

**Fiscal 2016 First Half
Supplementary Information**

November 7, 2016

DOWA HOLDINGS CO.,LTD.

Overview of Operating Results

■ Consolidated Income Statements

Billion yen

	FY2015 H1 results (A)	FY2016 H1				Year on year changes (C-A)	
		forecast on May 10 (B)	results (C)	changes (C-B)			
Net Sales	208.2	185.0	184.7	(0.2)	(0%)	(23.5)	(11%)
Operating Income	20.2	11.5	13.3	1.8	16%	(6.9)	(34%)
Ordinary Income	20.6	10.5	13.5	3.0	29%	(7.0)	(34%)
Net Income	12.0	7.5	9.8	2.3	32%	(2.1)	(18%)

- ✓ Operating income decreased 34% year on year in the first half of FY2016.
- ✓ Lower earnings resulted from Nonferrous Metals, Electronic Materials, and other segments due to the further appreciation of the yen and the falling sales of semiconductor products.

■ Metal prices and foreign exchange rates

	FY2015 Average			FY2016 Average		
	1Q	2Q	H1	1Q	2Q	H1
Exchange Rate: (¥/\$)	121.4	122.2	121.8	108.1	102.4	105.3
Copper: (\$/t)	6,054	5,251	5,653	4,730	4,774	4,752
Zinc: (\$/t)	2,195	1,844	2,019	1,915	2,253	2,084
Indium: (\$/kg)	445	293	369	237	206	222

Business Environment (H1)

➤ **Waste-related business**

Japan: The volume of waste materials generated decreased somewhat.

The unit price of waste treatment declined in some areas.

Southeast Asia: Orders for waste treatment related to oil and natural gas development decreased.

➤ **Automobile-related business**

Japan: The automobile production volume remained mostly unchanged from the previous year.

Overseas: Automobile production volumes in China and Southeast Asia showed some recovery.

➤ **Electronic component- and Semiconductor-related business**

New forms of energy: Growth continued, particularly in the North American and Asian markets.

Smartphones: Trends varied depending on manufacturers and regions.

➤ **Metal prices and Exchange rates**

Metal prices: The prices of copper and indium declined slightly. The prices of precious metals, zinc, etc. increased.

Exchange rates: The yen remained strong, approx. 17 yen higher than in the same period of the previous year.

Trends in Major Products

Indexes (100 for Q1 of FY2015)

		FY2015				FY2016	
		1Q	2Q	3Q	4Q	1Q	2Q
Environmental Management & Recycling	Intermediate waste processing volume in Japan	100	92	96	97	91	94
	Recycling materials collection volume (Kosaka)	100	94	101	96	101	110
	Waste processing amount in South East Asia	100	111	92	98	97	100
Nonferrous Metals	Copper production (Kosaka, Onahama)	100	95	84	104	86	73
	Zinc production (Akita)	100	74	104	102	102	73
Electronic Materials	LED sales volume	100	108	77	58	57	50
	Silver powder sales volume	100	102	114	97	127	128
Metal Processing	Copper alloy strip sales volume	100	98	103	99	101	106
Heat Treatment	Heattreatment sales amount	100	100	104	100	100	104
	Industrial furnace sales amount	100	81	80	82	65	76

Year-on-Year Comparison (H1)

Billion yen

	FY2015 H1 results			FY2016 H1 results			Change			Details of Changes to Operating Income
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	
Environmental Management & Recycling	49.7	3.2	3.0	45.4	2.6	2.4	(4.2)	(0.6)	(0.5)	- The volume of low-contaminated PCB treatment decreased. - In Southeast Asia, orders for oil- and natural gas-related waste declined.
Nonferrous Metals	110.4	8.6	9.4	94.5	3.2	3.9	(15.8)	(5.3)	(5.5)	- Earnings decreased due to the appreciation of the yen, the decrease in metal prices, and the worsening of conditions for purchasing raw materials.
Electronic Materials	25.1	4.7	4.9	27.0	2.8	2.8	1.9	(1.8)	(2.0)	- Sales of LEDs for smartphones declined. - Earnings fell due to the strong yen.
Metal Processing	40.3	2.6	2.7	35.0	3.2	3.2	(5.2)	0.5	0.4	- Copper rolled products remained firm for both automobiles and semiconductors.
Heat Treatment	12.4	0.6	0.5	11.5	0.8	0.7	(0.9)	0.2	0.2	- Demand for products for automobiles remained firm. - Fuel costs were reduced.
Other/ Elimination	(29.7)	0.3	(0.1)	(28.8)	0.5	0.4	0.9	0.1	0.5	
Total	208.2	20.2	20.6	184.7	13.3	13.5	(23.5)	(6.9)	(7.0)	

Factor Analysis of Ordinary Income

Billion yen

FY2016 H1 – FY2015 H1	Environmental Management & Recycling	Nonferrous Metals	Electronic Materials	Metal Processing	Heat Treatment	Other	Total
Effect of various measures, increase/decrease in sales, etc.	(0.8)	(1.6)	(1.9)	0.5	0.3	0.1	(3.4)
Of the above, free metal income difference (volume difference)	–	(0.7)	–	–	–	–	(0.7)
Free metal income difference (price difference)	–	(1.7)	–	–	–	–	(1.7)
Conditions of raw material (changes in exchange rate and base conditions)	–	(2.0)	–	–	–	–	(2.0)
Difference between the market value and book value at sale, and between market value and valuation prices at end of period	–	(0.8)	–	–	–	–	(0.8)
Electricity charges, etc.	–	0.8	–	–	–	–	0.8
Depreciation in manufacturing cost	0.2	(0.1)	0.1	0.1	0.0	0.0	0.1
Increase/decrease in operating income	(0.6)	(5.3)	(1.8)	0.5	0.2	0.1	(6.9)
Effect of non-operating income/expenses							
- Equity method income or loss	0.2	(0.3)	0.0	(0.0)	–	0.5	0.3
- Other	(0.1)	0.1	(0.2)	(0.1)	(0.1)	(0.1)	(0.4)
Increase/decrease in ordinary income	(0.5)	(5.5)	(2.0)	0.4	0.2	0.5	(7.0)

Financial Highlights (1)

■ Consolidated Balance Sheets

Billion yen

	Mar. 31, 2016	Sep. 30, 2016	Change		Mar. 31, 2016	Sep. 30, 2016	Change
Current Assets	168.6	168.3	(0.2)	Current Liabilities	100.6	106.2	5.6
				Noncurrent Liabilities	60.4	56.4	(3.9)
Noncurrent Assets	195.7	196.5	0.7	Non-Controlling Interests	8.4	8.1	(0.3)
				Equity	194.9	194.0	(0.8)
Total Assets	364.4	364.9	0.4	Total Liabilities and Net Assets	364.4	364.9	0.4
				Interest-bearing debt	81.1	85.3	4.1
				Equity ratio (%)	53.5	53.2	(0.3)

- ✓ Of total assets, due primarily to growth in tangible fixed assets from capital investment.
- ✓ Interest-bearing debt increased to 85.3 billion yen, largely due to payments associated with larger inventory of raw materials.

Financial Highlights (2)

■ Consolidated Statements of Cash Flows

Billion yen

	FY2015 H1	FY2016 H1	Change
Cash Flows from Operating Activities	(0.0)	10.7	10.7
Profit before income taxes	18.4	13.5	(4.9)
Depreciation and amortization	7.5	7.3	(0.2)
Income taxes (paid) refund	(10.5)	(2.6)	7.9
Other, net	(15.4)	(7.4)	7.9
Cash Flows from Investing Activities	(11.6)	(11.8)	(0.2)
Acquisition of property, plant and equipment	(9.1)	(10.7)	(1.6)
Other investments	(2.5)	(1.1)	14.0
Cash Flows from Financing Activities	12.0	(1.2)	(13.3)
Total	0.4	(2.4)	(2.8)

Forecast for Fiscal 2016

Billion yen

	FY2015 results	FY2016 forecast	Change
Net Sales	406.5	385.0	(21.5)
Operating Income	35.0	29.0	(6.0)
Ordinary Income	35.0	29.0	(6.0)
Net Income	21.8	20.0	(1.8)

- ✓ Ordinary income in the first half of FY2016 exceeded the initial forecast and also remains higher than the initial full-year forecast.
- ✓ However, The full-year financial forecast has remained unchanged due to uncertainties remaining in the prospects for the market environment such as foreign exchange rates and metal prices.

Year-on-Year Comparison (full year)

Billion yen

	FY2015 Results			FY2016 Forecast			Change		
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income
Environmental Management & Recycling	98.3	6.3	6.1	94.0	5.9	6.1	(4.3)	(0.4)	(0.0)
Nonferrous Metals	214.9	13.3	13.9	197.0	8.0	8.2	(17.9)	(5.3)	(5.7)
Electronic Materials	48.3	8.0	8.2	52.0	5.2	5.3	3.6	(2.8)	(2.9)
Metal Processing	77.4	4.9	5.0	70.0	6.5	6.6	(7.4)	1.5	1.5
Heat Treatment	24.1	1.3	1.1	25.0	2.3	2.2	0.8	0.9	1.0
Other/ Elimination	(56.5)	1.1	0.4	(53.0)	1.1	0.6	3.5	(0.0)	0.1
Total	406.5	35.0	35.0	385.0	29.0	29.0	(21.5)	(6.0)	(60.0)

FY2016 Assumptions and Sensitivities(H2)

Sensitivity (Operating Income / H2)			Million yen
	Assumptions	Fluctuation	Sensitivity
Exchange rate	105.0 ¥/\$	± 1 ¥/\$	220
Copper	4,600 \$/t	±100 \$/t	20
Zinc	2,300 \$/t	±100 \$/t	200
Indium	200 \$/kg	±100 \$/kg	300

* Exchange rate sensitivity; Nonferrous Metals 180 million yen and Electronic Materials 40 million yen.

Metal Prices and Foreign Exchange Rates

	FY2015 Average			FY2016 Average			(ref.)
	H1	H2	Full Year	H1 results	H2 assumption	Full Year estimation	Oct. 2016
Exchange rate: (¥/\$)	121.8	118.5	120.1	105.3	105.0	105.1	103.8
Copper: (\$/t)	5,653	4,778	5,215	4,752	<u>4,600</u>	4,676	4,732
Zinc: (\$/t)	2,019	1,643	1,831	2,084	<u>2,300</u>	2,192	2,314
Indium: (\$/kg)	369	235	302	222	<u>200</u>	211	199

* The underlined parts have been changed from the assumptions of forecast announced on August 5, 2016.

Investment

Billion yen

	FY2014 Results			FY2015 Results			FY2016 H1 Results			FY2016 Estimation		
	Capital and stock investment	R&D investment	Total	Capital and stock investment	R&D investment	Total	Capital and stock investment	R&D investment	Total	Capital and stock investment	R&D investment	Total
Environmental Management & Recycling	10.2	0.3	10.6	9.1	0.3	9.4	2.5	0.1	2.7	9.0	0.4	9.4
Nonferrous Metals	2.4	2.7	5.1	5.2	4.5	9.7	4.4	1.4	5.8	9.0	2.4	11.4
Electronic Materials	2.2	2.6	4.8	3.8	2.9	6.8	1.7	1.5	3.2	4.0	3.1	7.1
Metal Processing	2.1	0.5	2.7	2.8	0.5	3.4	1.8	0.2	2.1	4.0	0.6	4.6
Heat Treatment	4.3	0.3	4.6	3.0	0.4	3.5	2.8	0.2	3.0	3.0	0.3	3.3
Companywide, Other	0.4	(0.1)	0.3	0.7	(0.1)	0.5	0.9	0.0	0.9	2.0	0.0	2.0
Total	21.8	6.5	28.4	24.9	8.6	33.6	14.2	3.7	17.9	31.0	6.9	37.9

(Ref.) Depreciation Expenses

	FY2014 Results	FY2015 Results	FY2016 H1 Results	FY2016 Estimation
Environmental Management & Recycling	4.6	4.7	2.1	5.1
Nonferrous Metals	3.4	2.9	1.4	3.9
Electronic Materials	2.5	2.4	1.1	3.0
Metal Processing	2.2	2.0	0.9	2.3
Heat Treatment	1.8	2.0	0.9	2.1
Companywide, Other	0.9	0.9	0.4	1.1
Total	15.5	15.1	7.1	17.7

Major investments for fiscal 2016

Environmental Management & Recycling:

Build a new incinerator on Singapore base.

Nonferrous Metals:

Build/renew zinc producing facilities, including a roasting furnace.

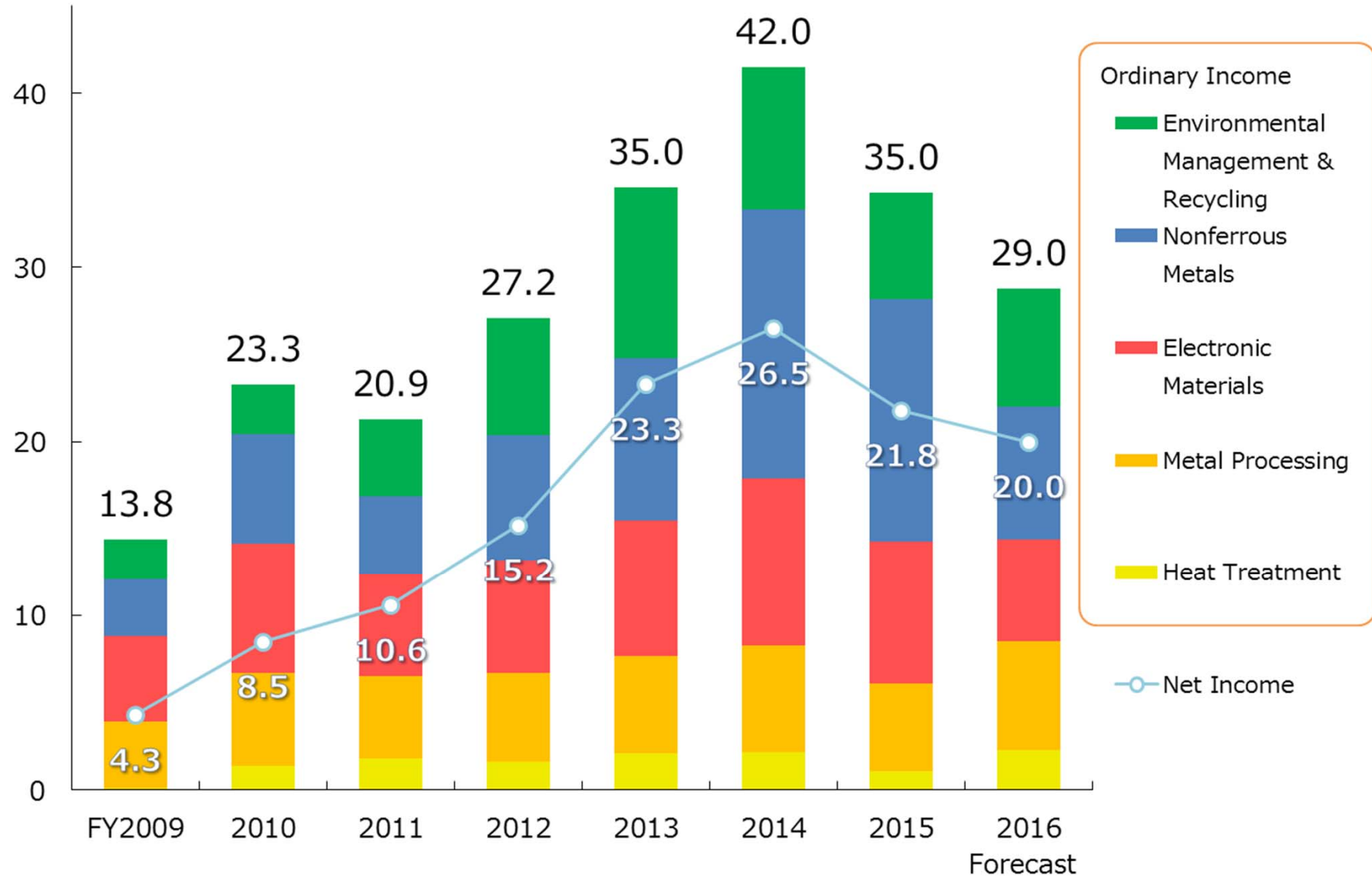
Increment capacity of PGMs recycling facilities.

Metal Processing:

Build a mass-production facilities of new plating.

Ordinary Income and Net Income

(Billion yen)



Ref.1 FY2016 Forecast Comparison (H1)

Billion yen

	FY2016 H1 Forecast (May 10, 2016)			FY2016 H1 results			Change		
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income
Environmental Management & Recycling	45.0	2.4	2.3	45.4	2.6	2.4	0.4	0.2	0.1
Nonferrous Metals	94.0	2.0	1.8	94.5	3.2	3.9	0.5	1.2	2.1
Electronic Materials	22.0	3.0	3.0	27.0	2.8	2.8	5.0	(0.1)	(0.1)
Metal Processing	36.0	2.8	2.9	35.0	3.2	3.2	(0.9)	0.4	0.3
Heat Treatment	13.0	1.0	0.9	11.5	0.8	0.7	(1.4)	(0.1)	(0.1)
Other/Elimination	(24.9)	0.3	(0.4)	(28.8)	0.5	0.4	(3.9)	0.2	0.8
Total	185.0	11.5	10.5	184.7	13.3	13.5	(0.2)	1.8	3.0

Ref.2 FY2016 Forecast Comparison (full year)

Billion yen

	Previous Forecast (May 10, 2016)			Revised Forecast (Nov 7, 2016)			Change		
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income
Environmental Management & Recycling	97.0	6.8	6.8	94.0	5.9	6.1	(3.0)	(0.9)	(0.7)
Nonferrous Metals	193.0	7.2	7.6	197.0	8.0	8.2	4.0	0.8	0.6
Electronic Materials	44.0	5.8	5.9	52.0	5.2	5.3	8.0	(0.6)	(0.6)
Metal Processing	73.0	6.1	6.2	70.0	6.5	6.6	(3.0)	0.4	0.4
Heat Treatment	27.5	2.4	2.3	25.0	2.3	2.2	(2.5)	(0.1)	(0.1)
Other/Elimination	(49.5)	0.7	0.2	(53.0)	1.1	0.6	(3.5)	0.4	0.4
Total	385.0	29.0	29.0	385.0	29.0	29.0	0.0	0.0	0.0

DOWA

* Forward-looking statements made in this document, such as business forecast, are based on the information available at this time and on certain premises that the Company assumes to be reasonable. Actual performance may differ materially from such forecasts due to a variety of factors.