



< IR Meeting Material >

**KOBELCO**

# Financial Results for the First Quarter of Fiscal 2019 and Forecast for the Full Fiscal Year

August 2, 2019  
KOBELCO, LTD.



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# **1. Financial Results for the First Quarter of Fiscal 2019**





## Net Sales & Ordinary Income (Loss) by Segment

(Billions of yen)

Net Sales	FY2018	FY2019	Change	Ordinary Income (Loss)	FY2018	FY2019	Change
	1Q	<b>1Q</b>	FY18→19		1Q	<b>1Q</b>	FY18→19
Iron & Steel	179.1	<b>181.2</b>	2.0	Iron & Steel	0.8	<b>(1.5)</b>	(2.3)
Welding	19.7	<b>21.1</b>	1.4	Welding	0.5	<b>0.8</b>	0.2
Aluminum & Copper	93.1	<b>88.2</b>	(4.9)	Aluminum & Copper	2.4	<b>(3.1)</b>	(5.6)
Machinery	44.2	<b>39.9</b>	(4.3)	Machinery	1.0	<b>0.8</b>	(0.1)
Engineering	25.0	<b>28.4</b>	3.4	Engineering	0.4	<b>0.8</b>	0.3
Construction Machinery	101.3	<b>95.7</b>	(5.6)	Construction Machinery	7.5	<b>4.0</b>	(3.5)
Electric Power	14.0	<b>15.2</b>	1.2	Electric Power	(0.0)	<b>(1.6)</b>	(1.5)
Other Businesses	14.5	<b>5.7</b>	(8.7)	Other Businesses	0.6	<b>(0.4)</b>	(1.0)
Adjustment	(12.9)	<b>(11.2)</b>	1.6	Adjustment	(0.6)	<b>(0.2)</b>	0.3
<b>Total</b>	478.3	<b>464.4</b>	(13.8)	<b>Total</b>	12.7	<b>(0.5)</b>	(13.2)



## **2. Forecast for Fiscal 2019**



# Forecast for FY2019

(Billions of yen)

	FY2018	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	②-①
<b>Net Sales</b>	1,971.8	1,010.0	1,060.0	2,070.0	<b>980.0</b>	<b>1,020.0</b>	<b>2,000.0</b>	(70.0)
<b>Operating Income</b>	48.2	5.0	40.0	45.0	<b>0.0</b>	<b>25.0</b>	<b>25.0</b>	(20.0)
<b>Ordinary Income</b>	34.6	0.0	30.0	30.0	<b>(10.0)</b>	<b>20.0</b>	<b>10.0</b>	(20.0)
(Excluding Inventory Valuation)	29.1	(0.5)	28.5	28.0	<b>(11.5)</b>	<b>20.5</b>	<b>9.0</b>	(19.0)
<b>Extraordinary Income</b>	※ 14.3	—	—	—	—	—	—	—
<b>Net Income Attributable to Owners of the Parent</b>	35.9	0.0	25.0	25.0	<b>0.0</b>	<b>10.0</b>	<b>10.0</b>	(15.0)

※ Gain on acquisition of subsidiary: 4.8 billion yen (Turning Shinko Wire Company, Ltd. into a subsidiary)  
 Gain on sale of investment securities: 31.4 billion yen (Partial sale of shares of Shinko Real Estate Co., Ltd.)  
 Other (Loss on impairment, Loss on disaster, etc.) (22.0) billion yen



# Net Sales by Segment

(Billions of yen)

Net Sales	FY2018	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change ②-①
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	
Iron & Steel	753.9	385.0	410.0	795.0	<b>370.0</b>	<b>420.0</b>	<b>790.0</b>	(5.0)
Welding	83.9	43.0	44.0	87.0	<b>42.0</b>	<b>45.0</b>	<b>87.0</b>	–
Aluminum & Copper	359.0	185.0	195.0	380.0	<b>175.0</b>	<b>175.0</b>	<b>350.0</b>	(30.0)
Machinery	171.4	84.0	101.0	185.0	<b>81.0</b>	<b>92.0</b>	<b>173.0</b>	(12.0)
Engineering	151.7	67.0	83.0	150.0	<b>66.0</b>	<b>85.0</b>	<b>151.0</b>	1.0
Construction Machinery	386.0	215.0	195.0	410.0	<b>210.0</b>	<b>185.0</b>	<b>395.0</b>	(15.0)
Electric Power	76.1	37.0	47.0	84.0	<b>35.0</b>	<b>44.0</b>	<b>79.0</b>	(5.0)
Other Businesses	42.0	15.0	20.0	35.0	<b>14.0</b>	<b>21.0</b>	<b>35.0</b>	–
Adjustment	(52.5)	(21.0)	(35.0)	(56.0)	<b>(13.0)</b>	<b>(47.0)</b>	<b>(60.0)</b>	(4.0)
<b>Total</b>	<b>1,971.8</b>	<b>1,010.0</b>	<b>1,060.0</b>	<b>2,070.0</b>	<b>980.0</b>	<b>1,020.0</b>	<b>2,000.0</b>	<b>(70.0)</b>



# Ordinary Income (Loss) by Segment

(Billions of yen)

Ordinary Income (Loss)	FY2018	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change ②-①
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	
Iron & Steel	4.7	(2.0)	10.0	8.0	<b>(6.0)</b>	<b>6.0</b>	<b>0.0</b>	(8.0)
Welding	3.6	1.5	2.5	4.0	<b>2.0</b>	<b>2.0</b>	<b>4.0</b>	—
Aluminum & Copper	(1.5)	(4.5)	0.5	(4.0)	<b>(8.0)</b>	<b>(4.0)</b>	<b>(12.0)</b>	(8.0)
Machinery	1.2	0.5	4.0	4.5	<b>0.0</b>	<b>4.0</b>	<b>4.0</b>	(0.5)
Engineering	6.5	2.0	4.0	6.0	<b>(0.5)</b>	<b>6.5</b>	<b>6.0</b>	—
Construction Machinery	25.5	9.0	7.0	16.0	<b>8.0</b>	<b>3.5</b>	<b>11.5</b>	(4.5)
Electric Power	(0.3)	(0.5)	7.0	6.5	<b>(0.5)</b>	<b>7.0</b>	<b>6.5</b>	—
Other Businesses	2.3	0.0	3.5	3.5	<b>0.0</b>	<b>3.5</b>	<b>3.5</b>	—
Adjustment	(7.5)	(6.0)	(8.5)	(14.5)	<b>(5.0)</b>	<b>(8.5)</b>	<b>(13.5)</b>	1.0
<b>Total</b>	<b>34.6</b>	<b>0.0</b>	<b>30.0</b>	<b>30.0</b>	<b>(10.0)</b>	<b>20.0</b>	<b>10.0</b>	(20.0)

## Dividends

- Kobe Steel aims to pay dividends on a continuous and stable basis. Dividends are decided after taking into full account the Company's financial condition, business performance, future capital needs and other factors. (The target Dividend Payout Ratio is 15% - 25% of net income attributable to owners of the parent.)
- On this basis, in light of the earnings forecast for fiscal 2019, Kobe Steel has regrettably passed a resolution to adopt a policy to forgo the interim dividend for the first half of fiscal 2019. The year-end dividend for fiscal 2019 has not yet been determined.

### ■ Dividend Results

	FY2016			FY2017			FY2018			FY2019 (Forecast)		
	Interim	Year-end	Year	Interim	Year-end	Year	Interim	Year-end	Year	Interim	Year-end	Year
Dividends per share in yen	-	-	-	-	30	30	10	10	20	-	Undetermined	Undetermined
Dividend per net assets			-			17.2%			20.2%			

※Kobe Steel carried out a share consolidation at a ratio of 10 shares to 1 share effective on October 1, 2016.



# [Iron & Steel]

(Billions of yen)

	FY2018 Full Year	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change ②-①
		1H	2H	Full Year ①	1H	2H	Full Year ②	
Net Sales	753.9	385.0	410.0	795.0	<b>370.0</b>	<b>420.0</b>	<b>790.0</b>	(5.0)
Ordinary Income (Loss)	4.7	(2.0)	10.0	8.0	<b>(6.0)</b>	<b>6.0</b>	<b>0.0</b>	(8.0)
Inventory Valuation	3.5	2.0	2.0	4.0	<b>3.5</b>	<b>0.0</b>	<b>3.5</b>	(0.5)

## FY2019

- The sales volume of steel products is anticipated to be similar to the previous forecast.
- Ordinary income is anticipated to decline, compared with the previous forecast, impacted by a worsening in the sales mix of products on account of low demand from the overseas automotive sector and owing to a certain degree of risk from high iron ore prices.
- We will continue to engage in key themes of the Rolling of the Medium-Term Management Plan: strengthen *monozukuri* capabilities, increase sales prices, and obtain returns on strategic investment projects.



# [Iron & Steel] Production & Sales

	FY2018				FY2019	FY2019	
	1Q	1H	2H	Full Year	Full Year (Previous Forecast)	1Q	Full Year (Current Forecast)
<b>Japan's domestic crude steel production</b> (Millions of tons)	26.6	52.2	50.7	102.9		26.1	

<Domestic steel inventory trend>

<b>Ordinary steel products</b> (Millions of tons)	5.9	6.2	5.9	--		6.1	
<b>Rolled sheets</b> (Millions of tons)	4.4	4.4	4.5	--		4.6	

<Domestic steel inventory trend>

<b>Finished auto production</b> (Millions of tons)	2.3	4.6	5.1	9.7		1.6	
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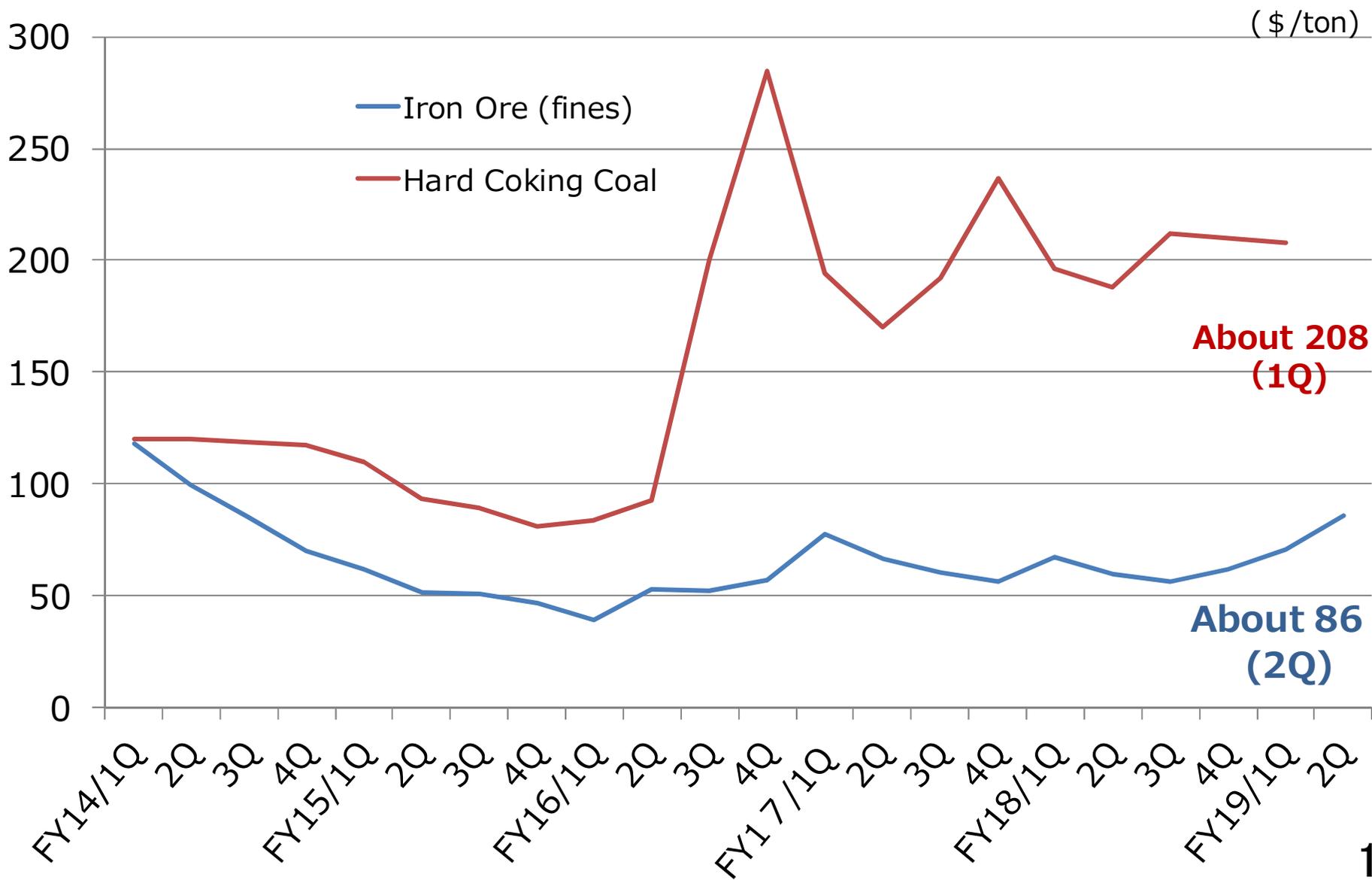
April and May

<KOBELCO STEEL, LTD.>

<b>Crude steel production</b> (Millions of tons)	1.7	3.4	3.5	6.9	about 7.2	1.7	<b>about 7.2</b>
<b>Sales volume</b> (Millions of tons)	1.3	2.7	2.9	5.6	about 5.9	1.4	<b>about 5.9</b>
<b>(Domestic)</b>	(1.0)	(2.0)	(2.2)	(4.3)		(1.0)	
<b>(Exports)</b>	(0.4)	(0.7)	(0.7)	(1.4)		(0.4)	
<b>Average steel selling price</b> (Thousands of yen/ton)	83.5	85.2	86.9	86.1		87.3	
<b>Export ratio (value basis)</b>	25.9%	25.7%	24.1%	24.9%		25.3%	

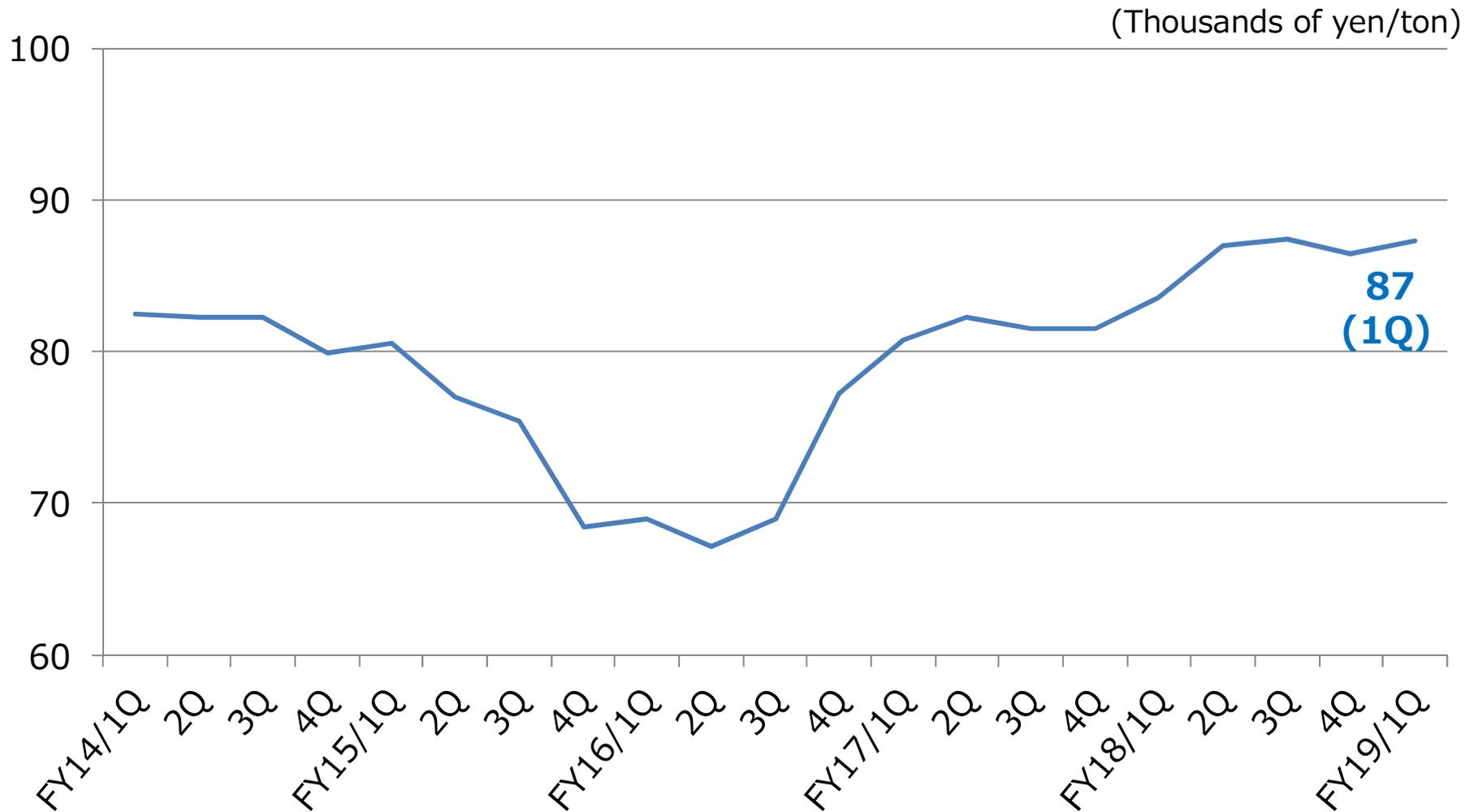


# Iron Ore & Coking Coal Price Trends





# Steel Product Price Trends at Kobe Steel





# [Aluminum & Copper]

(Billions of yen)

	FY2018	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change ②-①
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	
Net Sales	359.0	185.0	195.0	380.0	<b>175.0</b>	<b>175.0</b>	<b>350.0</b>	(30.0)
Ordinary Income (Loss)	(1.5)	(4.5)	0.5	(4.0)	<b>(8.0)</b>	<b>(4.0)</b>	<b>(12.0)</b>	(8.0)
Inventory Valuation	2.0	(1.5)	(0.5)	(2.0)	<b>(2.0)</b>	<b>(0.5)</b>	<b>(2.5)</b>	(0.5)

<Sales volume of KSL>

(Thousands of tons)

	FY2018				FY2019	FY2019	
	1Q	1H	2H	Full Year	Full Year (Previous Forecast)	1Q	Full Year (Current Forecast)
Aluminum Rolled Products (Domestic)	73	140	134	274	about 300	74	About 280
(Exports)	18	35	35	70	about 70	15	about 70
Copper Rolled Products	38	73	71	144	about 150	36	about 140

## FY2019

- The sales volume of aluminum and copper rolled products is anticipated to decrease in the automotive sector and IT and semiconductor sectors.
- Ordinary income is anticipated to decrease, compared with the previous forecast, owing to equipment trouble and other issues at affiliate companies.
- We will continue to engage in key themes of the Rolling of the Medium-Term Management Plan: strengthen *monozukuri* capabilities, increase sales prices, and obtain returns on strategic investment projects.



# 【Machinery】

(Billions of yen)

	FY2018	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	②-①
<b>Net Sales</b>	171.4	84.0	101.0	185.0	<b>81.0</b>	<b>92.0</b>	<b>173.0</b>	(12.0)
<b>Ordinary Income</b>	1.2	0.5	4.0	4.5	<b>0.0</b>	<b>4.0</b>	<b>4.0</b>	(0.5)
<b>Orders</b>	171.7	—	—	about 155.0	—	—	<b>about 160.0</b>	about 5.0

## FY2019

- Orders are anticipated to increase, compared with the previous forecast, owing to orders for compressors for LNG fueled ships.
- Ordinary income is anticipated to decrease slightly, compared with the previous forecast, owing to the types of orders and other factors.



# 【Engineering】

(Billions of yen)

	FY2018	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change ②-①
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	
Net Sales	151.7	67.0	83.0	150.0	<b>66.0</b>	<b>85.0</b>	<b>151.0</b>	1.0
Ordinary Income (Loss)	6.5	2.0	4.0	6.0	<b>(0.5)</b>	<b>6.5</b>	<b>6.0</b>	—
Orders	122.6	—	—	about 155.0	—	—	<b>about 160.0</b>	about 5.0

## FY2019

- Orders are anticipated to increase owing to firm demand mainly for waste treatment related business.
- Ordinary income is anticipated to remain similar to the previous forecast, although changes in the progress of projects.





# 【Electric Power】

(Billions of yen)

	FY2018	FY2019 (Previous Forecast)			FY2019 (Current Forecast)			Change
	Full Year	1H	2H	Full Year ①	1H	2H	Full Year ②	②-①
Net Sales	76.1	37.0	47.0	84.0	35.0	44.0	79.0	(5.0)
Ordinary Income (Loss)	(0.3)	(0.5)	7.0	6.5	(0.5)	7.0	6.5	—

## FY2019

- Sales are anticipated to decrease, compared with the previous forecast, owing to lower coal prices. However, ordinary income is anticipated to remain unchanged from the previous forecast.
- A new project, the No. 1 unit of the Moka Power Plant, is undergoing trial operation and will go into operation in the second half of fiscal 2019, as planned.



# 3. Financial Strategy





## 4. Reference Information



# Cash Flows

(Billions of yen)

	FY2018	FY2019 (Previous Forecast)	FY2019 (Current Forecast)	Change
	Full Year	Full Year ①	Full Year ②	②-①
<b>Cash Flows from Operating Activities</b>	72.3	60.0	<b>35.0</b>	(25.0)
<b>Cash Flows from Investing Activities</b>	(10.9)	(155.0)	<b>(140.0)</b>	15.0
<b>Free Cash Flow</b> (Excluding Project Financing)	61.4	(95.0)	<b>(105.0)</b>	(10.0)
<b>Free Cash Flow</b> (Including Project Financing)	38.5	(210.0)	<b>(220.0)</b>	(10.0)
<b>Cash and Deposits</b> (Excluding Project Financing)	192.6	70.0	<b>70.0</b>	—



## Financial Indices

	FY2016	FY2017	FY2018	FY2019 Forecast
ROS ※1	(1.1%)	3.8%	1.8%	0.5%
Net Income (Loss) per Share	(63.54 yen)	174.43 yen	99.20 yen	27.60 yen
Outside debt ※2	789.6 billion yen	726.0 billion yen	724.2 billion yen	715.0 billion yen
D / E Ratio ※3	※4 1.17 times	0.98 times	※5 0.98 times	about 1times
ROA ※6	(0.8%)	3.1%	1.5%	0.4%
ROE ※7	(3.4%)	8.9%	4.8%	1.3%

※1 : ROS : Ordinary Income / Net Sales

※2 : Outside debt : Excludes Debt from IPP project financing

※3 : D/E ratio: Debt (excluding IPP project finance)/Stockholders' Equity

※4 : Includes early procurement of borrowings for FY2017 (117.6. billion yen)  
D/E Ratio 1.0 time (excluding early procurement of borrowings)

※5 : Includes early procurement of borrowings for FY2019 (92.1 billion yen)  
D/E Ratio 0.85 time (excluding early procurement of borrowings)

※6 : ROA : Ordinary Income / Total Assets

※7 : Net Income Attributable to Owners of the Parent / Stockholders' Equity







# Analysis of Ordinary Income in Iron & Steel Segment

【 FY2019/1H ⇒ FY2019/2H 】

(Billions of yen)

	FY2018			FY2019		
	1H	2H	Full Year	1H	2H	Full Year
Ordinary Income (Loss)	(1.7)	6.4	4.7	(6.0)	6.0	0.0

+12.0

Positive Factors		Negative Factors	
Production and shipments	+ <b>11.0</b>	Raw material prices	<b>(5.5)</b>
Overall cost reduction	+ <b>2.0</b>	Inventory valuation※	<b>(3.5)</b>
Exchange rate changes	+ <b>0.5</b>	Subsidiaries & affiliates	<b>(1.5)</b>
Other	+ <b>9.0</b>		
合計	+ <b>22.5</b>	合計	<b>(10.5)</b>

※ Inventory valuation includes effect from the average method and the lower-of-cost-or-market method.



## Growth Strategies for the Three Core Business Areas (Progress of the Fiscal 2016-2020 Group Medium-Term Management Plan)

### Materials

#### I Initiatives for weight savings in transportation

- For an overview of our automotive weight savings strategy, please refer to the Investor Meeting material released in May 2017.  
[http://www.kobelco.co.jp/english/ir/library/fnci\\_results/2017/\\_icsFiles/afieldfile/2017/06/20/170526\\_1.pdf](http://www.kobelco.co.jp/english/ir/library/fnci_results/2017/_icsFiles/afieldfile/2017/06/20/170526_1.pdf)

#### II Strengthening the profitability of the steel business

- Consolidation of upstream operations at Kakogawa Works has been completed.
- Additional measures to improve profitability are being implemented as planned.

### Machinery

#### I Initiatives in the fields of energy and infrastructure

- Promoting initiatives to expand the machinery business

#### II Strengthening the profitability of the construction machinery business

- Restructuring of the excavator business in China has been completed.  
<https://www.kobelcocm-global.com/news/2018/180625/index.html>

### Electric Power

#### Initiatives for the stable profitability of the electric power supply business

- New projects are progressing smoothly.
- For an overview of current and new projects, please refer to the Investor Meeting material released in January 2017.  
[http://www.kobelco.co.jp/english/ir/library/fnci\\_results/2016/\\_icsFiles/afieldfile/2017/02/15/170111\\_e.pdf](http://www.kobelco.co.jp/english/ir/library/fnci_results/2016/_icsFiles/afieldfile/2017/02/15/170111_e.pdf)

Key themes  
for fiscal  
years  
2019–2020

- ① Strengthen profitability with a focus on materials
- ② Make efficient use of management resources and strengthen the business base

## Progress in Dealing with the Quality Misconduct

### Suspended JIS Certification Restored at Kobe Steel's Moka Plant (Announced July 9, 2019)

- The Moka Plant received a notice from the Japan Quality Assurance Organization (JQA) on December 8, 2017 that its JIS (Japanese Industrial Standards) certification had been suspended. In response to this, the Moka Plant undertook initiatives to rebuild its quality management system, which led to lifting the suspension of JIS certification.

### Conclusion of the Request for Document Production, etc. from the U.S. Judicial Administrative Authority (Announced July 17, 2019)

- On October 16, 2017 (local time), Kobe Steel USA Inc., a U.S. subsidiary of Kobe Steel, Ltd., received a document from the U.S. judicial administrative authority (i.e., a grand jury as part of a U.S. Department of Justice investigation) requesting the production of documents related to non-conformity with the specifications of products sold by Kobe Steel, the U.S. subsidiary or our affiliated companies to U.S. customers.
- On July 17, 2019, the U.S. Department of Justice confirmed that it does not require further production or preservation of documents pursuant to the subpoena. Based on this information, it is the understanding of Kobe Steel that the above-referenced investigation is no longer active. Kobe Steel thus anticipates the above-referenced investigation will not result in a further government enforcement action.

### Progress of Civil Complaints Filed Against Kobe Steel and Other Kobe Steel Group Companies (Announced June 11 and July 23, 2019)

- Class action by car users and others in Canada (announced June 11, 2019): Car users and others claimed damages from a decline in vehicle value and an overcharge from the difference between products meeting user specifications and nonconforming products used in their cars. An agreement on the basic principles of the settlement was reached for Kobe Steel to pay C\$1.95 million (approximately 160 million yen).
- Class action by car users and others in USA (announced July 23, 2019): Car users and others claimed damages from a decline in vehicle value and an overcharge from the difference between products meeting user specifications and nonconforming products used in their cars. On July 18, 2019 (local time), the Court again granted the motion to dismiss filed by Kobe Steel and other group companies. (The Court first granted the motion to dismiss in September, 2018.) The Court granted, by this Order, the plaintiffs leave to amend the complaint one last time, but also observed that it was perhaps unlikely that the plaintiffs would be able to state a claim against the Kobe Steel Group.



## Initiatives in Automotive Weight Reduction / Initiatives in Energy and Infrastructure

### First use of slag reduction welding process for undercarriage parts in Mazda's Mazda 3

(Announced June 12, 2019)

- Kobe Steel and Mazda Motor Corporation have developed a slag※ reduction welding process for automotive undercarriage parts. The welding process reduces slag, which is a source of rust, and enhances the rust prevention performance of undercarriage parts.
- This is the first time Mazda has adopted this technology in the Mazda 3. Mazda intends to use the welding process in other models in the future.
- This technology received the Technology Award in the Japan Welding Engineering Society Awards in FY2018. The award is given to researchers who have contributed to the development of welding technology in Japan.

※Slag: Non-metallic material occurring at the weld zone. Slag consists of elements in the molten metal that react with and combine with oxygen in the shield gas and atmosphere.

### Shift to consignment production of KOBEMAG® (KOBELCO magnesium aluminum galvanized steel sheet)

(Announced May 23, 2019)

- Our brand "KOBEMAG®" ※1, which was sold as an OEM product by Nippon Steel Nisshin Co., Ltd. (formerly Nisshin Steel Co., Ltd) for two years from FY2017 to FY2018, completed preliminary quality checks and JIS certification. From FY2019 we shifted to consignment production ※2.
- Orders were received for use in solar power generation platforms, civil engineering and construction materials, and electrical machinery. Full-fledged investigations into the necessary technologies and use in facilities were also started to expand orders and achieve integrated production within the company.

※1 Steel sheet with excellent corrosion resistance, flaw resistance, and workability, which can be widely applied from structural to construction, electrical machinery, automotive and other fields.

※2 Nippon Steel Nisshin galvanizes the hot-rolled steel made by Kobe Steel.

### Midrex celebrates 50th anniversary of First MIDREX® Direct Reduction Plant

(Announced May 29, 2019)

- The first plant based on the MIDREX® Direct Reduction Process, which turns iron oxide into a high-quality iron material for use in making steel, began production 50 years ago.
- The MIDREX® Process is the world's most productive technology for the direct reduction of iron ore and MIDREX® Plants produce more than 60% of the world's DRI ※. Using natural gas (or gas derived from coal) as a reducing agent, pellets made of pulverized iron ore are reduced in a shaft furnace to produce DRI. Compared with the blast furnace method, the MIDREX® Process can reduce CO2 emissions during ironmaking. The MIDREX® Process produces over 60 million tons of DRI per year.

※DRI (Direct Reduced Iron)

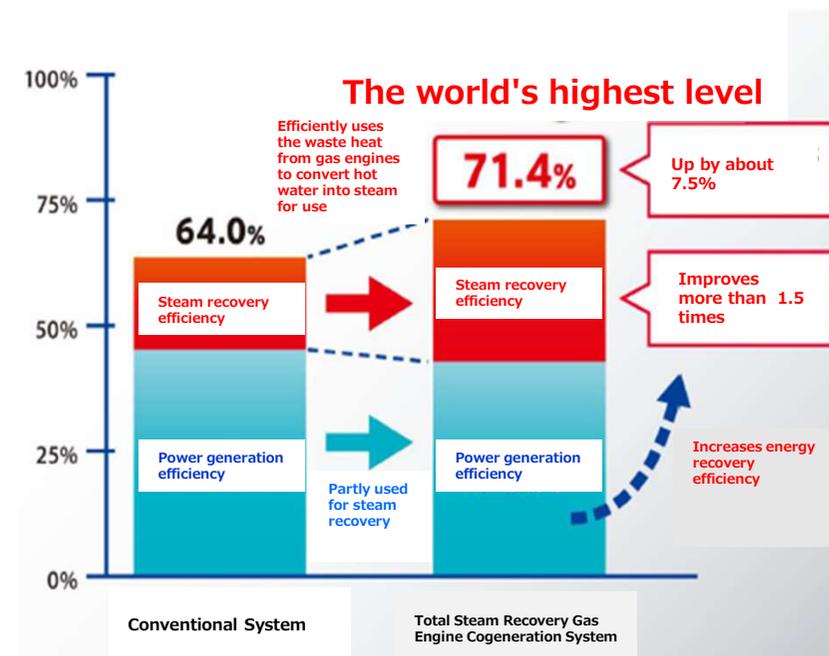
Iron material made by reducing iron ore. DRI discharged from the shaft furnace without being cooled is called Hot DRI (HDRI). DRI discharged from the shaft furnace and cooled is called Cold DRI (CDRI). DRI is a clean source of iron with low impurities. It is used as a substitute for high-grade scrap and pig iron, mainly in electric arc furnaces. In recent years, it is also used in also in blast furnaces and converters.

## Initiatives in the Fields of Energy and Infrastructure

### Total Steam Recovery Gas Engine Cogeneration System Receives Technology Award from the Japan Gas Association

(Announced July 22, 2019)

- The Total Steam Recovery Gas Engine Cogeneration System, which recovers waste hot water from gas engines as steam, received the Technology Award in FY2019 from the Japan Gas Association. The system was developed in 2015 by Tokyo Gas Co., Ltd., Mitsubishi Heavy Industries Engine & Turbocharger, Ltd., Miura Co., Ltd., and Kobe Steel, Ltd.
- Cogeneration systems are widely used in office buildings, hotels, factories, and other facilities. In these systems, generators are driven by gas engines to generate electricity, and at the same time, waste heat from the engine exhaust gas and cooling water is used to make steam and hot water.
- By combining products that are marketed by each company, it is possible to efficiently use the waste heat from gas engines to convert hot water into steam for use. Compared with recovering steam from exhaust gas boilers alone, the amount of steam recovered has increased more than 1.5 times. The cogeneration system has achieved the world's highest overall efficiency of about 71% by combining power generation efficiency and steam recovery efficiency.





## [Materials] Initiatives for Weight Savings in Transportation

Field	Project	Country	Description	Schedule
Automotive	Joint venture to make and sell automotive high strength steel sheet (Kobelco Angang Auto Steel Co., Ltd.)	China	Strengthens environmental response in China. Established global supply network for high strength steel in Japan, the U.S., Europe and China.	Feb. 2016 Production began
	Production and sale of aluminum sheet for automotive closure panels	China	First production base in China for a Japanese aluminum maker to make aluminum sheet for closure panels.	Apr. 2016 Production began
	Production and sale of automotive aluminum extrusions (Kobelco Aluminum Products & Extrusions Inc.)	USA	Strengthens response to stricter fuel consumption regulations in the U.S.. Establishes supply network for aluminum extrusions and fabricated products in Japan and the U.S.	Aug. 2016 Construction began Dec. 2017 Production began
	Mass producing high-productivity, hot stamping steel sheet	-	Developed a hot stamping steel sheet with outstanding productivity during press operations. The sheet was ordered and adopted for a structural body part of the Prius, which is produced by Toyota Motor Corporation.	2016 Mass production began
	Expansion of facilities for aluminum forged suspension products (Kobe Aluminum Automotive Products, LLC)	USA	This expansion plan is to meet the rising demand in North America for aluminum forged suspension products. Kobe Steel anticipates that automakers in the U.S. will use aluminum forged suspension products in a wider range of vehicles.	Jan. 2019 Expansion Completed
	Establishment of a joint venture with Novelis Korea (Ulsan Aluminum Ltd.)	South Korea	This plan is in response to the growing demand for automotive aluminum panel materials in Asia, including Japan and China. It aims to secure stable production and supply capacity in upstream operations.	Sep. 2017 Joint venture established
	Expansion of facilities for aluminum sheet for automotive closure panels at the Moka Plant	Japan	The expansion plan is in response to the growing demand for aluminum closure panels in Asia, including Japan and China. Kobe Steel aims to build a stable supply structure for high quality aluminum sheets for closure panels.	FY2017 Construction began Jan. 2020 Production to begin
	Increase of production capacity to make hot-dipped galvanized ultra high-strength steel for automotive use in the U.S. (PRO-TEC Coating Company)	USA	This plan is in response to growing demand for automotive high-strength steel sheet in the United States. The new continuous galvanizing line will have the capability to produce high-formability, ultra high-strength steel.	Jul. 2017 Production began
	Investment in production equipment for automotive high Strength steel at Kakogawa Works	Japan	This capital investment aims to meet growing demand for automotive ultra high-strength steel and the need for higher strength and higher formability. It will enable Kobe Steel to produce the same ultra high-strength steels in both Japan and the U.S.	Feb. 2021 Production to start
	Joint development of a robot system for joining dissimilar metals	-	Developing a robot system incorporating element arc spot welding (EASW), a dissimilar metals joining method devised by Kobe Steel to join ultra high-strength steel to aluminum, and FANUC's robot engineering and sensor technologies with a view to commercialization	
	Expansion of facilities for aluminum extrusions products (Kobelco Aluminum Products & Extrusions Inc.)	USA	This expansion plan is in response to stricter fuel consumption regulations in the U.S and demand for aluminum extrusions and fabricated products.	Aug. 2018 Construction began Mar. 2020 Production to begin
	Expansion of facilities for wire rod processing venture (Kobe Special Steel Wire Products (Pinghu) Co., Ltd)	China	This fifth capacity expansion will help meet the growing needs of KSP's customers who anticipate a further increase in demand.	Mar. 2020 Wire drawing machines start Jun. 2020 Heating furnaces start
	Development of slag reduction welding process for automotive undercarriage parts	Japan	Kobe Steel and Mazda Motor Corporation(hereinafter, Mazda) have developed the slag reduction welding process for automotive undercarriage parts, which reduces the amount of slag which is a source of rust. The process enhances the rust prevention performance of undercarriage parts.This is the first time Mazda has adopted this technology in MAZDA3, and it is expected to be applied to other models in the future.	Jun. 2019 Announced



## [Machinery] Initiatives in the Fields of Energy and Infrastructure

Field	Project	Country	Description	Schedule
Compressors	Sales begin for new oil-free standard air compressors	—	World's highest class of energy efficiency; low-noise operation	Oct. 2016 Sales began
	HyAC mini-A all-in-one, compact compressor package for hydrogen refueling stations in the U.S.	USA	We have started marketing the HyAC mini-A, an all-in-one, compact compressor package for stationary hydrogen refueling stations designed for use in the U. S.. It consists of a high-pressure hydrogen compressor and a refrigerator sold together with a high-pressure storage tank unit and a dispenser as a set. We are the first in Japan to sell hydrogen compressors for hydrogen refueling stations overseas.	Feb. 2017 Sales began
	Large-capacity compressor test facility opens	Japan	One of the largest in the world, this test facility is capable of conducting performance tests on nonstandard compressors with variable-speed motors of 40 MW. It enables Kobe Steel to satisfy conditions to enter the large-capacity compressor market. We are focusing on the Asian market, where Kobe Steel has an edge.	Apr. 2017 Facility opened
	Establishment of a compressor service company in the Philippines (Kobelco Machinery Philippines Inc.)	Philippines	Kobe Steel established a company in the Philippines to dispatch supervisors and provide engineering services for its nonstandard compressor business to expand its services in the region. It aims to further grow its global non-standard compressor business and set down roots in areas of demand.	Feb.2017 Established Apr.2017 Sales began
Industrial Machinery	Acquisition of Swedish isostatic press manufacturer Quintus Technologies	Sweden	Kobe Steel acquired Swedish company Quintus Technologies AB, the world leader in isostatic presses, which are widely applicable in the manufacture of high-performance products, such as aircraft parts, power generation turbine and semiconductor materials. It aims to increase the profitability of Industrial Machinery Division.	Apr. 2017 Acquisition completed
Construction Machinery	Production Capacity Expansion of the Itsukaichi Factory at the Hiroshima Headquarters	Japan	Deal with the increasing global market demand for hydraulic excavators through a full-out production capacity expansion of the Itsukaichi Factory, which has a wide range of production menus.	Mar. 2020 Expansion completed
Engineering	Orders received for world's largest MIDREX® Direct Reduction Plant	Algeria	World's largest annual production capacity of 2.5 million tons. Contributing to the development of the industry in Algeria.	Jun.2016 Orders received Nov.2018 Production began
	Order received for basic design and supply of main equipment of waste treatment plant project in the United Kingdom.	UK	Order received for basic design of a power plant for the treatment of municipal solid waste, supply of main equipment (gasification and melting furnaces,boilers.etc.), and dispatch of construction and commissioning supervisors. This is the fourth order received overseas and the first order received in the United Kingdom.	Nov.2018 Orders received
	Order received from Hachioji, Tokyo for "the construction and operation of a new cleaning facility (tentative title)".	Japan	Next-generation fluidized bed gasifying and incineration furnace with greatly improved performance is adopted. Contributes to more compact facilities, maximizing power generation, stabilizing power generation, and reducing environmental impact.	Dec.2018 Orders received 2018~2022 Design and construction 2022~2043 Operations



## [Electric Power] Initiatives for Stable Profitability in the Electric Power Supply Business

Field	Project	Country	Description	Schedule
Electric Power	No. 1 & 2 units in Kobe (Kobelco Power Kobe, Inc.)	Japan	Pulverized coal-fired, supercritical pressure power generation equipment, started from 2002. New contracts were formed to replace current contracts as they expire. Capacity: 1.4 mil. kW (700,000 kW × 2)	Apr. 2002 No. 1 unit starts up Apr. 2004 No. 2 unit starts up [Start of new contracts] No.1 unit: from Apr. 2017 No.2 unit: from Apr. 2019
	No. 1 & 2 units in Moka (Kobelco Power Moka, Inc.)	Japan	Japan's first full-scale inland power plant. Will have one of Japan's highest levels of generation efficiency. Method is gas turbine combined cycle, using city gas as fuel. Capacity: 1.248 mil. kW (624,000 kW X 2)	Jun. 2016 Construction began 2H 2019 No. 1 Unit to start up 1H 2020 No. 2 Unit to start up
	No. 3 & 4 units in Kobe (Kobelco Power Kobe No.2, Inc. )	Japan	We intend to construct a high-efficiency thermal power plant using state-of-the-art ultra-supercritical pressure power generation (USC) that complies with the best available technology (BAT) standards set by the government. We will comply with the average power generation efficiency standards stipulated in the Energy Conservation Act. Capacity: 1.3 mil. kW (650,000 kW × 2)	Oct. 2018 Construction began FY2021 No. 3 unit to start up FY2022 No. 4 unit to start up



## **Core Values of KOBELCO**

- 1. We provide technologies, products and services that win the trust and confidence of our customers we serve and the society in which we live.**
- 2. We value each employee and support his and her growth on an individual basis, while creating a cooperative and harmonious environment.**
- 3. Through continuous and innovative changes, we create new values for the society of which we are a member.**

## **Six Pledges of KOBELCO Men and Women**

- 1. Heightened Sense of Ethics and Professionalism**
- 2. Contribution to the Society by Providing Superior Products and Services**

### **Quality Charter**

**Guided by our "Quality Charter," we provide safe, sound, and innovative products and services to our customers, and thereby ensure customer satisfaction and contribute to the advancement of the society.**

- 3. Establishing a Comfortable but Challenging Work Environment**
- 4. Living in Harmony with Local Community**
- 5. Contribution to a Sustainable Environment**
- 6. Respect for Each Stakeholder**

# Cautionary Statement

- **Certain statements in this presentation contain forward-looking statements concerning forecasts, assertions, prospects, intentions and strategies. The decisions and assumptions leading to these statements were based on information currently available to Kobe Steel. Due to possible changes in decisions and assumptions, future business operation, and internal and external conditions, actual results may differ materially from the projected forward-looking statements. Kobe Steel is not obligated to revise the forward-looking contents of this presentation.**
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  - **Political situation and trade and other regulations**
  - **Changes in currency exchange rates**
  - **Availability and market conditions of raw materials**
  - **Products and services of competing companies, pricing policy, alliances, and business development including M&As**
  - **Strategy changes of alliance partners**