / year of CO2 emission reduction)
Aiming for Carbon- free and Circular Society		★Oct-19	essed our support for recommendations of TCFD : Integrated report and sustainability report were published :c-19: Held the 1st sustainability briefing

Progress: Digital Transformation, Responses to Work Style Change

Legend : New info ☆ Plan ★ Done ☆ Cancelled

Enhancement of Digital Transformation

Action	~FY18	~FY18 FY19 FY20~										
Reorganization to Enhance Digital Transformation	★ Apr-16: NSSOI ★ Oct-17: NSSO	Apr-16: Newly-created "Advanced Application Technology Planning Dep." Apr-16: NSSOL newly-created "IoX Solution Business promotion Dep." Oct-17: NSSOL newly-created "AI Research & Development Center" ★ Apr-18: Newly-created Intelligent Algorithm Research Center ★ Apr-20: Newly-created "Digital Innovation Div."										
Utilizing Advanced IT in Steelmaking Process	-	★ Sep-18: Company-wide Safety Support Project (Installment of smart devices to manufacturing front-l ★ Apr-19: Introduction of NS-DIG TM ★ Jun-20: Implementation of AI image recognition system ★ Apr-20: Full-scale system for WFH prepared										
Local 5G Private Network			★ Aug-20: Started FS of local 5G network system demonstration provided by NSSOL in Muroran Work									

Responses to Work Style Change

Action	~FY18 FY19 FY20~										
24 Hour Nursery	★ Apr-19 : The 5 th 24 hour in-house nursery in Hirohata Area (Oita, Kimitsu, Yawata, Nagoya, <u>Hirohata</u>)										
		★ Sep-21: The 6th 24 hour in-house nursery in Kashima Area to ope									
Work System		 ★ Apr-16: Career return system and accompany leave system started ★ Apr-19: Trial introduction of WFH system (official introduction in November) retirement age 65 years old policy decision ★ Apr-20: Transfer exemption system started 									
System Improvement to support WFH		★ Sep-19	Apr-20: Implementation of Microsoft Teams (Company-wide) Development of general-purpose workflow system planning to end using "hanko" stamp and implement electronic seal authentication system								

(Adjustment page)

Agenda

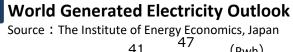
- 1. FY2020 2Q Earnings Summary and FY2020 Forecast
- 2. Business Environment (COVID-19 Impacts & Our Actions)
- 3. Measures to Improve Business Performance and CFs
- 4. Medium-Long Term Restructuring
- 5. Supplementary Material for Financial Results
- Appendix 1. "Challenge Zero" Innovations
- Appendix 2. Structural Measures (Update of Announcement on Feb. 7th)
- **Appendix 3. Progress of Management Strategy Measures**
- **Appendix 4. Related Indicators**

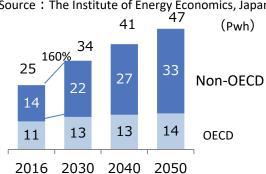
Electrical Steel Sheets - Investments for Capacity & Quality Improvement - 59

Demand Increase

Quality Sophistication







Tightening of Electric Transformer Efficiency Regulation

High-grade GO is essential to improve electric transformer's efficiency → Demand for high-grade GO is expected to grow.

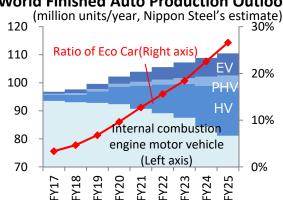
Figures in parenthesis: Regulatory requirement for energy loss (iron loss) ratio improvement

Area	Regulation	As Is	То Ве
Japan	Top Runner	Tier 2	Tier 3 [vs. level 2 Reg. +10%]
EU	Eco-design	Tier 1 — [vs. before regulation +40%]	→ Tier 2 [vs. level 1 Reg. +10%]

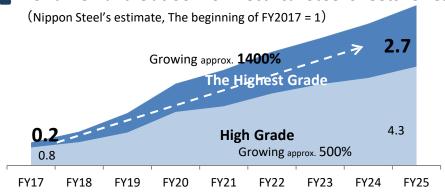
NO (Non Oriented) for motors





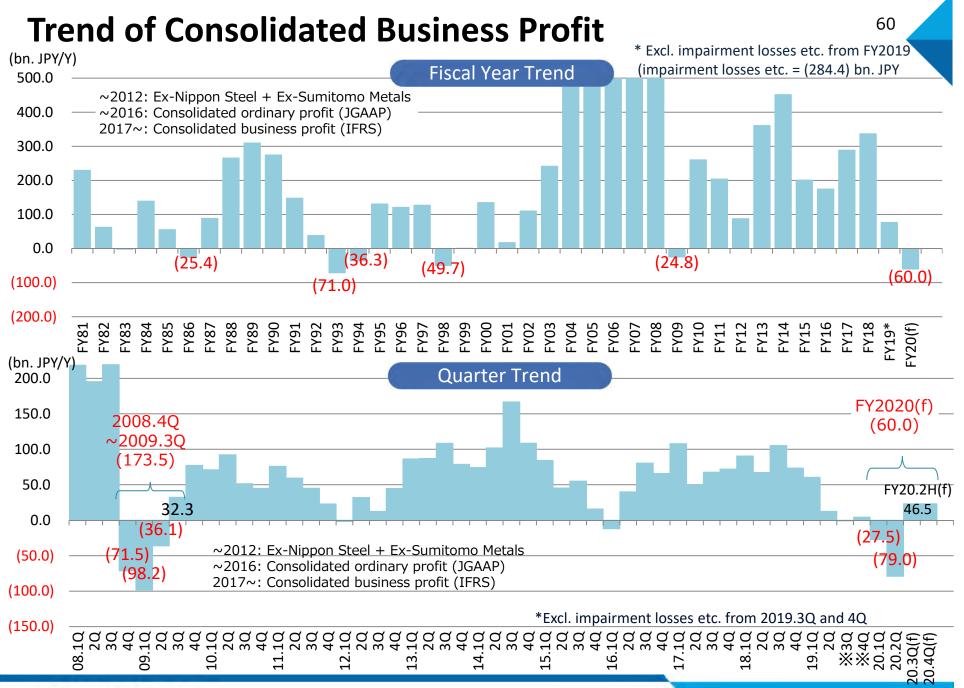


World Demand Outlook for Electrical Steel Sheets for Cars

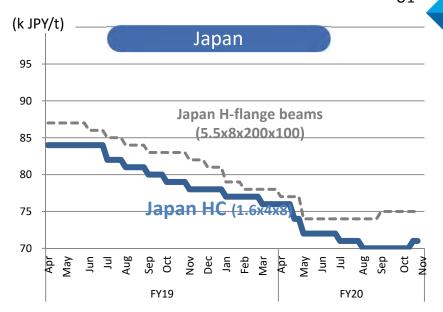


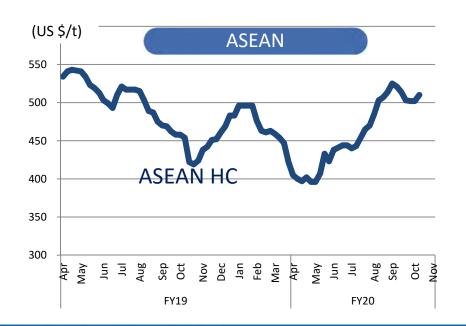
Although global demand for transformers and eco-cars has temporarily declined due to the effects of COVID-19, environmental regulations for transformers and automobiles are being tightened around the world, and the demands for high-efficiency transformers and eco-cars are expected to grow dramatically.

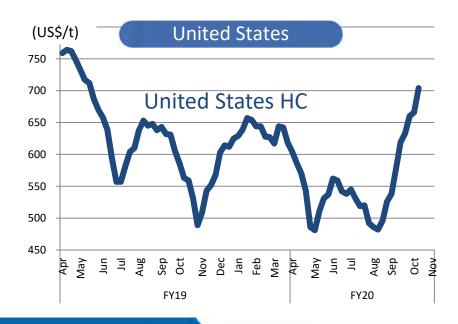
We have decided a further investment at Setouchi Works Hirohata Area responding to an increasing demand for more sophisticated electrical steel sheets; Grain Oriented electrical steel sheets (GO) for transformers etc. and Non Oriented electrical steel sheets (NO) for eco-cars.



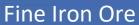








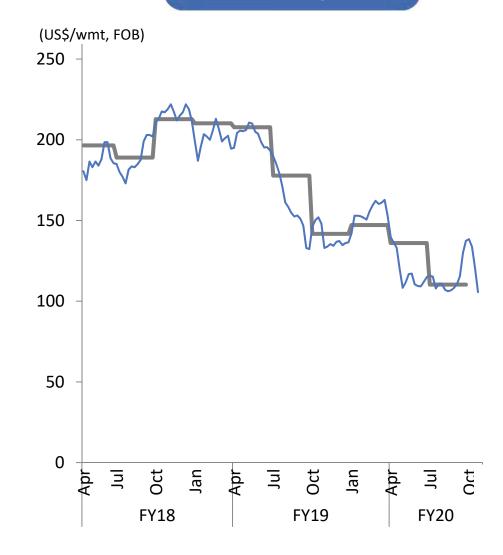
Raw Material Prices





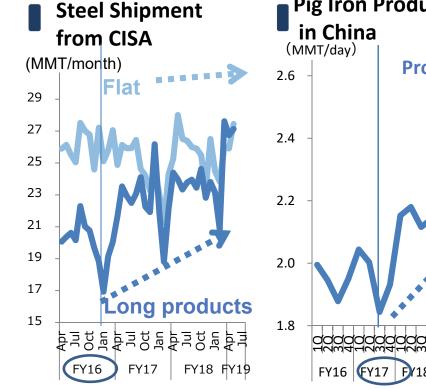


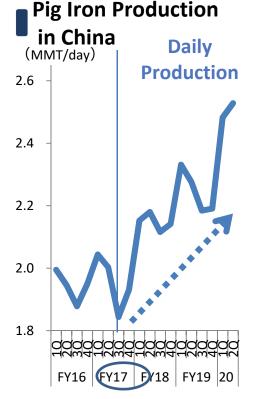
Hard Coking Coal

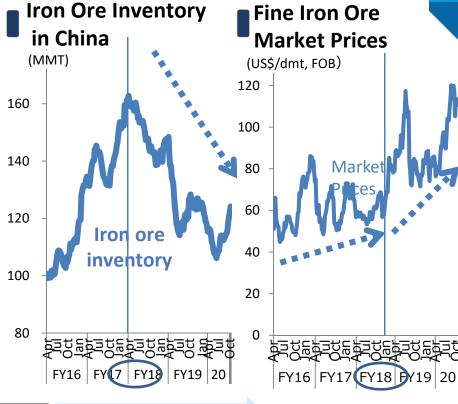


China's Steel SD & Market Trend

63







Infrastructure investment has boosted demand for long products.

Since illegal induction furnaces were eliminated, steel production in EAF, main supplier of long steel, has increased. Due to the undeveloped scrap distribution system, pig iron demand from EAF has increased and pig iron production has been historically high.

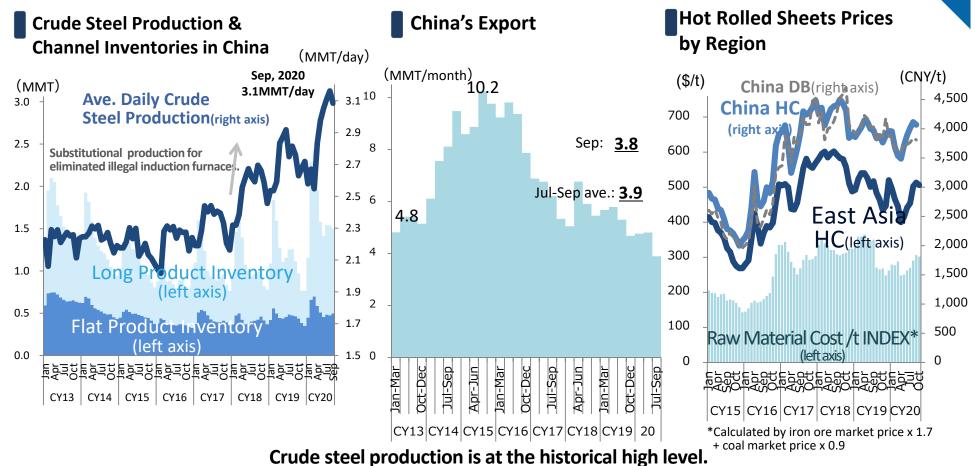
Iron ore inventory has been low due to increase in pig iron production in BF.

Iron ore price has been high due to both the large demand for pig iron production in BF and also low level inventory.

The long products' SD situation stays firm, while flat product market, in which we export mainly, bear a weak tone. The polarization between long & flat prices is anticipated to expand as infrastructure investments gain more momentum.

Source: Steel Home, CISA, Nippon Steel's estimate etc.

China's Steel SD & Market Trend



Inventory temporarily increased due to the Chinese New Year's holiday and the impact of COVID-19,

but it is currently declining and exports remain at a low level.

Supported by Chinese gov.'s stimulus measures, SD is balanced.

Need to keep monitoring impacts from trade war, stimulus measures, impact of COVID-19, and how they affect SD situation.

Source: Japan Steel Association, Steel Home, CISA, MYSTEEL, Nippon Steel etc.



FY2020 Earnings Summery

											change						
(bn. JPY)	1H	2H	FY2019	prev. 1H(f) _{*4}	1H	prev. 2H(f) _{*4}	2H(f)	prev. FY2020(f) *4	FY2020 (f)	FY19 1H →FY20 1H	FY19. 2H →FY20. 1H	Prev.*4 FY20.1H(f) →FY20.1H	FY20.1H →FY20.2H(f)	FY19 →FY20(f)			
Sales	3,047.1	2,874.3	5,921.5	2,200.0	2,241.9		2,558.1		4,800.0	-805.2	-632.4	+41.9	+316.2	-1,121.5			
Business Profit	73.1	(357.5)	(284.4)	(150.0)	(106.5)	30.0	46.5	(120.0)	(60.0)	-179.6	+251.0	+43.5	+153.0	+224.4			
Additional Line Ite	ms 0.0	(121.7)	(121.7)	(40.0)	(42.2)		0.0		(42.2)	-42.2	+79.5	-2.2	+42.2	+79.5			
Net Profit *1	38.7	(470.2)	(431.5)	(200.0)	(191.1)		21.1		(170.0)	-229.8	+279.1	+8.9	+212.2	+261.5			
ROS	2.4%	0.1%	1.3%	-6.8%	-4.8%		1.8%		-1.3%	-7.2%	-4.9%	2.0%	6.6%	-2.6%			
Earning per Share (JPY/ share)	42	(511)	(469)	(217)	(208)		23		(185)	-250	+303	+9	+230	+284			
EBITDA *2	284.9	181.9	466.8	0.0	36.7	190.0	203.3	190.0	240.0	-248.2	-145.2	+36.7	+166.6	-226.8			
EBITDA/Sales	9.3%	6.3%	7.9%	0.0%	1.6%		7.9%		5.0%	-7.7%	-4.7%	+1.6%	6.3%	-2.9%			
EBITDA/t *3 (Thousand JPY/t)	11.7	8.0	9.9	0.0	2.2	9.8	10.0	5.2	6.5	-9.6	-5.8	+2.2	+7.8	-3.4			

^{*1} Profit attributable to owners of the parent



^{*2} Business profit + depreciation cost + impairment loss

^{*3} EBITDA/ consolidated crude steel production

^{*4} Forecast as of Aug. 4th

Operational Highlights

Forecasts are rough figures .

	FY19	(incl. Ni	shin)			FY	20			Change				
(MMT)	1H	2H		Prev. 1H(f) *1	1H	Prev. 2H(f) *1	2H(f)	prev.(f) *1	(f)	FY19 1H → FY20 1H	FY19 2H → FY20 1H	Prev. FY20 1H(f) → *1 FY20 1H	FY20.1H → FY20.2H(f)	FY19 → FY20(f)
Non-Consolidated Pig-iron Production	21.93	20.64	42.57	15.10	14.82		17.90		32.70	-7.11	-5.82	-0.28	+3.08	-9.87
Consolidated Crude Steel Production	24.27	22.79	47.05	17.00	16.78	19.30	20.40	36.30	37.20	-7.49	-6.01	-0.22	+3.62	-9.85
Non-Consolidated Crude Steel Production	21.55	20.30	41.85	14.90	14.64	16.90	18.10	31.80	32.70	-6.91	-5.66	-0.26	+3.46	-9.15
Non-Consolidated Steel Shipments	19.86	18.84	38.70	14.10	14.46	15.60	16.50	29.70	31.00	-5.40	-4.38	+0.36	+2.04	-7.70
Seamless Pipe Shipments	0.49	0.48	0.97	0.34	0.34		0.29		0.62	-0.15	-0.14	+0.00	-0.05	-0.35
Average Steel Selling Price (k JPY/ton)	88.6	88.0	88.3	83.0	83.6		85		84	-5.0	-4.4	+1	+1	-4
Steel Export Ratio (Value basis (%))	38.0	37.9	37.9	39.0	38.2		34		36	+0.2	+0.3	-1	-4	-2
Forex (USD•JPY)	109	109	109	106	107		105		106	Appreciated Yen -2	Appreciated Yen -2	Deppreciated Yen +1	Appreciated Yen -2	Appreciated Yen -3

^{*1} Forecasts as of Aug. 4th, 2020



Key Indicators of Demand

	FY19					FY20			Change					
[Domestic]	1H	2Н		1Q	2Q	1H	2H(f)	(f)	FY20 1Q → FY20 2Q	FY19 1H → FY20 1H	FY19 2H → FY20 1H	FY20.1H → FY20.2H(f)	FY19 → FY20(f)	
Housing Starts (mil. houses)	0.47	0.42	0.88	0.20	0.21	0.41	0.35	0.75	+0.01	-0.05	-0.00	-0.06	-0.13	
Non-residential Construction Starts (mil. m²)	25.83	22.15	47.98	11.96	11.41	23.37	17.40	40.80	-0.55	-2.46	+1.22	-5.97	-7.18	
Public Works Orders (bn. JPY)	5,304	6,043	11,346	2,157	3,340	5,497	6,070	11,570	+1,183	+194	-545	+573	+224	
Finished Auto Production (mil. units)	4.82	4.67	9.49	1.26	2.07	3.33	4.80	8.10	+0.81	-1.49	-1.33	+1.47	-1.39	
Export of Finished Auto (mil. units)	2.40	2.34	4.74	0.52	0.94	1.46	2.30	3.80	+0.42	-0.94	-0.88	+0.84	-0.94	
Overseas Auto Production (8 Japanese car makers) (mil. units)	9.10	8.20	17.30	2.28	4.22	6.50			+1.94	-2.60	-1.70			
Large & Middle Sized Shovel Production (thousand units)	45	33	78	14	16	30	30	60	+1	-15	-3	-	-18	
Metal Machine Tool Production (thousand tons)	187	154	341	53	48	101	140	240	-5	-86	-53	+39	-101	
Keel-laid New Ships (mil. gross tons)	6.39	5.80	12.19	2.60	2.20	4.80	3.60	8.40	-0.40	-1.59	-1.00	-1.20	-3.79	

Rig Count		CY11	CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY19	Lat	test	Pe	ak	Bot	ttom
US	A	1,875	1,919	1,761	1,862	977	510	875	1,032	944	282	(Oct.16 th)	2,031	(Sep-08)	244	(Aug-20)
	Deep well (≧15,000ft)	395	324	326	354	205	126	222	230	227	63	(Oct.16 th)	413	(Nov-11)	55	(Sep-20)
W	orld Total Excl. N. America, Russia & China	1,167	1,234	1,296	1,337	1,167	955	948	988	1,098	702	(Sep-20)	1,382	(Jul-14)	702	(Sep-20)

Source: Baker Hughes, Smith international, Nippon Steel's estimate



Domestic Steel Consumption by Industrial Sector

		FY19				FY20			Change					
(MMT)	1H	2H		1Q	2Q	1H	2H(f) *1	(f) *1	FY20 1Q → FY20 2Q	FY19 1H → FY20 1H	FY19 2H → FY20 1H	FY20.1H → FY20.2H(f)	FY19 → FY20(f) *1	
Domestic Crude Steel Production	50.66	47.76	98.43	18.12	18.98	37.09			+0.86	-13.57	-10.67			
Domestic Steel Consumption (A + B)	30.38	29.02	59.39	11.94	13.19	25.13	26.60	51.70	+1.25	-5.25	-3.89	+1.47	-7.69	
% for manufacturing sector	64.7	63. <i>4</i>	64.0	58.2	62.3	60.3	64.9	62.7	+4.2	-4.3	-3.0	+ <i>4</i> .6	-1.3	
Ordinary Steel Consumption (A)	24.09	23.22	47.31	9.64	10.52	20.16	21.10	41.30	+0.88	-3.92	-3.06	+0.94	-6.01	
Construction	10.34	10.23	20.57	4.81	4.78	9.58	8.90	18.50	-0.03	-0.76	-0.65	-0.68	-2.07	
Manufacturing	13.75	12.99	26.74	4.84	5.75	10.58	12.10	22.70	+0.91	-3.16	-2.41	+1.52	-4.04	
Shipbuilding	2.04	1.83	3.87	0.84	0.80	1.64	1.20	2.80	-0.04	-0.40	-0.19	-0.44	-1.07	
Automotive	5.55	5.33	10.89	1.59	2.47	4.06	5.40	9.50	+0.87	-1.49	-1.27	+1.34	-1.39	
Industrial Machine	2.54	2.24	4.79	0.98	1.00	1.98	2.00	4.00	+0.03	-0.56	-0.26	+0.02	-0.79	
Electronic Machine	1.47	1.46	2.92	0.59	0.63	1.22	1.40	2.60	+0.03	-0.25	-0.24	+0.18	-0.32	
Special Steel Consumption (B)	6.29	5.79	12.08	2.29	2.67	4.96	5.50	10.50	+0.37	-1.33	-0.83	+0.54	-1.58	

Source: Nippon Steel's estimation

*1 Forecasts as of late Oct. 2020



World Economic Outlook < Released on Oct. 2020 by IMF >

(GDP growth rate)

Numbers in [parentheses]: Prev. IMF's Outlook as of Jun. 2020

		CY08	CY09	CY10	CY11	CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY19	CY: (f	_	CY2 (f)	
V	Vorld Total	3.0	-0.1	5.4	4.3	3.5	3.5	3.6	3.5	3.4	3.8	3.6	2.8	-[4.9]	-4.4	[5.4]	5.2
	Developed Countries	0.2	-3.3	3.1	1.7	1.2	1.4	2.1	2.3	1.7	2.5	2.2	1.7	-[8.0]	-5.8	[4.8]	3.9
	USA	-0.1	-2.5	2.6	1.6	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.2	-[8.0]	-4.3	[4.5]	3.1
	EU27	0.4	-4.5	2.1	1.6	-0.9	-0.3	1.4	2.1	1.9	2.5	1.9	1.3	-[10.2]	-8.3	[6.0]	5.2
	Japan	-1.1	-5.4	4.2	-0.1	1.5	2.0	0.4	1.2	0.6	1.9	0.3	0.7	-[5.8]	-5.3	[2.4]	2.3
	Developing Countries	5.7	2.8	7.4	6.4	5.4	5.1	4.7	4.3	4.6	4.8	4.5	3.7	-[3.0]	-3.3	[5.9]	6.0
	China	9.7	9.4	10.6	9.5	7.9	7.8	7.3	6.9	6.7	6.8	6.6	6.1	[1.0]	1.9	[8.2]	8.2
	India	3.9	8.5	10.3	6.6	5.5	6.4	7.4	8.0	8.2	7.2	6.8	4.2	-[4.5]	-10.3	[6.0]	8.8
	Russia	5.2	-7.8	4.5	5.1	3.7	1.8	0.7	-2.3	0.3	1.6	2.3	1.3	-[6.6]	-4.1	[4.1]	2.8
	Brazil	5.1	-0.1	7.5	4.0	1.9	3.0	0.5	-3.6	-3.3	1.1	1.3	1.1	-[9.1]	-5.8	[3.6]	2.8

Source : IMF



World Crude Steel Production

	CY18	CY19				CY20				CY20		
(MMT)	[A]	[B]	Jan - Mar	Apr - Jun	Jul	Aug	Sep	Jul - Sep	Jan Sep. [C]	[D] (C*12/9)	Change [A] →[B]	Change [B] →[D]
World * Total	1,788.9	1,841.1	443.3	435.8	155.5	158.3	156.4	470.2	1,349.3	1,799.0	+52.2	-42.1
[YoY]	[4.5%]	[2.9%]	[-1.0%]	[-9.2%]	[-0.6%]	[2.0%]	[3.4%]	[1.6%]	[-3.0%]			
Japan	104.3	99.3	24.1	18.1	6.0	6.4	6.5	19.0	61.2	81.6	-5.0	-17.7
[YoY]	[-0.3%]	[-4.8%]	[-3.4%]	[-30.6%]	[-27.9%]	[-20.6%]	[-19.3%]	[-22.7%]	[-19.1%]			
Korea	72.5	71.4	16.9	15.6	5.5	5.8	5.8	17.1	49.6	66.2	-1.1	-5.2
[YoY]	[2.0%]	[-1.5%]	[-4.8%]	[-14.7%]	[-8.3%]	[-2.1%]	[2.1%]	[-2.8%]	[-7.5%]			
USA	86.6	87.8	21.7	14.7	5.4	5.9	5.7	17.1	53.5	71.3	+1.2	-16.5
EU28	167.7	157.8	38.3	30.3	10.3	9.4	11.1	30.8	99.4	132.5	-9.9	-25.4
Russia	72.1	71.7	18.2	17.2	5.9	6.1	5.9	17.8	53.3	71.0	-0.4	-0.7
Brazil	35.4	32.6	8.1	6.3	2.6	2.7	2.6	7.9	22.3	29.8	-2.8	-2.8
India	109.3	111.4	26.8	17.3	8.7	8.9	8.5	26.1	70.2	93.6	+2.1	-17.7
China	922.8	992.9	233.7	268.9	93.4	94.8	92.6	280.8	783.3	1,044.4	+70.1	+51.6
[YoY]	[6.0%]	[7.6%]	[1.4%]	[3.0%]	[9.5%]	[8.7%]	[11.8%]	[10.0%]	[4.9%]			

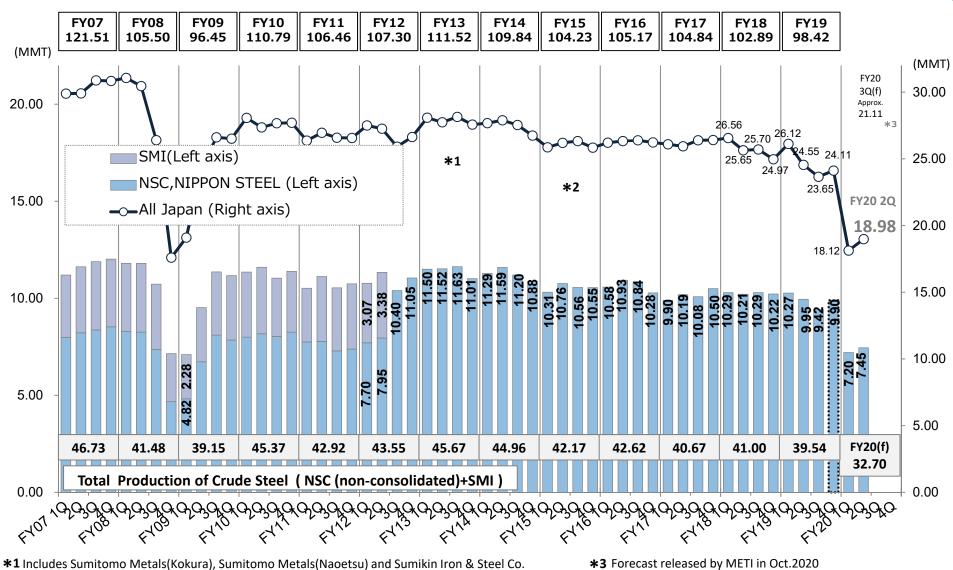
Source : World Steel Association

^{*} Total of 64 countries



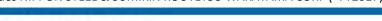
Domestic Crude Steel Production

All Japan (MMT)

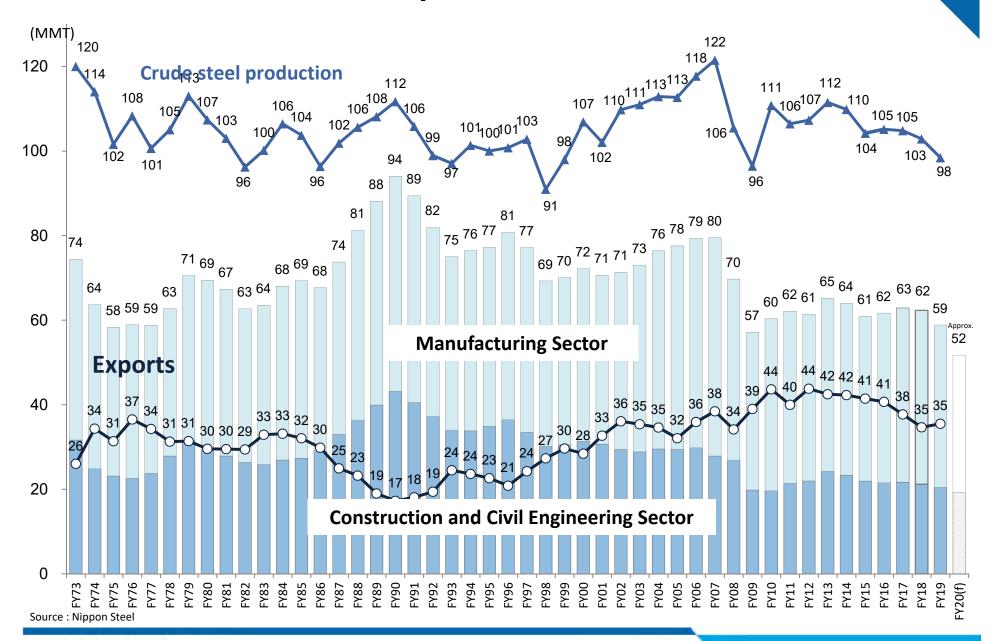


^{*1} Includes Sumitomo Metals(Kokura), Sumitomo Metals(Naoetsu) and Sumikin Iron & Steel Co.

^{*2} Includes NIPPON STEEL & SUMIKIN KOUTETSU WAKAYAMA CORP (~FY2017)

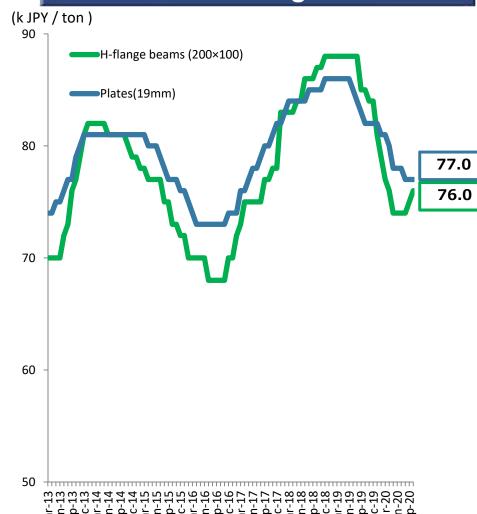


Domestic Steel Consumption Trend

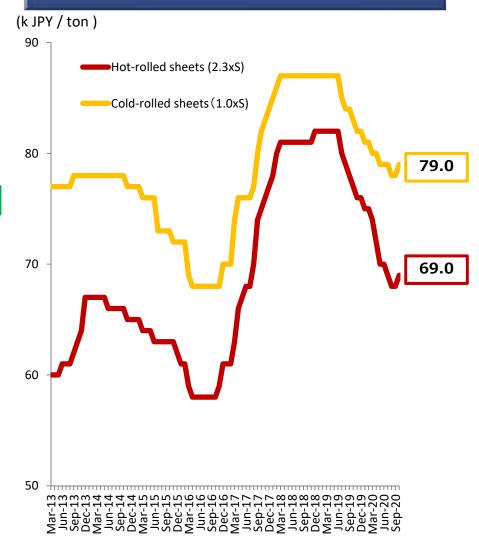


Domestic Steel Products Prices

Plates & H-flange beams



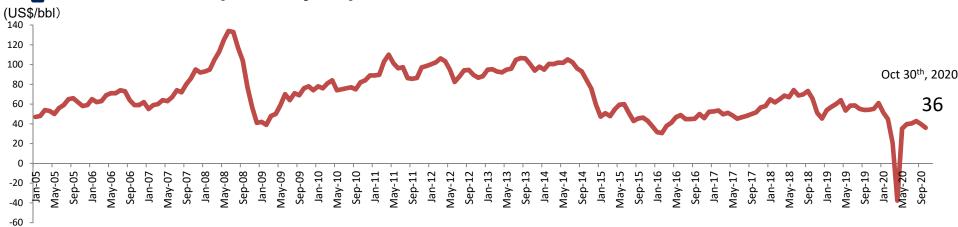
Hot-rolled sheets & Cold-rolled sheets

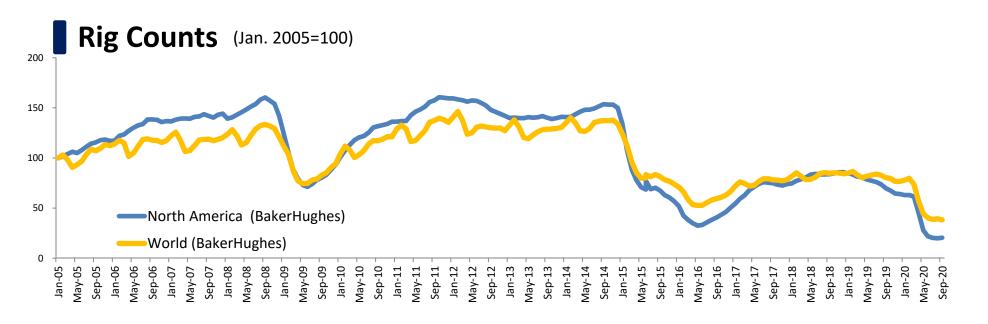


Source: Japan Metal Daily

Energy Sector : Oil Price / Rig Count

US Oil Price (WTI Spot)





This presentation does not constitute an offer or invitation to subscribe for or purchase any securities and nothing contained herein shall form the basis of any contract or commitment whatsoever. This presentation is being furnished to you solely for your information and may not be reproduced or redistributed to any other person. No warranty is given as to the accuracy or completeness of the information contained herein. Investors and prospective investors in securities of any issuer mentioned herein are required to make their own independent investigation and appraisal of the business and financial condition of such company and the nature of the securities. Any decision to purchase securities in the context of a proposed offering, if any, should be made solely on the basis of information contained in an offering circular published in relation to such an offering. By participating in this presentation, you agree to be bound by the foregoing limitations. This presentation contains statements that constitute forward looking statements. These statements appear in a number of places in this presentation and include statements regarding the intent, belief or current expectations of Nippon Steel Corp. or its officers with respect to its financial condition and results of operations, including, without limitation, future loan loss provisions and financial support to certain borrowers. Such forward looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ from those in such forward looking statements as a result of various factors. The information contained in this presentation, is subject to change, including but not limited, to change of economic conditions, financial market conditions, and change of legislation / government directives.

Any statements in this document. other than those of historical facts, are forward-looking statements about future performance of Nippon Steel Corporation and its group companies, which are based on management's assumptions and beliefs in light of information currently available, and involve risks and uncertainties. Actual results may differ materially from these forecasts.