

DOWA

**Fiscal 2018
Supplementary Information**

May 13, 2019

DOWA HOLDINGS CO.,LTD.

Overview of Operating Results

■ Consolidated Income Statements

Billion yen

	FY2017			FY2018			Change		
	1H	2H	Full Year	1H	2H	Full Year	1H	2H	Full Year
Net Sales	219.3	235.4	454.7	221.8	231.1	452.9	2.5	(4.3)	(1.8)
Operating Income	14.6	16.2	30.9	9.3	9.3	18.6	(5.3)	(6.9)	(12.2)
Ordinary Income	17.2	19.0	36.3	12.8	11.4	24.3	(4.4)	(7.6)	(12.0)
Profit attributable to owners of parent	11.7	12.9	24.6	8.8	6.0	14.9	(2.8)	(6.8)	(9.7)

Operating income and ordinary income both decreased on a year-on-year basis due to mainly the deterioration of purchase conditions of smelting raw materials, falling metal prices, and slowdown of the Chinese market.

■ Exchange Rate and Metal Prices

	FY2017 Average			FY2018 Average		
	1H	2H	Full Year	1H	2H	Full Year
Exchange Rate: (¥/\$)	111.1	110.6	110.9	110.3	111.6	110.9
Copper: (\$/t)	6,005	6,884	6,444	6,487	6,194	6,341
Zinc: (\$/t)	2,780	3,328	3,054	2,824	2,667	2,746
Indium: (\$/kg)	184	269	226	286	222	254

Business Environment (4Q)

➤ **Waste- and Recycling-related business**

Waste generated firmly in Japan and Southeast Asia.

Processing volume increased in the automobile recycling and electric equipment recycling business.

➤ **Automobile-related market**

Affected by the automobile production decrease in China.

➤ **New forms of energy- and electronic components-related business**

New forms of energy: Demand declined in the Chinese market.

Electronic components: Demand for smartphones in the Chinese market declined.

➤ **Metal prices and Exchange rates**

Metal prices remained firm overall.

The exchange rate remained stable at around 110 yen per dollar.

Trends in Major Products

Indexes (100 for Q1 of FY2017)

		FY2017				FY2018			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Environmental Management & Recycling	Intermediate waste processing volume in Japan	100	90	95	86	103	85	94	88
	Recycling materials collection volume (To Kosaka)	100	96	104	103	124	122	108	101
	Waste processing amount in South East Asia	100	87	87	92	94	95	90	92
Nonferrous Metals	Copper production (Kosaka, Onahama)	100	82	70	85	85	68	67	81
	Zinc production (Akita)	100	79	111	100	108	79	109	102
Electronics Materials	LED sales volume	100	107	121	109	117	93	77	55
	Silver powder sales volume	100	118	117	82	92	83	91	80
Metal Processing	Copper alloy strip sales volume	100	97	106	102	100	101	108	100
Heat Treatment	Heat treatment sales amount	100	106	114	114	114	113	118	107
	Industrial furnace sales amount	100	143	115	194	97	151	170	200

Year-on-Year Comparison by Segment

Billion Yen

	FY2017			FY2018			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	99.3	4.9	5.7	104.4	5.6	6.2	5.0	0.7	0.5	<ul style="list-style-type: none"> - Increase in soil treatment projects - Processing volume increment in the automobile recycling and electric equipment recycling business
Nonferrous Metals	217.9	9.2	13.0	221.6	0.5	4.6	3.7	(8.6)	(8.3)	<ul style="list-style-type: none"> - Deterioration of purchase conditions of smelting raw materials - Rising electricity prices - Reduced PGM recovery
Electronics Materials	77.7	5.6	6.1	64.9	2.1	3.1	(12.8)	(3.4)	(3.0)	<ul style="list-style-type: none"> - Sales reduction of silver powder to China - Decrease sales of magnetic powder
Metal Processing	90.6	7.2	7.5	92.0	6.2	6.4	1.4	(0.9)	(1.1)	<ul style="list-style-type: none"> - Decrease in demand for smartphones - Increase in depreciation expenses
Heat Treatment	28.2	2.6	2.5	29.7	2.4	2.5	1.5	(0.1)	0.0	<ul style="list-style-type: none"> - Decrease in heat treatment processing demand - Increase in depreciation expenses
Other/ Elimination	(59.1)	1.2	1.3	(59.9)	1.4	1.2	(0.8)	0.2	(0.1)	
Total	454.7	30.9	36.3	452.9	18.6	24.3	(1.8)	(12.2)	(12.0)	

Factor Analysis of Ordinary Income

Billion yen

FY2018 – FY2017	Environmental Management & Recycling	Nonferrous Metals	Electronics Materials	Metal Processing	Heat Treatment	Other	Total
Effect of various measures, increase/ decrease in sales, etc.	1.8	(4.7)	(3.3)	(0.7)	0.1	0.3	(6.5)
Of the above, free metal income difference (volume difference)	—	(0.4)	—	—	—	—	(0.4)
Free metal income difference (metal price difference)	—	0.4	—	—	—	—	0.4
Exchange rate difference of foreign currency-based income	—	—	—	—	—	—	—
Purchase conditions for raw material (base conditions difference)	—	(2.5)	—	—	—	—	(2.5)
Difference between the market value and book value at sale, and between market value and valuation prices at end of period	—	(1.1)	—	—	—	—	(1.1)
Electricity charges, etc.	—	(1.1)	—	—	—	—	(1.1)
Depreciation in manufacturing cost	(1.1)	0.5	(0.2)	(0.2)	(0.3)	(0.0)	(1.3)
Increase/decrease in operating income	0.7	(8.6)	(3.4)	(0.9)	(0.1)	0.2	(12.2)
Effect of non-operating income/expenses							
- Equity method income or loss	(0.1)	(0.8)	(0.0)	(0.0)	—	(0.4)	(1.2)
- Other	(0.1)	1.0	0.4	(0.1)	0.3	(0.0)	1.4
Increase/decrease in ordinary income	0.5	(8.3)	(3.0)	(1.1)	0.0	(0.1)	(12.0)

Consolidated Balance Sheets

Billion yen

	Mar. 31, 2018	Mar. 31, 2019	Change		Mar. 31, 2018	Mar. 31, 2019	Change
Current Assets	228.3	238.0	9.6	Current Liabilities	142.8	163.4	20.6
				Noncurrent Liabilities	65.9	85.0	19.1
Noncurrent Assets	228.1	256.6	28.4	Non-Controlling Interests	238.8	237.2	(1.6)
				Equity	8.9	8.9	(0.0)
Total Assets	456.5	494.6	38.1	Total Liabilities and Net Assets	456.5	494.6	38.1
				Interest-bearing debt	109.8	135.2	25.4
				Equity ratio (%)	52.3	48.0	(4.4)
				ROA(%)	8.4	5.1	(3.3)

Total assets increased 38.1 billion yen from the end of the previous fiscal year, mainly due to growth in fixed assets by growth investments.

ROA decreased 3.3 points from the end of the previous fiscal year due to the increase in total assets and a decrease in profit.

Consolidated Statements of Cash Flows

Billion yen

	FY2017	FY2018	Change
Cash Flows from Operating Activities	11.1	37.5	26.4
Profit before income taxes	34.9	23.4	(11.4)
Depreciation and amortization	17.7	19.1	1.3
Income taxes (paid) refund	(12.4)	(7.9)	4.5
Inventories	(23.9)	(13.4)	10.4
Other, net	(5.1)	16.2	21.4
Cash Flows from Investing Activities	(34.0)	(51.0)	(17.0)
Acquisition of property, plant and equipment	(24.0)	(23.6)	0.3
Other investments	(10.0)	(27.3)	(17.3)
Cash Flows from Financing Activities	24.0	15.9	(8.1)
Total	1.2	2.4	1.2

Forecast for Fiscal 2019

■ Consolidated Income Statements

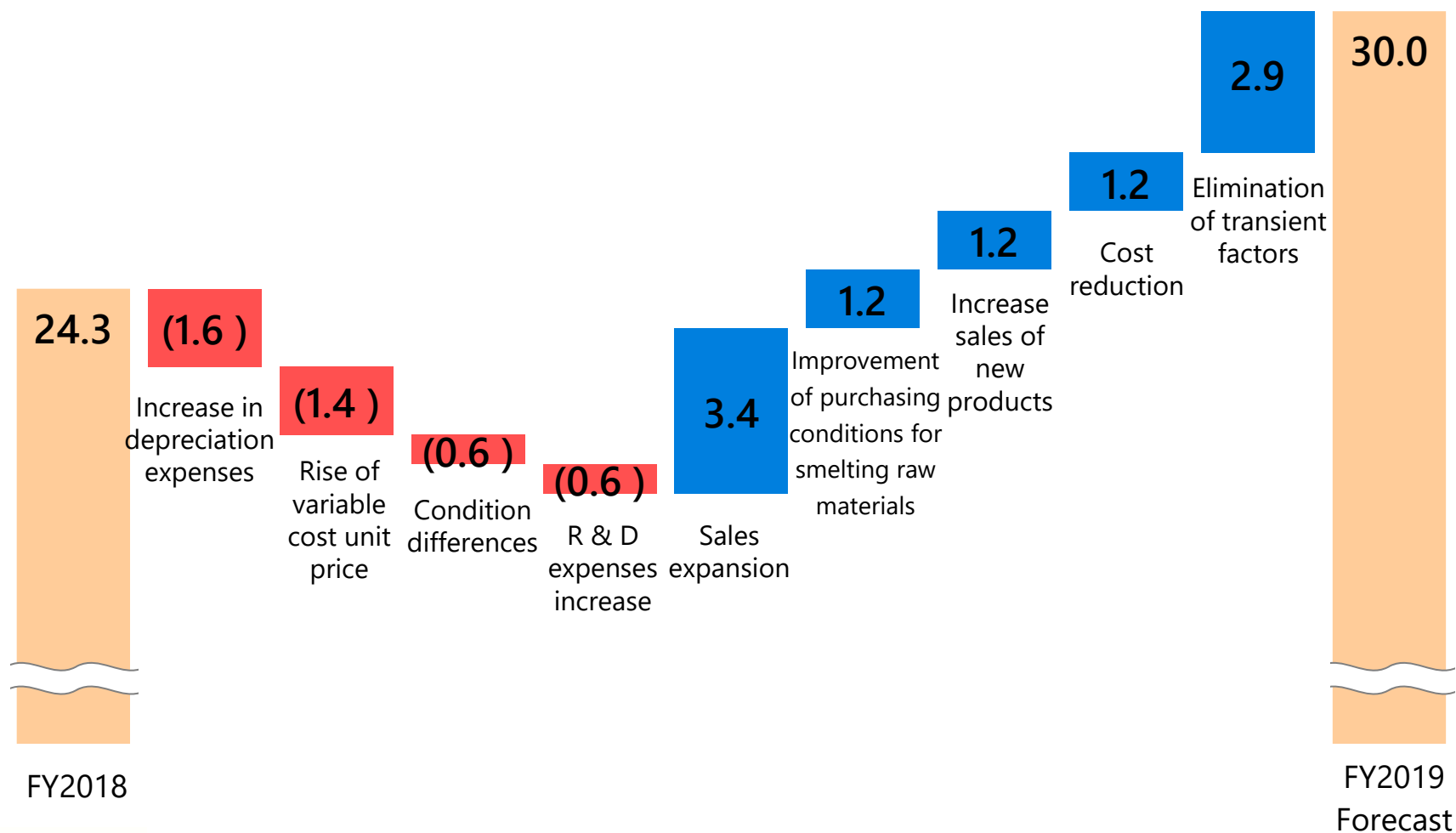
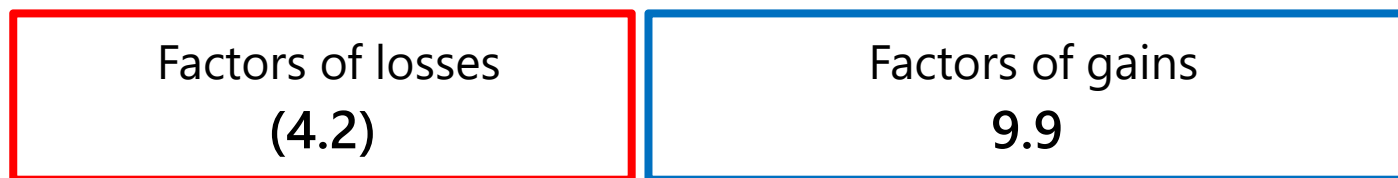
Billion yen

	FY2018 results	FY2019 forecast	Change
Net Sales	452.9	455.0	2.0
Operating Income	18.6	24.5	5.8
Ordinary Income	24.3	30.0	5.6
Profit attributable to owners of parent	14.9	20.0	5.0

In fiscal 2019, we plan to increase profits year-on-year, factors such as improved purchasing conditions for smelting raw materials, elimination of transient factors, increase in sales of existing products and new products by realizing the effects of Midterm Plan 2020, cost factors such as electricity costs and depreciation expenses are also incorporated.

Factor Analysis of Ordinary Income

Billion yen



Year-on-Year Comparison by Segment

Billon yen

	FY2018 Results			FY2019 Forecast			Change		
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income
Environmental Management & Recycling	104.4	5.6	6.2	106.7	6.6	6.7	2.2	0.9	0.4
Nonferrous Metals	221.6	0.5	4.6	209.3	5.9	9.5	(12.3)	5.3	4.8
Electronics Materials	64.9	2.1	3.1	65.6	0.7	2.6	0.6	(1.4)	(0.5)
Metal Processing	92.0	6.2	6.4	91.7	6.6	6.8	(0.3)	0.3	0.3
Heat Treatment	29.7	2.4	2.5	32.4	3.3	3.2	2.6	0.8	0.6
Other/ Elimination	(59.9)	1.4	1.2	(50.7)	1.4	1.2	9.2	(0.0)	(0.0)
Total	452.9	18.6	24.3	455.0	24.5	30.0	2.0	5.8	5.6

Assumptions and Sensitivities (FY2019)

Sensitivity (Operating Income / Year)			Million yen
	Assumptions	Fluctuation	Sensitivity
Exchange rate	110.0 ¥/\$	±1 円/\$	400
Copper	6,400 \$ /t	±100 \$ / t	50
Zinc	2,800 \$ /t	±100 \$ / t	400
Indium	180 \$ /kg	±10 \$ /kg	50

* Exchange rate sensitivity; Nonferrous Metals 340 million yen and Electronics Materials 60 million yen.

Foreign Exchange Rates and Metal Prices

	FY2018 Average			FY2019 Assumption			(ref.) Apr. 2019 Ave.
	H1	H2	Full Year	H1	H2	Full Year	
Exchange rate: (¥/\$)	110.3	111.6	110.9	110.0	110.0	110.0	111.7
Copper: (\$/t)	6,487	6,194	6,341	6,400	6,400	6,400	6,445
Zinc: (\$/t)	2,824	2,667	2,746	2,800	2,800	2,800	2,938
Indium: (\$/kg)	286	222	254	180	180	180	187

Sensitivity is based on assumptions that the Company assumes to be reasonable at the time of publication. Actual effects may differ materially due to a variety of factors.

Investment

Billion yen

	FY2016			FY2017			FY2018			FY2019 Assumption		
	Capital investment & loan	R&D investment	Total	Capital investment & loan	R&D investment	Total	Capital investment & loan	R&D investment	Total	Capital investment & loan	R&D investment	Total
Environmental Management & Recycling	5.7	0.3	6.0	8.2	0.4	8.6	6.6	0.3	7.0	15.0	0.4	15.4
Nonferrous Metals	9.0	2.0	11.1	12.3	1.2	13.6	26.4	1.3	27.7	5.0	0.9	5.9
Electronics Materials	3.7	3.2	7.0	4.6	3.4	8.1	3.8	3.9	7.7	3.5	4.5	8.0
Metal Processing	4.0	0.5	4.5	3.6	0.5	4.2	5.9	0.7	6.7	4.7	0.7	5.4
Heat Treatment	5.3	0.4	5.7	4.9	0.3	5.3	5.4	0.2	5.6	4.3	0.2	4.5
Companywide, Other	2.4	0.0	2.3	0.8	0.0	0.9	1.0	(0.1)	0.8	1.5	(0.1)	1.3
Total	30.2	6.6	36.9	34.8	6.1	40.9	49.3	6.3	55.7	34.0	6.8	40.8

(Ref.) Depreciation Expenses

	FY2016	FY2017	FY2018	FY2019 Assumption
Environmental Management & Recycling	4.5	4.3	5.3	5.6
Nonferrous Metals	3.8	4.6	4.1	4.1
Electronics Materials	2.3	2.7	2.8	3.4
Metal Processing	2.0	2.4	2.7	3.1
Heat Treatment	1.9	2.0	2.3	2.8
Companywide, Other	0.9	1.0	1.1	0.9
Total	15.7	17.2	18.6	20.2

Major capital investment projects in fiscal 2019

- Environmental Management & Recycling:
Non-combustible waste recycling facility
- Nonferrous Metals:
Impurities removal equipment for Zinc recycling raw material
- Electronics Materials:
Equipment for research and development of new products
- Metal Processing:
Copper alloy products manufacturing facilities
- Heat treatment:
Heat treatment processing facilities

Ref. Historical Data

■ Consolidated financial data

Billion yen

		FY2016					FY2017					FY2018				
		1Q	2Q	3Q	4Q	Full year	1Q	2Q	3Q	4Q	Full year	1Q	2Q	3Q	4Q	Full year
Total	Net Sales	93.7	91.0	102.9	122.8	410.5	110.1	109.1	119.3	116.1	454.7	115.1	106.6	114.4	116.5	452.9
	Operating Income	7.6	5.7	7.3	13.3	33.9	8.2	6.4	8.6	7.6	30.9	6.9	2.4	3.4	5.9	18.6
	Ordinary Income	6.8	6.7	9.1	13.7	36.5	9.0	8.1	10.4	8.6	36.3	8.5	4.2	4.0	7.3	24.3
	Profit attributable to owners of parent	4.9	4.9	6.4	9.8	26.1	6.1	5.5	7.4	5.4	24.6	6.0	2.8	1.7	4.2	14.9
Environmental Management & Recycling	Net Sales	21.8	23.5	23.3	28.1	96.9	24.3	23.9	25.1	25.8	99.3	26.3	24.8	25.2	27.8	104.4
	Operating Income	1.0	1.6	1.9	2.0	6.6	1.6	0.9	1.3	1.0	4.9	1.7	1.0	1.6	1.2	5.6
	Ordinary Income	0.8	1.6	2.1	2.1	6.8	1.7	1.2	1.6	1.1	5.7	1.9	1.3	1.6	1.3	6.2
Nonferrous Metals	Net Sales	49.7	44.7	52.2	60.9	207.7	50.1	52.2	58.2	57.2	217.9	58.7	50.6	54.8	57.5	221.6
	Operating Income	2.9	0.3	1.3	5.4	10.0	2.9	1.4	2.8	2.0	9.2	1.6	(1.4)	(1.6)	2.0	0.5
	Ordinary Income	2.9	0.9	2.4	5.8	12.2	3.8	2.6	3.5	2.9	13.0	2.8	(0.1)	(1.1)	3.1	4.6
Electronics Materials	Net Sales	13.1	13.9	17.1	18.3	62.5	23.2	17.7	20.6	16.0	77.7	17.7	15.5	17.0	14.6	64.9
	Operating Income	1.4	1.4	1.4	2.2	6.5	1.4	1.5	1.4	1.0	5.6	1.1	0.4	0.3	0.2	2.1
	Ordinary Income	1.2	1.5	1.8	2.1	6.8	1.5	1.7	1.6	1.1	6.1	1.3	0.7	0.4	0.4	3.1
Metal Processing	Net Sales	17.5	17.5	18.9	21.4	75.4	21.0	21.1	24.5	23.8	90.6	23.0	22.9	23.3	22.6	92.0
	Operating Income	1.5	1.6	1.7	2.0	6.9	1.5	1.6	2.0	2.0	7.2	1.6	1.4	1.9	1.2	6.2
	Ordinary Income	1.5	1.6	1.8	2.0	7.1	1.6	1.7	2.0	2.0	7.5	1.7	1.4	1.9	1.2	6.4
Heat Treatment	Net Sales	5.5	5.9	6.3	7.2	25.1	5.9	7.0	6.9	8.3	28.2	6.3	7.2	7.9	8.0	29.7
	Operating Income	0.4	0.4	0.4	1.0	2.3	0.3	0.7	0.6	0.9	2.6	0.4	0.7	0.7	0.4	2.4
	Ordinary Income	0.3	0.3	0.5	0.9	2.2	0.2	0.7	0.6	0.8	2.5	0.5	0.7	0.8	0.4	2.5
Other/ Elimination	Net Sales	(14.0)	(14.8)	(15.1)	(13.4)	(57.4)	(14.5)	(13.0)	(16.2)	(15.3)	(59.1)	(17.1)	(14.5)	(13.9)	(14.2)	(59.9)
	Operating Income	0.2	0.2	0.3	0.5	1.3	0.3	0.1	0.3	0.5	1.2	0.2	0.1	0.3	0.6	1.4
	Ordinary Income	(0.1)	0.5	0.2	0.5	1.1	0.0	0.0	0.8	0.5	1.3	0.1	0.0	0.3	0.7	1.2

■ Exchange rate and Metal prices

	FY2016 (average)					FY2017 (average)					FY2018 (average)				
	1Q	2Q	3Q	4Q	Full year	1Q	2Q	3Q	4Q	Full year	1Q	2Q	3Q	4Q	Full year
Exchange Rate: (¥/\$)	108.1	102.4	109.3	113.6	108.4	111.1	111.0	113.0	108.3	110.9	109.1	111.5	112.9	110.2	110.9
Copper: (\$/t)	4,730	4,774	5,281	5,834	5,154	5,663	6,347	6,808	6,959	6,444	6,872	6,103	6,168	6,220	6,341
Zinc: (\$/t)	1,915	2,253	2,518	2,781	2,367	2,598	2,962	3,234	3,422	3,054	3,114	2,534	2,630	2,704	2,746
Indium: (\$/kg)	237	206	195	190	207	186	182	239	298	226	307	266	233	210	254

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.