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**NSSMY: ADR (US)** 



## **NIPPON STEEL & SUMITOMO METAL** CORPORATION

# Second Quarter FY2017 **Earnings Summary**

#### **Katsuhiro Miyamoto**

Managing Executive Officer

October 27<sup>th</sup>, 2017

Notes on this presentation material

- 'NIPPON STEEL & SUMITOMO METAL CORPORATION' is abbreviated as 'NSSMC'
- All volume figures are presented in metric tons
  Unless otherwise noted, all financial figures are on a consolidated basis

## Agenda

1. FY2017 1H Results & Full Year Forecast

2. Progress in Mid-Term Management Plan

3. Appendix



1. FY2017 1H Results & Full Year Forecast



#### Overview: FY2017 1H Results & Full Year Forecast

#### **Business Environment**

- **Domestic:** Economy is expected to maintain a moderate recovery, supported by stable private consumption and capital investment, despite some restraint in business activities caused by labor shortages. Demand for steel will stay firm, led principally by demand in the automotive sector.
- Overseas: Overall moderate conditions will continue, supported by favorable business conditions in USA and Europe, sustained firm conditions in China, and ongoing gradual economic recovery in developing countries.

#### **Topics**

- Commodity Price: Prices of commodities such as alloy and scrap have surged this year to date.
- Sales price: Keep negotiating to improve the metal margin for sustainable reproduction.
- **Technological superiority:** Japanese Ministry of Trade, Economy and Industry honors NSSMC with award for Yawata works' newly-developed Eco-friendly stainless steel manufacturing process.
  - This process enabled 100% recycle of stainless steel scraps generated in Yawata works.
- Application of IT: NS Solutions launched the Artificial Intelligence R&D center in its Systems R&D center .
- Asset compression: Sellout of SUMCO shares. Ownership ratio 13.42→7.92%. Sales 27.8 bn¥. (Oct,17)

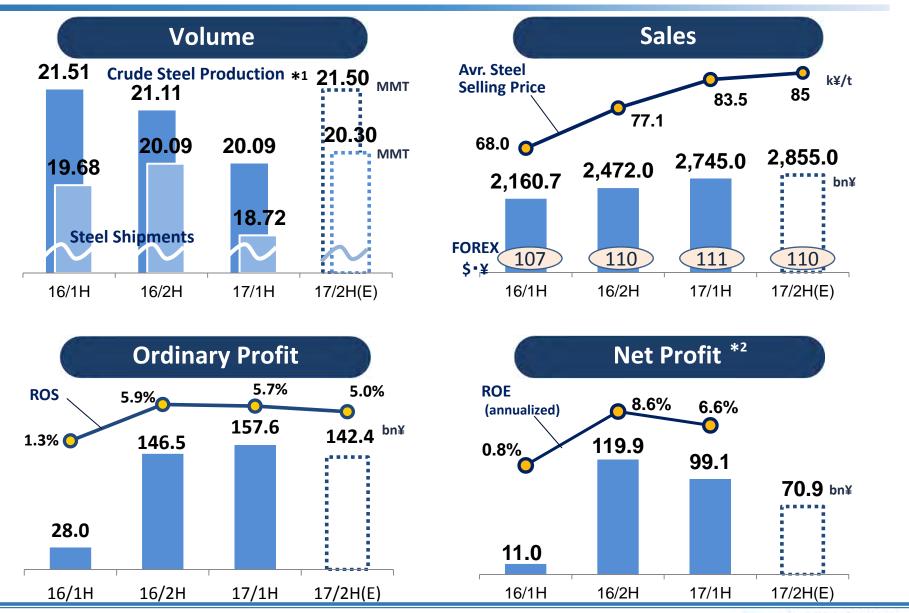
#### **Financial Highlights**

	FY2017 1H	FY2017 (E)
Ordinary Profit (bn ¥)	157.6 (ROS 5.7%)	300.0 (ROS 5.4%)
Net Profit (bn ¥) *1	99.1 (¥112.3/share)	170.0 (¥193.0/share)

■ Interim dividend: ¥30.00/share (+¥5.0 from the prev. forecast as of Jul.28) Consolidated payout ratio: 26.7%



## **Key Indicators: FY2017 1H Results & Full Year Forecast**

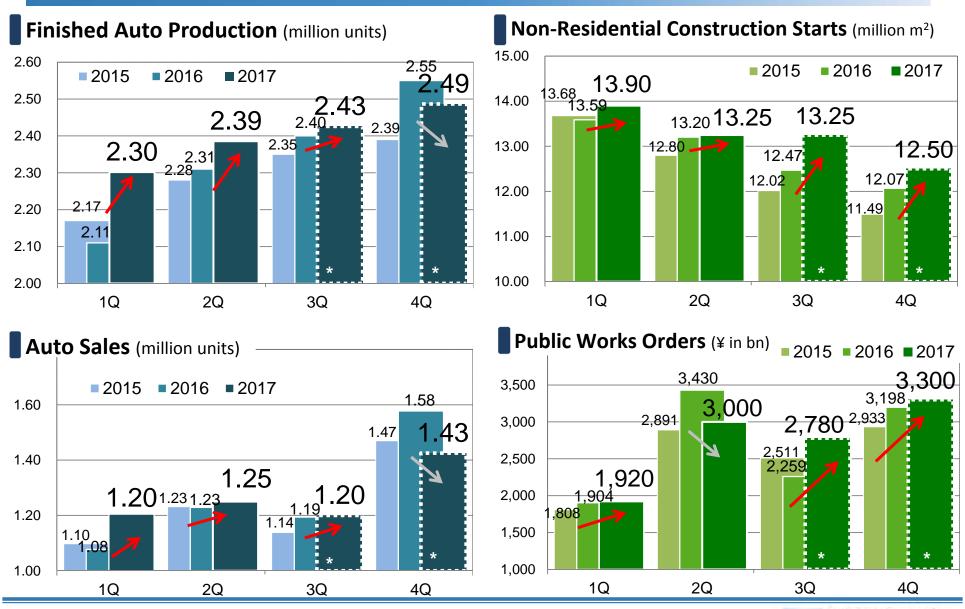


<sup>\*1</sup> Non-consolidated + Nippon Steel & Sumikin Koutetsu Wakayama Co.



**<sup>\*2</sup>** Profit attribute to owners of parent

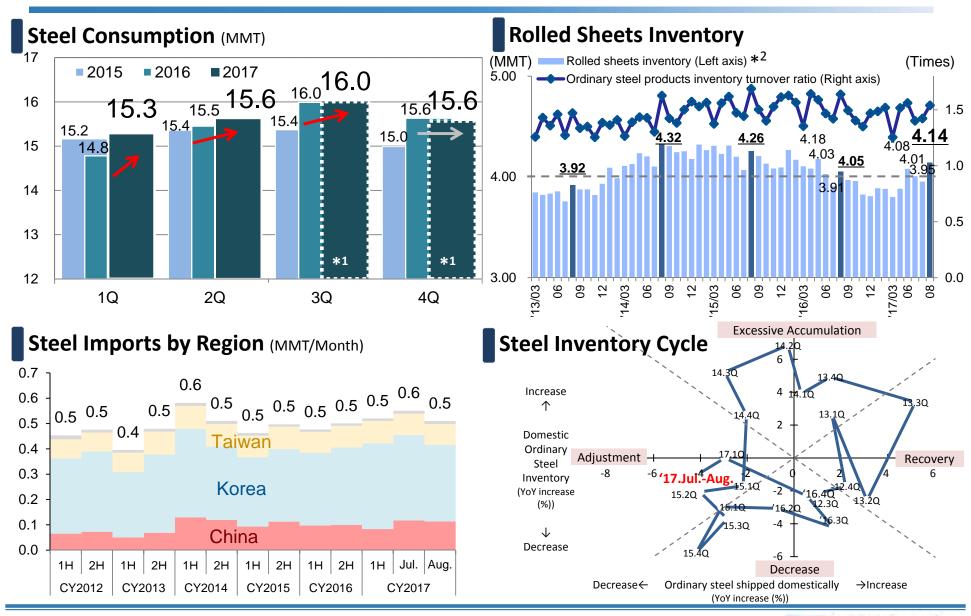
## **Key Indicators of Domestic Steel Demand**



<sup>\*</sup> Figures as of the end of August



#### **Domestic Steel Supply-Demand**



**\*1** Figures as of the end of August

\*2 Hot-rolled, Cold-rolled and Coated sheets



## **Key Indicators of Steel Demand Overseas**



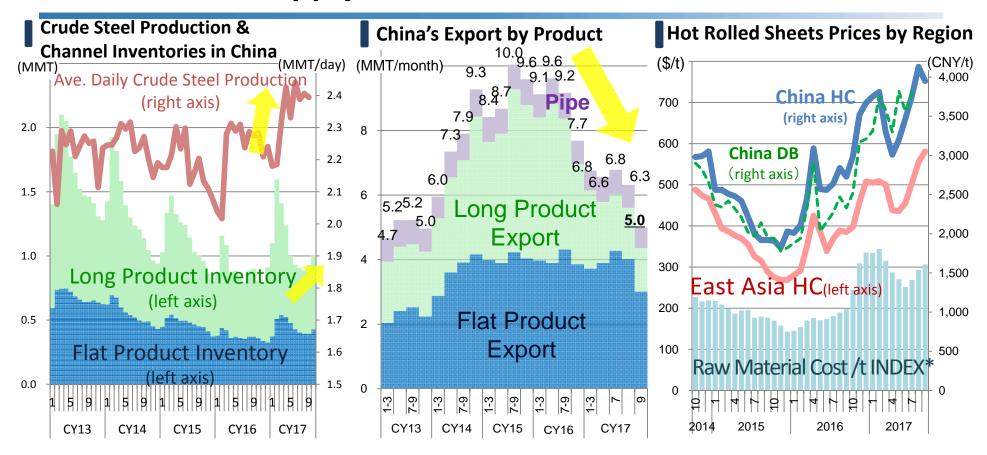
(Source: National Bureau of Statistics of China)

(Source: Baker Hughes)



<sup>\*</sup> Calculated by using cumulative figures from Jan. in each year

## **China's Steel Supply-Demand & Market Trend**

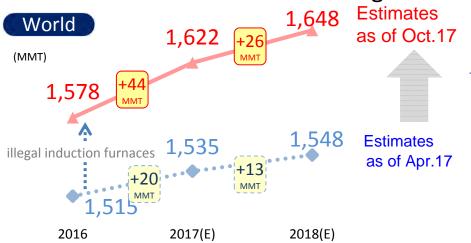


- ➤ <u>Crude Steel Production</u>: Sharp increase since Spring 2017. ← Stable domestic demand and substitutional production for eliminated illegal induction furnaces which were out of statistics.
- > Inventory: Restocking in preparation for strong demand in fall and production cut in winter.
- **Export**: Downtrend since 2016. Jan. Sep., 2017 vs. the same period of 2016: -31%.
- Market Prices: Mar. Aug, 2017: Upward trend. Early Sep.: Soft patch after one-off surge by Benxi BF trouble.
  After National Day holiday(1-8<sup>th</sup> Oct.): Rebound & uptrend.



#### **World Steel Demand Forecasts**

WSA World Steel Demand Short Range Outlook



#### "Upward revision: Ongoing moderate growth"

#### **◆CY2017** +44MMT (vs.CY2016)

Expanding demand in the global steel market.

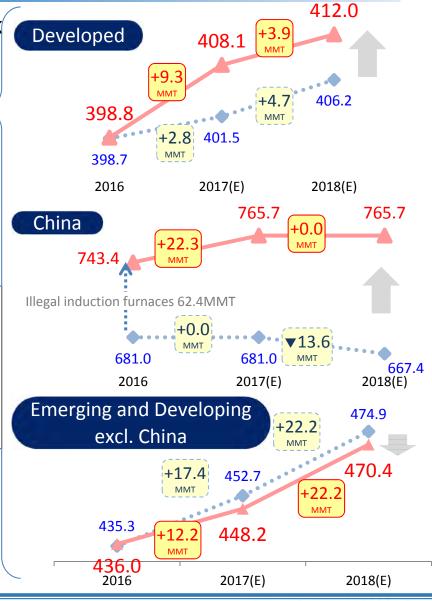
Higher performance than expected for both developed and developing economies except MENA.

#### **◆CY2018 +26MMT**(vs.CY2017)

Increase in global steel demand for 3 consecutive years despite leveling off in Chine.

#### Cf. IMF World Economic Outlook Projections (%)

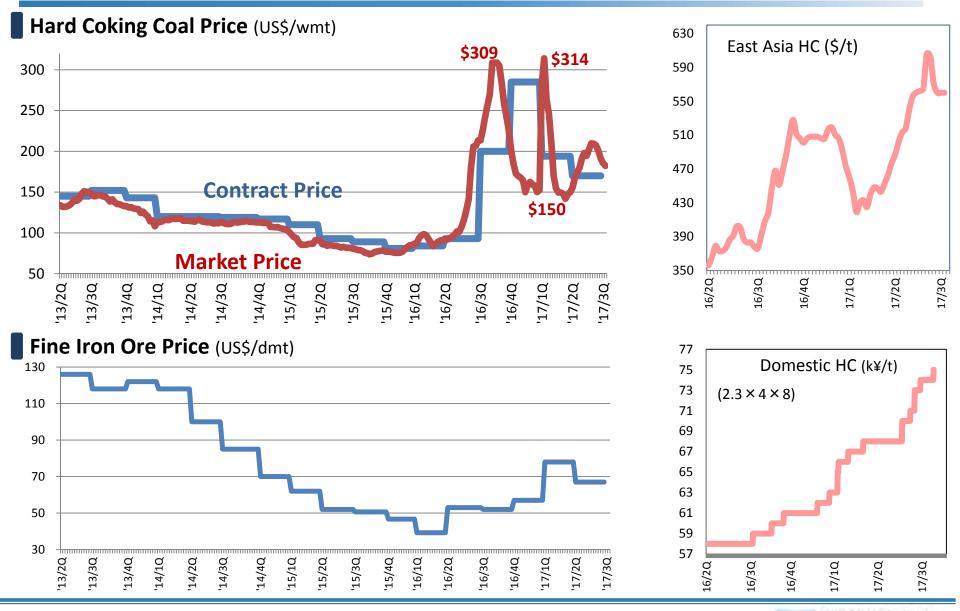
		2017		2018					
	World	Developed	Em.and Dev.	China	World	Developed	Em.and Dev.	China	
Oct.17	3.6	2.2	4.6	6.8	3.7	2.0	4.9	6.5	
Jul.17	3.5	2.0	4.6	6.7	3.6	1.9	4.8	6.4	
Apr.17	3.5	2.0	4.5	6.6	3.5	2.0	4.8	6.2	



<sup>\*</sup>Illegal induction furnaces (out of statistics) CY2014:52.4MMT, CY2015:57.6MMT, CY2016:62.4MMT



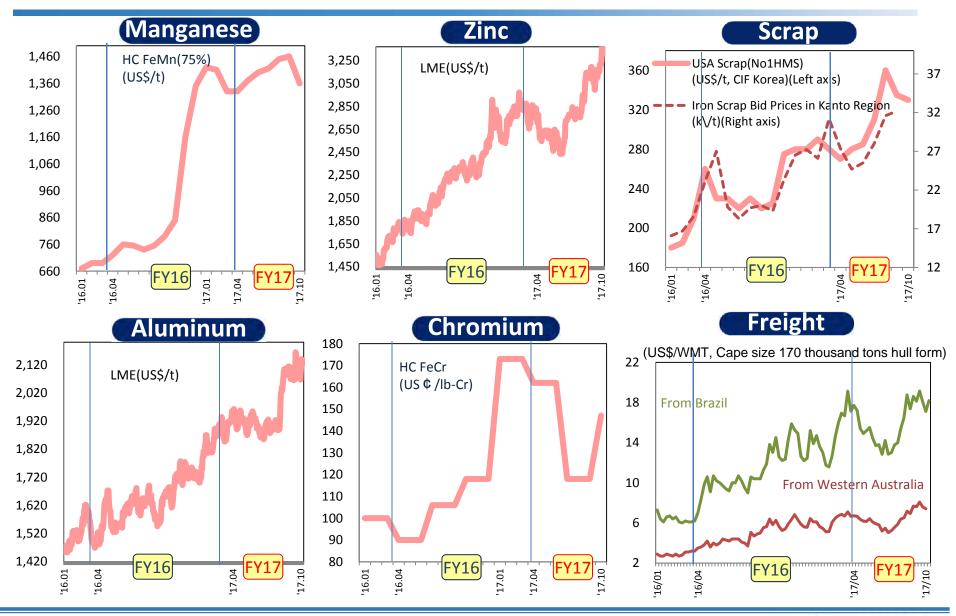
#### **Raw Materials and HC Price Trend**



(Source: LME, Bloomberg, Japan Metal Daily)



## **Commodity Price Hike**



(Source: LME, Bloomberg, Japan Metal Daily)



## **NSSMC Operational Highlights**

		FY16						FY	17			Change			
(million tons)	1Q	2Q	1H	2H		1Q	2Q	*3 1H[E]	1H	2H[E]	[E]	16/1H vs. 17/1H	17/1H[E] vs. 17/1H	17/1H vs. 17/2H[E]	FY16 VS. FY17[E]
*1 Pig-iron production	10.49	10.76	21.26	20.89	42.15	9.92	10.13	20.20	20.05	<b>21.40</b> approx.	<b>41.50</b> approx.	-1.21	-0.15	<b>+1.35</b> approx.	<b>-0.65</b> approx.
Consolidated Crude Steel Production	11.16	11.53	22.70	22.47	45.17	11.44	11.69	23.50	23.12	<b>24.80</b> approx.	<b>47.90</b> approx.	+0.43	-0.38	<b>+1.68</b> approx.	<b>+2.73</b> approx.
Non-Consolidated *2 Crude Steel Production	10.58	10.93	21.51	21.11	42.62	9.90	10.19	20.40	20.09	<b>21.50</b> approx.	<b>41.60</b> approx.	-1.42	-0.31	<b>+1.41</b> approx.	<b>-1.02</b> approx.
Steel Shipments	9.60	10.09	19.68	20.09	39.78	9.34	9.39	19.40	18.72	<b>20.30</b> approx.	<b>39.00</b> approx.	-0.96	-0.68	<b>+1.58</b> approx.	<b>-0.78</b> approx.
Seamless Pipe Shipments	0.24	0.23	0.47	0.46	0.93	0.24	0.25	0.46	0.47	<b>0.50</b> approx.	<b>0.97</b> approx.	+0.00	+0.01	+0.03 approx.	+0.04 approx.
Average Steel Selling Price (1,000 yen/ ton)	68.1	67.9	68.0	77.1	72.6	84.0	83.0	83	83.5	<b>85</b> approx.	<b>84</b> approx.	+15.5	+0.5	<b>+1</b> approx.	<b>+11</b> approx.
Steel Export Ratio (Value basis (%))	43	43	43	42	42	42	42	41	42	41 approx.	41 approx.	-1	+1	<b>-1</b> approx.	<b>-1</b> approx.
Forex (\$•¥)	111	103	107	110	109	111	111	110	111	110 approx.	<b>110</b> approx.	Depreciate 4	Depreciate	Appreciate 1 approx.	Depreciate 1 approx.

<sup>\*1</sup> Includes pig-iron production of Hokkai Iron & Coke corp. and Nippon Steel & Sumikin Koutetsu Wakayama Co.



<sup>\*2</sup> Includes crude steel production of Nippon Steel & Sumikin Koutetsu Wakayama Co.

#### FY2017 1H Results & Full Year Forecast

			FY16			FY17						Change			
(¥ in billions)	1Q	2Q	1H	2H		1Q	2Q	*2 1H[E]	1H	2H[E]	[E]	16/1H vs. 17/1H	17/1H[E] vs. 17/1H	17/1H vs. 17/2H[E]	FY16 VS. FY17[E]
Net Sales	1,051.1	1,109.6	2,160.7	2,472.0	4,632.8	1,355.4	1,389.6	2,700.0	2,745.0	2,855.0	5,600.0	+584.3	+45.0	+110.0	+967.2
Operating Profit	(7.3)	25.2	17.8	96.3	114.2	66.5	33.4		99.9			+82.1			
Ordinary Profit	(12.0)	40.0	28.0	146.5	174.5	107.9	49.6	150.0	157.6	142.4	300.0	+129.6	+7.6	-15.2	+125.5
Extraordinary Profit (Loss)	(6.2)	(2.9)	(9.1)	16.2	7.1	-	(2.9)		(2.9)			+6.2			
Net Profit	(14.6)	25.6	11.0	119.9	130.9	71.3	27.8	85.0	99.1	70.9	170.0	+88.1	+14.1	-28.2	+39.1
[ EPS ]	[(16.4)]	[ 29.1 ]	[ 12.4 ]	[135.9]	[148.0]	[80.8]	[31.5]	[ 96.0 ]	[112.3]	[80.7]	[193.0]	[+99.9]	[+16.3]	[-31.7]	[+45.0]
EBITDA	64.1	99.0	163.0	255.9	418.9	148.0	113.2		261.2			+98.2			
EBITDA / Sales	6.1%	8.9%	7.5%	10.4%	9.0%	10.9%	8.1%		9.5%			+2.0%			
ROS	-1.1%	3.6%	1.3%	5.9%	3.8%	8.0%	3.6%	5.6%	5.7%	5.0%	5.4%	+4.4%	+0.2%	-0.8%	+1.6%
ROE	-2.2%	3.9%	0.8%	8.6%	4.6%	9.6%	3.7%		6.6%			+5.8%			



<sup>\*1</sup> Profit attribute to owners of parent

**<sup>\*2</sup>** Figures as of July 28, 2017

## **Extraordinary Profit & Loss**

			FY16				FY17	
(¥ in billions)	1Q	2Q	1H	2H		1Q	2Q	1H
Extraordinary Profit (Loss)	(6.2)	(2.9)	(9.1)	16.2	7.1	_	(2.9)	(2.9)
Gain on sales of shares of subsidiaries and associates	_	_	_	24.1	24.1	_	_	_
Gain on step acquisitions	_	_	_	10.0	10.0		_	_
Loss on inactive facilities	_	(2.7)	(2.7)	(10.0)	(12.7)	_	(2.9)	(2.9)
Loss on disaster	_	_	_	(7.8)	(7.8)	_	_	_
Restructuring Loss	(6.2)	(0.2)	(6.4)	_	(6.4)	_	_	

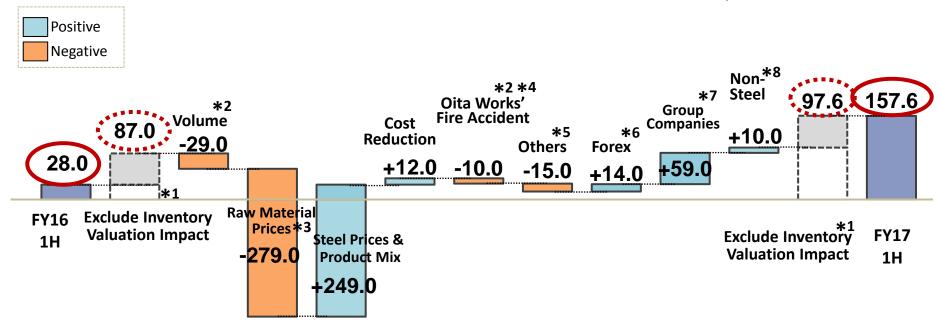
#### (Adjustment Page)



## Ordinary Profit Variance Analysis [FY16/1H vs. FY17/1H]

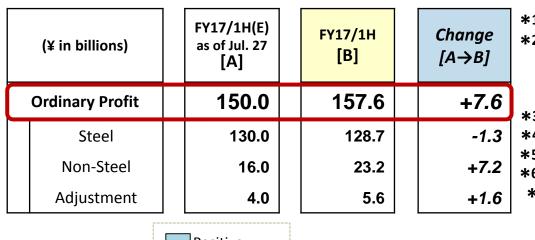
(¥ in billions)	FY16/1H [A]	FY17/1H [B]	Change [A→B]
Ordinary Profit	28.0	157.6	+129.6
Steel	14.0	128.7	+114.7
Non-Steel	13.4	23.2	+9.8
Adjustment	0.4	5.6	+5.2

- **\*1** Inventory valuation: +119.0 (-59.0  $\rightarrow$  60.0)
- **\*2** Crude steel production: -1.42MMT (21.51 $\rightarrow$ 20.09) Steel shipment: -0.96MMT (19.68 $\rightarrow$ 18.72)
  - \* Figures above incl. impacts of Oita Plate Mill fire accident, but not incl. impacts on earnings.
- \*3 Incl. carry over
- \*4 Both volume decrease & cost increase
- **\*5** Increase in depreciation etc.
- **\*6** Stock: +19.0 (-20.0→ -1.0) Flow: -5.0
- \*7 Mining interests, Nisshin Steel, Business overseas etc.
- **\*8** Engineering +0.4, Chemicals +8.5, New Materials +0.4, System Solutions +0.4

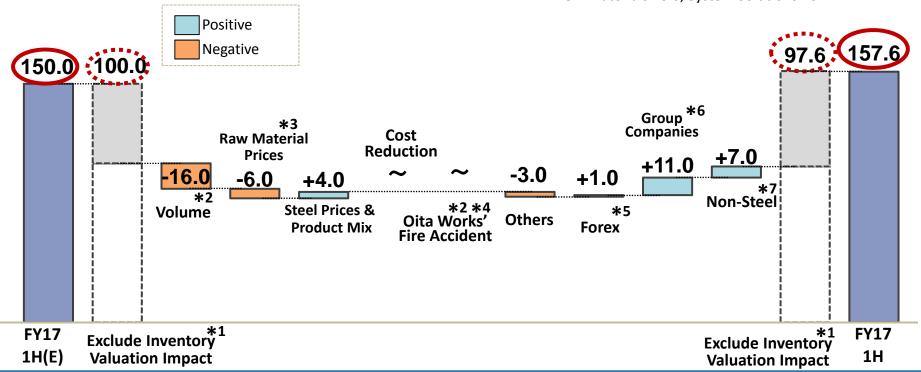




## Ordinary Profit Variance Analysis [FY17/1H(E) vs. FY17/1H]

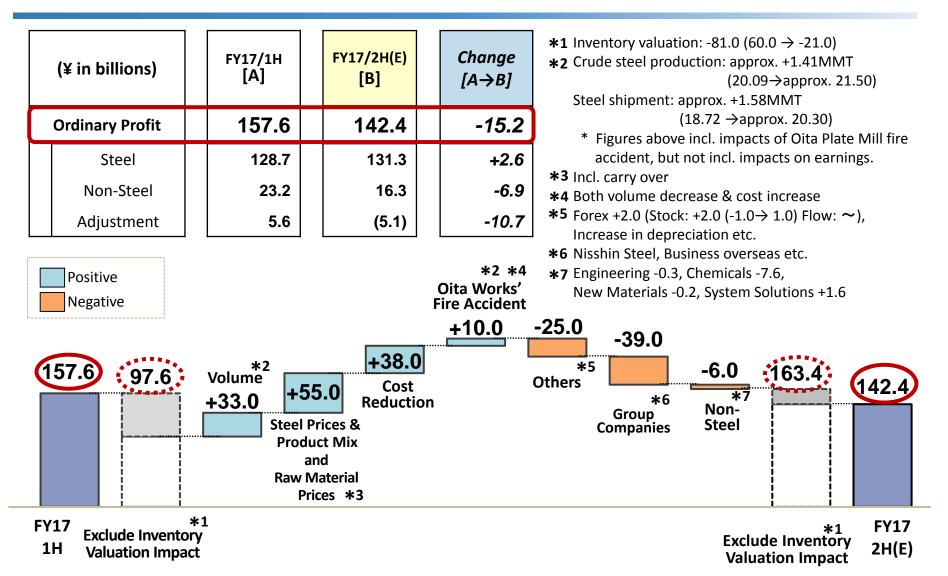


- **\*1** Inventory valuation:  $+10.0 (50.0 \rightarrow 60.0)$
- **\*2** Crude steel production: -0.31MMT (approx. 20.40→20.09) Steel shipment: -0.68MMT (approx. 19.40→18.72)
  - \* Figures above incl. impacts of Oita Plate Mill fire accident, but not incl. impacts on earnings.
- \*3 Incl. carry over
- \*4 Both volume decrease & cost increase
- **\*5** Stock: +1.0 (-2.0 → -1.0) Flow: ~
- \*6 Nisshin Steel etc.
- **\*7**Engineering +1.9, Chemicals +4.3, New Materials +0.6, System Solutions +0.2





## Ordinary Profit Variance Analysis [FY17/1H vs. FY17/2H(E)]



#### Ordinary Profit Variance Analysis [FY16 vs. FY17(E)]

(¥ in billions)	FY16 [A]	FY17(E) [B]	Change [A→B]
Ordinary Profit	174.5	300.0	+125.5
Steel	138.0	260.0	+122.0
Non-Steel	35.2	39.5	+4.3
Adjustment	1.2	0.5	-0.7



\*2 Crude steel production: approx. -1.02MMT

 $(42.62 \rightarrow approx.41.60)$ 

Steel shipment: approx. -0.78MMT

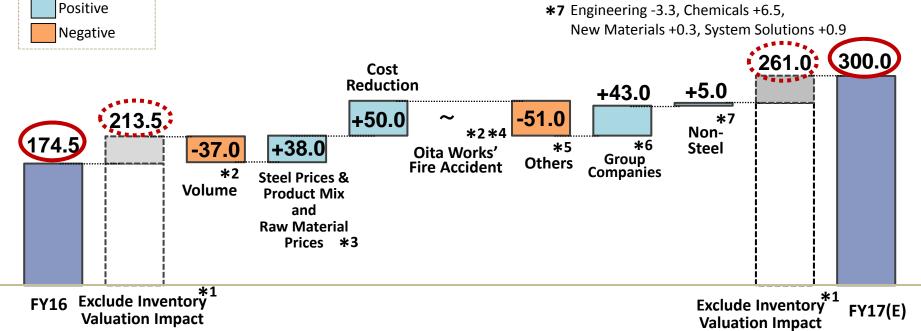
 $(39.78 \rightarrow approx. 39.00)$ 

\* Figures above incl. impacts of Oita Plate Mill fire accident, but not incl. impacts on earnings.

- \*3 Incl. carry over
- \*4 Both volume decrease & cost increase
- **\*5** Forex +3.0 (Stock: +9.0 (-9.0  $\rightarrow$  ~) Flow: -6.0), Increase in depreciation,

Decrease in non-operating assets sales etc.

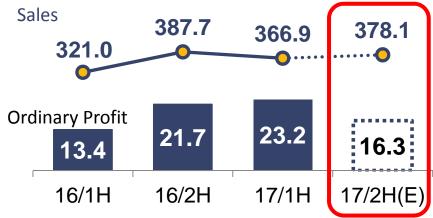
- **\*6** Mining interests, Nisshin Steel, Business overseas etc.
- \*7 Engineering -3.3, Chemicals +6.5,





#### **Non-Steel Business**

#### Sales & Ordinary Profit (¥ in billions) (Non-steel business total)



#### **Change in Ordinary Profit** (FY16 vs. FY17(E))

Engineering & Construction	Decrease	Profit decline due to drop in oil prices & overseas steel makers' investment.
Chemicals	Increase	Profit increase thanks to market recovery in chemicals, strong sales of functional materials and needle coke .
New Materials	Increase	Profit increase thanks to strong demand for electrical industries' materials such as coated copper & carbon fiber

**System Solutions** 

Both sales & profit increase mainly thanks to business solution, Increase despite of SG&A increase.

(¥ in billions)

Enginee	ring &	FY2	016	FY2017				
Construction		1H		1H	(E)	(YoY)		
	Sales	116.5	267.5	134.1	280.0	(+12.5)		
	Ordinary Profit	1.5	6.8	1.9	3.5	(-3.3)		

Ne	w	FY2	016	FY2017				
Materials		1H		1H	(E)	(YoY)		
	Sales	17.1	34.5	17.9	38.0	(+3.5)		
Actatatana Control	Ordinary Profit	0.7	1.7	1.1	2.0	(+0.3)		

Ch ava	ia ala	FY2	016	FY2017				
Cnem	Chemicals			1H	(E)	(YoY)		
ı Mi	Sales	81.2	174.2	98.3	185.0	(+10.8)		
	Ordinary Profit	0.8	4.5	9.3	11.0	(+6.5)		

Syst		FY2	016	FY2017			
Solutions		1H		1H	(E)	(YoY)	
	Sales	106.0	232.5	116.5	242.0	(+9.5)	
	Ordinary Profit	10.3	22.1	10.7	23.0	(+0.9)	

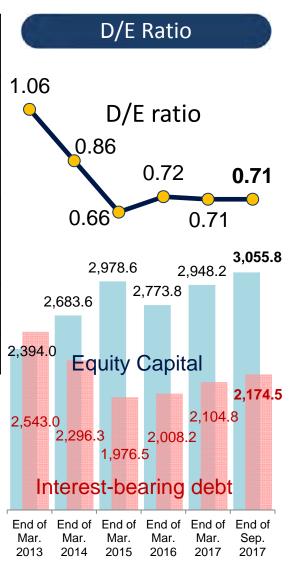


#### **Balance Sheet**

_							
		(¥ in billions)	End of Mar. 2017	End of Sep. 2017			
	C	Current Assets	2,244.4	2,372.7			
		Inventories	1,215.6	1,350.7			
	Fixed Assets		5,017.4	5,104.2			
		Tangible fixed assets	2,840.8	2,860.0			
		Investment in securities	816.3	884.2			
		Investment	1,041.3	1,034.9			
ļ	\s:	sets	7,261.9	7,477.0			

		(¥ in billions)	End of Mar. 2017	End of Sep. 2017
	L	iabilities	3,970.9	4,065.7
		Interest-bearing debt	2,104.8	2,174.5
	N	let Assets	3,291.0	3,411.3
		Equity capital	2,948.2	3,055.8
		Unrealized gains on available-for-sale securities	269.2	312.5
		non-controlling Interest in consolidated subsidiaries	342.7	355.4
_i	ak	oilities & net assets	7,261.9	7,477.0

	End of Mar. 2017	End of Sep. 2017	Change
Total assets (bn¥)	7,261.9	7,477.0	+215.1
Interest bearing debt (bn¥)	2,104.8	2,174.5	+69.7
Equity capital (bn¥)	2,948.2	3,055.8	+107.6
DER	0.71	0.71	_



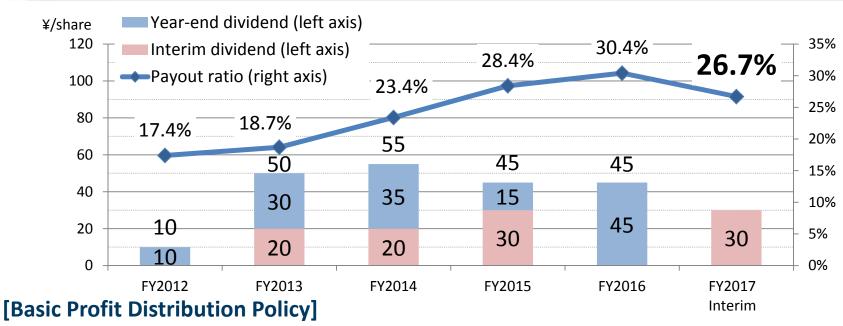


#### **Interim Dividend**

In accordance with the basic profit distribution policy,

NSSMC has decided to increase interim dividend by ¥5.0 from ¥25.0, as previously disclosed, to ¥30.0 (representing a dividend payout ratio of 26.7%).

NSSMC plans to determine the forecast for the year-end dividend distribution amount, with due consideration of the full-year outlook for profit attributable to owners of parent, and announce it at the time of its third-quarter results announcement.



- Allocate profits according to earnings
- ◆ Factors below need to be considered as well

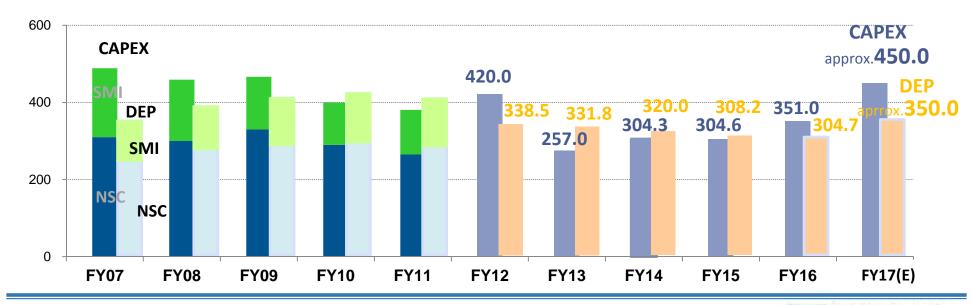
  Reserves for future investment / Earnings forecast / Consolidated and non-consolidated financial structure
- ◆ Targeted dividend payout ratio: around 20% 30% (consolidated basis)



## **CAPEX and Depreciation**

(¥ in billions)

NSSMC (Upper: NSC Lower: SMI)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17(E)
САРЕХ	490.0 (310.0) (178.8)	` ′	465.0 (330.0) (136.6)	`	` '	420.0	257.0	304.3	304.6		450.0 approx. ncld. Nisshin pprox. 41.0
Depreciation	346.5 (244.0) (102.5)	` ′	404.8 (284.0) (120.8)	`	` '	338.5	331.8	320.0	308.2		350.0 approx. ncld. Nisshin pprox. 36.0

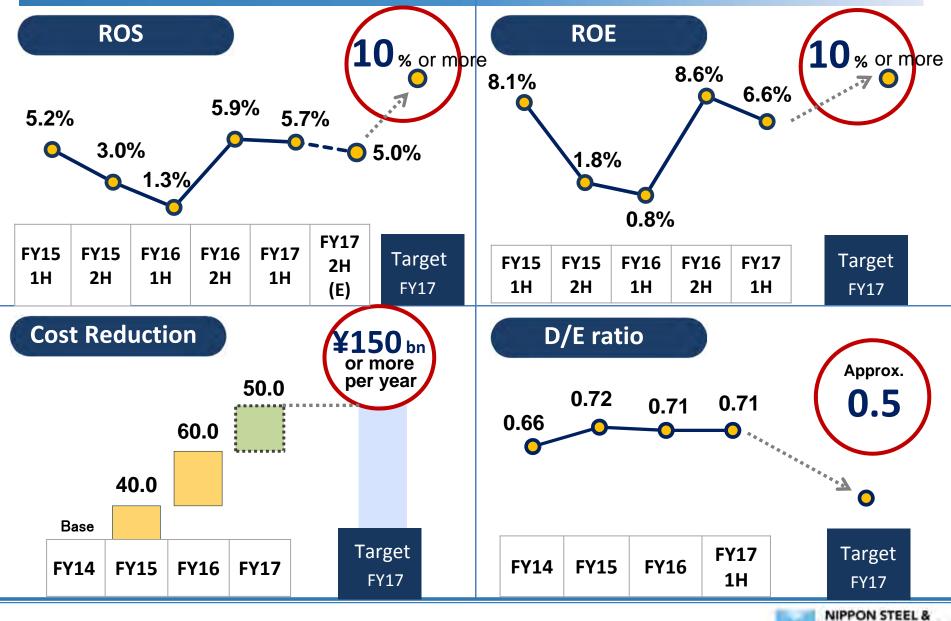




2. Progress in Mid-Term Management Plan



#### 2017 Mid-Term Plan: Targeted KPIs



## **Progress of Mid-Term Plan**

C	Company / Works	Action	FY15 2H	FY16	FY17	FY18 Later
	Kimitsu	Close No.3 BF	☆	Mar.		
	Yawata	Reorganize production frame work				FY18~FY20(E)
Domestic	Kashima/ Kimitsu/ Muroran	Start up Coke Oven	(Kashima/1F Aug.	) (Kimitsu /4A) Aug	lan	(Kashima(Kimitsu (Muroran /2E) No.5) No.5) FY18.Apr. FY18.2H FY19.1H(E
	Nisshin Steel (Kure Works)	Relining No.1 BF/Close No.2 BF				(E) (E) (E)
	ICI (USA: Crankshaft/ No.4 Forging Press Line)	Started operation of No.4 line	<b>☆</b> Oct.			FY23(E)
	NSCh (China: Auto/ Ramp up capacity of NBC)	Started operation	<b>☆</b> Dec.			
	VSB • VBR Integration (Brazil: Pipe / Merger with Vallourec's subsidiary)	Business merger		<b>☆</b> 0c	t.	
	AGIS (UAE: Construction/ JV with Saif Al Ghurair Gr.)	Started operation of No.2 galvanizing Line		<b>☆</b> 00	t.	
Overseas	VAM® BRN (Brunei: Pipe/ JV with SC and Vallourec)	Started operation		☆N	ov.	
Overseas	WTC (USA: ERW / Agreement to sell shares)	Execution of Agreement to sell shares		<b>☆</b> [	ec.	
	KOS (Indonesia: Structural/ JV with Osaka & PTKS)	Started operation		☆	Jan.	
	KNSS (Indonesia: Auto/ JV with PTKS)	Started operation			<b>☆</b> Jul.	
	NSCI (USA: Auto/ JV with secondary processors)	Start operation(E)			<b>☆</b> FY17(E)	
	NS BlueScope (Thailand: Construction/ JV with BlueScope Steel	Installation of No.3 Metal Coating Line				FY18(E)



## METI Honors NSSMC for Eco-friendly Stainless Steel Making Process

Japanese Ministry of Trade, Economy and Industry honors NSSMC with award for Yawata works' newly developed Eco-friendly stainless steel manufacturing process\*

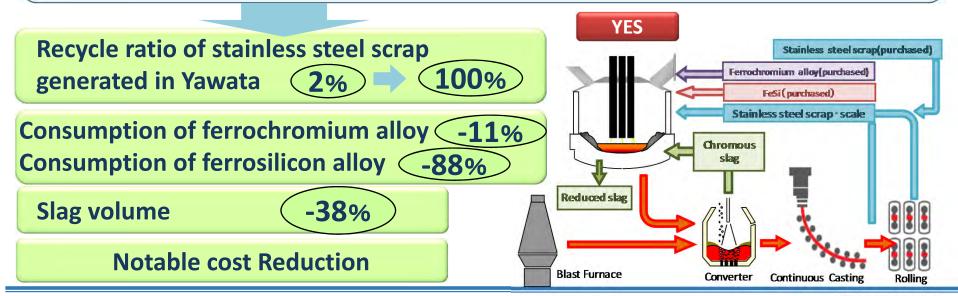
#### **Problems of Conventional Process**

\*called "YES": Yawata Environment-friendly Smelter

- **1.Shortage of heat**  $\rightarrow$  low recycle ratio of stainless steel scrap, chromium (rare metal) loss
- **2.Ferrosilicon alloy use as reducing agent in converter** → high cost, large slag volume & chromium loss

#### **Effect of YES installation**

- Enlarged heat energy
- More effective reduction by YES compared to it by converter, utilizing silicon contained in ferrochromium alloy as reducing agent instead of ferrosilicon alloy.





## NSSMC's Value in manufacturing

# Quality always prevails production (delivery deadline, cost, etc.)

⇒Clear notification on NSSMC's Quality Guidelines

Under the principal of "Quality always prevails production",
NSSMC has persistently carried out measures to cope with "Guideline for Reinforcement of Quality Assurance Structure" established by the Japan Iron and Steel Federation in 2008.



#### NSSMC Group's Quality Management Structure in line with JISF Guideline

#### Thorough awareness of compliance and quality assurance

Thorough awareness of compliance with rules (laws, contracts& standards)

**Education of basics of** quality assurance

[Management Principles] 1. We continue to emphasize the importance of integrity and reliability in our actions.

[Employee Action Guidelines] We observe rules, keep our promises and pierce to the heart of matters by actively investigating the facts.

- Educate relevant employees by e-Learning every year
- Thorough compliance training according to each employee's grade and work contents

#### Mechanism to prevent nonconformity

Reinforcement of quality assurance management

- Separate Quality Control Department from manufacturing department in all works
- Obtain ISO9001 certification in all works of NSSMC & main works of group companies
- Receive certifications from JIS API, etc. and third party's audit periodically
- Educate and issue internal qualification for employees who direct or prosecute inspections

Improvement in reliability of inspection data

- Quality Control Department directs the how of inspection for each lot
- Promote to automate inspection data input
- \* frequency, manner and method etc.
- Check soundness of inspection system periodically
- Preserve record of sampling and inspection effectively and check periodically

#### Mechanism to detect nonconformity

Group-wide reinforcement of quality audit

- Headquarter's Quality Control Department executes all group's quality audit
- Keep updating checklist reflecting other quality incidents in steel sector

Reinforcement of inspection certificate management

Inspection certificate must be issued by Quality Control Department which is independent from manufacturing department



<sup>\*1</sup> JISF = The Japan Iron and Steel Federation

<sup>\*2</sup> JIS=Japanese Industrial Standards

## **NSSMC Group's Contribution to SDGs**



- Job creation in emerging countries
- Reduction of vulnerability to disaster based on use of Nonframe method



- Conducting science classes, sending lecturers, hosting Tatara steelmaking experiments to promoting interest in manufacturing
- Study sessions for teachers, internship for students



- Use of converter slag fertilizer to improve farming productivity and salt damage in farmland
- Provision of titanium and stainless steel, which have excellent seawater corrosion resistance, for seawater desalination plants, securing agriculture water



- Establishment of in-house 24-hour nursery to support working women
- More hiring of women in production and other workplaces



- Promotion of air, water, soil risk management and chemical substance management
- Development and provision of high-tensile steel sheets with excellent collision safety performance
- Development and provision of steel products that contain no substances of concern, etc.



- Recycling and reuse of limited water resources
- Promotion of water quality risk management
- Provision of titanium and stainless steel for seawater desalination plants
- Provision of lining steel pipes for delivery of clean water



## **NSSMC Group's Contribution to SDGs**



- Efficient use of energy, such as 100% use of by-product gas
- Diffusion of CDQ that generates power from waste heat and waste power generation in emerging countries
- Development and provision of steel materials for high-pressure hydrogen to support a hydrogenoriented society, etc.



- Taikan Program (an experiencebased safety education program)
- Promotion of health management programs for employees
- Enhanced measures to support the work-life balance, etc.



- Pursuit of Eco Processes<sup>TM</sup>
- Introduction of advanced technologies through bilateral cooperation (India, ASEAN, etc.)
- Use of steel slag in road materials and materials for civil engineering



- Thorough compliance training, such as for the Anti-Monopoly Act
- Promotion of employment of people with handicaps
- Expanded hiring of women and non-Japanese



- Provision of various indispensable
   Eco Products<sup>TM</sup>
- Provision of earthquake-resistance steel products
- Conservation and management of the Yawata Works, an industrial world heritage site, etc.



- Promotion of air, water, soil risk management and chemical substance management
- Full recycling of by-products
- Promotion of recycling of waste plastics and waste tires
- Curbing the used amount of rare metals while ensuring high performance, etc



## **NSSMC Group's Contribution to SDGs**



- Pursuit of Eco Processes<sup>TM</sup>
- Development and provision of Eco Products<sup>TM</sup>
- Promotion of Eco Solutions<sup>TM</sup>
- Promotion of innovative technology development, such as reduction of iron ore by hydrogen, separation, collection, and use of CO<sub>2</sub>, etc.



- Promotion of water and soil risk management and chemical substance management
- Regeneration of seaweed beds with the use of steel slag
- Collaboration with an NPO, Mori wa Umi no Koibito



- Promotion of air, water, soil risk management and chemical substance management
- "Creation of Hometown Forests" to promote greenery within steelworks



- Raising awareness of and compliance with anti-bribery guidelines
- Elimination of antisocial forces
- Thorough confirmation of no use of conflict materials
- Thorough management of security export control
- Compliance with the OECD
   Guidelines for Multinational
   Enterprises across a wide range of topics



- Eco solutions to transfer and spread environmental, energy-saving technologies to emerging markets
- Japan-India and Japan-ASEAN regular exchanges among public and private steel-related parties
- Active participation in various activities of the World Steel Association (LCA, CO<sub>2</sub> data collection, environmental committee, etc.)



# 3. Appendix



## **Key Indicators of Demand**

	FY16					FY17							Change				
[ Domestic ]	1Q	2Q	1H	2H		*2 1Q	2Q*2	*1 1H[E]	*2 1H	*2 2H[E]	*2 [E]	16/1H vs. 17/1H	17/1H[E] vs. 17/1H	17/1H vs. 17/2H[E]	FY16 VS. FY17[E]		
Housing Starts (million houses)	0.25	0.25	0.50	0.47	0.97	0.25	0.25	(0.48)	0.50	0.44	0.93	-0.00	+0.01	-0.06	-0.04		
Non-residential Construction Starts (million m³)	13.59	13.20	26.79	24.54	51.33	13.90	13.25	(26.48)	27.15	25.75	52.90	+0.36	+0.67	-1.40	+1.57		
Public Works Orders (¥ in billion)	1,904	3,430	5,333	5,456	10,790	1,920	3,000	(5,260)	4,920	6,080	11,000	-414	-340	+1,160	+210		
Finished Auto Production (million units)	2.11	2.31	4.41	4.95	9.36	2.30	2.39	(4.68)	4.69	4.91	9.60	+0.28	+0.01	+0.22	+0.24		
Export of Finished Auto	1.08	1.18	2.26	2.38	4.64	1.12	1.25	(2.37)	2.37	2.49	4.86	+0.11	-0.00	+0.12	+0.22		
Overseas Auto Production (8 Japanese car makers) (million units)	4.62	4.57	9.19	9.71	18.90	4.74											
Large & Middle sized Shovel Production (thousand units)	10	16	32	35	66	20	17	(34)	37	34	71	+5	+3	-3	+5		
Metal Machine Tool Production (thousand tons)	88	90	178	188	366	102	96	(185)	198	204	401	+19	+12	+6	+35		
Keel-laid New Ships (mil. gross tons)	3.07	3.27	6.34	6.27	12.61	2.90	2.90	(5.80)	5.80	5.75	11.55	-0.54	+0.00	-0.05	-1.06		

Rig Count		CY09	CY10	CY11	CY12	CY13	CY14	CY15	CY16	CY17	′17 Latest		Peak		Bottom	
USA		1,089	1,546	1,875	1,919	1,761	1,862	977	510	859	<b>940</b> (Sep.'17	2,031	(Sep.'08)	404	(May.'16)	
	Deep well (≧15,000ft)	249	249	395	324	326	354	205	126	221	<b>221</b> (Aug.'17	413	(Nov.'11)	98	(May.'16)	
٧	/orld Total (Exc. N. America, Russia & China)	997	1,094	1,167	1,234	1,296	1,337	1,167	955	948	<b>931</b> (Sep.'17	1,382	(Jul.'14)	920	(Oct.'16)	

(Source: Baker Hughes, Smith international, NSSMC est.)



**<sup>\*1</sup>** Figures published on July 28, 2017

<sup>\*2</sup> Estimates as of early Sep., 2017

## **Domestic Steel Consumption by Industrial Sector**

				FY16					FY <sup>′</sup>	17	Change					
	(million tons)	1Q	2Q	1H	2H		1Q <sup>*2</sup>	2Q <sup>*2</sup>	*1 1H[E]	*2 1H	*2 2H[E]	*2 [E]	16/1H vs. 17/1H	17/1H[E] vs. 17/1H	17/1H vs. 17/2H[E]	FY16 VS. FY17[E]
_	ude Steel Production Japan	26.21	26.33	52.54	52.62	105.17	26.09	25.94	52.37	52.03			-0.51	-0.34		
Domestic Steel Consumption (A + B)		14.78	15.45	30.23	31.62	61.85	15.29	15.63	30.76	30.92	31.57	62.50	+0.69	+0.16	+0.65	+0.65
% j	for manufacturing sector	63.2	63.1	63.1	62.8	63.0	63.2	62.6	62.6	62.9	62.1	62.5	-0.2	+0.3	-0.7	-0.5
0	Ordinary Steel Consumption (A)	11.68	12.23	23.91	25.14	49.05	12.10	12.38	24.37	24.49	25.12	49.61	+0.58	+0.12	+0.63	+0.56
	Construction	5.17	5.41	10.58	11.23	21.81	5.37	5.56	10.96	10.93	11.38	22.31	+0.35	-0.03	+0.46	+0.50
	Manufacturing	6.51	6.81	13.33	13.90	27.23	6.74	6.82	13.41	13.56	13.73	27.29	+0.23	+0.15	+0.17	+0.06
	Shipbuilding	1.05	1.07	2.12	2.09	4.21	0.99	0.99	1.98	1.98	1.94	3.92	-0.14	+0.00	-0.04	-0.29
	Automotive	2.56	2.75	5.31	5.67	10.98	2.73	2.82	5.51	5.55	5.67	11.22	+0.24	+0.04	+0.12	+0.24
	Industrial Machine	1.09	1.15	2.24	2.32	4.55	1.17	1.16	2.28	2.34	2.32	4.66	+0.10	+0.06	-0.02	+0.10
	Electronic Machine	0.68	0.74	1.42	1.45	2.87	0.70	0.73	1.41	1.44	1.44	2.88	+0.02	+0.03	+0.01	+0.03
Sp	pecialty Steel Consumption (B)	3.10	3.23	6.32	6.48	12.81	3.19	3.25	6.40	6.44	6.46	12.90	+0.11	+0.04	+0.02	+0.09
St	eel Imports	1.50	1.58	3.08	3.37	6.46										
St	eel Exports	10.28	10.42	20.70	19.77	40.47										

( Source : NSSMC est.)



**<sup>\*1</sup>** Figures published on July 28, 2017

**<sup>\*2</sup>** Estimates as of early Sep., 2017

( ): Outlook as of Jul. 24, 2017

(	GDF	growth rate)	CY08	CY09	CY10	CY11	CY12	CY13	CY14	CY15	CY16
	W	orld Total	3.0	-0.5	5.3	3.9	3.4	3.4	3.4	3.4	3.2
		eveloped ountries	0.5	-3.4	3.2	1.7	1.2	1.4	1.9	2.1	1.7
		USA	0.4	-2.6	3.0	1.8	2.3	2.2	2.4	2.6	1.6
		EU27	0.6	-4.1	1.9	1.5	-0.7	-0.4	0.9	2.0	1.8
		Japan	-1.2	-6.3	4.4	-0.6	1.5	1.6	0.0	1.1	1.0
		eveloping ountries	6.1	2.7	7.5	6.2	5.1	5.0	4.6	4.3	4.3
		China	9.6	9.2	10.4	9.3	7.7	7.7	7.3	6.9	6.7
		India	7.3	6.8	10.6	6.3	4.7	6.9	7.2	8.0	7.1
		ASEAN5*	4.7	1.7	7.0	4.5	6.2	5.1	4.6	4.9	4.9
		Russia	5.6	-7.8	4.3	4.3	3.4	1.3	0.7	-2.8	-0.2
		Brazil	5.1	-0.6	7.5	2.7	1.0	2.7	0.1	-3.8	-3.6

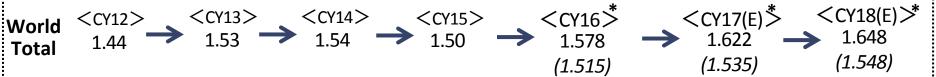
<b>CY</b> 1	_	<b>CY18</b> [E]			
(3.5)	3.6	(3.6)	3.7		
(2.0)	2.2	(1.9)	2.0		
(2.1)	2.2	(2.1)	2.3		
(1.9)	2.1	(1.7)	1.9		
(1.3)	1.5	(0.6)	0.7		
(4.6)	4.6	(4.8)	4.9		
(6.7)	6.8	(6.4)	6.5		
(7.2)	6.7	(7.7)	7.4		
(5.1)	5.2	(5.2)	5.2		
(1.4)	1.8	(1.4)	1.6		
(0.3)	0.7	(1.3)	1.5		

(Source: IMF)

\*ASEAN 5 : Thailand, Malaysia, Indonesia, Philippines, Vietnam



Figures in parentheses are previous forecasts as of Apr.21, 2017



\*including illegal induction furnaces **CY16** CY13 CY14 CY15 (billion tons) China 1.44 Others **CY08** 1.22 0.71 ■ Japan/North 0.66 America/Europe **CY74** 0.55 78 80 82 84 88 90 92 94 96 98 00 02 04 06 80 10 12 16 86 18E

(Source: World Steel Association, Apparent finished steel consumption)



#### **World Crude Steel Production**

		CY17							
(million tons)	CY16 [A]	Jan - Jun	Jul	Aug	Sep	Jul - Sep	Jan - Sep [B]	CY17 [C] (B*12/9)	Change (A → C)
World * Total	1,609.2	836.0	144.7	144.8	141.4	430.9	1,266.9	1,689.2	+80.0
(YoY)	(+0.7%)	( +4.4%)	(+7.3%)	(+7.2%)	(+5.6%)	(+6.7%)	(+5.2%)		(+5.0%)
Japan	104.8	52.3	8.6	8.7	8.6	25.9	78.3	104.4	-0.4
(YoY)	(-0.4%)	(+0.5%)	(-4.3%)	(-2.0%)	(+2.0%)	(-1.5%)	(-0.2%)		(-0.4%)
Korea	68.6	34.7	6.2	6.1	5.9	18.1	52.8	70.4	+1.8
(YoY)	(-1.6%)	( +3.8%)	(+2.3%)	(+3.5%)	(+2.8%)	(+2.9%)	(+3.5%)		(+2.7%)
USA	78.5	40.7	7.0	7.1	6.7	20.8	61.5	81.9	+3.5
EU28	162.0	86.1	14.1	12.5	13.8	40.4	126.4	168.6	+6.5
Russia	70.8	35.7	6.2	6.2	6.0	18.5	54.2	72.3	+1.5
Brazil	31.3	16.7	2.8	3.0	3.0	8.7	25.5	34.0	+2.7
India	95.6	50.3	8.3	8.5	8.2	25.0	75.3	100.4	+4.8
China	808.4	418.3	74.0	74.6	71.8	220.4	638.7	851.6	+43.3
(YoY)	(+0.6%)	(+4.0%)	(+10.3%)	(+8.7%)	(+5.3%)	(+8.1%)	(+5.4%)		(+5.4%)

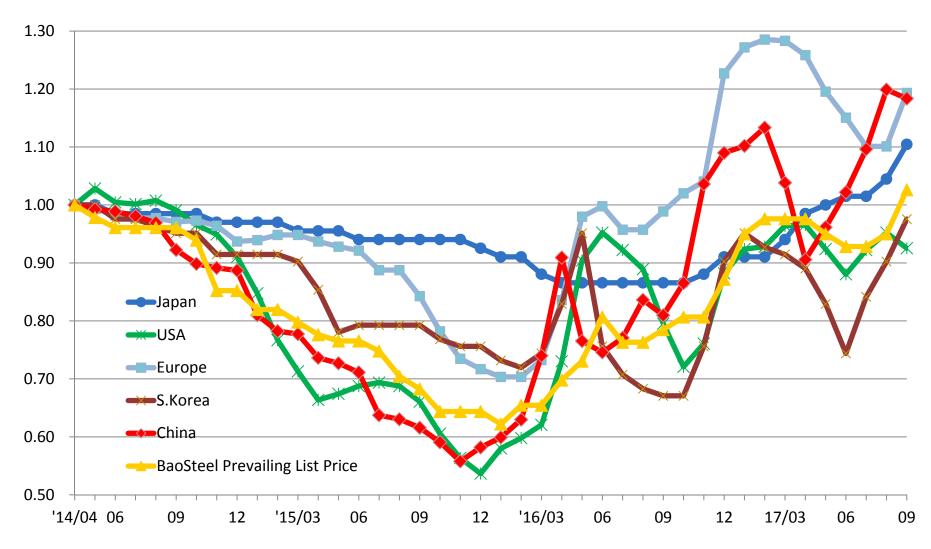
(Source: World Steel Association)

\* Total of 66 countries



# **Hot Rolled Sheets Prices by Region**

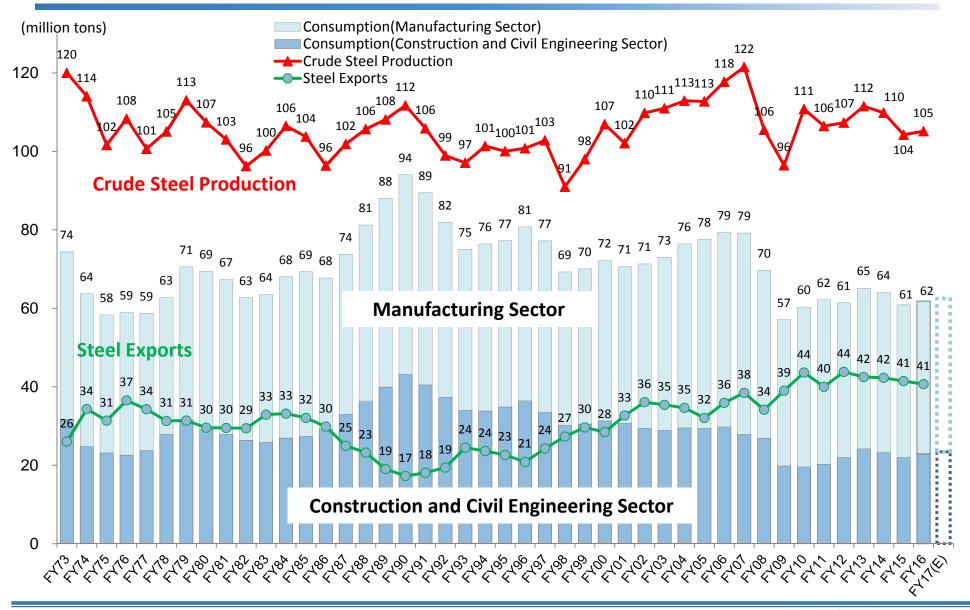
( Prices of Hot Rolled Sheets in Local Currency as of Apr. 2014=1.0)



(Source: The Japan Iron and Steel Federation)



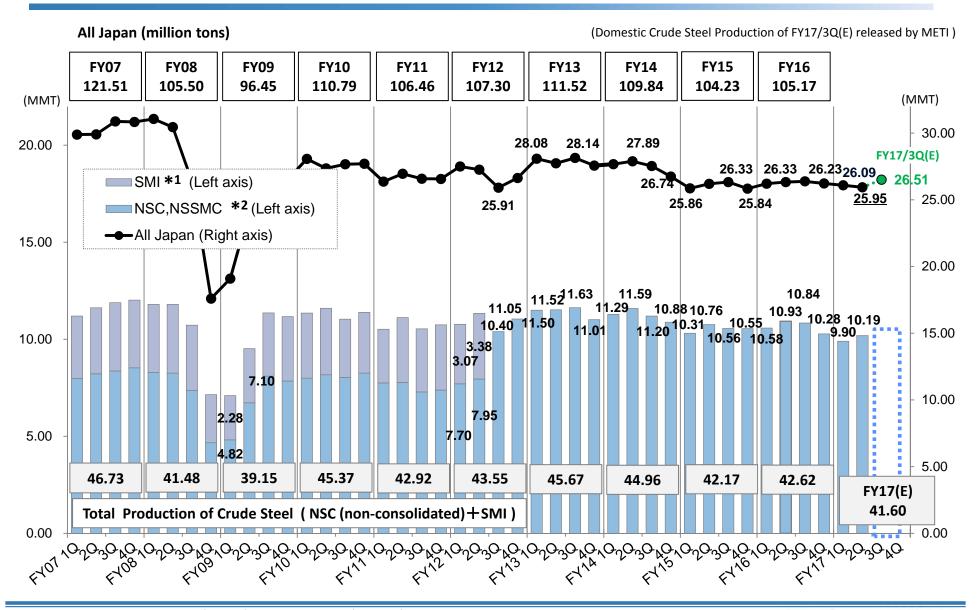
## **Domestic Steel Consumption Trend**



(Source: NSSMC estimation)



#### **Domestic Crude Steel Production**

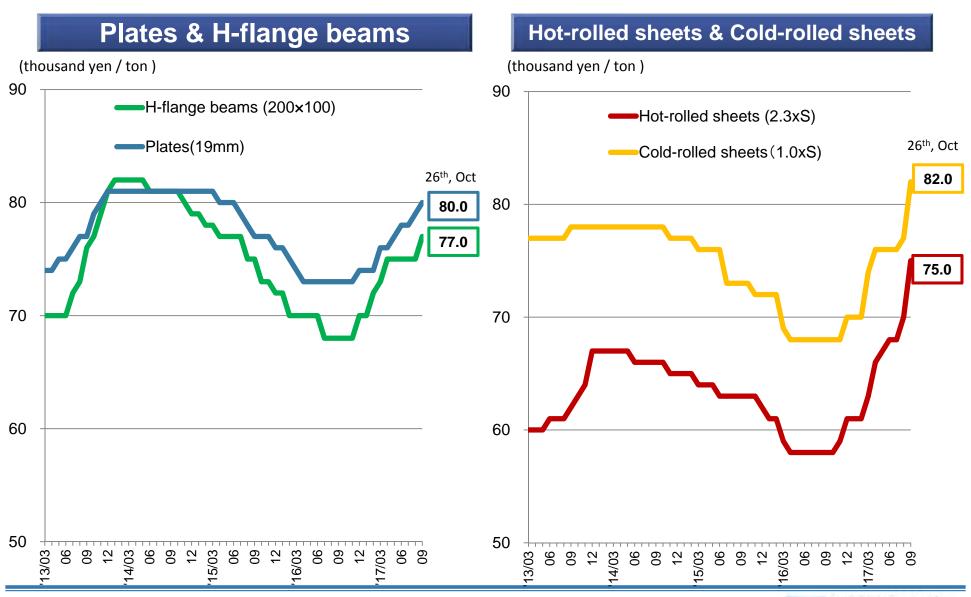


<sup>\*1</sup> Includes Sumitomo Metals(Kokura), Sumitomo Metals(Naoetsu) and Sumikin Iron & Steel Co.



<sup>\*2</sup> Includes NIPPON STEEL & SUMIKIN KOUTETSU WAKAYAMA CORP

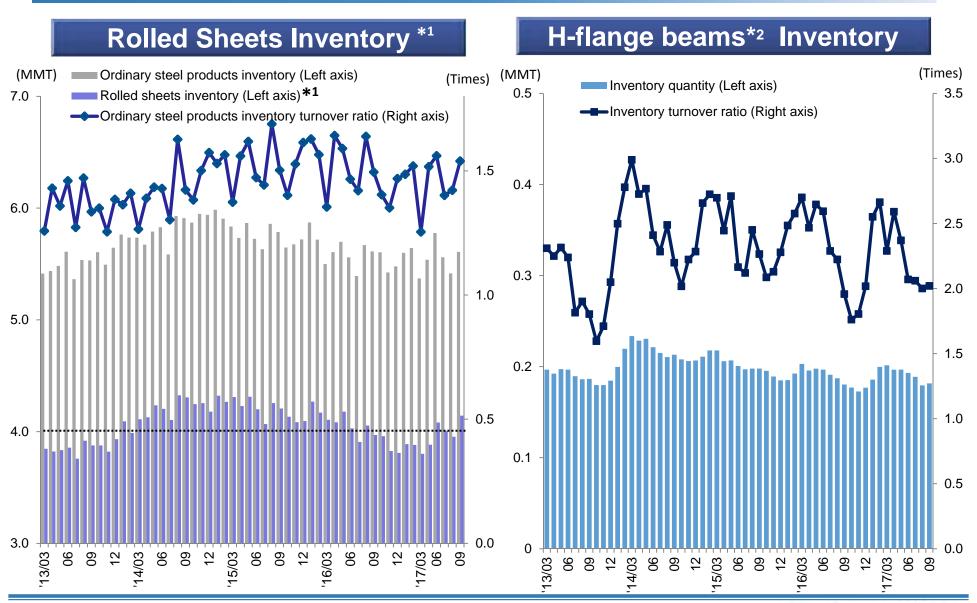
#### **Domestic Steel Products Prices**



(Source: Japan Metal Daily)



### **Domestic Steel Inventory**



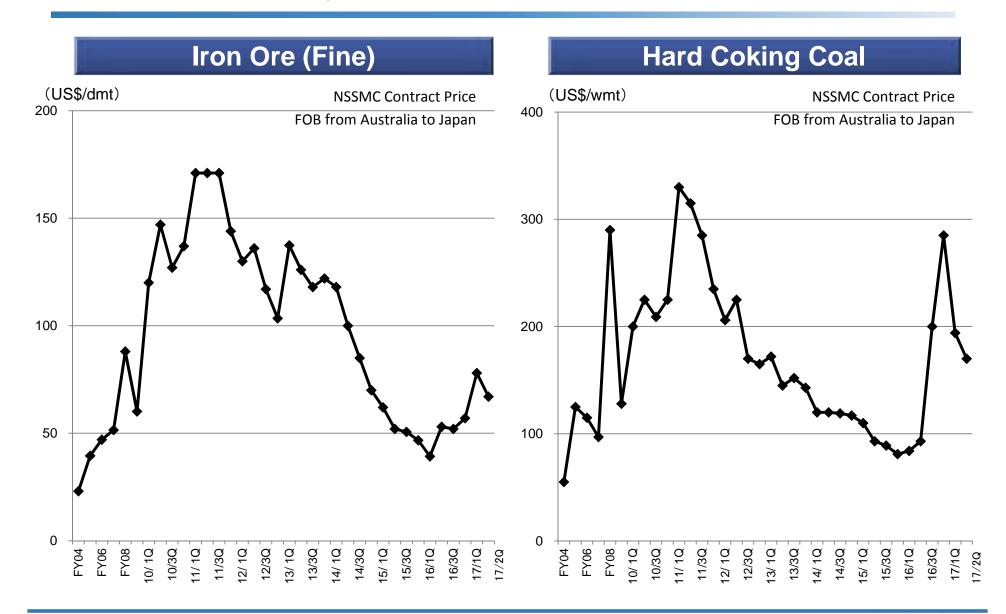
(Source: Japan Iron and Steel Federation)

**\*1** Hot-rolled, Cold-rolled and Coated sheets

\*2 Inventories of the distributors dealing with H-flange beams manufactured by NSSMC

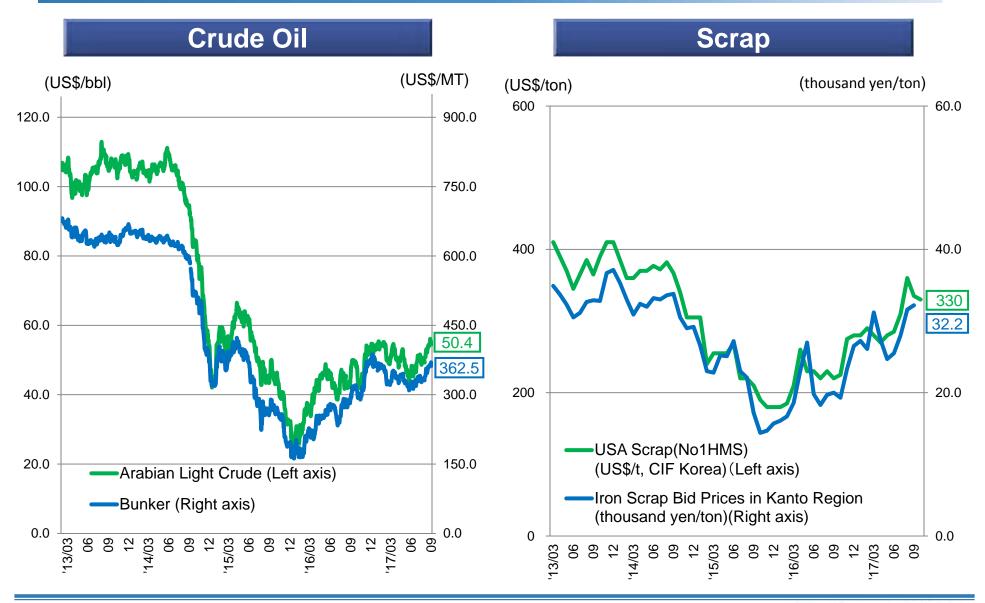


## **Iron Ore & Coking Coal Prices**



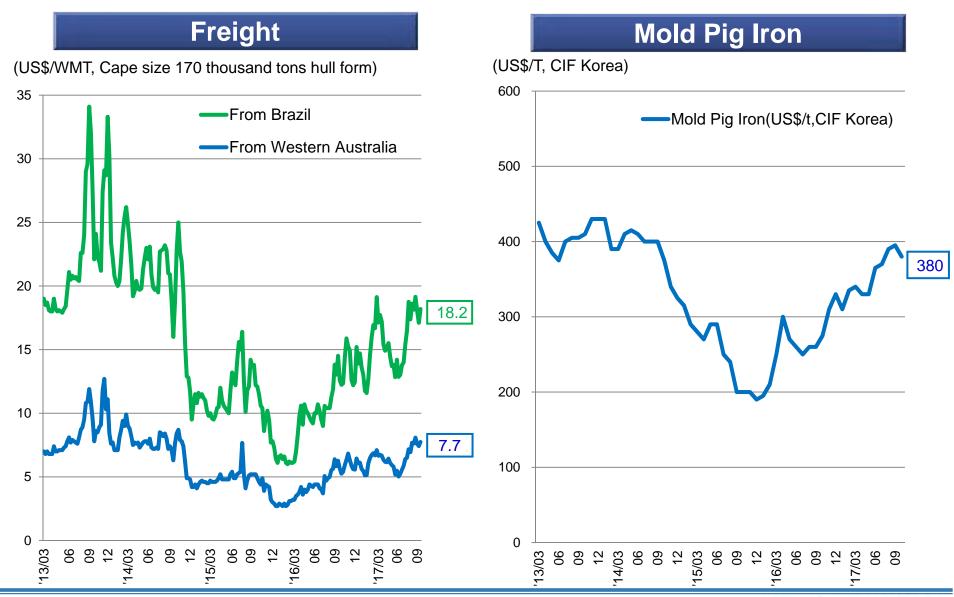


# Market Trends < Crude Oil & Scrap >





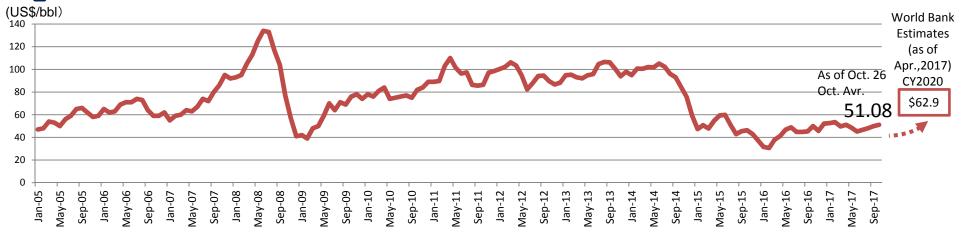
# Market Trends < Freight & Mold Pig Iron >

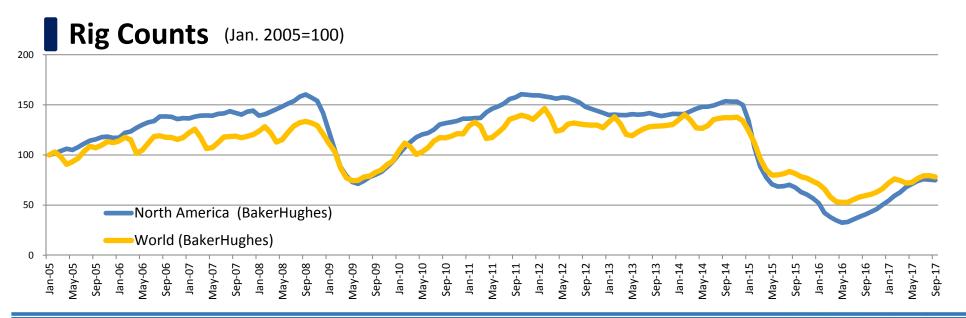




### **Energy Sector : Oil Price / Rig Count**

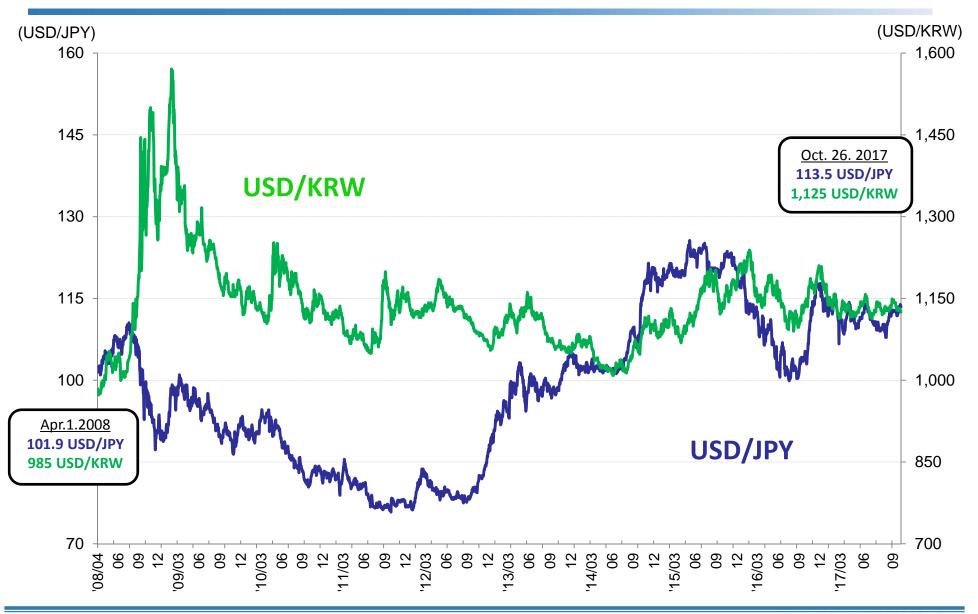
# **US Oil Price (WTI Spot)**







## **Forex Trend**





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