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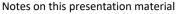


Investor Briefing

- > FY2019 3Q Earnings
- Production Facility Structural Measures and Management Reform Measures

Feb. 7th, 2020

NIPPON STEEL CORPORATION



Agenda

- 1. Earnings Summary
- 2. Production Facility Structural Measures
- 3. Management Reform Measures
- 4. Measures to Improve Business Performance
- 5. Supplementary Material for Earnings Summary Appendix 1. Structural Measures
 - **Appendix 2. Progress of Various Measures**
 - **Appendix 3. Related Indicators**

1. Earnings Summary

Financial Highlights

1. Business Environment

World economy: Growth has been slackening due to prolonged US-China trade issue

Japanese economy: Uncertainty remains due to effects of the global economy

Domestic steel demand: Downside risk is increasing

Overseas steel demand & steel prices: Further downside risk is increasing

2. Earnings Summary								
-	Larrings Summary	l +			1		FY2019	Prev.
	(JPY bn.)	FY2018	1H	3Q	1-3Q	4Q (f)	Forecast	Forecast (as of Nov-19)
	Before Impairment Losses etc.	336.9	73.1	(1.0)	72.1	(18.1)	54.0	100.0
	ROS (%)	5.5	2.4	(0.1)	1.6	(1.3)	0.9	1.6%
	Impairment Losses etc.	_	_	(351.4)	(351.4)	(12.6)	(364.0)	_
	Business Profit (Consolidated)	336.9	73.1	(352.4)	(279.3)	(30.7)	(310.0)	100.0
	Additional Line Items	(71.8)	_	(93.2)	(93.2)	(32.8)	(126.0)	
	Net Profit*	251.1	38.7	(396.1)	(357.3)	(82.6)	(440.0)	40.0

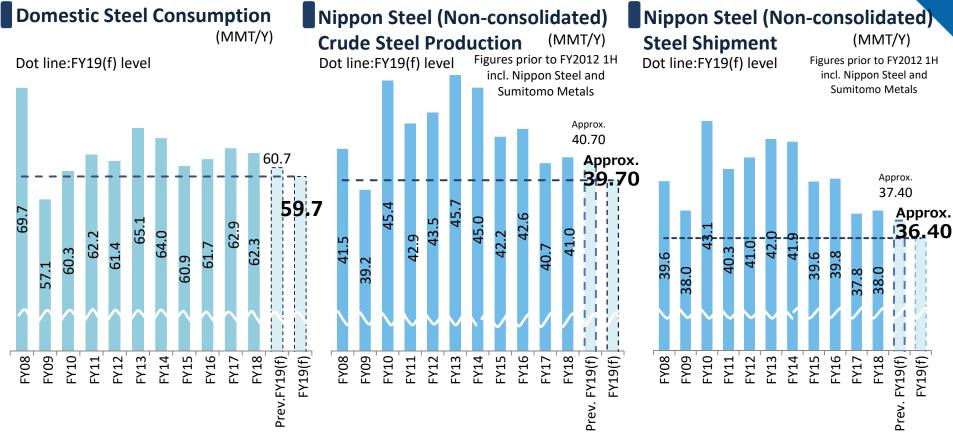
^{*} Profit attributable to owners of the parent

Total impairment losses etc (490.0) bn. JPy: refer to P. 9

FY2019 Forecast Consolidated Business Profit (Before Impairment Losses etc.) Variance

From prev. FY2019(f) (as of Nov.1): -46.0 bn. JPY	′ (100.0⇒54.0)	From FY2018: -283.0 bn. JPY (336.9⇒54.0)	
1) Volume, steel prices, product mix, raw materia	al prices: -20.0	1) Volume	: - 66.0
2) Inventory valuations	: -10.0	2) Steel prices, product mix, raw material prices	: -126.0
3) Group companies	: -20.0	3) Cost reduction:	: + 50.0
4) Disasters	: + 8.0	4) Inventory valuations	: - 44.0
5) Others	: - 4.0	5) Group companies, Non-steel:	: - 61.0
		6) Disasters	: - 7.0
		7) Others:	: - 29.0



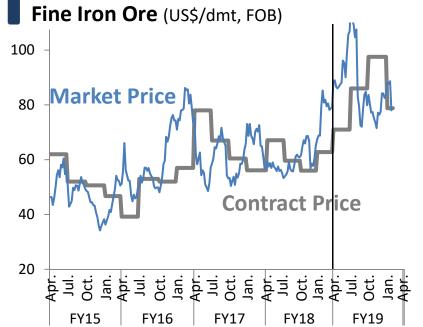


Domestic steel demand

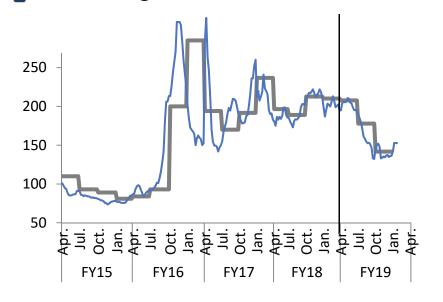
: Has declined mainly in manufacturing sector, and is expected to fall below 60MMT/Y in FY2019.

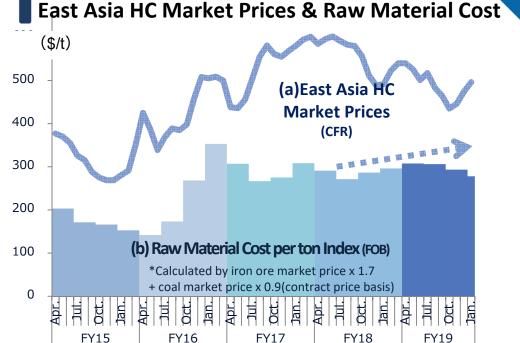
Steel production and shipment: "Manufacturing capability" of Nippon Steel has been recovered to some extent, but Nippon Steel has made a shift to further "profitability oriented production" in line with order intake, in accordance with demand slowdown in some of domestic industrial sectors & margin deterioration in exports for spot markets.

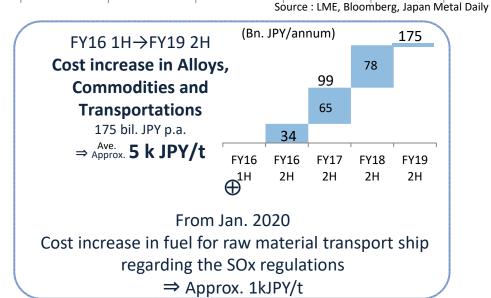
"High Raw Material Prices & Low Steel Product Prices"



Hard Coking Coal (US\$/wmt, FOB)







Underlying non-consolidated operating loss has continued for the past 3 years

Consolidated Business Profit

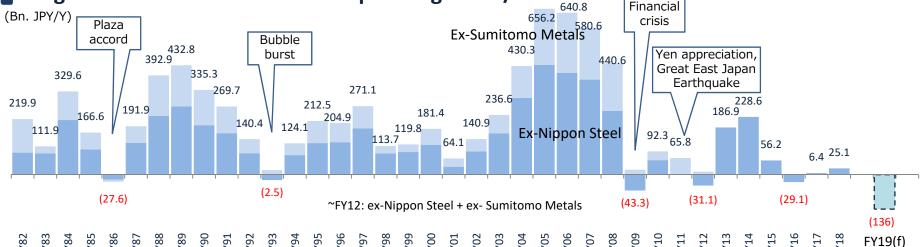
	<u> </u>					
(Bn. JPY/Y)		FY16	FY17	FY18	FY19(f)	
Consolidated Business Profit*		174.5	288.7	336.9	(310.0)	
	Non-consolidated OP	(29.1)	6.4	25.1	(136.0)	
	Group Companies	178.8	256.9	231.3	170.0	
	Non Steel Business	35.2	49.8	61.1	56.0	
	Non-operating Profit, Elimination of Consolidation, Impairment Losses etc.	(10.4)	(24.4)	19.4	(400.0)	

Underlying Non-consolidated Operating Profit

	Excl. Inventory Valuation	171.0	244.0	120.0	10.0	(57.0)	(14.0)	(130.0)
	Inventory Valuation	16.0	(15.0)	(64.0)	(39.0)	63.0	39.0	(6.0)
П	Non- consolidated OP	186.9	228.6	56.2	(29.1)	6.4	25.1	(136.0)
_	(Bn. JPY/Y)	FY13	FY14	FY15	FY16	FY17	FY18	FY19(f)

^{*} FY16: Ordinary Profit (JGAAP)





Factors of Profit Erosion

External Factors/
One-off Factors

1) Deteriorated Business Environment

World steel demand is downturned mainly in manufacturing sector due to the US-China trade issue etc.

Raw material prices has been in a high level due to production expansion in Chinese steelworks.

> Steel demand and margin are deteriorated.

2) Natural Disasters

1) Risen Fixed Cost

Depreciation and maintenance cost are increased due to large CAPEX in the past mainly on upstream & energy facilities.

Internal Factors/ Underlying Factors

2) Operation and Maintenance Troubles

Fixed cost per ton and variable cost are increased due to deteriorated production volume.

3) Inadequate Long-term Contractual Steel Prices

Fair sharing 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 have not yet fully realized.

Impairment Losses etc.

FY2019 Impairment Losses etc.

		Business Loss	Additional Line	Total (Impact to	
	(Bn. JPY)	Dusiness Loss	Items	Loss Before Tax)	
Total		(364.0)	(126.0)	(490.0)	
	Impairment Losses	(317.9)	(78.7)	(396.6)	(93.4)
	Non-consolidated	(317.9)	-	(317.9)	bn. JPY
	Nippon Steel Nisshin Kure Works	-	(78.7)	(78.7)	
	Other One-off Losses	(46.1) *1	(47.3) *2	(93.4)	

Other One-off Losses

*1 Business loss: (46.1) bn. JPY 3Q: (33.5) bn. JPY: compensation cost etc. 4Q(f): (12.6) bn. JPY

2 Additional line items: (47.3) bn. JPY 3Q: (14.5) bn. JPY Losses on inactive facilities (9.5) bn. JPY (Kashima UO pipe etc.) Losses on business withdrawal (4.9) bn. JPY (ZNW etc.)

4Q(f): (32.8) bn. JPY

Impairment Losses on Fixed Assets in Steelworks

(396.6)bn. JPY

Kashima Works (150.4) bn. JPY **Business loss** (317.9)

Nagoya Works (122.8) bn. JPY

Hirohata Works (44.7) bn. JPY

Impairment losses are recorded due to continuous deficit under deteriorated business environment and inadequate long-term contractual steel prices. Nippon Steel will improve profit through shutdown of uncompetitive facilities, productivity improvement, and steel product price improvement.

Additional line item

bn. JPY

Losses on reorganization (78.7)

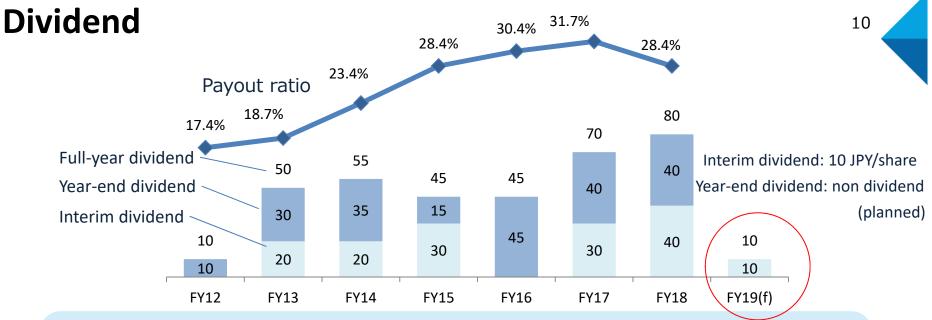
bn. JPY

Nippon Steel Nisshin Kure Works (78.7) bn. JPY

Impairment losses equivalent to the full book value of fixed assets at Nippon Steel Nisshin Kure Works were recorded following the decision to shutdown Kure Works as part of the structural reforms aimed at optimizing the production framework (refer to page

cf. Decrease in depreciation due to impairment FY2019. 2H: -13.0 bn. JPY, FY2020: approx. -60.0 bn. JPY/Y. Thereafter, impact gradually decreases.

^{*} ZNW (Zhejiang Nisshin Worthington Precision Specialty Steel co., Ltd): Manufacturer of special cold steel sheets for automobiles. Production ended in Dec-2019. Now under liquidation.



With severe financial result expected this year, Nippon Steel plans to forgo the year-end dividend payment. (Interim divided: 10 JPY/share)

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

Voluntary Return of Part of Director and Officer Compensation

- ➤ The compensation of the members of the Board of Directors and executive officers of Nippon Steel is all based upon the financial performance of Nippon Steel. The amount of compensation for the period from July to June of the following year is determined in late June, and is expected to be reduced between over 40% to nearly 30% from the current compensation. Ahead of such reduction in compensation and as a display of the management stance of the current members of the Board of Directors and executive officers, who are responsible for the company's performance for this term, an immediate return of part of their compensation has been decided as follows:
- > Those returning compensation: Representative Directors, Managing Directors, Managing Executive Officers, Executive Officers
- ➤ Rate of compensation cut by rank (compared to the present compensation, annualized): Chairman and President: -20%, Executive Vice Presidents, Managing Directors, and Managing Executive Officers: -15%, Executive Officers: -10%



2. Production Facility Structural Measures

Assumption for Future Market and Nippon Steel's Structure

Shrinking construction demand due to population ageing and decline Shrinking steel demand in exporting industries due to expansion of local production by customers

Market Forecast

Risk of domestic steel demand depreciation

Shrinking steel demand in China
Enhancement of Chinese steelmakers' integrated capacity in coastal
China and ASEAN

Risk of intensifying competition in overseas market

Nippon Steel's Fixed Cost Structure More than 50 years have passed since the construction of Nippon Steel's main steelworks.

Large-scale CAPEX for facility refurbishment is still needed even if controlled by selection and concentration.

Concept and Procedure for Pursuing Lean and Optimal Production Framework 13

Basic Concept

To build **efficient production framework** centered on **competitive integrated steelworks**

Procedure

- 1) Comprehensively examine <u>competitiveness of integrated steelworks</u> from the perspective of the system and ability to consistently manufacture high value-added products
- 2) <u>Shutdown facilities with inferior competitiveness</u> and <u>integrate their</u> <u>production into other facilities with superior competitiveness</u>
- 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

Structural Measures to Realize Lean and Optimal

Production Framework

Legends: announced

Further measures

Underlined items are updates from prev. announcements

	Office filled items are appeared from	ii prev. aimouncements
Purpose	Relevant Steelworks and Facilities	Time of Closure
(1) Strengthening	1)Nisshin Kure Works/ 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) Wakayama Works/ Shutdown of #1 BF, #5-1 sintering	<u>.</u>
production	machine, #4/5 coke ovens, and part of #3 continuous caste	By around FY2022 1H
	3) Yawata Works (Kokura Area)/ Shutdown of Previous	usly: By around the end of FY2020
(2)		⇒By around the end of FY2020 1H
(2) Upstream facility reformation	4) Hirohata Works/ Shutdown of a melting furnace, installation	
racincy reformation.	5) Nippon Steel Structural Shapes	usly: By around the end of FY2019
	/ Canadallatian af ataalmaliina faailitu aleetalanna	to continue (Shutdown cancelled)
(3) Efficiency	6) Nisshin Sakai Works/ Shutdown of continuous annealing an	
enhancement of the steel	•	
sheet production system	line, electro-galvanizing line, and #1 continuous aluminizing line	
(4) Strengthening of	7) Hirohata Works/ Shutdown of tinplate mill	Previously: By around FY2021 2H
the tinplate business	·	⇒By around the end of FY2020
(5) Strengthening of the	8) Nagoya Works/ Shutdown of steel plate mill	By around FY2022 2H
steel plate business	of reagons tronie, enalacting of steel plate initial	5, a.oaa : :2022 2
(6) Withdrawal from	9) Osaka Works/ Shutdown of titanium round bar line	By around the end of FY2022
unprofitable titanium business	10) Oita Works (Hikari Area)/ 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) Kashima Works/ Shutdown of UO pipe mill	Oct-2019 (done)
the pipe & tube business	13) Kimitsu Works (Tokyo Area)/ Shutdown of small-diameter seamles	s pipe mill By around May-2020

Effects of Measures Decided So Far and Future Efforts

Effect of measures decided so far

Before After



Number of BF

-4 furnaces

15 ⇒ 11 furnaces

Cr

Crude steel production capability

-5 MMT/Y

Cf. FY2018 crude steel production
Nippon Steel (non-consolidated): 41.00MMT

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

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

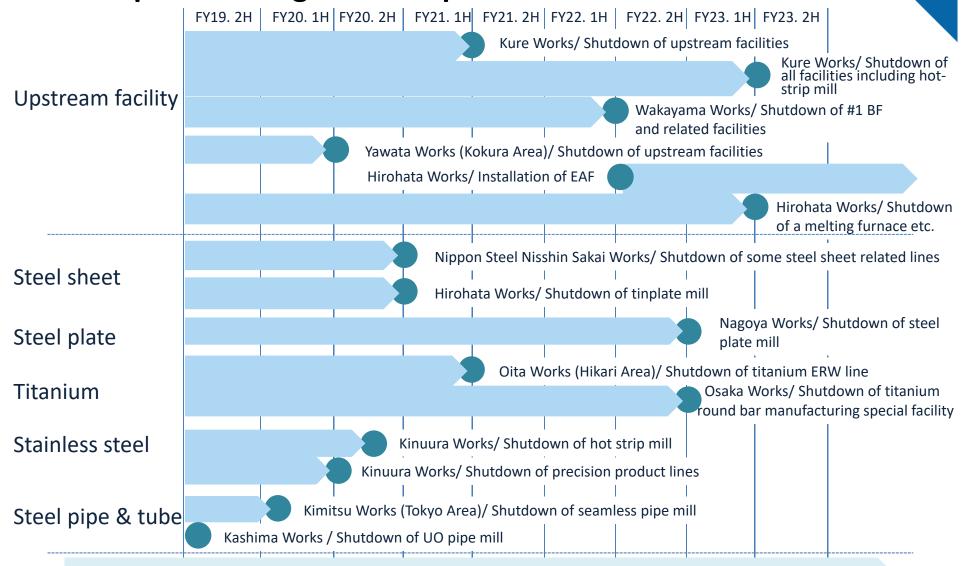
CAPEX for around next 10 years to BFs, coke ovens, sintering machines, and energy generation facilities etc. can be partially avoided.

Future efforts

In addition to the series of structural measures decided 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.

Roadmap to Building Lean & Optimal Production Framework



Nippon Steel is pursuing furtherly optimal production framework. Further measures will be executed as soon as possible as the occasion demands.

(1) Strengthening of Competitiveness in Upstream Integrated Production (1)

Overall competitiveness of each steelworks was examined, in terms of integrated production & shipment capability, cost competitiveness, product quality, etc.

Following facilities are to be shutdown, and business resources are concentrated to improvement of other steelworks

1) Nippon Steel Nisshin Kure Works/ Shutdown of All Facilities

- All facilities incl. BF, sintering, steelmaking, hot strip mill, and pickling line are to be shutdown.
- Time of closure (planned):

Upstream facilities (2 BFs, 2 series of sintering facilities, 3 converters, 2 continuous casters) [By around the end of FY2021. 1H] The other facilities (1 hot-rolling line, 1 pickling line etc.) [By around the end of FY2023. 1H]



2) Wakayama/ Shutdown of #1 BF and Related Facilities

- Following facilities are to be shutdown:
 - 1 BF out of 2 BFs (#1 BF), 1 series of sintering facilities out of 3 (#5-1),
 - 1 series of coke oven (2 furnaces, #4 and #5) out of 2 (3 furnaces),
 - 1 continuous caster out of 6 (1 strand in #3 CC)
- Time of closure (planned): [By around FY2022. 1H]



(2) Reformation of upstream Facilities (Already Announced) 3) <Already Announced> Yawata (Kokura Area)/ Shutdown of Upstream Facilities:

Time of closure pushed forward

- BF and steelmaking plant (converters and continuous casters) in Kokura area are to be shutdown Time of closure: [Previously by around the end of FY2020]>> [By around the end of FY2020. 1H]
- A new continuous caster in Tobata has already been constructed and begun operation at May-2019. Sintering line in Kokura area has already been shutdown at Nov-2016.

<Announcement on Mar. 3rd, 2015>

Increase output of the Tobata #4 BF and install a private railway and a tunnel for transportation of molten iron [By around FY2018], shutdown Kokura sintering facility and BF [By around the end of FY2018], shutdown Kokura #3 continuous caster [By around the end of FY2018]

<Announcement on Mar. 30th, 2016 (Changes in the plan)>

Install a new continuous caster in Tobata Area [By around the end of FY2018], shutdown a continuous caster in Tobata Area [By around the end of FY2020], shutdown sintering facility, BF, steelmaking plant (converters, dephosphorization furnace, #3 & #4 continuous casters [By around at the end of FY2020]



4) < Announced on Nov. 1st, 2019 > Hirohata Works / Shutdown of Melting Furnace and **Construction of EAF**

<Announcement on Nov. 1st. 2019 >

- Reform current scrap melting process with melting furnace and converter to a new process with an EAF by which steel production can be made with low energy and high flexibility. With such our strength as sophisticated refining technology and easy accessibility to highly purity scrap, we produce high-quality and high-purity flat steel products including electrical steel sheets in the state-of-the-art EAF.
- EAF CAPEX: approx. 28.0 bn. JPY. Date of starting the operation: from FY2022. 1H (planned)
- Date of shutting down melting furnace (SMP) and converters: By around the end of FY2023. 1H (planned)



Decided to cancel the shutdown and to continue operation.

< Announcement on Mar. 2nd, 2018> Shutdown the steelmaking mill in Nippon Steel Structural Shapes (EAF and continuous caster) [By around at the end of FY2019], and start supplying slabs from Wakayama Works to Nippon Steel Structural Shapes.





(3) Efficiency Enhancement of the Steel Sheet Production System

Aggregate orders on competitive production line Focus on production near high-demand area

Aggregate production on Kimitsu Works, Nagoya Works, etc.

Enhance efficiency on producing steel sheets

6) Nippon Steel Nisshin Sakai Works/ Shutdown of Some Steel Sheet Lines

- > Following facilities are to be shutdown
 - 1 galvanizing line out of 4 lines (electro-galvanizing line (EGL))
 - 1 annealing line (continuous annealing and processing line (CAPL))
 - Hot-dip aluminizing line (#1 Continuous aluminizing line (#1 CAL))

Time of closure: [By around the end of FY2020]

(4) Strengthening of the Tinplate Business (Already Announced)

- 7) < Announcement on Nov. 1st, 2019 > Hirohata Works / Shutdown of Tinplate Line
- >> Time of Closure Pushed Forward
- > Time of closure: [Previously by around FY2021. 2H]>>[By around the end of FY2020]

<Announcement on Nov. 1st, 2019>

- > Domestic tinplate demand is gradually declining, and global SD gap is expected to last for long periods.
- ➤ Decided to shutdown tinplate line* in Hirohata Works and integrate the production of tinplate to Yawata Works and Nagoya Works *Annealing (CAL), tinning lines (ETL), coating and laminating line (NTL), shearing line (TPSL)
- > Timing of shutdown [FY2021. 2H] (NTL: [By the End of FY2020])



(5) Strengthening of the Steel Plate Business

Concentrate the production of steel plate to Kashima Works, Kimitsu Works, and Oita Works, considering the overall competitiveness of entire manufacturing process

Strengthen steel plate business by improving the capacity utilization ratio and productivity

8) Nagoya Works/ Shutdown of Steel Plate Mill

Time of closure (Planned): [By around FY2022. 2H]

(6) Withdrawal From Unprofitable Titanium Business

Titanium Round Bar Business (Mainly for Airplane Engines)

Titanium Welded Pipe Business (Mainly for Nuclear and Thermal Power Plants)

Considering their business environments, profit recovery in the future cannot be expected. Nippon Steel decided to withdraw from titanium business.

- 9) Osaka Works/ Shutdown of Titanium Round
 Bar Manufacturing Special Facility
- Time of closure (planned):
 [By around the end of FY2022]

- 10) Oita Works (Hikari Area)/ Shutdown of Titanium Welded Pipe Manufacturing Line
 - Time of closure (planned): [By around the end of FY2021. 1H]

(7) Strengthening of the Stainless Steel Business

Shutdown hot strip mill in Nippon Steel Nisshin Kinuura Works

Shutdown facilities for precision product

Integrate its production into Nippon Steel

Integrate its production into Yamaguchi Works etc

Strengthen stainless steel business

11) Nippon Steel Stainless Kinuura Works/ Shutdown of Some Lines

Following facilities are to be shutdown

Hot strip mill

Dedicated manufacturing facilities for precision products

(a precision hot-rolling machine, a bright annealing line, and a rewinding line)

> Time of closure (planned): Hot strip mill [By around the end of Dec-2020],

Facilities for precision products [Around at the end of FY2020. 1H]

(8) Strengthening of the Pipe & Tube Business (Already Announced)

12) <Announcement on May. 9th, 2019> Kashima Works/ Shutdown of UO Pipe Mill

<Announcement on May. 9th, 2019>

- ➤ Shutdown UO pipe mill in Kashima Works. Integrate its production into Kimitsu Works. Reinforce UO pipe business by targeting the high-end market.
- > Time of closure: [At the end of Oct.-2019] >> Done



13) <Announcement on Mar. 2nd, 2018> Kimitsu Works (Tokyo Area)/ Shutdown of Small-diameter Seamless Pipe Mill

<Announcement on Mar-2nd, 2018>

> Small-diameter seamless pipe mill in Kimitsu Works (Tokyo Area) is to be shutdown. Production of small-diameter will be integrated into Wakayama Works (Kainan area).

> Time of closure (planned): [By around May-2020]



3. Reformation of Management System

Reformation of Management System

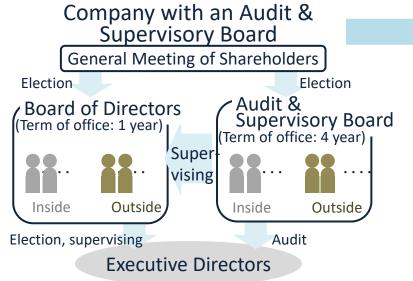
- 1) Revised Corporate Management Structure and More Streamlined and Efficient Management Structure
 - 2) Further Efficiency Enhancement of the **Entire Corporate Organization and Operations**
 - 3) Reinforcement of Responsiveness to **Digital Transformation**

Faster decision making and more efficient business operations

1) Revised Corporate Management Structure and More Streamlined and Efficient Management Structure

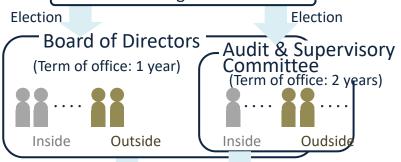
(1) Transition to a Company with an Audit & Supervisory Committee

Subject to a proposal for requisite amendments to the Articles of Incorporation being approved at the 96th General Meeting of Shareholders to be held in June 2020.



Company with an Audit & Supervisory Committee

General Meeting of Shareholders



Election, supervising delegation of authority

Executive Directors

Audit, supervising (Opinions on nomination and compensation)

- To expedite management decision-making
- To enhance discussions by the Board of Directors relating to matters such as the formulation of management policies and strategies by limiting the number of items for deliberation
- > To enhance the supervisory function of the Board of Directors over management

To achieve the sound and sustainable growth of the Nippon Steel group and the mid- to longterm improvement of its corporate value in response to the delegation of responsibilities by and trust from all of its stakeholders including shareholders and business partners

(2) More Streamlined and Efficient Management St

Specific details will be announced after they are decided

<u>Structure</u>	Inside	Outside	Total
Directors	10	3	13
Auditor	3	4	7
Attendees at the Meeting of the Board of Directors	13	7	20



Cf. Board member

2) Further Efficiency Enhancement of the Entire Corporate **Current Name**

Organization and Operations

1. Integration and Reorganization of Steelworks

<Announcement on Nov. 1st, 2019>

16 Steelworks: Nippon Steel 12 steelworks

+ Nippon Steel Nisshin 4 Steelworks

>From Apr. 1st, 2020: The new organization structure will be comprised of 6 steelworks.

Nippon Steel will dramatically reorganize its departments and offices from the perspective of eliminating organization duplication and establishing an efficient management system.

Change in number of divisions in steelworks: Over -30%

2. Bundling of Headquarters Organization

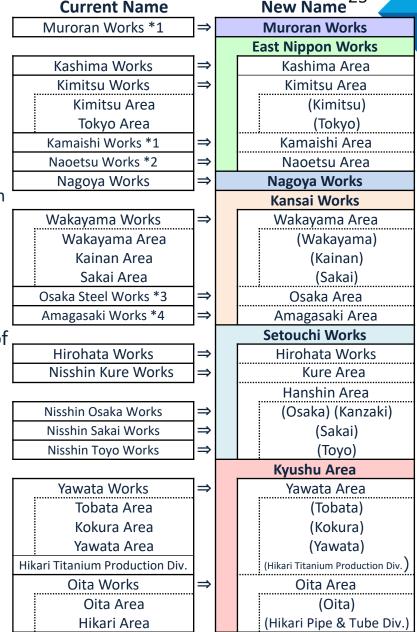
while maintaining the entire-company control function of each division

Change in number of departments in the headquarter: Approx. -30%

Similar streamlining efforts to integrate and reorganize divisions and departments will also be carried out in domestic office and branches, R&D laboratories, and other organizations.

Nippon Steel aims to enhance management capability, speed up the resolution of problems, and make operations more efficient.

> *1 Bar & Wire Unit *2 Titanium Unit *3 Railway, Automotive & Machinery Parts Unit *4 Pipe & Tube Unit



3) Reinforcement of Responsiveness to Digital Transformation

Nippon Steel's organization that is engaged in digital transformation will be reorganized and its function will be reestablished

Nippon Steel sets up a "Digital Reform Promotion Department" as of Apr. 1st, 2020.

The Company sets strategy of operational and production process reforms using its digital technology resources.

Business process
reforms
Management segment
Management/ staffs

Production process reforms Operational segment Operation/ operators

Digital Reform Promotion Department

Business
Process
Innovation
Department
<BPI>

Intelligent Algorithm Research Center <IA3 Center> Control Research Lab. (Process Research Lab.) Systems & Control
Engineering Div.
(Plant Engineering
and Facility
Management
Center)

NS Solutions, Nippon Steel Texeng

Unified approach to company-wide targets concerning production and maintenance site, sales/production plans, and profit management

Reinforcement of data management (data governance)

- > Strengthen and increase the efficiency of digital investment management
- Evaluate digital technology to be adopted
- Conduct research on the latest digital technologies, consider their adoption, and promote their application

Through proactive use of data and digital technology, Nippon Steel will streamline its organization, raise its operational efficiency, speed up its decision-making, and implement business and production process reforms to enhance its business competitiveness.

4. Measures to Improve Business Performance

Measures to Strengthen Profit Structure

Pursuit of lean & optimal production framework

Giving weight to highvalue added products Improvement of longterm contractual steel prices

Maximization of marginal profit under appropriate level of fixed cost

Business Integration Synergy

Early and full realization of synergy of integration with Nisshin, and special steel business

Profit Expansion in Growing Sectors and Areas

Promotion of strategic investment such as reinforcement of supply system of super high-tensile steel sheets, electrical steel sheet business, and acquisition of Essar Steel in India etc.

Acceleration of Realignment and Withdrawal of Unprofitable Overseas Businesses

Already decided closure of ZNW. Now examining other cases.

Realization of Integration Synergy

1) Early and Full Realization of Integration Synergy with Nisshin

Made Nissin a subsidiary on Mar-2017.3, a wholly owned subsidiary on Jan-2019, and merger is scheduled for Apr-2020

Making Nisshin a subsidiary Making Nisshin a wholly-owned subsidiary and integrating stainless business **20.0** bn. JPY/ Y

10.0 bn. JPY/Y

30.0 bn. JPY/Y

Realignment of group companies

Construction steel sheet business	Merger of Nippon Steel Coated Sheet and	[Jul. 1 st , 2020 (planned)]
Logistic business <announced 1st,="" 2019="" nov.="" on=""></announced>	Integration of Nippon Steel Logistics and Nippon Steel Nissin Logistics	[Apr. 1 st , 2020 (planned)]
Steel making facility engineering & maintenance business <announced 6<sup="" jun.="" on="">th, 2019></announced>	Integration of Nippon Steel Texeng and Nippon Steel Nissin Koki	[Jul. 1 st , 2020 (planned)]
Trading firms <announced 28<sup="" on="" sep.="">th, 2018></announced>	Realignment of Nihon Teppan, Nisshin Stainless Steel Trading, and Tokai Color	[Implemented between Dec-2018 to Jan-2019]
Stainless pipe & tube business <announced 2<sup="" aug.="" on="">nd, 2018></announced>	Integration of Nippon Steel & Sumikin Stainless Steel Pipe and Nisshin Stainless Steel Tubing, etc.	[Implemented on Apr. 1st, 2019]
Stainless sheets business <announced 16<sup="" may.="" on="">th, 2018></announced>	Integration of ex- Nippon Steel & Sumikin Stainless and stainless steel business in Nisshin Steel	[Implemented on Apr. 1 st , 2019]
2		

2) Early and Full Realization of Realignment Synergy in Special Steel Business

Total synergy in Nippon Steel, Sanyo Special Steel, and OVAKO

10.0 bn. JPY/Y

synergy gradually realizes from 2019. 50% by 3rd year, 100% by 6th year







Making OVAKO a subsidiary: Jun-2018
Making Sanyo Special Steel a subsidiary: Mar-2019

To Expand Profit in Growing Sectors and Areas

1) Electrical Steel Sheets –Investment for Capacity & Quality Improvement-

<Announced on Aug. 1st, 2019 and Nov. 1st, 2019>

Promotion of CAPEX in line with growing demand and increasing needs for power efficiency in power plant and automobiles sectors

CAPEX already decided and announced: Yawata Works (approx. 46.0 bn. JPY) <announced on Aug. 1st, 2019>, Hirohata Works (approx. 14.0 bn. JPY) <announced on Nov. 1st, 2019>

Further CAPEX plan is ongoing and the details will be posted once the plan is decided.

(Grain Oriented electrical steel sheet) for transformers in power plant etc.



(Non-Oriented electrical steel sheet) for motors in machines and eco-



2) Reinforcement of Supply System of Ultra High-tensile Steel Sheets

(Installation of No.6CGL in Kimitsu Works) < Announced on Apr. 17th, 2018>

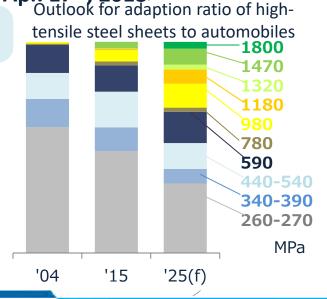
Response to expansion of high-tensile steel sheets demand and more high-strength steel sheets

Construct a hot-dip galvanizing line in Kimitsu Works in which super high-tensile steel sheet with 1.5GPa of tension can be manufactured (#6 CGL)

Products: Hot-dip galvanized steel sheet (GI),
Alloyed hot-dip galvanized steel sheet (GA)

Production capacity: 0.40MMT/Y

> Start of operation is scheduled from FY2020. 2Q. At the same time, #4 CGL in Kimitsu Works (capacity: 0.40MMT/Y) will be shutdown.



To Expand Profit in Growing Sectors and Areas

3) Joint Acquisition of Essar Steel in India Has Been Completed >> AM/NS India <Announced on Dec. 16th, 2019>

Joint acquisition completed on Dec. 16th, 2019.

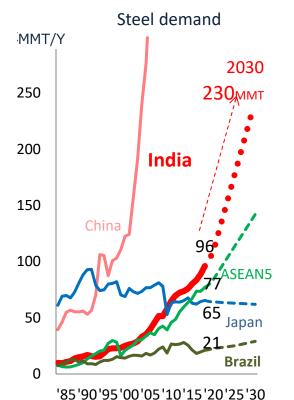
>>AM/NS India's profit/loss will be counted from Nippon Steel's FY2020.1Q consolidated accounting as an equity method affiliate, and is expected to be in black from the first year.



Investment ratio 40%



60%



Outline

Crude steel production capacity: 9.60MMT/Y
Products: Hot-rolled steel sheet, cold-rolled
steel sheet, hot-dip galvanized steel
sheet, thick steel plate, and steel
tube & pipe

Sales (Non-consolidated): 260.3 bn. INR/Y (Fiscal year ended on Mar. 31st, 2018)

Employees: 3,806 (as of Mar. 31st, 2018)

Both companies nominate <u>the same</u> number of directors

AM/NS India is managed by both companies as equal partners, and is consolidated to both companies as equity method affiliate.

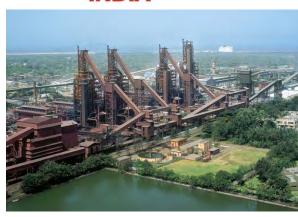
AM/NS INDIA

Total Cash Injection

500.0 bn. INR (approx. 770.0 JPY)

INR 420.0 bn. (approx. JPY 650 bn.)

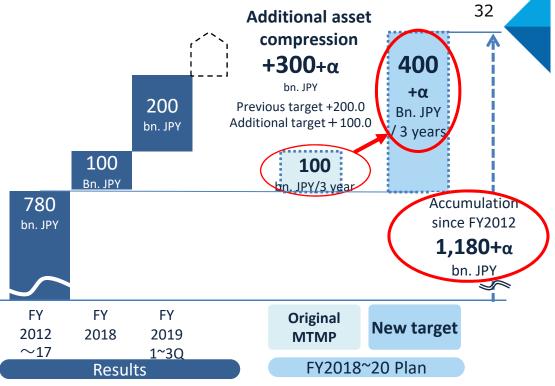
- >> Repayment of Essar's existing debts INR 80.0 bn. (approx. JPY 120 bn.)
- >> Cash injection of initial working capital including capital expenditures



Cash Management

1. Asset Compression

- JPY 100 bn. of asset compression has already been accomplished 2 years ahead of original 2020 MTMP.
- Furthermore, additional target of asset compression set at previous disclosure (JPY 200 bn.) has also been <u>achieved by FY2019 3Q.</u>
- Further additional target of asset compression approx. 100 bn. +α is planned and now being implemented. Totally 400 bn. JPY of asset compression in 3 years is planned to be implemented (= Original MTMP 100 + additional target in previous disclosure 200 + additional target 100).



2. CAPEX

- > Pursue efficient CAPEX based on long-term refurbishing plan.
- > Selection and concentration to sectors and regions that will promisingly contribute to profit in the future.
- Plan to scale back on CAPEX over 10%. cf. CAPEX plan in original 2020MTMP: JPY 1,700 bn./3 years (decision making basis)

3. Large Scale Funding

Nippon Steel has issued the public hybrid bonds with the total issue amount of JPY 300 bn. on Sep. 12th.

Maturity period: 60 years

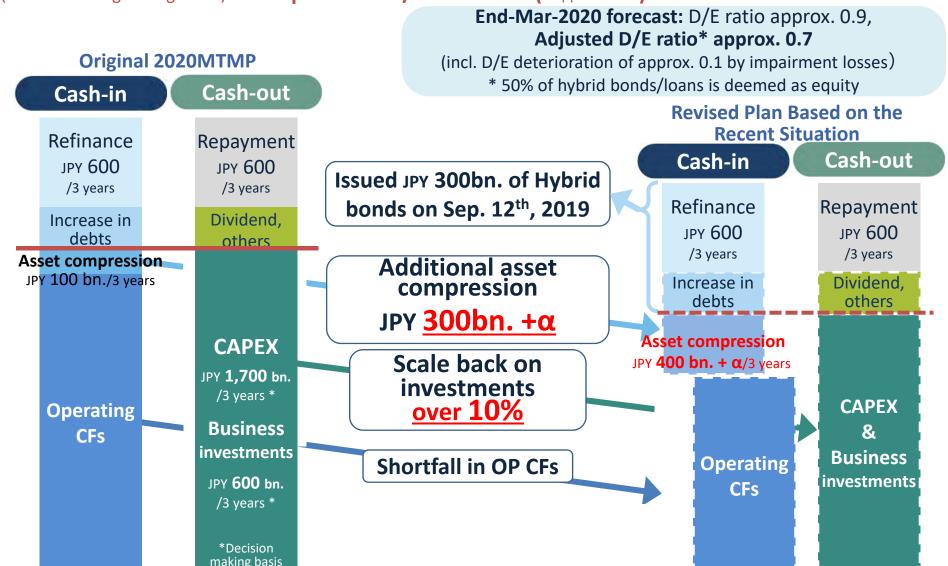
Equity credit: 50%



Cash Management

Nippon Steel will execute the essential strategic investments timely and appropriately while adhering to our original cash management policy;

Operating CFs + Asset compression ≥ CAPEX (to rebuild manufacturing capability)+ Business Investment (for mid-to-long term growth) & Keep current D/E ratio level (=approx. 0.7)



Toward Further Enhancing the Nippon Steel Group's Business Base

In addition to the measures above, Nippon Steel will continue to work on considering various measures from the following perspectives:

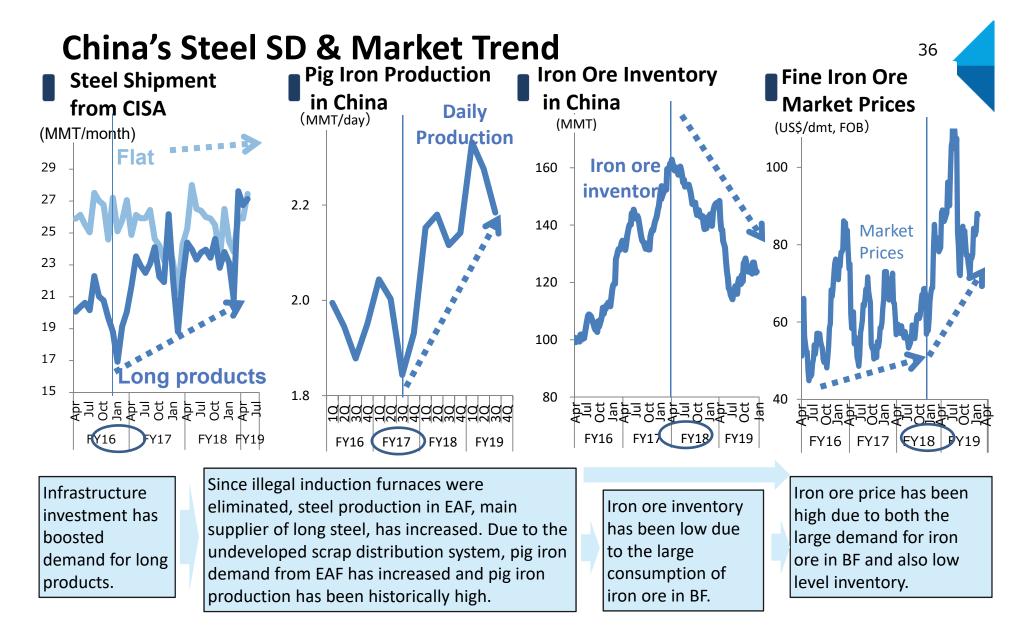
- 1. Further Pursuit to Optimal Production Framework in the Steel Making Business
- 2. Thorough Decisions on Selection and Concentration of Domestic and Overseas Businesses Including Group Companies
- **3. Promotion of Strategic Investment** Concerning Priority Business Sectors, Areas, and Products.
- 4. Respond to Aging, Declining Society and Diversity Issues
- 5. Growth in Harmony with the Global Environment

Measures will be implemented once they are decided.

Nippon Steel Aims to Become the Best Steelmaker in the World



5. Supplementary Materials for Financial Result

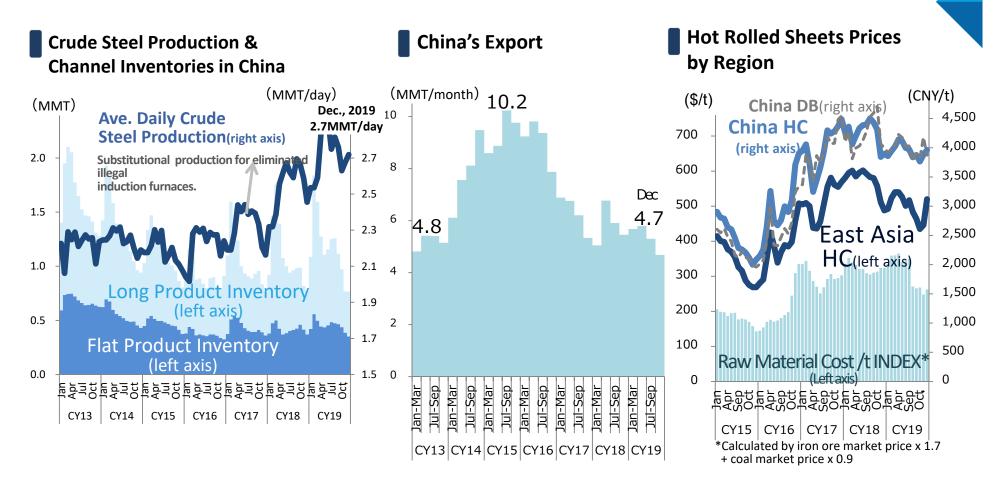


The long products' SD situation stays firm, while flat product market bear a weak tone. The polarization between long & flat prices is anticipated to expand as infrastructure investments gain more momentum.

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



China's Steel SD & Market Trend



Crude steel production is at the historical high level.

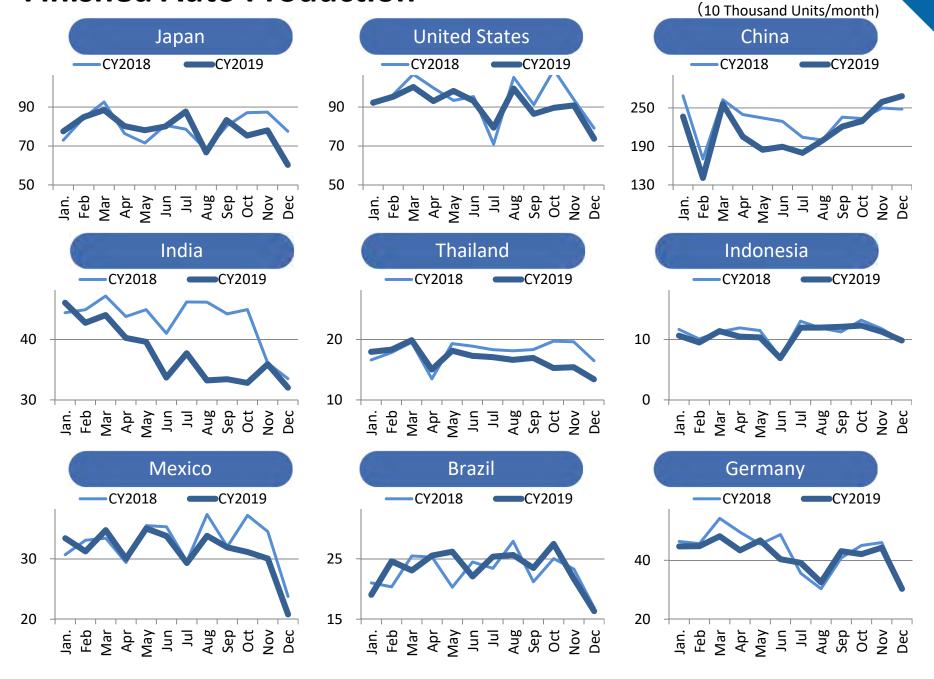
Inventory has been declining & export volume remains relatively low.

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

Need to keep monitoring impacts from trade war & stimulus measures and how they affect SD situation.

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

Finished Auto Production



FY2019 Forecast [vs. prev.FY2019(f)*] *Prev.FY19(f): As of Nov. 1st, 2019 (Before impairment losses etc.) Prev. FY19(f) Chanae (bn. JPY) FY19(f)* [B] $[A \rightarrow B]$ [A]

Business Profit 100.0 54.0 -46.0 <Underlying Profit> <147.0> <106.0> <-41.0>

Steel 50.0 9.0 -41.0 56.0 * Non-Steel 56.0 Adjustment (6.0)(11.0) * -5.0

Business profit revisions related to purchase and resale of merchandise in NS Solutions reflected. System solutions segment: business profit -0.9 bn. JPY (revision of profit recorded in FY19 account), Adjustment: business profit -1.8 bn. JPY (revision of profits recorded before FY18)

*1 Crude Steel Production: approx.-1.00MMT $(approx.40.70 \rightarrow approx.39.70)$

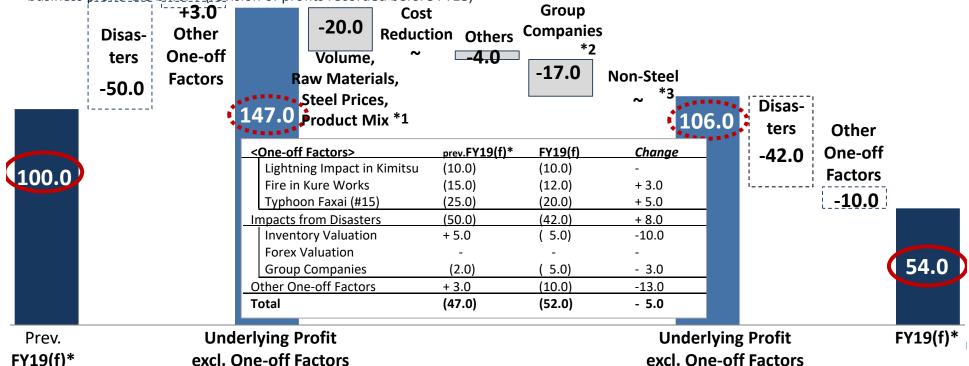
Excl. One-off Factors: approx. -1.06MMT Prev.FY19(f) excl. One-off Factors: 41.00MMT FY19(f) excl. One-off Factors: 39.94MMT

Steel shipment: approx. -1.00MMT (approx. 37.40 \rightarrow approx. 36.40)

Excl. One-off Factors: approx.-1.09MMT

Prev. FY19(f) excl. One-off Factors: approx. 37.44MMT FY19(f) excl. One-off Factors: approx. 36.35MMT Incl. change in assumption on raw material prices based on the recent market situation.

- *2 < Deteriorate > Domestic re-rollers, Sanyo Special Steel, etc.
- *3 Engineering +3.0, Chemicals & Materials -2.0, System Solutions -1.0



FY2019 Forecast [FY18 vs. FY19(f)] (Before impairment losses etc.)

(bn. JPY)	FY18 [A]	FY19(f) [B]	Change [A→B]
Business Profit	336.9	54.0	-282.9
<underlying proft=""></underlying>	<316.9>	<106.0>	<-210.9>
Steel	274.6	9.0	-265.6
Non-Steel	61.1	56.0 *	-5.1
Adjustment	1.1	(11.0) *	-12.1

* Business profit revisions related to purchase and resale of merchandise in NS Solutions reflected. System solutions segment: business profit -0.9 bn. JPY (revision of profit recorded in FY19 account), Adjustment: business profit -1.8 bn. JPY (revision of profits recorded before FY18)

***1** Crude steel production: approx. -1.30MMT (41.00→approx.39.70 Excl. One-off Factors: approx.-1.71MMT

FY18 excl. One-off Factors: 41.65MMT FY19(f) excl. One-off Factors: approx.39.94

Steel shipment: approx.-1.57MMT (37.97 -> approx.36.40)

Excl. One-off Factors: approx.-2.47MMT FY18 excl. One-off Factors: 38.82MMT FY19(f) excl. One-off Factors: 36.35MMT

*2 Incl. Carry over -22.0 $(8.0 \rightarrow -14.0)$

*3 < Improve > Long-term contractual price (domestic & overseas) Domestic spot market prices (incl. time lag for price change penetration)

<Deteriorate> Overseas spot market prices & product mix

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- *4 Increase in depreciation, elimination of gain from bargain purchase (Sanyo Special Steel), etc.
- *5 < Improve > Mines, Sanyo & Ovako etc.

	-35.0 +55.0 Disas- ters Other One-off Factors		Steel Prices &	<dete< th=""><th>riorate> Stainle dome</th><th>ess business , Nippon Sestic re-rollers, etc. Demicals & Materials -6. System Solution</th><th>0,</th></dete<>	riorate> Stainle dome	ess business , Nippon Sestic re-rollers, etc. Demicals & Materials -6. System Solution	0,
(336.9) .	316.9	Product Co Mix Reduct *3 -35.0 +50	others 2.0 -24.0	*5 S	lon- teel Disas- 5.0 *6 ters	Other One-off Factors
		 <one-off factors=""></one-off> FY18 Natural Disasters 	FY18 (35.0)	FY19(f)	<i>Change</i> +35.0	-42.0	-10.0
		Lightning Impact in Kimitsu		(10.0)	- 10.0	106.0	' :::::::::
		Fire in Kure Works	-	(12.0)	- 12.0	*****	54.0
77/44.0		Typhoon Faxai (#15)	-	(20.0)	- 20.0		T)(40/6)
FY18	Underlying	Impacts from Disasters	(35.0)	(42.0)	- 7.0	Underlying	FY19(f)
	Profit excl.	Inventory Valuation	+39.0	(5.0)	- 44.0	Profit excl.	
	One-off factors	Forex Valuation	+ 5.0	-	- 5.0	One-off factors	
	טוופ-טוו ומננטוג	Group Companies	+11.0	(5.0)	- 16.0	One-on factors	
-		Other One-off Factors	+55.0	(10.0)	- 65.0		
	NIPPON STEE	Total	+20.0	(52.0)	-72.0	20 NIPPON STEEL CORPOR	ATION All Rights Reserved

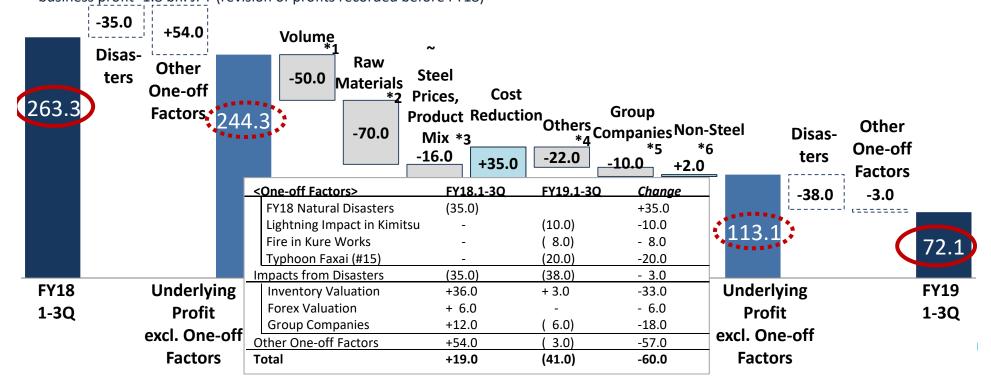
(bn. JPY)	FY18 1-3Q [A]	FY19 1-3Q [B]	Change [A→B]		
Business Profit	263.3	72.1	-191.2		
<underlying profit=""></underlying>	<244.3>	<113.1>	<-131.2>		
Steel	220.4	35.9	-184.5		
Non-Steel	43.8	45.9 *	+2.1		
Adjustment	(1.0)	(9.8) *	-8.9		

* Business profit revisions related to purchase and resale of merchandise in NS Solutions reflected. System solutions segment: business profit -0.9 bn. JPY (revision of profit recorded in FY19 account), Adjustment: business profit -1.8 bn. JPY (revision of profits recorded before FY18)

- *1 Crude Steel Production: -1.14MMT (30.78→29.64) Steel shipment: approx. -1.15MMT (28.49 \rightarrow 27.34)
- *2 Incl. Carry over +1.0 $(0.0 \rightarrow 1.0)$
- *3 < Improve > Long-term contractual price (domestic & overseas)

Domestic spot market prices (incl. time lag for price change penetration)

- <Deteriorate> Overseas spot market prices & product mix
- *4 Increase in depreciation, etc.
- *5 < Improve > Mines, Sanyo, etc. <Deteriorate> Stainless business , Nippon Steel Nisshin, domestic re-rollers, etc.
- *6 Engineering +2.6, Chemicals & Material s-2.4, System Solutions +1.8



Business Profit Variance Analysis [FY19 1H vs. FY19 2H(f)]

(Before impairment losses etc.)

(bn. JPY)	FY19 1H [A]	change [A→B]		
Business Profit	73.1	(19.1)	-92.2	
<underlying profit=""></underlying>	<94.1>	<11.9>	<-82.2>	
Steel	49.2	(40.2)	-89.4	
Non-Steel	31.5	24.5 *	-7.0	
Adjustment	(7.6)	(3.4) *	+4.2	

* Business profit revisions related to purchase and resale of merchandise in NS Solutions reflected. System solutions segment: business profit -0.9 bn. JPY (revision of profit recorded in FY19 account), Adjustment: business profit -1.8 bn. JPY (revision of profits recorded before FY18)

*1 Crude steel production: approx.-0.72MMT $(20.22 \rightarrow approx. 19.50)$

Excl. One-off Factors: -1.48MMT

FY19 1H excl. One-off Factors: 20.72MMT

FY19 2H(f) excl. One-off Factors: approx. 19.24MMT

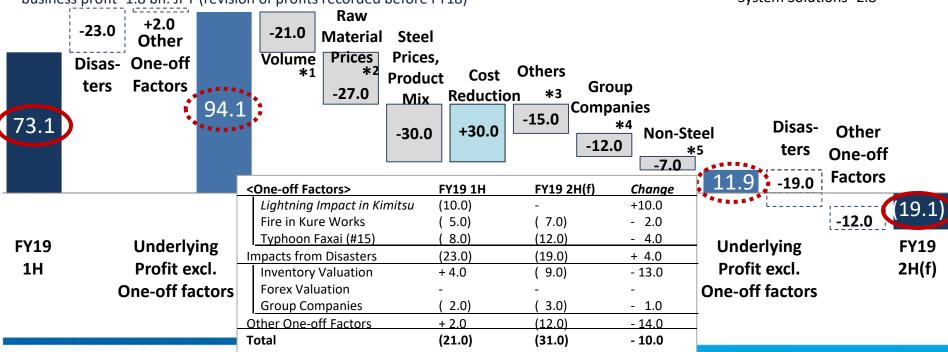
Steel shipment: -0.53MMT (18.43→approx.18.00)

Excl. One-off Factors: -0.58MMT

FY19 1H excl. One-off Factors: 18.48MMT

FY19 2H excl. One-off Factors: approx. 17.90MMT

- *2 Incl. Carry over -34.0 (10.0 \rightarrow -24.0)
- *3 Increase in depreciation, etc.
- *4 < Deteriorate > Domestic re-rollers, Sanyo Special Steel, etc.
- *5 Engineering -0.2, Chemical s & Materials -3.6, System Solutions -2.8



FY2019 Disasters

■ Typhoon Faxai (#15)

- The flare stack(*) of #1 steelmaking plant in Kimitsu works was damaged due to the strongest wind ever recorded in the area caused by Typhoon Faxai (# 15) on Sep. 9th. (* A facility with a pipe tower used to safely combust converter by-product gas to be detoxified when releasing it to the atmosphere.)
- > The full operation of #1 steelmaking plant has been resumed on Dec-2019 ahead of the original plan (Jan-2020).
- ➤ Negative impact: Crude steel production -0.24MMT, Steel shipment -0.25MMT

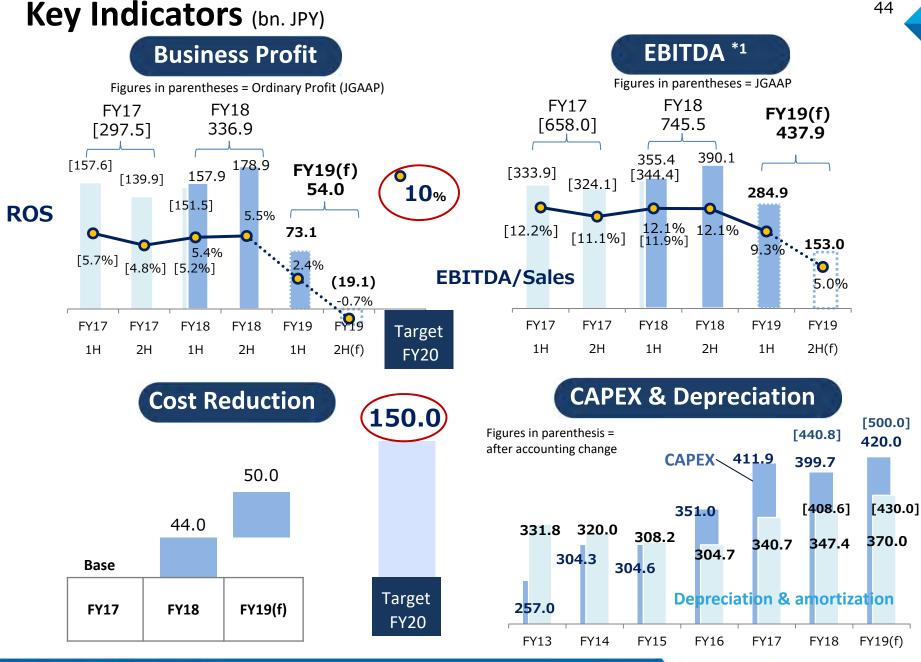
■ Fire in #1 steelmaking plant in Kure works of Nippon Steel Nisshin(NSN)

- Fire broke out at #1 steelmaking plant in NSN Kure works (capacity: approx. 40kt/month) at the end of Aug.
- The operation room and the electric room of converter were damaged, and #1 steelmaking plant has been out of operation. FY19 guidance took into account the assumption that the suspension will continue during FY19.
- Now trying to minimize the impact on customers with alternative production in #2 steelmaking plant in Kure and plants in Nippon Steel, and with inventory shipment.
- Approx. -0.45MMT decrease in crude steel production in NSN is expected. Estimate of the impact to the FY19 earnings is made on the assumption that decrease in steel product shipment will be avoided with inventory shipment and alternative production in Nippon Steel (+0.35MMT) (cf. crude steel production in Nippon Steel: +0.28MMT).

	Volume		Cost loss	[VS. as of Nov. 1st]		FY2019 2H
May. Kimitsu blackout	*1	-5.0[-]	-5.0[-]	-10.0[-]	-10.0[-]	-[-]
Aug. Fire in Nisshin	*2	-2.0[-]	-10.0[+3.0]	-12.0[+3.0]	- 5.0[-]	-7.0[+3.0]
Sep. Typhoon Faxai (#15)	*1	-7.0[+4.0]	-13.0[+1.0]	-20.0[+5.0]	- 8.0[-]	-12.0[+5.0]
Total	*2	-14.0[+4.0]	-28.0[+4.0]	-42.0[+8.0]	-23.0[-]	-19.0[+8.0]

^{*1} Non-consolidated *2 Consolidated



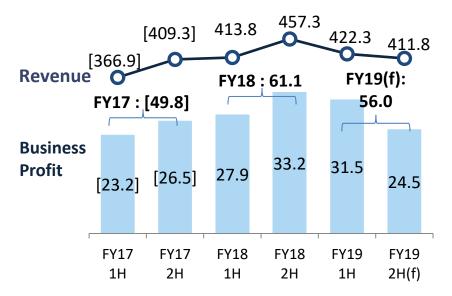


(Bn. JPY)

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 (FY18 vs. FY19(f))

Engineering & Construction	Despite material cost hike, the profit is expected to be in line with FY18 profit due to appropriate project management.				
Chemicals & Materials	Profit decline is projected due to chemical products margin decline and functional material's sales volume down etc.				
System Solutions	Revenue and profit will increase due to major deals supported by customers' robust IT investments.				

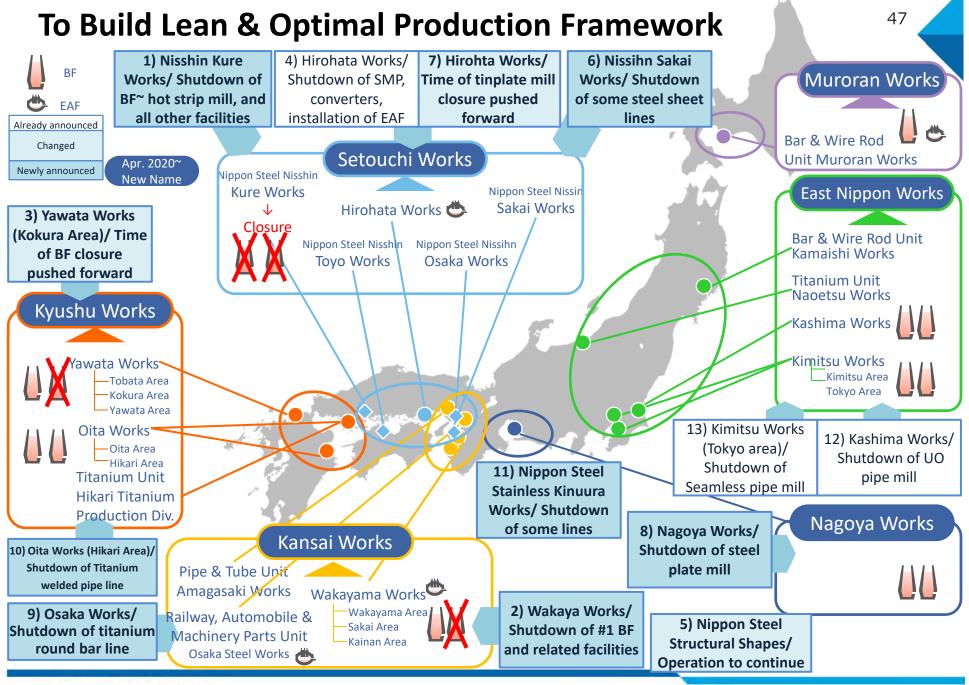
Engineering &	20	18	20	FY18→	
Construction	1-3Q	FY	1-3Q	FY(f)	FY19(f)
Revenue	253.7	356.7	239.4	340.0	-16.7
Business Profit	5.7	9.4	8.3	10.0	+0.6

Chemicals	20	18	20	FY18→	
& Materials	1-3Q	FY	1-3Q	FY(f)	FY19(f)
Revenue	191.0	247.0	169.3	220.0	-27.0
Business Profit	19.7	25.0	17.3	19.0	-6.0

System	20	18	20	FY18→	
Solutions	1-3Q	FY	1-3Q	FY(f)	FY19(f)
Revenue	190.1	267.5	198.9	274.0	+6.5
Business Profit	18.4	26.5	20.2	27.0*	+0.5

^{*} Business profit revisions related to purchase and resale of merchandise in NS Solutions reflected.

Appendix 1. Structural Measures to Build Lean & Optimal Production Framework



To Build Lean & Optimal Production Framework

Number of (Deterfacilities mined in to be closed FY2019 3Q)

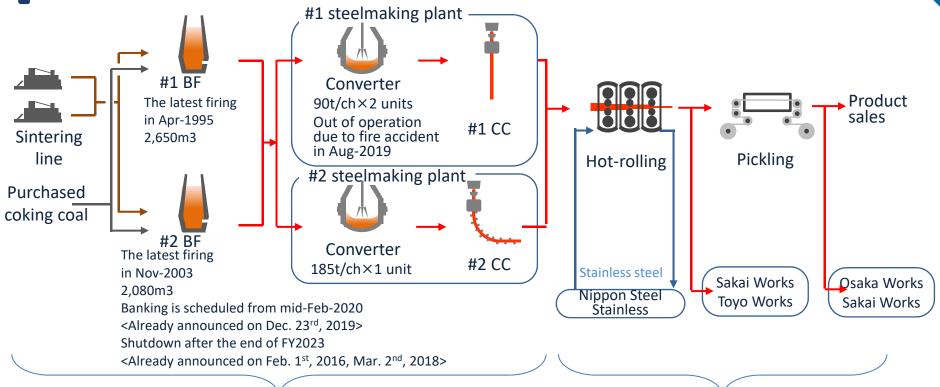
Facilities to be closed

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
_	<u> </u>					Yawata -1 (Kokura)	Closed in Nov-2016
						Kure -2 (#1, #2)	Around the end ofFY2021 1H
BF	15	\Rightarrow	11	-4	(-2)	Wakayama -1 (#1)	FY2022 1H
	ļ					Yawata -1 (Kokura)	The end of FY2020 1H
						Kure -3 (#1, #2)	Around the end of FY2021 1H
Converter	38	\Rightarrow	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
	<u>.</u>					Yawata -3 (2 in Kokura, 1 in Tobata), +1 (Tobata #3)	Around FY2022 1H
Hot rolling	7	\Rightarrow	6	-1	(-1)	Kure -1	Around the end of FY2023 1H
Thick plate	4	\Rightarrow	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
Aimeaning	<u> </u>			-2	(- <u>T</u>)	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
	<u> </u>			-2	(-1)	Nisshin Sakai -1 (Hot-dip aluminizing line)	Around the end of FY2020
Other coating	<u> </u>			-2	(-1)	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> 5	(-3)	(precision product lines: cold rolling line and bright annealing line)	Around the end of 2020 1H

Outline of Kure Works

Flowchart of Main Facilities in Kure Works



Upstream facility: Shutdown by around the end of FY2021 1H

Product Mix of Kure Works

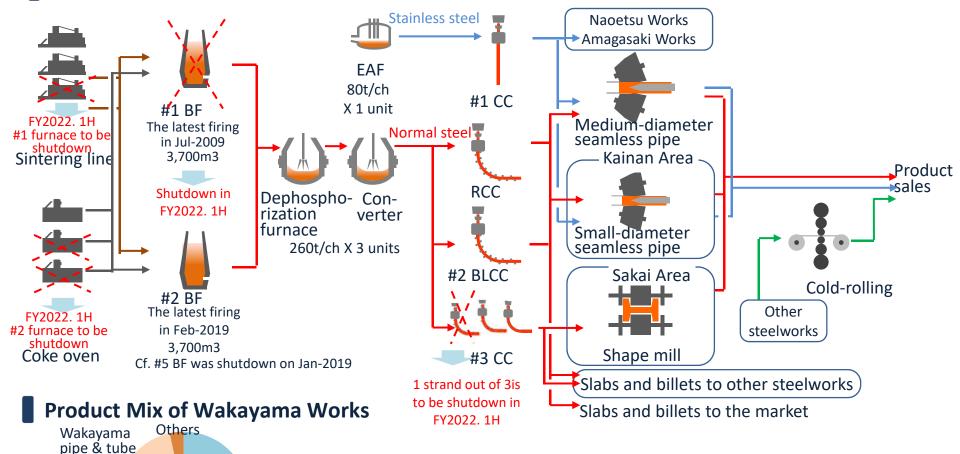
Hot-rolled steel sheet

Semi-finished product for other steelworks

The other facilities: Shutdown by around the end of FY2023

Outline of Wakayama Works

Flowchart of Main Facilities in Wakayama Works





Slabs and billets to the market

Kainan pipe &

Sakai shapes

tube

Outline: Merger of Nippon Steel & Nisshin Steel

Allocation of investment capacity created by shutdown of one blast furnace to R&D

Technological superiority
Product readiness
Cost competitiveness
Capability of being global

Customer and market readiness enabled by meticulous development and in line with customer needs

Bring together respective management resources and create a synergy effect in order to overcome severe business environment, and to maintain and establish a competitive business foundation

Acceleration of mutual utilization of management resources and promotion of deeper cooperation aiming early and full realization of synergies

Rapid deterioration of business environment Accidents and emergencies occurred at Nippon Steel Nisshin

→ Decision has been made to form an organizational structure for agile response aimed at strengthening competitiveness

Concentration of production line to recover efficiency and stability under low operating ratio after fire accident

<Published on Feb. 1st, 2016>

Business reform of Nisshin Steel

Refurbishment and expansion of Kure #1 blast furnace by the end of FY2019

Shut down of #2 blast furnace after refurbishment of #1 BF ⇒purchase slabs from Nippon Steel

Making Nisshin Steel a subsidiary of Nippon Steel

Implemented on Mar-2017

<Published on Mar. 2nd, 2018>

Postpone of Kure #1 blast furnace refurbishment (from the end of FY2019 to around the end of FY2023)
Postpone of #2 blast furnace shutdown (to after relining of #1 BF)

<Published on May. 16th, 2018>

Making Nisshin Steel a wholly owned subsidiary
 of Nippon Steel Implemented on Jan-2019

Realignment of stainless steel business

Implemented on Apr-2019

<Published on Oct. 3rd, 2019>

Merger of Nippon Steel and Nippon Steel Nisshin Planned to be implemented on Apr-2020

Published on Dec. 23rd, 2019>
Banking of #2 blast furnace
Planned to be implemented on around mid-Feb. 2020

Appendix 2. Progress of Various Measures

Progress: Strengthen Manufacturing Capabilities
*BF = Blast Furnace

*BF = Blast Furnace Legend : New measure ☆ Plan ★ Done ☆ Cancelled

		***************************************	···				
Action	Publication	~FY19	FY20	FY21	FY22	FY23~	
(NIPPON STEEL NISSHIN Kure) Close Upstream Process and Hot-rolling Line	Feb-20		End of FY21 1H: Upstream closure End of FY23 1H Others closure				
(Wakayama) Close BF and Related Facilities	Feb-20				End o	f 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					
- Move up the schedule	Feb-20		En	d of FY20 1H	<u> </u>		
(Nagoya) Close Steel Plate Mill	Feb-20				FY	22 2H : Closure	
(NIPPON STEEL NISSHIN Sakai) Close a part of Flat Steel Sheet Mill	Feb-20		7	End of F	/20: Closure		
(Oita) Close Titanium Pipe Mill (Osaka) Close Titanium Round Bar Line	Feb-20	End of FY21 1H: Closure End of FY22: Clos				Closure End of FY22: Closure	
(NIPPON STEEL Stainless Steel Kinuura) Close Hot Strip Mill and Precision Product Lines	Feb-20			End of Dec-2 of FY20 1H:			
(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		☆ May proc	-20 : Close luction to	& transfer Wakayama	its Works	
(Kashima) Close UO Pipe Mill	May-19		of Oct-19 : roduction		transferred Works		
NIPPON STEEL			© 20	20 NIPPON S	TEEL CORPO	RATION All Rights Reserved.	

Progress: Strengthen Manufacturing Capabilities

*BF = Blast Furnace Legend : New measure ద Plan 🖈 Done 🗘 Cancelled **Publication** Action ~FY19 **FY20 FY21 FY22** FY23~ ★ Mid Feb-19: Switch from 5BF to New 2BF (Wakayama) BF Switch Mar-18 (NIPPON STEEL Structural Shapes) ★ End of FY19: Close steelmaking facility and transfer its production to Wakayama Works Close Steelmaking Mill Mar-18 Cancellation Cancelled the shutdown of the steelmaking facility Feb-20 (HOKKAI IRON & COKE CORP. in Muroran) ★ FY20. 2H: Completion Nov-18 Reline 2BF Coke Oven Refurbishment Jul-17 (Kimitsu) 5 Coke Oven ★ Feb-19 : Completion Apr-16 ★ Sep-19 : Completion (Hokkai) 5 Coke Oven Jun-17 (Completed refurbishment for all coke ovens in Hokkai) (Nagoya) 3 Coke Oven Nov-18 FY21.1H: Completion Super High-tensile Steel Sheets (Kimitsu) 6 CGL ★ FY20. 3Q: Completion Apr-18 TY22 1H: EAF Completion (Hirohata) Scrap Melting Process Nov-19 FY23 1H: Melting furnace closure **Electrical Steel Sheets Investments** for capacity & quality improvement Step 1: Yawata ★ Aug-19: CAPEX decision in Yawata Aug-19 Step 2: Hirohata Nov-19 Nov-19: CAPEX decision in Hirohata Further CAPEX planning is ongoing.

Its detail will be posted once its decided.

Legend: New measure ☆ Plan ★ Done ☆ Cancelled

Action	Publi- cation	~FY18	FY19	FY20	FY21~	
NIPPON STEEL NISSHIN						
Becoming our subsidiary, our wholly owned subsidiary		★ Dec	c. 26 th , 18 : Nis n. 1 st , 19 : Niss	shin became our	m Tokyo Stock Exchange 100% subsidiary	
Merger	Oct-19			-19 : Announcem		
Integrations of group companies				Apr 20 . Wierg	CI	
Stainless sheets business	May-18	★May-18: Ba	★Apr-19 : "NI	PPON STEEL STA	INLESS STEEL" started	
Stainless Pipe&Tube business	Aug-18		: Basic agreem ★Apr-19 : "NI		INLESS STEEL PIPE" started	
Realignments of trading firms Nihon Teppan	Sep-18	★Dec-18: Nihon Teppan became Nippon Steel Trading's subsidiary, and its commercial rights for stainless steel transferred to Nippon Stainless Trading				
Merger: NS Stainless and Nippon Stainless Trading	Jan-19	Oct-20 : Merger				
Realignments of steel making facility engineering & maintenance companies (Business integration of Nippon Steel Texeng & Nippon Steel Nisshin Koki)	Jun-19		★ Jun-19	: Basic agreeme		
Realignments of logistic companies (Business integration of Nippon Steel Logistics & Nippon Steel Nisshin Logistics)	Nov-19			v-19 : Basic agre ☆Apr-20 : Integ		
Realignments of construction steel sheets business						
Tokai Color	Sep-18	★Jai	n-19: Tokai Co	lor became NISC	's [*] subsidiary	
Merger of Nippon Steel Coated Sheet and Nippon Steel Nisshin A&C	Dec-19			✓ Jul-20: M *NISC: Nippor	erger Steel Coated Sheet Corporation	

5	6

			Legend : Ne	ew into 💢 Plan 🦙	★Done ★ Cancelled
Action	Publi- cation	~FY18	FY19	FY20	FY21~
Essar Steel	Mar-18		CoC declared AM as Mar-19 : AM's reso ★Nov	•	ditionally approved by NCLT. i <mark>on plan was</mark> Indian Supreme Court.
Special Steel Business Ovako Sanyo Special Steel	Mar-18 Aug-18	★ Ja	Feb-19 : Sanyo's Ext Mar-19 : Sanyo be	m JFTC regarding us	
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: Integrat	tion and Reorganization

Action	~FY18	FY19	FY20~
Delivering Materials and Solutions for Autos to Address Changes in Society and Industry	★ Apr-18: Newly-create ★ Oct-18: Es ★ Jan-	19 : Exhibited in AUTOMOTIV	Research Lab." mical & Material" Concept" "Our Mission, Designing the Future of Automobiles "
Utilizing Advanced IT in Steelmaking Process	 ★ Apr-16: NSSOL newly-created ★ Apr-17: Newly-created ★ Oct-17: NSSOL newly-created ★ Apr-18: Newly-created ★ Sep-18: Continuous 	Advanced Application Technorated "IoX Solution Business pure "Information Security Manage created "AI Research & Develored Intelligent Algorithm Research Propert Propert of Smart devices to material Apr-19: Introduction of Nature 19: Introduction 19	romotion Dep." ement Dept." opment Center" rch Center oject nufacturing front-lines)
Contributing to Achieving Sustainable Society (ESG & SDGs)	★ Nov-18:	 ★ Apr-19: The 5th 24 hour in (Oita, Kimitsu, Yawata, N) ★ Apr-19 Trial implementate ★ Apr-19 Set the direction of Apr-19: Express our May-19: Selected for Index", Least Sep-19: Bever (Japa ★ Dec-19: Dec-19: Dec-19: Dec-19: Apr-19: Dec-19: Dec-19:	calculation methodology for steel products n-house nursery in Hirohata Works agoya, <u>Hirohata</u>) ion of teleworking

The 1st Sustainability Briefing



Nippon Steel held its first sustainability briefing in Tokyo on Dec. 17, 2019, for investors and financial institutes. In the session, environmental criteria was taken up as the main theme. After explanation of Nippon Steel's activities for tackling climate changes, contribution to realizing recycling-oriented society, environmental risk management, initiatives for biodiversity conservation, etc., Nippon Steel held Q&A session with approx. 100 participants.

- Sustainability briefing materials
 (Nippon Steel Website URL)
 https://www.nipponsteel.com/en/ir/library/pdf/20191220_200.pdf
- Sustainability briefing Q&A summary
 (Nippon Steel Website URL)
 https://www.nipponsteel.com/en/ir/library/pdf/20191220 300.pdf



Nippon Steel released its first "integrated report" and "sustainability report" in Oct. 2019. Nippon Steel will continue to proactively promote sustainability initiatives and disclose information to various stakeholders.

- Integrated report (Nippon Steel website URL) https://www.nipponsteel.com/en/ir/library/pdf/nsc_en_ir_2019_a3.pdf
- Sustainability report (Nippon Steel website URL) https://www.nipponsteel.com/common/secure/en/csr/report/nsc/pdf/report2019.pdf

9 H-beams Products were Awarded EcoLeaf Environmental Label

Japanese environmental award managed and operated by Sustainable Management Promotion Organization (SuMPO). This eco-label is awarded to products that disclose quantifiable information about their environmental characteristics with life cycle assessment (LCA) method.





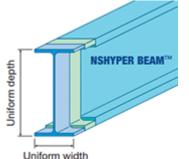






9 H-beams Products H-beams, NSHYPER BEAM™, extra thick H-beams (incl. NSGH™), NS-TWH™, H-beams pile, I-beams and channel steel, CT-beams, NSHYPER BEAM™ CT-beams, and fire-resilient NSFR™







Nippon Steel Corporation Group will pursue world-leading technologies and manufacturing capabilities, and continue to proactively disclose the environmental performance of steel products, which are extremely recyclable and environmentally friendly and sustainable metal, while contributing to achieve the UN's SDGs.

Appendix 3. Related Indicators

Operational Highlights

Forecasts are rough figures .

	FY18				FY19				Change				
(MMT)		2Q	1H	3Q	4Q(f) *2	2H(f) *2	prev.(f) *1	(f) *2	FY19 2Q → FY19 3Q	FY19 3Q → FY19 4Q(f) *2	FY19 1H → FY19 2H(f) *2	FY18 → FY19(f) *2	prev. FY19(f) → *1 FY19(f) _* 2
Non-Consolidated Pig-iron Production	40.86	10.18	20.52	9.65	10.10	19.80	41.30	40.30	-0.53	+0.45	-0.72	-0.56	-1.00
Consolidated Crude Steel Production	47.84	11.81	24.26	11.24	11.80	23.00	48.70	47.30	-0.57	+0.56	-1.26	-0.54	-1.40
Non-Consolidated Crude Steel Production	41.00	9.95	20.22	9.42	10.00	19.50	40.70	39.70	-0.53	+0.58	-0.72	-1.30	-1.00
Non-Consolidated Steel Shipments	37.97	9.32	18.43	8.91	9.10	18.00	37.40	36.40	-0.41	+0.19	-0.43	-1.57	-1.00
Seamless Pipe Shipments	1.03	0.26	0.49	0.24	0.23	0.48	0.99	0.97	-0.02	-0.01	-0.01	-0.06	-0.02
Average Steel Selling Price (k JPY/ton)	89.9	87.8	87.9	87.4	84	86	87	87	-0.4	-3.4	-2	-3	+0
Steel Export Ratio (Value basis (%))	39.7	40.8	40.4	39.5	38	39	40	40	-1.3	-1.5	-1	+0	+0
Forex (USD•JPY)	111	108	109	109	110	110	110	110	Depreciate +1	Depreciate +1	Depreciate +1	Appreciate -1	Depreciate +1

^{*1} Forecasts as of Nov. 1st, 2019

^{*2} Forecasts as of Feb. 7th, 2020



Key Indicators of Demand

	FY18		FY19								Change					
[Domestic]		2Q	1H	3Q	4Q(f)	2H(f)	prev. (f) *1	(f) *2	FY19 2Q → FY19 3Q	FY19 3Q → FY19 4Q(f) *2	FY19 1H → FY19 2H(f) *2	FY18 → FY19(f) *2	^{prev.} *1 FY19(f) → *2 FY19(f)			
Housing Starts (mil. houses)	0.95	0.23	0.47	0.22	0.20	0.43	0.90	0.89	-0.01	+0	-0.04	-0.06	-0.01			
Non-residential Construction Starts (mil. m²)	51.02	12.58	25.83	11.86	11.36	23.21	51.84	49.04	-0.72	+0.50	-2.61	-1.97	-2.80			
Public Works Orders (bn. JPY)	10,246	3,106	5,304	2,644	2,833	5,477	10,700	10,780	-462	-190	+173	+534	+80			
Finished Auto Production (mil. units)	9.74	2.40	4.82	2.31	2.42	4.73	9.60	9.55	-0.09	-0.12	-0.09	-0.19	-0.05			
Export of Finished Auto (mil. units)	4.86	1.20	2.40	1.22	1.13	2.35	4.75	4.75	+0.02	+0.09	-0.05	-0.11	-			
Overseas Auto Production (8 Japanese car makers) (mil. units)	19.25	4.49	9.10	4.54					+0.05							
Large & Middle Sized Shovel Production (thousand units)	86	22	45	12	14	26	81	71	-10	-2	-19	-14	-9			
Metal Machine Tool Production (thousand tons)	438	93	187	81	101	181	381	368	-12	-20	-6	-70	-13			
Keel-laid New Ships (mil. gross tons)	11.46	3.17	6.39	2.45	2.45	4.90	11.20	11.29	-0.72	-	-1.49	-0.17	+0.09			

	Rig Count	CY11	CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY19	Lat	est	Pea	ak	Bot	ttom
U	SA	1,875	1,919	1,761	1,862	977	510	875	1,032	944	781	(Jan.20)	2,031	(Sep.08)	404	(May.16)
	Deep well (≧15,000ft)	395	324	326	354	205	126	222	230	227	192	(Jan.20)	413	(Nov.11)	98	(May.16)
W	orld Total Excl. N. America, Russia & China	1,167	1,234	1,296	1,337	1,167	955	948	988	1,098	1,104	(Dec.19)	1,382	(Jul.14)	920	(Oct.16)

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



^{*1} Forecasts as of late Sep. 2019

^{*2} Forecasts as of late Dec. 2019

Domestic Steel Consumption by Industrial Sector

	FY18				FY19		_				Change		
(MMT)		2Q	1H	3Q	4Q(f) *2	2H(f) *2	prev.(f) *1	(f) *2	FY19 2Q → FY19 3Q	FY19 3Q → *2 FY19 4Q(f)	FY19 1H _{*1} → *2 FY19 2H(f)	FY18 → FY19(f)*2	prev. FY19(f) → FY19(f)*2
Crude Steel Production	102.89	24.55	50.66	23.65	24.31	47.96		98.63	-0.90	-0.66	-2.70	-4.26	
Domestic Steel Consumption (A + B)	62.32	15.23	30.30	14.89	14.61	29.50	60.70	59.80	-0.33	+0.28	-0.79	-2.52	-0.90
% for manufacturing sector	64.7	63.9	64.6	63.2	64.5	63.8	64.00	64.2	-0.8	-1.3	-0.8	-0.5	+0.2
Ordinary Steel Consumption (A)	49.28	12.09	23.98	11.78	11.50	23.28	48.04	47.26	-0.31	+0.28	-0.70	-2.02	-0.78
Construction	21.19	5.29	10.34	5.28	5.00	10.28	21.04	20.62	-0.00	+0.28	-0.06	-0.58	-0.43
Manufacturing	28.09	6.81	13.64	6.50	6.50	13.00	27.00	26.64	-0.31	-0.00	-0.65	-1.44	-0.35
Shipbuilding	4.00	0.92	1.91	0.87	0.86	1.73	3.77	3.64	-0.05	+0.01	-0.18	-0.36	-0.13
Automotive	11.42	2.76	5.55	2.72	2.77	5.49	11.11	11.04	-0.05	-0.05	-0.06	-0.38	-0.07
Industrial Machine	5.17	1.30	2.58	1.07	1.13	2.20	4.89	4.78	-0.22	-0.06	-0.38	-0.38	-0.10
Electronic Machine	3.07	0.75	1.46	0.76	0.67	1.42	2.89	2.89	+0.01	+0.09	-0.04	-0.18	-0.00
Special Steel Consumption (B)	13.04	3.13	6.32	3.11	3.11	6.23	12.66	12.54	-0.02	-0.00	-0.09	-0.50	-0.12

Source: Nippon Steel's estimation

*1 Forecasts as of late Sep. 2019

*2 Forecasts as of late Dec. 2019

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

[]: IMF's Outlook as of Oct. 2019

(GDP growth rate)

		CY08	CY09	CY10	CY11	CY12	CY13	CY14	CY15	CY16	CY17	CY18	CY1 (f)	.9	CY2 (f)	-	CY2 (f)	
W	orld Total	3.0	-0.1	5.4	4.3	3.5	3.5	3.6	3.5	3.4	3.8	3.6	[3.0]	2.9	[3.4]	3.3	[3.6]	3.4
	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]	1.7	[1.7]	1.6	[1.6]	1.6
	USA	-0.1	-2.5	2.6	1.6	2.2	1.8	2.5	2.9	1.6	2.4	2.9	[2.4]	2.3	[2.1]	2.0	[1.7]	1.7
	EU27	0.4	-4.5	2.1	1.6	-0.9	-0.3	1.4	2.1	1.9	2.5	1.9	[1.2]	1.2	[1.4]	1.3	[1.4]	1.4
	Japan	-1.1	-5.4	4.2	-0.1	1.5	2.0	0.4	1.2	0.6	1.9	0.3	[0.9]	1.0	[0.5]	0.7	[0.5]	0.5
	Developing Countries	5.7	2.8	7.4	6.4	5.4	5.1	4.7	4.3	4.6	4.8	4.5	[3.9]	3.7	[4.6]	4.4	[4.8]	4.6
	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]	6.1	[5.8]	6.0	[5.9]	5.8
	India	3.9	8.5	10.3	6.6	5.5	6.4	7.4	8.0	8.2	7.2	6.8	[6.1]	4.8	[7.0]	5.8	[7.4]	6.5
	Russia	5.2	-7.8	4.5	5.1	3.7	1.8	0.7	-2.3	0.3	1.6	2.3	[1.1]	1.1	[1.9]	1.9	[2.0]	2.0
	Brazil	5.1	-0.1	7.5	4.0	1.9	3.0	0.5	-3.6	-3.3	1.1	1.3	[0.9]	1.2	[2.0]	2.2	[2.4]	2.3

Source : IMF



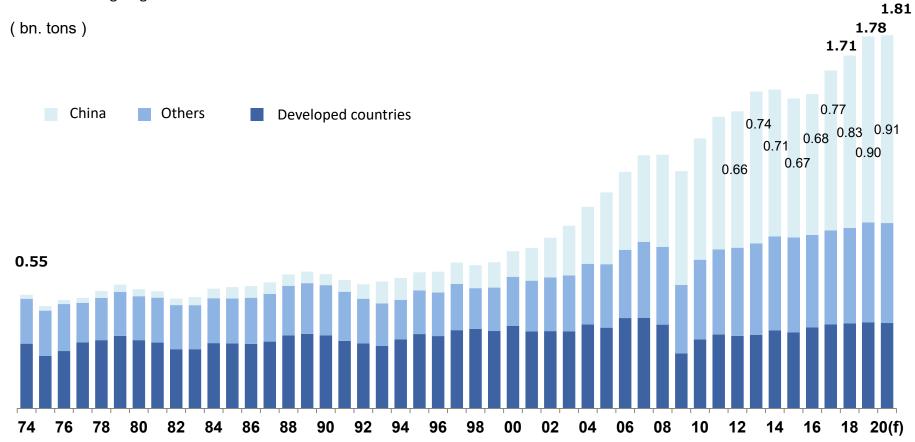
World Steel Demand

< Released in Oct. 2019 by World Steel Association >

[]: Previous forecasts as of Apr. 2019

< CY16 > < CY17 > < CY18 > < CY19(f) >< CY20(f) >World 1.60 1.50 1.58 1.71 1.78 1.81 **Total** [1.71] [1.74] [1.75]

*FY16~: including illegal induction furnaces



Source: World Steel Association, Apparent finished steel consumption



World Crude Steel Production

	CY18		CY19											
(MMT)	[A]	Jan Sep.	Oct.	Nov.	Dec.	Oct Dec.	[B]	Change [A] →[B]						
World *	1,788.9	1,393.3	151.8	147.9	152.1	451.8	1,845.1	+56.2						
Total [YoY]	[4.5%]	[4.2%]	[-3.1%]	[-1.2%]	[3.7%]	[-0.2%]	[3.1%]							
Japan	104.3	75.6	8.1	7.7	7.8	23.7	99.3	-5.0						
[YoY]	[-0.3%]	[-3.8%]	[-5.0%]	[-10.9%]	[-8.0%]	[-8.0%]	[-4.8%]							
Korea	72.5	53.7	6.0	5.9	5.9	17.8	71.4	-1.0						
[YoY]	[2.0%]	[-1.0%]	[-3.8%]	[-0.1%]	[-4.7%]	[-2.9%]	[-1.4%]							
USA	86.6	66.1	7.2	7.1	7.5	21.8	87.9	+1.3						
EU28	167.7	122.1	13.6	12.4	11.4	37.4	159.4	-8.3						
Russia	72.1	53.8	5.8	5.6	6.0	17.4	71.6	-0.5						
Brazil	35.4	24.6	2.6	2.6	2.4	7.6	32.2	-3.2						
India	109.3	84.1	9.0	8.9	9.3	27.2	111.2	+2.0						
China	922.8	746.8	81.5	80.3	84.3	246.1	992.9	+70.1						
[YoY]	[6.0%]	[8.4%]	[-1.2%]	[3.4%]	[10.7%]	[4.1%]	[7.6%]							

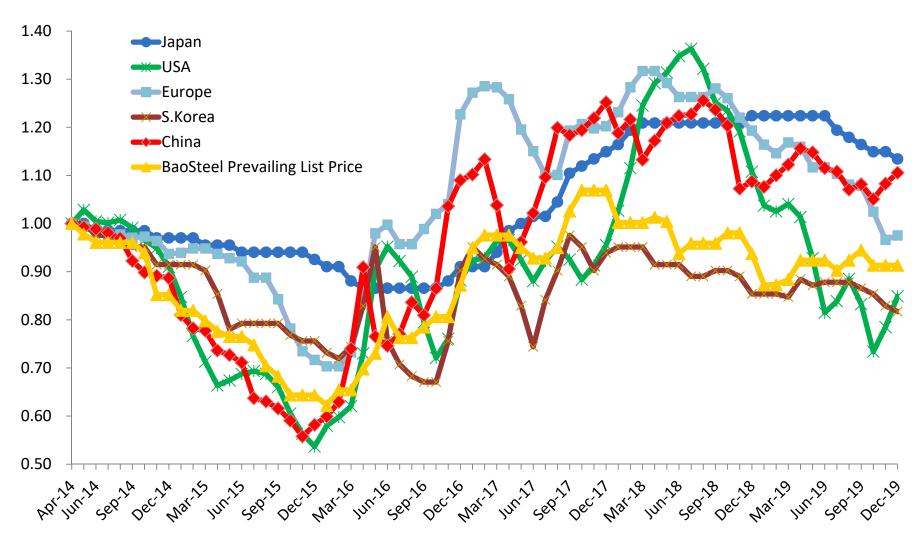
Source: World Steel Association

*Total of 64 countries



Hot Rolled Sheets Prices by Region

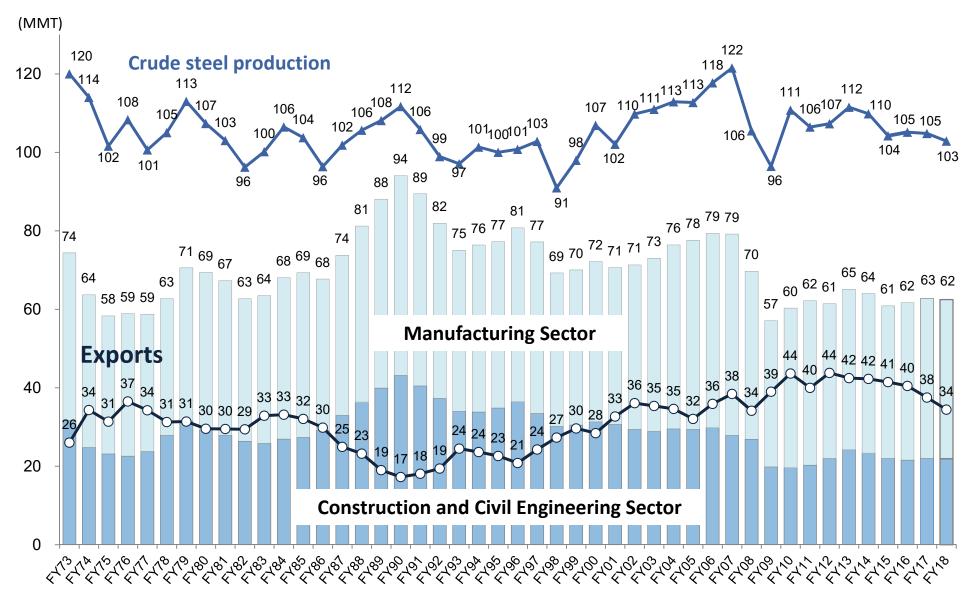
(Prices of Hot Rolled Sheets in Local Currency as of Apr. 2014=1.0)



Source : The Japan Iron and Steel Federation



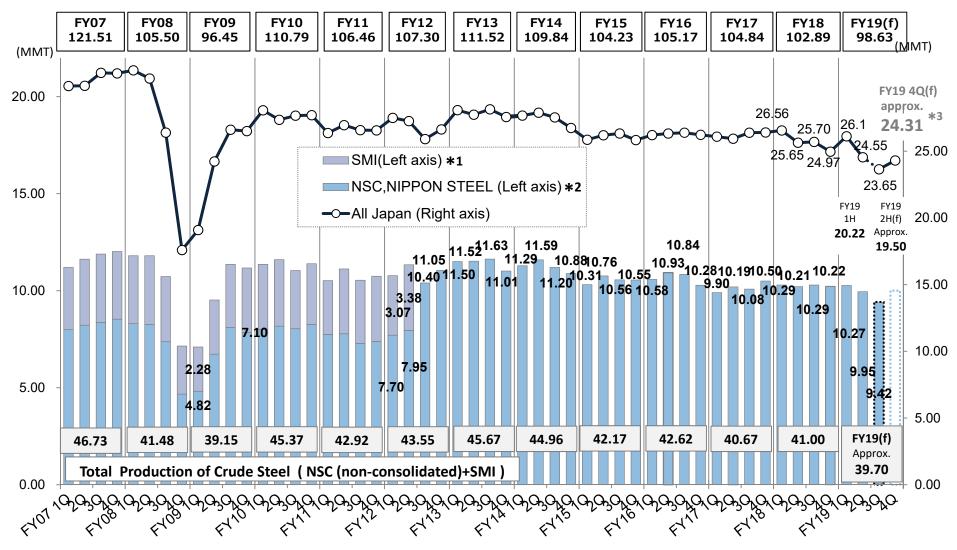
Domestic Steel Consumption Trend



Source: Nippon Steel

Domestic Crude Steel Production

All Japan (MMT)



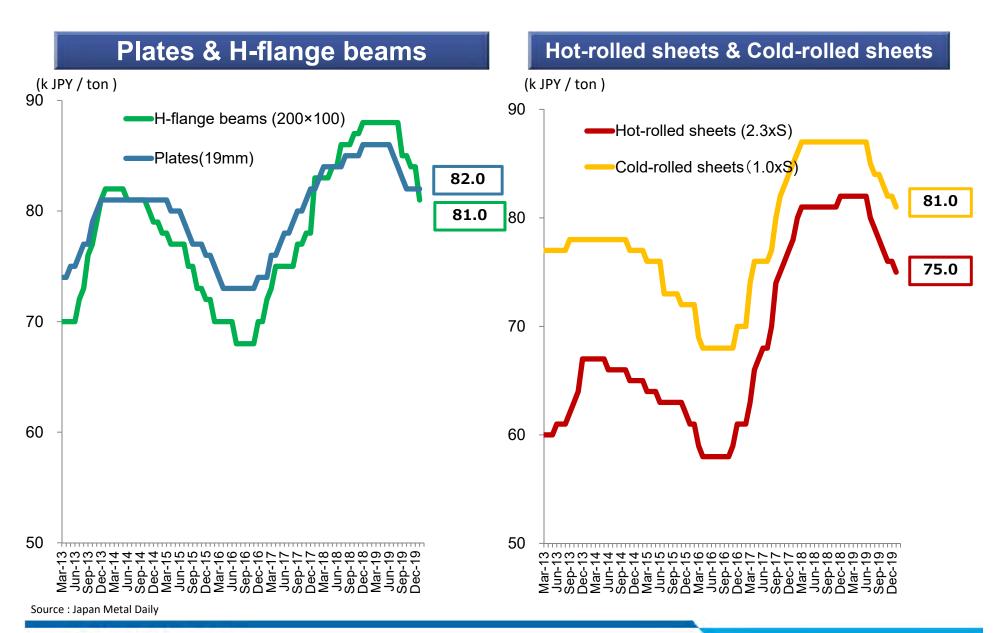
*1 Includes Sumitomo Metals(Kokura), Sumitomo Metals(Naoetsu) and Sumikin Iron & Steel Co. *3 Domestic Crude Steel Production of

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

FY19 4Q(f) released by METI



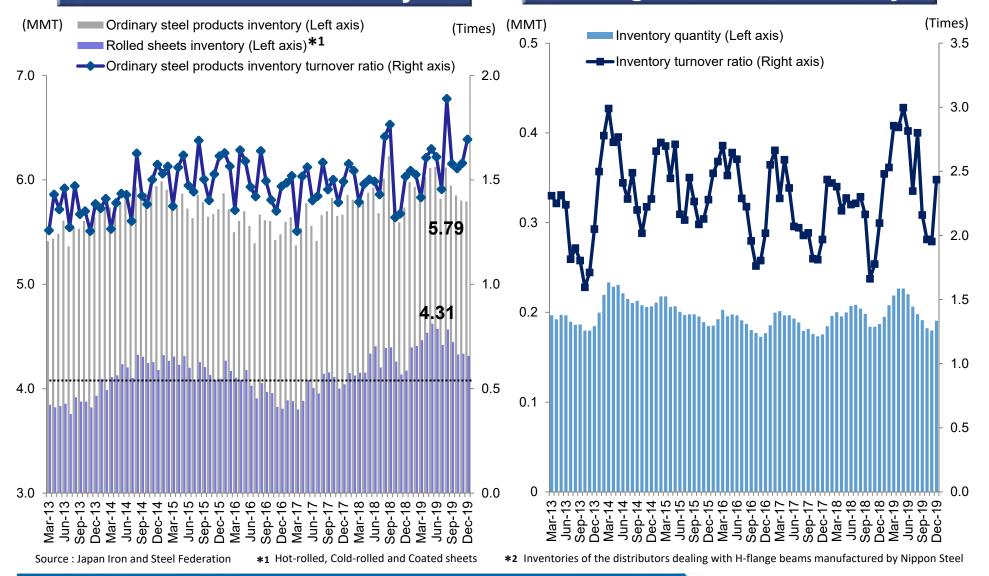
Domestic Steel Products Prices



Domestic Steel Inventory

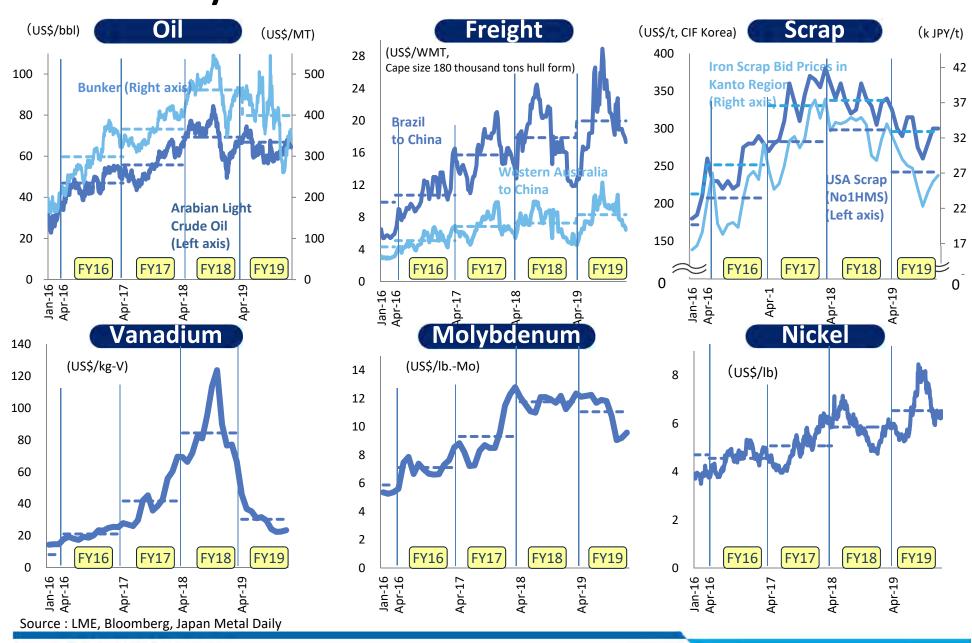
Rolled Sheets Inventory *1

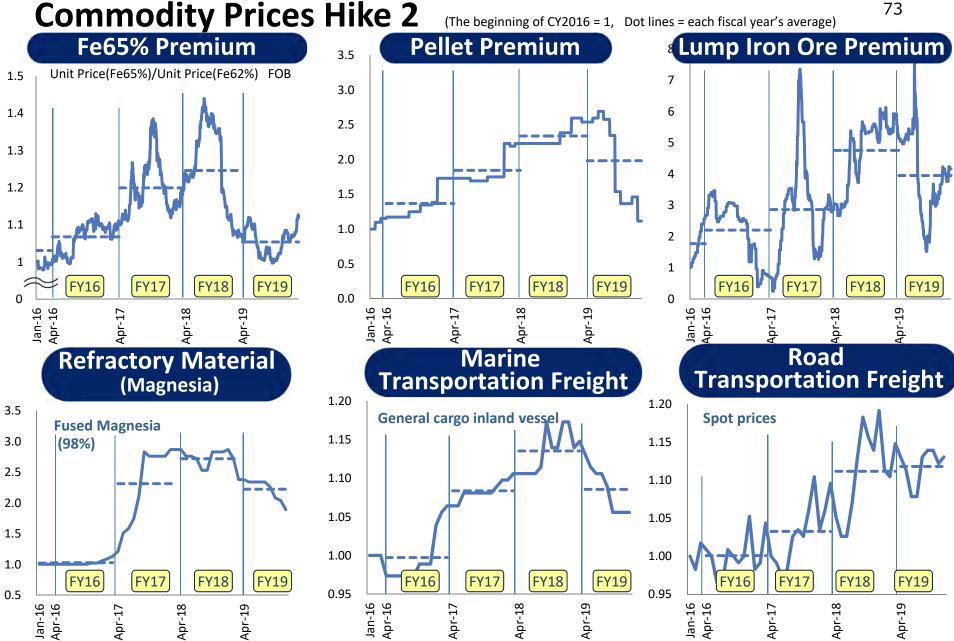
H-flange beams*2 Inventory



Commodity Prices Hike 1

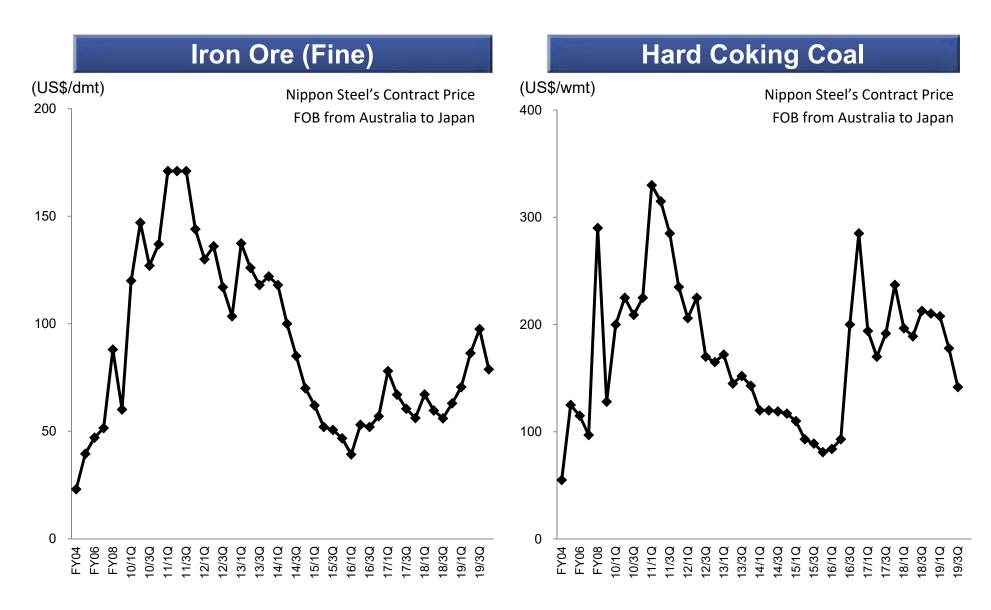
(Dot lines = each fiscal year's average)



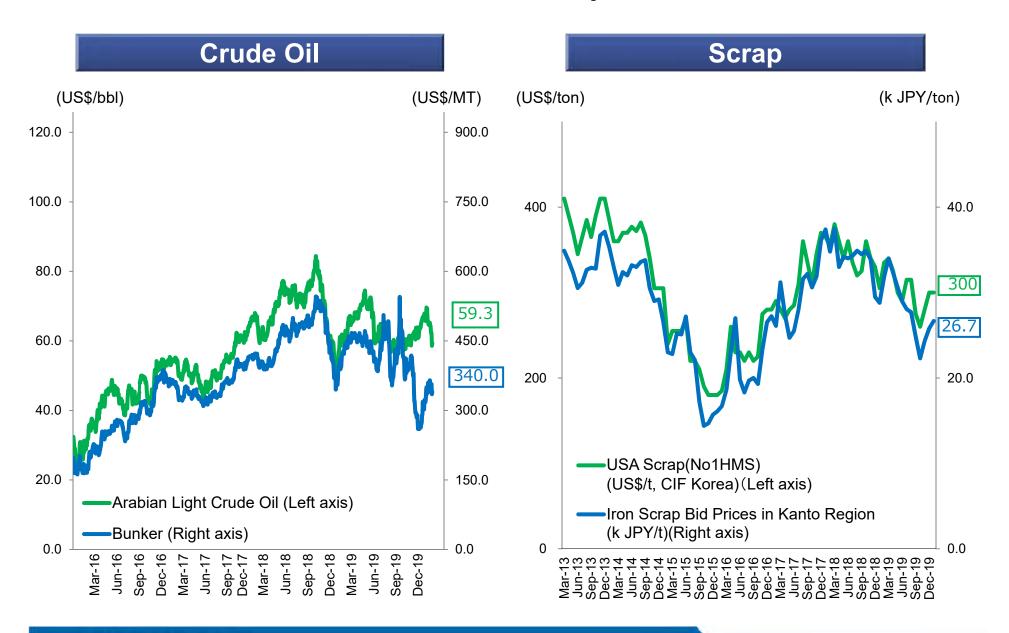


Source: Bank of Japan, Nippon Steel estimation

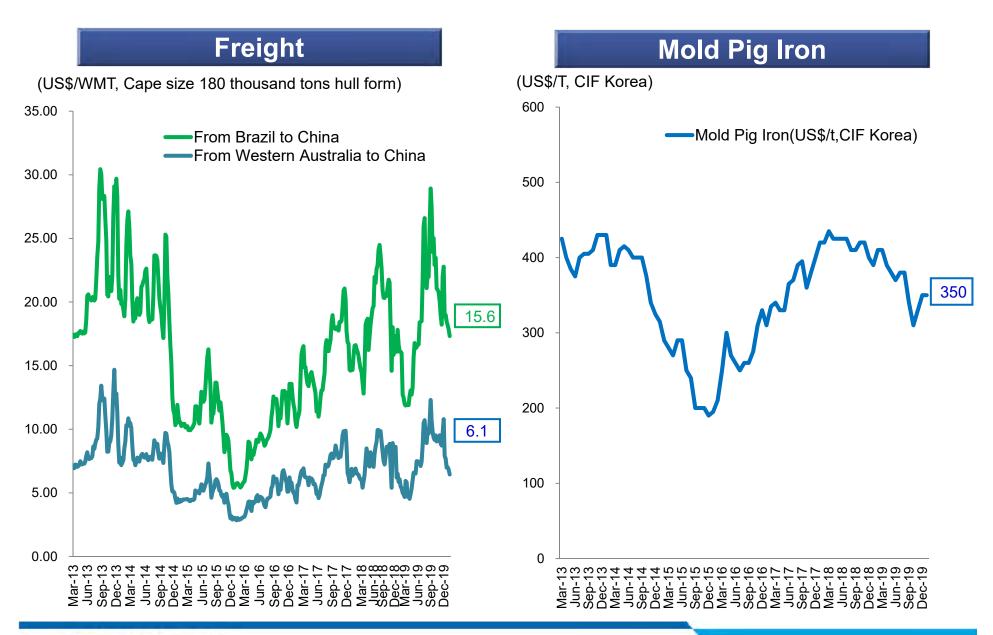
Iron Ore & Coking Coal Prices



Market Trends < Crude Oil & Scrap >

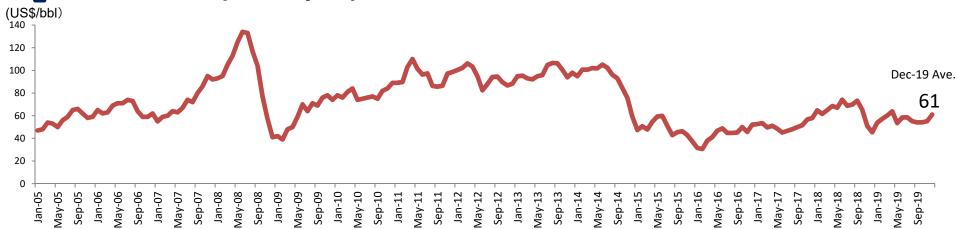


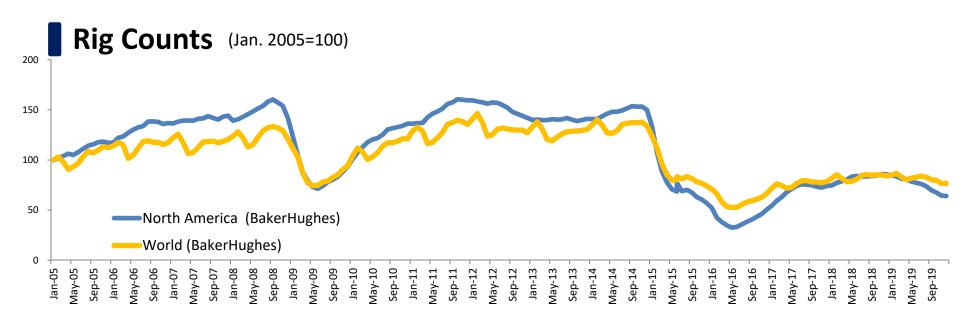
Market Trends < Freight & Mold Pig Iron >



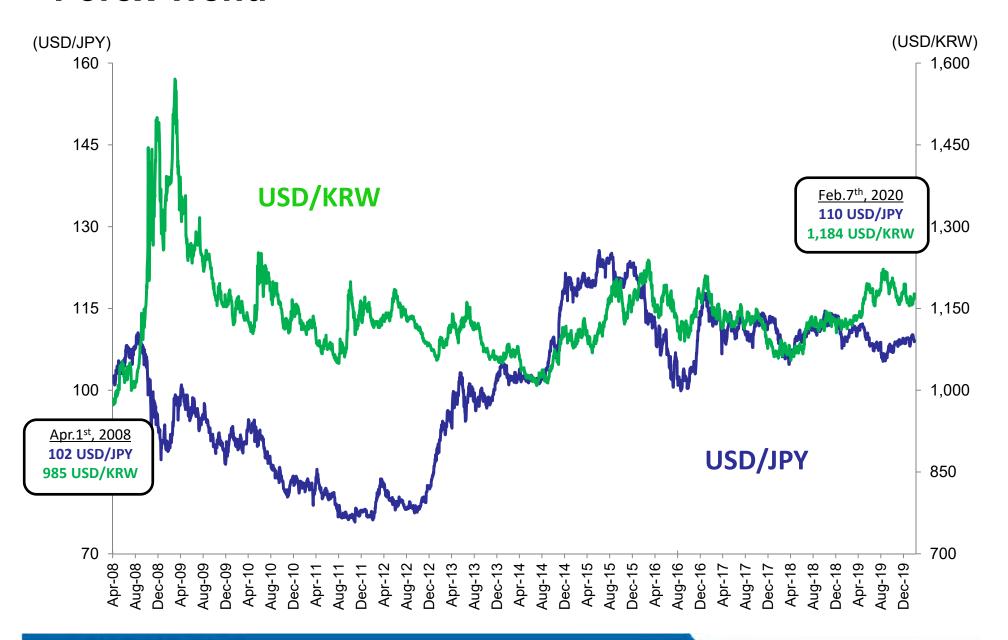
Energy Sector : Oil Price / Rig Count

US Oil Price (WTI Spot)





Forex Trend



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