TYO : 5401 OTC : NPSCY(ADR)



FY2020 1Q Earnings Summary

Aug 4th, 2020

NIPPON STEEL CORPORATION

Notes on this presentation material

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



Agenda



- 1. FY2020 1Q 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. Our Activities for Tackling Climate Change**

(Japan Business Federation "Challenge Zero" and Our Innovations)

- Appendix 2. Structural Measures (Announcement on Feb. 7th)
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1. FY2020 1Q Earnings Summary and FY2020 Forecast



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FY2020.1Q Earnings Summary and FY2020 Forecast

	FY2019	1Q	1H(f)	1H(f) ->2H(f)	2H(f)	FY2020(f)	FY2019-> FY2020(f)
Domestic Steel Demand (MMT/Y)	59	12	Approx. 24	Approx. +2	Approx. 26	Approx. 50	Approx9
Manufacturing Sector	38	7	Approx. 15	Approx. +2	Approx. 17	Approx. 32	Approx7
Non-consolidated Crude Steel Production (MMT/Y)	41.85 *1	7.20	Approx. 14.90	Approx. +2.00	Approx. 16.90	Approx. 31.80	Approx10.00
Consolidated Business Profit (bn. JPY/Y)	(284.4) (76.5 excl. impairment losses etc.)	(27.5)	(150.0)	+180.0	30.0	(120.0)	Vs FY2019 before impairment losses etc. - 197.0

*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.

- **Profit Forecast** > Consolidated business profit is expected to be in large deficit in 1H due to rapid decrease of volume, but to be surplus in 2H. Cost reduction of more than 50 bn. JPY in variable cost and 200 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 200 bn. JPY.
 - Most of the profit variance between 1Q and 2Q comes from one-off factors such as fixed cost and dividend incomes.

Business Profit Valiance	FY2020.1H(f)->2H(f)	FY2019->FY2020(f)	
	+180.0 bn. JPY	-197.0 bn. JPY	
Volume	+ 55.0	-280.0	Variable cost reduction + 50.0 *
Steel prices, product mix, raw material	prices + 9.0	- 53.0	Fixed cost (cash basis) reduction + 90.0 ★
Cost reduction (incl. increase due to volum	e decline) + 28.0	(+140.0★)	<u> </u>
Depreciation and amortization	13.0	(+110.0☆)	Fixed cost reduction+ 200.0
Inventory valuation	+ 19.0	- 38.0	Cost increase due to volume decline
Group companies, non-steel	+ 71.0	- 108.0	Cost reduction taking advantage $\geq \pm 0 \star$
Disasters		+ 42.0	of low production rate
Others	+ 11.0	- 10.0	

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FY2020 1H Net Profit Forecast and Interim Dividend

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FY2020 1H Net Profit Forecast

(bn. JPY)	FY2019	1Q	2Q(f)	FY2020 1H(f)
Consolidated Business Profit	(284.4)	(27.5)	(122.5)	(150.0)
Additional Line Items	(121.7)	—	(40.0)	(40.0)
Net Profit*	(431.5)	(42.0)	(158.0)	(200.0)

* Profit attributable to owners of the parent

FY2020.2Q(f) Additional Line Items

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





2. Business Environment (COVID-19 Impacts & Our Actions)



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. Non-consolidated crude steel production in FY20.1Q was in a low level 7.20MMT, and is expected to increase in 2Q and 2H, to approx. 14.90MMT in 1H and 16.90MMT in 2H. Operation rate is expected to be approx. 60~70% in 1H and approx. 80% in 2H.



Nippon Steel Non-consolidated Crude Steel Production Volume

World Steel Demand

(MMT/Y)	World	Japan	China	South Korea	ASEAN5	India	NAFTA	EU28
CY2019	1,767	63	908	53	78	102	135	158
CY2020 (f)*	1,654	51	917	47	76	83	108	133
CY2019->20	-113	-12	+9	-7	-2	-18	-27	-25
Change	-6.4%	-19.1%	+1.0%	-12.6%	-2.4%	-17.9%	-20.0%	-15.8%

* Source: World Steel Association as of June, 2020



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Domestic Steel Demand Trend



Demand had been declining since FY2019 mainly in indirect exports, and the decline gathered speed due to COVID-19 impacts. It is expected to recover toward the 2H mainly in automotive.

9 **Civil Engineering and Construction** (MMT) 11.1 11.4 10.9 11.1 10.7 10.6 Civil Engineering 3.4 3.9 3.4 3.8 3.5 4 9.4 9.3 4.1 3.6 4.0 Construction 7.5 7.5 7.3 7.2 6.5 7.7 5.8 5.3 1H(f) 2H(f) 1H 1H 2H 1H 2H 2H FY2017 FY2018 FY2019 FY2020 High demand continues, and construction stagnation due to COVID-19 impacts is limited. In the FY2020.2H, demand will decline in construction sector, but is expected to increase in civil engineering sector.



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Production Reduction

Production Reduction in Upstream Facility

- 1) Reduction of BF's productivity and extension of blowing-stop times
- 2) BF banking* and suspension of related coke ovens

are in progress.

* Banking is to take measures to temporarily stop blast furnace production but make it possible to restart production at a later date by stopping the air blast flow.

<Blast Furnaces>

Banking is in progress for 6 BFs out of 15 (equivalent to 32% in inner volume)

<Suspended Coke Ovens>

East Nippon Kashima Area: 1 oven out of 2 (#1EE over Kimitsu Area: 2 ovens out of 5 (#3AB an Kansai Works Wakayama Area: 1 oven out of 3 (#5 oven)

Production Reduction in Downstream Facility

Pursuing an optimal operating system for each line in accordance with the production reduction in upstream facilities at each steelworks and the demand situation for each product. We are implementing cost-minimum operations such as shift-down, collecting some idling times into a temporary suspension.

Temporary off-days for employees

As one measure that contributes to maintaining employment, each of Nippon Steel's offices, manufacturing bases, and R&D laboratories is closed some days per month from April 2020, while maintaining bare minimum operation, and each employee has some temporary off-days per month. Offices, manufacturing bases, and R&D laboratories which meet the requirement receive employment adjustment grants from the government.



Steel works	Area		Inner volume m ³	
Muroran		#2BF	2,902	Time of suspension of BF for its relining pushed forward from Aug to Jul 8 th .
	Kashi-	#1BF	5,370	From April 15 th : Banking
East	ma	#3BF	5 <i>,</i> 370	
Nippon	Kimitau	#2BF	4,500	From June 14 th : Banking
	KIIIIItSU	#4BF	5,555	
Nagova		#1BF	5,443	
Nagoya		#3BF	4,300	
Kansai	Waka-	#1BF	3,700	From Apr. 25 th : Banking (2022 1H shutdown)
Kansar	yama	#2BF	3,700	
Setouchi	Kure	#1BF	2,650	(2021 1H shutdown)
Setouchi		#2BF	2,080	From Feb. 15 th : Banking (2021 1H shutdown)
	Yawata	#4BF	5,000	
Kyushu	(Kokura)	#2BF	2,150	From July 17 th : Banking (Sep-2020 shutdown)
Nyushu	Oita	#1BF	5,775	
	Olta	#2BF	5,775	
n) d #4AB oven	Total s)	15 BFs	64,270	



3. Measures to Improve Business Performance and CFs



Efforts to Re	eturn to Profit in Non-consolidated Operating P/L 13					
Variable Cost Reduction	In addition to operational improvement and capital investment planned in the medium-term management plan to reduce variable cost, additional improvement measures, operation optimization accompanying facility structural measures, etc. are planned to realize cost reduction of more than 50 bn. JPY/Y					
Fixed Cost Reduction	 Fixed cost reduction of approx. 200 bn. JPY/Y in FY2020 is planned. (Of which 33 bn. JPY will be the effect of facility structural measures) Depreciation cost: 110 bn. JPY approx. 60 JPY/Y due to impairment loss, approx. 50 JPY/Y 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 (suppressing input to facilities scheduled to be shutdown), 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	 Although a large amount of variable cost demerits (such as deterioration of unit cost at a low productivity of BF and a change in the energy structure due to a decrease in the amount of by-product gas) occurs as production cuts, we are going to offset most of the demerits with 1) Efforts to minimize the disadvantages 2) Additional variable cost reduction taking advantage of low production (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.) 					
Thorough Execution of Further Profit-Oriented Production Production Pursuing to gain flexibility of production level adjustment. Thorough placing of great importance on profitability in accepting order and production.						
Long-terr Contractual S Prices Improve	"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".					
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cash and	Financial Action			
Further Asset Compression	In addition to the 400 bn. JPY/ three-year asset compression already proposed by May, <u>further</u> <u>target of 100.0 +α bn. JPY</u> has been decided to be set.	280.0 bn.JPY 100.0 bn.JPy 780.0 bn.JPy	120.0 bn. JY h. JY Additional asset con +400.0+α bi Jun. 5 th , 2020 +100. Aug. 1 st , 2019 +200 Feb. 7 th , 2019 +100 bn. JPY/ 3 yea Original MT	npression n. JPY 0+α 0.0 0.0 +α bn.3PY/3 years ars TMP +α bn. jPY ××××××××××××××××××××××××××××××××××××
		2012 2018 2019 ~17	9 2020 Plan	~20 since FY2012
Further CAPEX Reduction	Examining more efficient CAPEX I Selection and concentration to se profit in the future. <u>We have decided to scale back o</u> <u>Total CAPEX for 3 years (2018-20</u> Original MTMP: 1.7 trillion JPY/3 years ⇒ Ma	based on long-tectors and region of the sectors and sectors	term refurbishing pla ons that will promisin other 100 bn. JPY in D bn. JPY less than th ion JPY/3 years ⇒ 1.4 trilli	an. ngly contribute to <u>FY2020.</u> <u>Te original MTMP.</u> on JPY/3 years
	(There is a time lag between decision making and	cash-out, and cash-ou	t suppression will be from 202	1)
Financing	Taking appropriate financial mean refinancing needs and deterioration June 17 th : Issued straight be July 21 st : Expanded hybrid I (50% of the Ioan in	sures in approp ion of operatin ond 80.0 bn. JPY loan by 150.0 bn. s deemed as equ	oriate timing respond g CFs (3, 5, 10 years) . JPY. ity for the purpose of a	Jing to gencies' rating)

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4. Medium-Long Term Restructuring



Business Environment



Current Business Environment	 Harsh Environment for Steel Industry due to Complexed Factors 2019~: "Decoupling of high raw material prices & low steel product prices" > Demand decrease due to prolonged US-China trade issue and slowdown of China's economic growth rate > High raw material cost due to Chinese government's stimulus measures 2020~: COVID-19 pandemic, decrease of emerging countries' purchasing power due to their currency depreciation
	our management strategies (production facility structural measures, overseas business strategies) are accelerated due to the impact of COVID-19.
Business Environment in Post COVID-19	<demand>Domestic: Risk of sluggishness and shrink due to population decline and aging, decline in indirect exports due to international trade friction Overseas: Acceleration of local production for local consumption in manufacturing industry, sluggishness in energy sector and emerging countries</demand>
Era	<peers> Expanding advantage of Chinese steel manufacturers due to early restart of Chinese economy, earlier than any other economies in the world</peers>
	Examining the need of additional restructuring measures and acceleration of restructuring, assuming that the business environment will be even more severe.

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Medium-Long Term Measures to Improve Profitability

Production Facility Structural Measures	 Implementing structural measures announced on Feb. 7th, 2020, aiming for early realization of 100 bn. JPY/year profit contribution. (35 bn. JPY/Y in FY2020) Considering additional structural measures and earlier schedule of restructuring we are now on as needed. We will make selective investments in highly competitive equipment to improve productivity and profitability. We have decided to reline Nagoya Steel Works #3 BF (announced on June 5th, 2020) Structural Measures (announced on Feb. 7th, 2020) ⇒ refer to PP.39-45
Structural Reduction of Fixed Costs	 Reduction of depreciation cost and maintenance cost through thorough selection and concentration Scale back of CAPEX for 3 years (2018-2020) from 1.7 trillion JPY in original MTMP to 1.4 trillion JPY, which would contribute to reduce depreciation cost in the future.
Improvement of Product Mix (Expansion of High Grade Product Sales)	 Aiming to reduce dependence on low-profit products and expand world-class, high-value-added product sales. Promoting investment on electrical steel sheets manufacturing facilities for their capacity expansion and product quality improvement, responding to an increasing demand for more sophisticated electrical steel sheets in power plant industry and automobile industry. Electrical Steel Sheets Strategy ⇒ refer to PP.18-20
Overseas Business Flexibly Responding to Localization Trend	Selection and concentration: Expansion of business in demand-growing sectors and regions like India and withdrawal from unprofitable business AM/NS India ⇒ refer to P.21
Actions for Tackling the Climate Change	Expressed support for "Challenge Zero" declaration announced by Japan Federation of Economic Organization on June 8 th , 2020. We have registered 10 projects as innovative challenges. "Challenge Zero" project ⇒ refer to P.22

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Electrical Steel Sheets – Investments for Capacity & Quality Improvement - 18

Electrical steel sheet is a functional material manufactured by modifying the magnetic properties of steel for efficient magnetism and electricity conversion. Losses in power generation, transmission, and consumption are reduced,



electrical steel sheets; Grain Oriented Nov. 1st, 2019: Setouchi Workds Hirohata Area electrical steel sheets (GÓ) for transformers etc. and Non Oriented electrical steel sheets May. 8th, 2020: Kyushu Works Yawata Area Further CAPEX plan is ongoing, and the details will be posted once (NO) for eco-cars. the plan is decided.



<10.0 bn. JPY>

Our Strategy of Non Oriented Electrical Steel Sheet For Automotive¹⁹



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AM/NS India Update

Status of Operation

- From the end of March to April, steel sales dropped significantly due to the lockdown in India, and the operation shifted to a minimum.
- From mid-April, production and sales of steel increased gradually with gradual increase of domestic demand and export orders. The production level is same as pre-pandemic (January-2020).

Results

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.





"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.) Transi-

Our Innovation Initiatives Contributing to Realization of Carbon-Free Society

	Emission	tion	/ 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.

Transition Technology: 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 \Rightarrow refer to PP. 32-38



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Adaptation

Net Zero



5. Supplementary Materials for Financial Results









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

FY20 FY20 change 2Q(f) (bn. JPY) 10 ***1** Crude steel production: approx.+0.50MMT (7.20→approx. 7.70) $[A \rightarrow B]$ [A] [B] Steel shipment: approx. -0.12MMT $(7.12 \rightarrow approx. 7.00)$ Excl. One-off Factors: approx. -0.02MMT **Business Profit** (27.5)(122.5)-95.0 FY20.1Q excl. One-off Factors: 7.02MMT <(58.5)> <-8.0> <Underlying Profit> <(50.5)> (30.5) (124.5) -94.0 Steel 7.4 -5.8 Non-Steel 1.6 (4.3) 0.3 Adjustment +4.6 Group (27.5)Companies, (50.5) Non-steel. 58.5 Raw Steel Others Material Prices, +23.0Prices Volume Product Depreciation Cost $\sim *^{1}$ Mix Cost Seasonality, Reduction FY20 (122.5)-5.0 One-off +8.01Q +7.0**Factors** -12.0 -6.0 FY20.1Q Underlying Profit -64.0 FY20.2Q Underlying Profit excl. One-off factors excl. One-off factors <Seasonality, One-off Factors> FY20.2Q(f) FY20.1Q Change Seasonality, FY20 Inventory Valuation (17.0)(12.0)+ 5.0 One-off (19.0) Group Companies 6.0 - 25.0 2Q(f) **Factors** Fixed Costs, Non-operating Incomes/losses, etc. 34.0 (33.0) - 67.0 23.0 (64.0)) Total - 87.0



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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 and sluggish electricity business.
	Profit is expected to decline due to chemical
Chemicals & Materials	products margin decline and decrease in sales of needle cokes etc.
Custom	Profit is expected to decline due to the barsh
Solutions	environment for customers, mainly in the manufacturing industry, to make investments.

							(Bn. JPY)
Engineering &		2019			2020	1	FY19→
Construction	1Q	1H	FY	1Q	1H(f)	FY(f)	FY20(f)
Revenue	78.4	157.9	340.4	73.2	150.0		
Business Profit	3.8	5.1	10.7	5.3	6.0	8.0	-2.7
Chemicals 2019				2020		FY19→	
& Materials	1Q	1H	FY	1Q	1H(f)	FY(f)	FY20(f)
Revenue	54.4	114.1	215.7	37.1	75.0		
Business Profit	3.5	11.3	18.4	-3.1	-6.5	0.0	-18.4
System		2019		2020			FY19→
Solutions	1Q	1H	FY	1Q	1H(f)	FY(f)	FY20(f)
Revenue	82.1	150.2	273.2	59.0	120.0		
Business Profit	7.9	14.9	26.1	5.1	9.5	22.0	-4.1



Balance Sheet

	(Bn. JPY)	End of Mar. 2020	End of Jun. 2020
	Current Assets	2,784.9	2,699.3
	Inventories	1,532.1	1,508.3
	Fixed Assets	4,659.9	4,662.1
	Tangible fixed assets	2,812.5	2,824.5
	Investments accounted for using the equity method	878.2	854.3
	Investment in securities	418.5	435.6
Assets		7,444.9	7,361.5

	(Bn. JPY)	End of Mar. 2020	End of Jun. 2020	
L	iabilities	4,448.3	4,458.8	
	Interest-bearing debt	2,488.7	2,733.6	
N	let Assets	2,996.6	2,902.6	
	Equity capital	2,641.6	2,552.9	
	Unrealized gains on available-for-sale securities *	111.9	121.0	
	Non-controlling interest in consolidated subsidiaries	355.0	349.7	
iabilities & net assets		7,444.9	7,361.5	

Debt & Equity 1.06 0.85 Adjusted 0.86 0.74 D/E 0.68 Approx. 0.63 0.61 0.66 0.64 0.7 2,978.6 2,552.9 2,948.2 3,230.7 2,641.6 2,683.6 2,773.8 2,733.6 Equity capital, 2,136.9 2,369.2 2,488.7 2,394.0 2,296.3^{1,976.5}2,008.2^{2,104.8} 2,543.0 Interest-bearing debt Original '13.3E'14.3E'15.3E'16.3E'17.3E'18.3E'19.3E'20.3E'20.6E 2020 MTMP



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(Adjustment page)





Appendix 1. Our Activities for Tackling Climate Change (Japan Business Federation "Challenge Zero" and Our Innovations)



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"Challenge Zero" Program of Japan Business Federation and Our Innovations Toward Carbon-Free Society



URL: <u>https://challenge-zero.jp/en/</u>

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



- 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.

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"Challenge Zero" Program of Japan Business Federation and Our Innovations Toward Carbon-Free Society

We are challenging 30% reduction of CO_2 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 CO_2 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 CO₂ is absorbed by special absorption liquid and then separated/collected as the liquid is heated. The majority of CO₂ capture cost arises from the energy required for absorbent regeneration, i.e. the release of CO₂ from the absorbent.
 - In our preceding investigations, <u>we have successfully developed high-performance</u> <u>aqueous absorbents that could reduce the energy consumption for CO₂ separation to <u>2.3 GJ/t-CO₂</u>. 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.</u>

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"Challenge Zero" Program of Japan Business Federation 35 and Our Innovations Toward Carbon-Free Society <u>4) Contributing the hydrogen infrastructure formation by spreading usage of the specialized</u>

HYDREXEL steel for hydrogen station https://challenge-zero.jp/en/casestudy/530

Conventional steel New material Type 316(L) HYDREXEL™

- ➤ HYDREXELTM 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[™].

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

- \geq We provide steel products and services which help users' products be lightweight, high-performance, and durable thus minimize CO_2 emissions over their entire life cycle.
- \geq Prime examples include our NSafeTM-AutoConcept, which uses high-strength steel and other advanced materials and their processing technology solutions, and our highly-efficient nonoriented electrical steel sheet, which enhances energy efficiency.
- These Eco Products[™] have the potential for further \triangleright enhancement of their properties and we will take up various R&D challenges

"Challenge Zero" Program of Japan Business Federation and Our Innovations Toward Carbon-Free Society

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

- 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.

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Challenge Zero" Program of Japan Business Federation 37 and Our Innovations Toward Carbon-Free Society

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



*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.

"Challenge Zero" Program of Japan Business Federation and Our Innovations Toward Carbon-Free Society

10) Provision of solutions for "National Resilience"

aimed at adaptation to climate change Ex) Reinforcement of Reservoir embankment



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

- 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.





Appendix 2. Production Facility Structural Measures (Announcement on Feb. 7th)





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Concept and Procedure for Pursuing Lean and Optimal Production Framework⁴¹

Basic Concept

To build **<u>efficient production framework</u>** centered on <u>competitive integrated steelworks</u>

Procedure

1) Comprehensively examine <u>competitiveness of integrated steelworks</u> from the perspective of the system and ability to consistently manufacture high valueadded products

2) Shutdown facilities with inferior competitiveness and integrate their production into other facilities with superior competitiveness

Strategically make selective investments to improve productivity and strengthen the business structure

Pursuit of lean & optimal production framework Product mix improvement through raising ratio of high-value added products

Maximization of marginal profit under adequate fixed cost level

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Structural Measures to Realize Lean and Optimal
Production FrameworkLegends:Measures already
announcedFurther measures

<u>Underlined items</u> are updates from prev. announcements

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Purpose	Relevant Steelworks and Facilities	Time of Closure
(1) Strengthening	1) Setouchi Works Kure Area/ Shutdown of upstream facilities	5
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	itering
production	machine, #4/5 coke ovens, and part of #3 continuous of	Caster By around FY2022 1H
	3) Kyushu Works Yawata Area (Kokura)/ Shutdown of Previo	usly: By around the end of FY2020
	upstream facilities =	⇒By around the end of FY2020 1H
(2) Upstream	4) Setouchi Works Hirohata Area/ Shutdown of	
facility reformation	a melting furnace, installation of EAF	By around FY2023 1H
	5) Nippon Steel Structural Shapes/	ously: By around the end of FY2019
	Cancellation of steelmaking facility shutdown ⇒ <u>Operation</u>	to continue (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 lin	e By around the end of EV2020
sheet production system		By alound the end of F12020
(4) Strengthening of	7) Setouchi Works Hirohata Area/ Shutdown of tinplate mill	\Rightarrow By around the end of EV2021 2H
the tinplate business		→ by around the end of 112020
(5) Strengthening of the	8) Nagoya Works/ Shutdown of steel plate mill	By around FY2022 2H
steel plate business	0) Kanaai Marka Osaka Araa / Shutdaura af titanium raund har	lino
(6) Withdrawal from	9) Kansal Works Osaka Area/ Shutdown of titanium round bar	By around the end of EV2022
unprofitable titanium	10) Kyushu Works Oita Area (Hikari)/	
business	Shutdown of titanium ERW line	By around the end of FY2021 1H
(7) Strengthening of	11) Nippon Steel Stainless Kinuura Works	
the stainless steel	/ Shutdown of hot strip mill	By around the end of Dec-2020
business	/ Shutdown of precision product lines	By around the end of FY2020 1H
(8) Strengthening of	12) East Nippon Works Kashima Area/ Shutdown of UO pipe mi	Oct-2019 (done)
the pipe & tube	13) East Ninnon Works Kimitsu Area (Tokyo)/ Shutdown of small-di	ameter seamless nine mill
business		By around May-2020

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Effects of Measures Decided So Far and Future Efforts 43

Effect of measures decided so far

Before After



In addition to the series of structural measures decided this time 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.

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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



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Cost Reduction Curve (Rough Estimation)



To Build Lean & Optimal Production Framework

		NU fa	mbe acilit	er ot ies	(De min	eter- ed in	
		to k	be cl	osed	FY202	19 3Q) Facilities to be closed	Time of closure
Coke oven				-2	(-2)	Wakayama -2 (#4, #5)	FY2022 1H
						Kure -2 (#1. #2)	Around the end of FY2021 1H
Sintering				-4	(-2)	Wakayama -1 (#5-1)	FY2022 1H
0					. ,	Yawata -1 (Kokura)	Closed in Nov-2016
						Kure -2 (#1, #2)	Around the end of FY2021 1H
BF	15	\Rightarrow	11	-4	(-2)	Wakayama -1 (#1)	FY2022 1H
						Yawata -1 (Kokura)	The end of FY2020 1H
						Kure -3 (#1, #2)	Around the end of FY2021 1H
Converter	38	⇒	28	-10	(-3)	Yawata -3 (Kokura 3)	The end of FY2020 1H
	ļ					Hirohata -3 (Melting furnace, decarburization furnace)	Around the end of FY2023 1H
EAF				+1		Hirohata +1	FY2022 1H
						Kure -2	Around the end of FY2021 1H
Continuous caster				-5	(-2)	Wakayama –1 (#3 Continuous caster #1 strand)	Around the end of FY2020 1H
						Yawata -3 (2 in Kokura, 1 in Tobata), +1 (Tobata #3)	Around FY2022 1H
Hot rolling	7	⇒	6	-1	(-1)	Kure -1	Around the end of FY2023 1H
Thick plate	4	⇒	3	-1	(-1)	Nagoya -1	Around FY2022 2H
Pickling				-1	(-1)	Kure -1	Around the end of FY2023 1H
Annealing				_2	(_1)	Hirohata -1	Around the end of FY2020
Anneanng				-Z	()	Nisshin Sakai -1 (Continuous annealing line)	Around the end of FY2020
Galvanizing				-1	(-1)	Nisshin Sakai -1 (Electrogalvanizing line)	Around the end of FY2020
Tinning				-1		Hirohata -1	Around the end of FY2020
Other coating				_2	(_1)	Nisshin Sakai -1 (Hot-dip aluminizing line)	Around the end of FY2020
Other coating					(-)	Hirohata -1 (Coating & laminating line)	The end of FY2020
Seamless pipe				-1		Kimitsu -1 (Tokyo small-diameter seamless pipe mill)	Around May-2020
UO pipe				-1		Kashima -1	Closed in Oct-2019
ERW				-1	(-1)	Oita (Hikari) -1 (Titanium welded pipe line)	Around the end of FY2021 1H
Forging				-1	(-1)	Osaka -1 (Titanium round bar line)	Around the end of FY2022
Stainless				-3	(-3)	Nippon Steel Stainless Kinuura -3 (Hot rolling line)	Around the end Dec-2020
				<u> </u>	(-)	(precision product lines: cold rolling line and bright annealing line)	Around the end of 2020 1H

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Appendix 3. Progress of Management Strategy Measures



Progress: Strengthen Manufacturing Capabilities

*BF = Blast Furnace		Legend : New measure 🛠 Plan 🛧 Done 🛠 Cancelled						
Action	Publication	~FY19	FY20	FY21	FY22	FY23~		
(Kure) Close Upstream Process and Hot- rolling Line	Feb-20			† End	of FY21 1H: U	Ipstream closure End of FY23 1F Others closure		
(Wakayama) Close BF and Related Facilities	Feb-20				🔆 End of	FY22 1H: Closure		
(Yawata) Optimize Upstream (Tobata) - Start new continuous casting facility (Tobata) - Close continuous casting facility (Kokura) - Close upstream process	Mar-16	★ May-19 : Completion ★ End of FY20 : full-scale operation ★ End of FY20 : Closure ★ End of FY20 : Closure						
(Nagova) Close Steel Plate Mill	Feb-20		En En	d of FY20 1	1 : Closure	2 2H · Closure		
(Hanshin Sakai) Close a part of Flat Steel Sheet Mill	Feb-20		•	End of F	Y20: Closure			
(Oita) Close Titanium Pipe Mill (Osaka) Close Titanium Round Bar Line	Feb-20			🔆 Ene	d of FY21 1H: C	Closure End of FY22: Closur		
(NIPPON STEEL Stainless Steel Kinuura) Close Hot Strip Mill and Precision Product Lines	Feb-20		☆ ☆ End	End of Dec-2 of FY20 1H	20: Closure Closure			
(Hirohata) Close Tinplate Mill	Nov-19			↓	FY21 2H : Clo	osure		
Move up the schedule	Feb-20		-	End of F	Y20: Closure			
(Kimitsu) Close Small-diameter Seamless Pipe & Tube Mill	Mar-18	★ May-20 : Close & transfer its production to Wakayama Works						
(Kashima) Close UO Pipe Mill	May-19	★ End its p	of Oct-19 production	: Closed & to Kimitsu	transferred Works			
			0.00	NIDDON (MEEL CORDOR			

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Progress: Strengthen Manufacturing Capabilities

*BF = Blast Furnace	Legend : New measure \bigstar Plan \bigstar Done \bigstar Cancelled						
Action	Publication	~FY19	FY20	FY21	FY22	FY23~	
(Wakayama) BF Switch	Mar-18		★ Mid F	eb-19 : Sw	itch from 5E	BF to New 2BF	
(HOKKAI IRON & COKE CORP. in Muroran) Reline 2BF	Nov-18	🔆 FY20. 2H: Completion					
(Nagoya) Reline 2BF	Jun-20	FY22. 1H: Con					
(Hirohata) Scrap Melting Process	Nov-19	★ FY22 1H: EAF Comp ★ FY23 1H furnace					
(NIPPON STEEL Structural Shapes) Close Steelmaking Mill Cancellation	Mar-18 Feb-20	¢ c	End of F its produ Cancelled 1	Y19: Close uction to W the shutdo	steelmakinį /akayama W own of the	g facility and transfer /orks steelmaking facility	
Coke Oven Refurbishment (Kimitsu) 5 Coke Oven (Hokkai) 5 Coke Oven (Nagoya) 3 Coke Oven	Apr-16 Jun-17 Nov-18	★ Feb-19 : (★ Sep-1 (Co	Completion 19 : Compl Impleted re	n etion efurbishme ¥FY22	ent for all co 1.1H: Compl	ke ovens in Hokkai) etion	

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Progress : Global Business Development & Domestic Realignment

Legend : New measure 🛠 Plan 🔺 Done 😽 Cancelled

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Action	Publi- cation	~FY18	FY19	FY20	FY21~		
NIPPON STEEL NISSHIN							
Becoming our subsidiary,		★ Mar-17 : Nisshin became our subsidiary $(8 \rightarrow 51\%)$					
our wholly owned subsidiary			n. 1 st , 19 : Niss	shin became ou	r 100% subsidiary		
Merger	Oct-19		🛧 Oct	-19 : Announce	ment rger		
Integrations of group companies							
Stainless sheets business	May-18	★May-18: Ba	sic agreemen ★Apr-19 : "NI	t PPON STEEL ST.	AINLESS STEEL" started		
Stainless Pipe&Tube business	Aug-18	★Aug-18	: Basic agreem ★Apr-19 : "NI	ient PPON STEEL ST	AINLESS STEEL PIPE" started		
Realignments of trading firms		Dec	-18: Nihon Te	ppan became N	lippon Steel Trading's		
Nihon Teppan	Sep-18	★ sub trar	sidiary, and its sferred to Nir	s commercial rig poon Stainless T	ghts for stainless steel Trading		
Merger: NS Stainless and Nippon Stainless Trading	Jan-19			ct-	-20 : Merger		
Realignments of steel making facility engineering & maintenance companies (Business integration of Ninnon Steel Texang	Jun-19		ent				
& Nippon Steel Nisshin Koki)			★ Jul-20 : Integration				
Realignments of logistic companies	N- 40		★ No	v-19 : Basic agr	eement		
& Nippon Steel Nisshin Logistics)	Nov-19		★ Apr-20 : Integration				
Realignments of construction steel							
Tokai Color	Sep-18	★Jai	n-19: Tokai Co	lor became NIS	C's [*] subsidiary		
Merger of Nippon Steel Coated Sheet and Nippon Steel Nisshin A&C	Dec-19			★ Jul-20: N	Лerger		
Integration of road-related business between					Apr-21: "Nippon Steel and		
Nippon Steel Metal Products and Kobelco	Mar-20			X	Kobelco Metal Products"		
Transfor of slit dam business from Koba Staal to					inauguration		
Nippon Steel Metal Products	Mar-20			Apr-20: Tran *NISC : Nippo	sfer on Steel Coated Sheet Corporation		



Progress: Global Business Development & Domestic Realignment 50

			Legend :	New info 🛛 🗙 Plan 🚽	Done 🛠 Cancelled
Action	Publi- cation	~FY18	FY19	FY20	FY21~
AM/NS India	Mar-18 Mar-20	★ Mar-18: Basic agree ★ Oct-18: (★	ement CoC declared AM Mar-19 : AM's re ★Nc	as the successful applic esolution plan was cond ov-19 : AM's resoluti approved by Dec-19: Joint acquis ★ Mar-20: Loan ag	cant ditionally approved by NCLT. on plan was Indian Supreme Court. ition completed reement with JBIC
Special Steel Business Ovako Sanyo Special Steel	Mar-18 Aug-18	★Jun-18 : Ovako ★ Ja ★ F	o became our 100 n-19 : Approval fr Feb-19 : Sanyo's E Mar-19 : Sanyo b and Ova	D% subsidiary fom JFTC regarding us r Extraordinary general sl became our 51% subsid ako became Sanyo's 10	naking Sanyo subsidiary nareholder's meeting iary, 0% subsidiary
Integration and Reorganization of Steel Works as a part of an organizational and operational review to ensure advances in manufacturing capabilities and enhanced autonomy and efficiency of manufacturing workplaces	Nov-19			🔆 Apr-20: Integrati	ion and Reorganization



Progress: Other Measures

Legend : New info \bigstar Plan \bigstar Done \bigstar Cancelled 51

Action	~FY18	FY19	FY20~						
Delivering Materials and Solutions for Autos etc. to Address Changes in Society and Industry	★ Apr-18: Ne ★ Apr-18: Ne ★ Ja	wly-created "Auto wly-created "Integ In-19: Established Aug-19: Nov-1	motive Material Planning Dept." grated Steel Solution Research Lab." "NSafe ^{®-} AutoConcept" "Our Mission, Designing the Future of Automobiles " ☆ FY2020 3Q: Start operation of 6CGL in Kimitsu Area Electrical steel sheets CAPEX (Yawata #1) determined L9: Electrical steel sheets CAPEX (Hirohata) determined ★ May-20: Electrical steel sheets Scapets CAPEX (Yawata #2) determined						
 Utilizing Advanced IT in Steelmaking Process 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-18: Company-wide Safety Support Project (Installment of smart devices to manufacturing front-									
Contributing to Achieving Sustainable Society (ESG & SDGs)	* Nov-	18: Issue of intern regarding life of Apr-19 : The 5 th (Oita, Kimitsu, Y Apr-19 Trial imp Apr-19 Set the of ★ May-19 : Expr ★ Sep-19: <u>E</u> ★ Oct-19: ★ De	ational standard (ISO 20915) cycle inventory calculation methodology for steel products 24 hour in-house nursery in Hirohata Works 'awata, Nagoya, <u>Hirohata</u>) olementation of WFH (Official implementation from Nov-19) direction of retirement extension ess our support for recommendations of TCFD <u>Beverly®Unit</u> won the Excellence Award in EcoPro 2019 Japanese preeminent environmental exhibition) Integrated report and sustainability report were published c-19: 9 H-beams products were awarded EcoLeaf environmental label Mar-20: Mega NSHyper Beam [™] was awarded EcoLeaf c-19: Held the 1 st sustainability briefing Feb-20: Nsafe [™] -Hull was awarded Okochi Memorial Production Prize Jun-20 : Expressed support for "Challenge Zero" program of Japan Business Federation, and released 10 innovative challenges						





(Adjustment page)





Appendix 3. Related Indicators



Overseas Bases Operation and Supply Chains

Operation Status of Overseas Bases

China	Some operations had been intermittent since January-2020 due to customers' steel demand decrease and logistical restrictions, and now most of the bases have restarted normal operations, and many lines are under full operation.
ASEAN	All of the bases are now in normal operation, but operation rate has been low since May.
India	Downstream bases had suspended operation since late March, and restarted operation in May. Operation rate in AM/NS India had been minimum since late March in response to the rapid decrease of steel demand, and gradually returned to normal from mid-April. Operation rate has been same as that before COVID-19 since late June.
North America	Since the end of March, many bases has had intermittent or continuous line breaks, but are gradually recovering.
South America	Banking two small blast furnaces at USIMINAS (#2BF: from Apr. 4 th , #1BF: from Apr. 22 nd). Operation rate of #3BF has risen since end of June.
Europe	In normal operation.

Status of Material Procurement Supply Chains

Raw material	Although some producers in countries such as those where lockdowns are being carried out have a negative impact on operating rates, raw material shipment to Nippon Steel have not been significantly affected and there is no obstacle to our raw material procurement.
Commodity and equipment	We are proceeding with measures such as adjusting the delivery date while grasping the situation of the suppliers, and there is no major impact at present. We will keep working closely with each supplier and respond appropriately.





Trend of Non-consolidated Operating Profit

	Consolidated Business Profit									
	(Bn. JPY/Y)	FY16	FY17	FY18	FY19					
C	onsolidated Business Profit*	174.5	288.7	336.9	(284.4)					
	Non-consolidated OP	(29.1)	6.4	25.1	(119.3)					
	Group Companies	178.8	256.9	231.3	161.8					
	Non Steel Business	35.2	49.8	61.1	55.3					
	Non-operating Profit, Elimination of Consolidation, Impairment Losses etc.	(10.4)	(24.4)	19.4	(382.2)					

1		Underlying Non-consolidated Operating Profit												
	(Bn. JPY/Y)		FY13	FY14	FY15	FY16	FY17	FY18	FY19					
	ſ	Non- consolidated OP	186.9	228.6	56.2	(29.1)	6.4	25.1	(119.3)					
		Inventory Valuation	16.0	(15.0)	(64.0)	(39.0)	63.0	39.0	(2.0)					
		Excl. Inventory Valuation	171.0	244.0	120.0	10.0	(57.0)	(14.0)	(117.0)					

* FY16: Ordinary Profit (JGAAP)

Long Trend of Non-consolidated Operating Profit/loss



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Raw Material Prices





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, Ninnen Steel's estimate

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

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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.



Change in Depreciation Method

<Background>

Approximately 50 years have passed since domestic steel works started operation, and the trend of CAPEX and maintenance costs has changed as we promote large-scale structural reforms that should be called the "second founding period" and rebuild the profit base that can be sustainable as a business.

- 1) Promoting manufacturing infrastructure development including refurbishing of core facilities
 - ⇒ Ratio of CAPEX for facility refurbishment out of total CAPEX has increased
- 2) Promoting thorough preventive and planned maintenance to prevent facility troubles
 - \Rightarrow Maintenance cost curve within the lifetime of facility is relatively flat
- 3) Global companies incl. steel companies adopting IFRS adopt the straight-line method

The straight-line method, which equalizes the annual amount of depreciation cost according to the useful life, is in line with the actual situation of recent Nippon Steel. Comparability to other global companies will also be improved.



Depreciation method will be changed from declining balance method to straight line method from FY2020 1Q

Our company and consolidated subsidiaries (including non-steel segments) Scope: Target assets: Tangible fixed assets currently depreciated by the declining balance method (buildings, structures, machines and devices, vehicle carriers, tools, utensils and equipment) Timing of change: FY2020 1Q

Impact to FY2020 P/L by DEP method change

Dep cost decrease -70.0 bn. JPY/Y

Non-consolidated: approx. -50.0 bn. JPY Existing assets: approx. -30.0 bn. JPY Consolidated: approx. -20.0 bn. JPY

Assets to be acquired: approx.-40.0 bn. JPY



Decrease in Depreciation & Amortization Cost



1) CAPEX scale back

300.0 bn. JPY/3 Years scale back from original 2020 MTMP CAPEX plan

2) Additional CAPEX scale back due to facility shutdowns

Avoid the large CAPEX for those facilities which are to be closed, BFs of Kure, 1BF of Wakayama, Plate mill in Nagoya, and so on

3) Decrease in DEP & Amortization due to facility shutdowns

Approx. 20.0 bn. JPY/Y (included in the 100.0 bn. JPY/Y effect of production facility structural measures: refer to PP. 43-44) Dep in FY2020 will decrease by approx. 10.0 bn. JPY/Y due to impairment booked in Kure Area in FY2019. 3Q. The rest will appear by facility shutdowns.

4) Decrease in DEP & Amortization due to impairment

Kashima Area, Nagoya Works, Hirohata Area, Kure Area <from Jan-2020> FY2019.4Q: approx. 13.0 bn. JPY, FY2020: approx. 60.0 bn. JPY (incl. 10.0 bn. JPY decrease due to Kure facility shutdowns counted in 3))

5) Change in Depreciation Method

(From Declining Balance to Straight Line Method)

DEP and amortization decreases from FY2020.1Q FY2020: approx. 70.0 bn. JPY/Y





FY2020 Earnings Summerv

284.9

9.3%

11.7

181.9

6.3%

8.0

165.1

10.8%

13.3

466.8

7.9%

9.9

41.2

3.6%

5.0

0.0

0.0%

0.0

190.0

9.8

190.0

5.2

-123.9

-7.2%

-8.3

-284.9

-9.3%

-11.7

(bn. JPY)

Sales

Business Profit

Net Profit

Earning per Share

EBITDA/Sales

EBITDA/t *3 (Thousand JPY/t)

ROS

EBITDA

Additional Line Items

*1

*7

*3

	0-			- /								
										change		
1Q	1H	2H	FY2019	1Q	1H(f)	2H(f)	FY2020 (f)	FY19 1Q →FY20 1Q	FY19. 1H →FY20. 1H(f)	FY19. 2H →FY20.1H(ƒ)	FY20.1H(f) →FY20.2H(f)	FY19 →FY20(f)
1,522.4	3,047.1	2,874.3	5,921.5	1,131.6	2,200.0			-390.8	-847.1	-674.3		
60.6	73.1	(353.7)	(284.4)	(27.5)	(150.0)	30.0	(120.0)	-88.1	-223.1	+203.7	+180.0	+164.4
s 0.0	0.0	(121.7)	(121.7)	0.0				+0.0				
33.3	38.7	(470.2)	(431.5)	(42.0)	(200.0)			-75.3	-238.7	+270.2		
4.0%	2.4%	0.1%	1.3%	-2.4%	-6.8%			-6.4%	-+9.2%	-+6.9%		
36	42	(511)	(469)	(46)	(217)			(82)	(259)	294		

*1 Profit attributable to owners of the parent

*2 Business profit + depreciation cost + impairment loss

*3 EBITDA/ consolidated crude steel production



-181.9

-+6.3%

-8.0

+190.0

+9.8

-276.8

-4.7

Operational Highlights

Forecasts are rough figures .

	F	Y19(incl	. Nisshi	n)		FY	20	-	Change					
(MMT)	1Q	1H	2H		1Q	1H(f) *1	2H(f) *1	(f) *1	FY19 1Q → FY20 1Q	FY19 1H → FY20 1H(f)	FY19 2H → FY20 1H(f)	FY20.1H(f) → FY20.2H(f)	FY19 → FY20(f)	
Non-Consolidated Pig-iron Production	11.09	21.93	20.64	42.57	7.56	15.10			-3.53	-6.83	-5.54			
Consolidated Crude Steel Production	12.44	24.27	22.79	47.05	8.30	17.00	19.30	36.30	-4.14	-7.27	-5.79	+2.30	-10.75	
Non-Consolidated Crude Steel Production	10.99	21.55	20.30	41.85	7.20	14.90	16.90	31.80	-3.79	-6.65	-5.40	+2.00	-10.05	
Non-Consolidated Steel Shipments	9.81	19.86	18.84	38.70	7.12	14.10	15.60	29.70	-2.69	-5.76	-4.74	+1.50	-9.00	
Seamless Pipe Shipments	0.23	0.49	0.48	0.97	0.18	0.34			-0.05	-0.15	-0.14			
Average Steel Selling Price (k JPY/ton)	88.8	88.6	88.0	88.3	86.0	83			-2.8	-6	-5			
Steel Export Ratio (Value basis (%))	37.7	38.0	37.9	37.9	39.1	39			+1.4	+1	+1			
Forex (USD•JPY)	111	109	109	109	108	106			Appreciate -3	Appreciate -3	Appreciate -3			

*1 Forecasts as of Aug. 4th, 2020



Key Indicators of Demand

								FY	'19	_	FY20) Char	nge			
		[[Dome	stic]			1Q	1H *:	2H 1 *	1 *	1Q	FY19 → FY20	1Q 1Q			
		Hou	ising Sta	arts (mil. hou	ses)	0.23	0.47	0.42	0.88	0.20) -0	.03			
		Nor Con	n-reside struction	ntial Starts	(mil.	m²) 1	3.25	25.83	22.15	47.98	11.90) -1.	.36			
		Pub	lic Wor	ks Orde	rs (bn. J	IPY) 2	2,198	5,304	6,043	11,346	2,160) .	-38			
		Fini	shed Au	ito Proc	duction (mil. ur	1 nits)	2.42	4.82	4.67	9.49	1.26	5 -1	.16			
		Ехр	ort of F	inished	Auto (mil. ur	nits)	1.20	2.40	2.34	4.74	0.51	I -0.	.69			
		Ove (8 Jap	e rseas A panese car r	uto Pro nakers)	ductic (mil. ur	n nits)	4.61	9.10	8.20	17.30	2.28	3 -2.	.33			
		Large Shov	e & Mido vel Produ	lle Sized ction _{(tho}	usand ur	nits)	23	45	33	78	15	5	-8			
		Met Proc	al Macl	nine Too (tho	D Dusand to	ons)	94	187	154	341	73	3	-22			
		Kee	l-laid Ne	ew Ship (mil	S . gross to	ons)	3.22	6.39	5.80	12.19	2.35	5 -0	.87			
Rig Count		CY11	CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY19	Late	est	Pe	ak	Bot	tom
US	Ą	1,875	1,919	1,761	1,862	977	7 510	875	1,032	944	258	(Jul.10 th)	2,031	(Sep.08)	258	(Jul.20)
	Deep well (≧15,000ft)	395	324	326	354	205	5 126	3 222	230	227	61	(Jul.10 th)	413	(Nov.11)	60	(Jul.20)
Wo	rld Total Excl. N. America, Russia & China	1,167	1,234	1,296	1,337	1,167	955	5 948	988	1,098	781	(Jun-20)	1,382	(Jul.14)	781	(Jun.20)

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



Domestic Steel Consumption by Industrial Sector

FY19						FY	20		Change					
	(MMT)	1Q	1H	2Н		1Q	1H(f) *1	2H(f) *1	(f) *1	FY19 1Q → FY20 1Q	FY19 1H → FY20 1H(f)	FY19 2H → FY20 1H(f)	FY20.1H(f) → FY20.2H(f)	FY19 → FY20(f)
Domestic Crude Steel Production		26.11	50.66	47.76	98.43	18.12	35.82			-8.00	-14.85	-11.94		
Domestic Steel Consumption (A + B)		15.05	30.38	29.02	59.39	11.82	24.33	25.90	50.20	-3.23	-6.05	-4.69	+1.57	-9.19
%	for manufacturing sector	65.2	64.7	63.4	64.0	59.6	61.4	63.9	62.7	-5.6	-3.2	-1.9	+2.5	-1.3
•	Ordinary Steel Consumption (A)	11.88	24.09	23.22	47.31	9.54	19.45			-2.33	-4.63	-3.77		
	Construction	5.05	10.34	10.23	20.57	4.60	9.02			-0.45	-1.32	-1.21		
	Manufacturing	6.83	13.75	12.99	26.74	4.94	10.44			-1.88	-3.31	-2.56		
	Shipbuilding	0.99	2.04	1.83	3.87	0.83				-0.16	-2.04	-1.83		
	Automotive	2.79	5.55	5.33	10.89	1.62				-1.17	-5.55	-5.33		
	Industrial Machine	1.27	2.54	2.24	4.79	1.01				-0.27	-2.54	-2.24		
	Electronic Machine	0.71	1.47	1.46	2.92	0.63				-0.09	-1.47	-1.46		
Special Steel Consumption (B)		3.18	6.29	5.79	12.08	2.28	4.88			-0.90	-1.41	-0.92		

Source : Nippon Steel's estimation ***1** Forecasts as of late Jul. 2020



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Numbers in [parethesys] : Prev. IMF's Outlook as of Apr. 2020

		CY08	CY09	CY10	CY11	CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY19	CY (f	20	CY 2 (f)	21
World Total		3.0	-0.1	5.4	4.3	3.5	3.5	3.6	3.5	3.4	3.8	3.6	2.9	-[3.0]	-4.9	[5.8]	5.4
	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	-[6.1]	-8.0	[4.5]	4.8
	USA	-0.1	-2.5	2.6	1.6	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.3	-[5.9]	-8.0	[4.7]	4.5
	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	-[7.5]	-10.2	[4.7]	6.0
	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	-[5.2]	-5.8	[3.0]	2.4
	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	-[1.0]	-3.0	[6.6]	5.9
	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	[1.2]	1.0	[9.2]	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	[1.9]	-4.5	[7.4]	6.0
	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	-[5.5]	-6.6	[3.5]	4.1
	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	-[5.3]	-9.1	[2.9]	3.6

(GDP growth rate)

Source : IMF



World Crude Steel Production

	CY18	CY19			CY	20			CV20		
(MMT)	[A]	[B]	Jan - Mar	Apr	May	Jun	Apr - Jun	Jan - Jun [C]	[D] (C*12/6)	Change [A] →[B]	Change [B] →[D]
World _* Total	1,788.9	1,841.1	443.1	136.6	148.7	148.3	433.7	876.8	1,753.5	+52.2	-87.6
[YoY]	[4.5%]	[2.9%]	[-1.0%]	[-13.3%]	[-8.8%]	[-7.0%]	[-9.7%]	[-5.5%]			
Japan	104.3	99.3	24.1	6.6	5.9	5.6	18.1	42.2	84.4	-5.0	-14.9
[YoY]	[-0.3%]	[-4.8%]	[-3.4%]	[-24.0%]	[-31.7%]	[-36.3%]	[-30.7%]	[-17.4%]			
Korea	72.5	71.4	16.9	5.1	5.5	5.1	15.7	32.6	65.2	-1.1	-6.2
[YoY]	[2.0%]	[-1.5%]	[-4.8%]	[-15.4%]	[-12.7%]	[-14.3%]	[-14.1%]	[-9.5%]			
USA	86.6	87.8	21.7	4.8	4.9	4.7	14.5	36.2	72.4	+1.2	-15.4
EU28	167.7	157.8	38.2	9.4	10.5	10.2	30.0	68.3	136.6	-9.9	-21.3
Russia	72.1	71.7	18.2	5.7	5.8	5.6	17.1	35.3	70.5	-0.4	-1.2
Brazil	35.4	32.6	8.1	1.8	2.2	2.1	6.1	14.2	28.5	-2.8	-4.1
India	109.3	111.4	26.8	3.3	6.1	6.9	16.3	43.1	86.3	+2.1	-25.1
China	922.8	992.9	233.7	85.0	92.3	91.6	268.9	502.6	1,005.1	+70.1	+12.2
[YoY]	[6.0%]	[7.6%]	[1.4%]	[0.2%]	[4.2%]	[4.5%]	[3.0%]	[2.2%]			

Source : World Steel Association

* Total of 64 countries



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Domestic Crude Steel Production

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Domestic Steel Consumption Trend



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Domestic Steel Products Prices



Source : Japan Metal Daily





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