OJIHOLDINGS

November 7, 2024

Summary of Financial Business Results



Summary of Financial Business Results

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Trends of Net Sales by Segment (consolidated) / Trends of Operating Profit (consolidated) / Trends of Return on Equity (ROE) / Trends of Net Interest-bearing Debt (consolidated)

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This document does not constitute a disclosure document under the provisions of the Financial Instruments and Exchange Law, and no guarantees are provided concerning the accuracy of completeness of the information contained therein. Forecasts and other forward-looking statements in this document represent judgments by Oji Holdings Corporation based on information available at the time of the briefing, and they may be affected by unforeseeable events. You are therefore urged not to make investment decisions solely on the basis of this document. Oji Holdings Corporation will not accept any liability whatsoever for losses incurred as a result of use of this document.



01

1st-half of FY2024 Result Overview

1) Financial Highlights of 1st-half of FY2024 (consolidated)

(¥ billion)

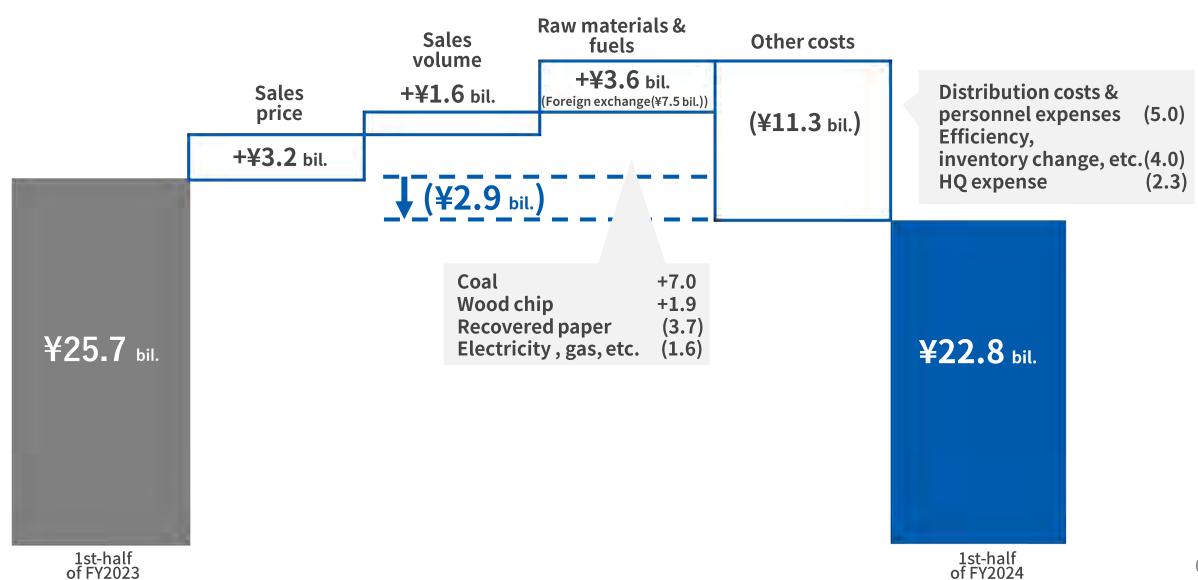
		1st-half of FY2023	1st-half of FY2024	Increase(Decrease)
Net Sales		847.1	922.9	75.8
Operating Profit [Domestic Companies] [Overseas Companies]		38.8 [25.7] [13.1]	37.2 [22.8] [14.4]	(1.6) [(2.9)] [1.3]
Ordinary Profit		50.8	39.4	(11.4)
Profit Attributable to Owners of Parent		31.6	24.2	(7.4)
Depreciation		39.1	41.2	2.1
Overseas Sales Ratio		34.4%	40.9%	6.5pt
Average Exchange Rate (¥/US\$)		141.1	152.8	11.7
Consolidated Companies C	omestic Overseas Total	95 105 200	94 124 218	(1) +19 +18
Domestic: (1)[Printing]				

Overseas: +1[Forest Plantation in Uruguay], +21[Packaging in Europe], (1)[Filter in China], (1)[Corrugated Containers in Singapore], (1)[Labels in Singapore]

1 Financial Highlights of 1st-half of FY2024 (consolidated)

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Domestic Companies - Breakdown of Operating Profit Difference (FY2023 1st-half vs FY2024 1st-half)

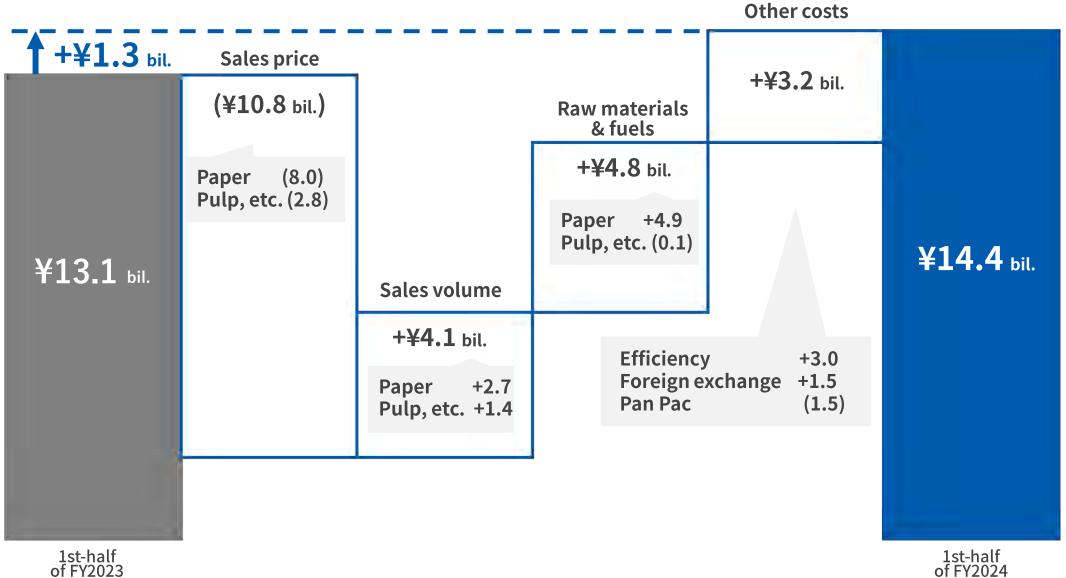


of FY2024



1 Financial Highlights of 1st-half of FY2024 (consolidated)

Overseas Companies - Breakdown of Operating Profit Difference (FY2023 1st-half vs FY2024 1st-half)





2 Sales and Operating Profit by Segment [1st-half of FY2024 Result]

(¥ billion)

	1st-half of F	/2023	1st-half of F	/2024	Increase (Decrease)		
	Net Sales Ope	erating Profit	Net Sales Ope	erating Profit	Net Sales Ope	erating Profit	
Household & Industrial Materials	399.1	5.6	418.3	3.8	19.2	(1.8)	
Functional Materials	113.8	4.4	121.5	6.7	7.7	2.3	
Forest Resources & Environment Marketing	180.5	18.7	202.3	17.5	21.8	(1.2)	
Printing & Communications Media	149.0	7.1	146.2	4.1	(2.8)	(3.0)	
Others	4.7	3.0	34.7	5.2	30.0	2.2	
Total	847.1	38.8	922.9	37.2	75.8	(1.6)	

^{*1:} Sales include inter-segment sales *2: Others include adjustment amount



■ Household and Industrial Materials

Decreased profits due to deteriorating overseas markets and raw materials price differences in NZ

Increase (Decrease) of Operating Profit

(1.8)_{4b}

1st-half of FY2024

Net Sales O

Operating Profit

¥418.3 bil.

¥3.8 bil.

Dom ¥7.2b

OS ¥(3.4b)



1st-half of FY2023

Net Sales

Operating Profit

¥399.1 bil.

¥5.6 bil.

Dom ¥7.6b

OS ¥(2.0b)

Domestic (¥0.4 bil.)

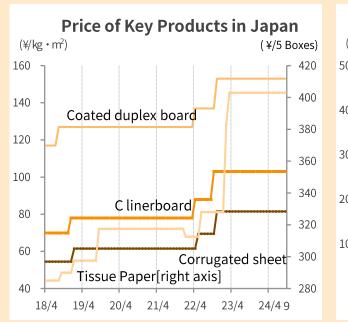
Other costs (¥4.0 bil.) (Personnel Expenses & Distribution Costs : (3.8))

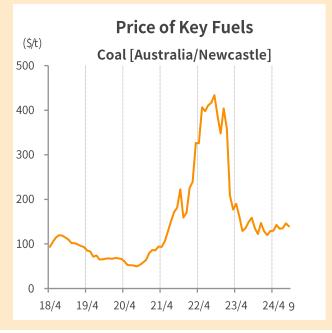
Sales & market +¥3.1 bil. factor etc.

Overseas (¥1.4 bil.)

Sales & market (¥3.1 bil.) factor

Price difference in +¥2.2 bil. raw materials & fuels (SEA +3.3, NZ (1.1)) etc.





		1st-half of FY2023			1st-half of FY2024			Increase (Decrease)			
Sales of Key Pro	ducts (*)	Sales Volume	Unit Price	Sales Amount	Sales Volume	Unit Price	Sales Amount	Sales Volume	Year-on Year	Unit Price	Sales Amount
		1,000t(or) million m	¥/kg(or)m²	¥ billion	1,000t(or) million m	¥/kg(or)m²	¥ billion	1,000t(or) million m	%	¥/kg(or)m²	¥ billion
Paperboard	Domestic	1,398	85.63	119.7	1,410	86.34	121.7	12	100.9%	0.71	2.0
Corrugated containers (million m²)	Domestic	1,505	76.56	115.2	1,504	76.81	115.5	(1)	99.9%	0.26	0.3



■ Functional Materials

Increased profits due to higher volumes in domestic markets and improvement in price of raw materials & fuels in overseas

Increase (Decrease) of Operating Profit

OS ¥2.8b

1st-half of FY2024

Net Sales

Operating Profit

¥121.5 bil.

¥6.7 bil.

Dom ¥3.9b



1st-half of FY2023

Net Sales

Operating Profit

¥113.8 bil.

¥4.4 bil.

Dom ¥3.2b

OS ¥1.2b

+0.7 bil. **Domestic**

Sales & market +¥1.7 bil. factor

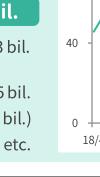
Price difference in (¥0.4 bil.) raw materials & fuels etc.

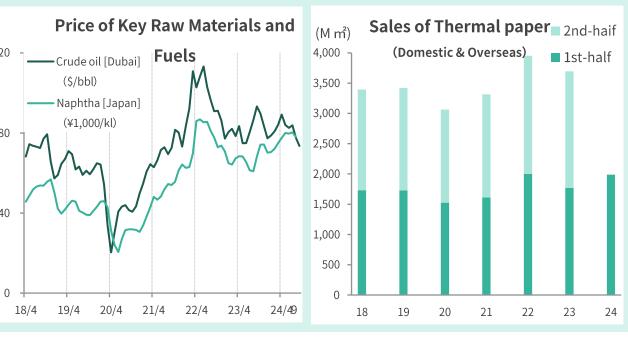
+1.6 bil. **Overseas**

Price difference in +¥2.3 bil. raw materials & fuels

Other costs +¥1.5 bil.

Sales & market (¥2.2 bil.) factor

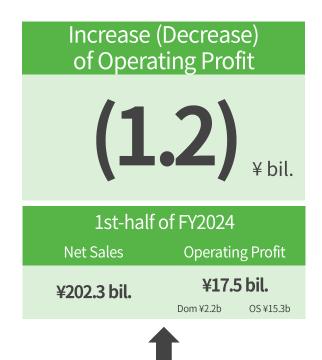




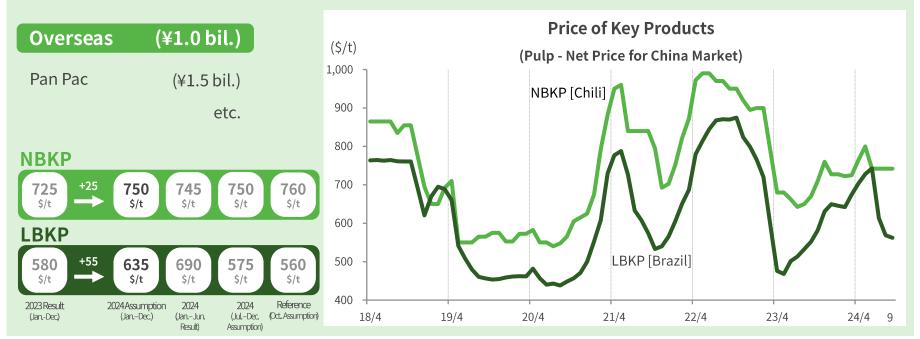
	1st-half of FY2023			1st-half of FY2024			Increase (Decrease)			
Sales of Key Products (*)	Sales Volume 1,000t(or) million m	Unit Price	Sales Amount	Sales Volume 1,000t(or.) million m	Unit Price	Sales Amount	Sales Volume 1,000t(or) million m	Year-on Year	Unit Price	Sales Amount
	million m	¥/kg(or)m²	¥ billion	million m	¥/kg(or)m²	¥ billion	million m	%	¥/kg(or)m²	¥ billion
Thermal paper Domestic& (million m²) Overseas	1,772	25.91	45.9	1,988	24.82	49.3	215	112.1%	(1.08)	3.4



Forest Resources and Environment Marketing Manufacturing facilities at Pan Pac restored





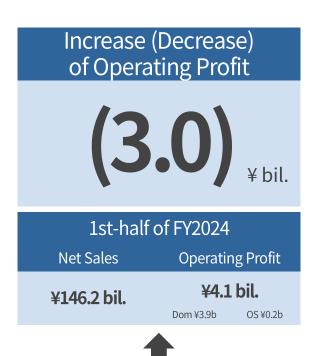


Increase (Decrease)			
Unit Price	Sales Amount		
¥/kg(or)m²	¥ billion		
8 96	21.4		
0.50	21.1		
-	-		
ear	ear Unit Price		

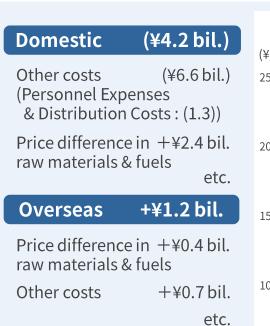


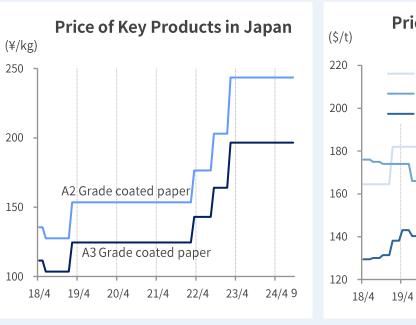
Printing and Communications Media

Decreased profits due to increased costs in domestic markets while overseas business profit increased









(¢/+\	Price of Key Raw Materials
(\$/t)	(Woodchip)
220	——Australia hardwood
200 -	— US softwood Thailand hardwood
180	
160 -	
140 -	
120 18/4	19/4 20/4 21/4 22/4 23/4 24/4 9

	1st-half of FY2023			1st-half of FY2024			Increase (Decrease)			
Sales of Key Products (*)	Sales Volume	Unit Price	Sales Amount	Sales Volume	Unit Price	Sales Amount	Sales Volume	Year-on Year	Unit Price	Sales Amount
	1,000t(or) million m	¥/kg(or)m²	¥ billion	1,000t(or) million m	¥/kg(or)m²	¥ billion	1,000t(or) million m	%	¥/kg(or)m²	¥ billion
Newsprint, printing & Communication paper	851	126.92	108.0	804	126.35	101.6	(47)	94.5%	(0.57)	(6.4)



02

FY2024 Financial Forecast

1 Financial Forecast for FY2024 (consolidated)

(¥ billion)

	FY2023	FY2024F	Increase(Decrease)
Net Sales	1,696.3	1,877.0	180.7
Operating Profit [Domestic Companies] [Overseas Companies]	72.6 [64.8] [7.8]	70.0 [50.0] [20.0]	(2.6) [(14.8)] [12.2]
Ordinary Profit	86.0	73.0	(13.0)
Profit Attributable to Owners of Parent	50.8	57.0	6.2
Depreciation	79.5	88.0	8.5
Overseas Sales Ratio	34.9%	40.7%	5.8pt
Average Exchange Rate(¥/US\$)	144.6	153.9	9.3

Assumption for FY 2024 Financial Forecast

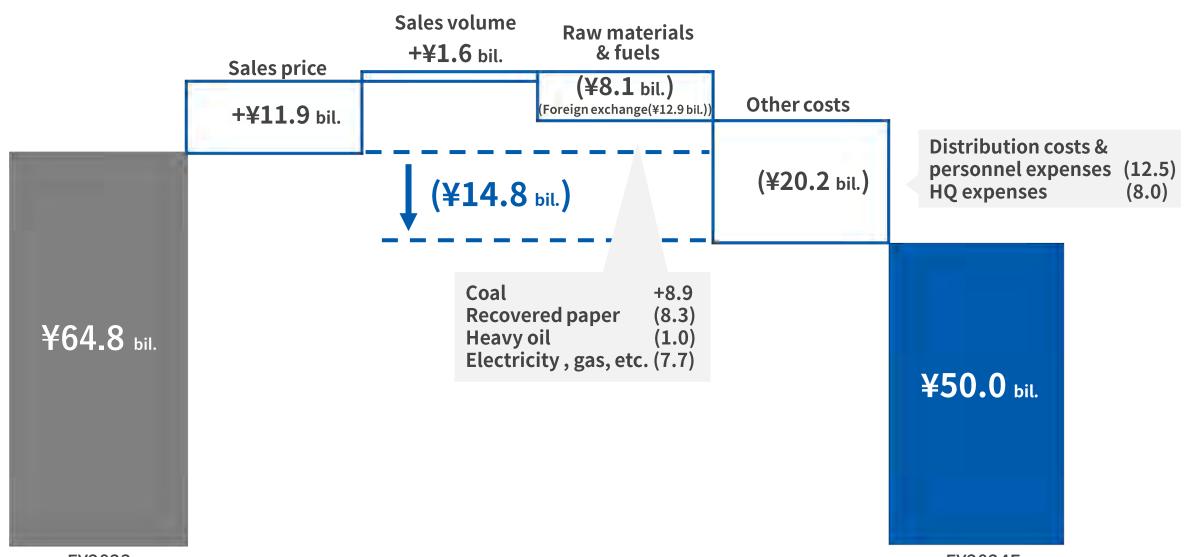
•	
◆Assumption	
Exchange rates	:155JPY/USD (Assumed exchange rate for 2nd-half)
Woodchip	:based on current contract
Recovered paper	:static at current level
Coal	:based on current Australia
	coal price (US\$150/t)
Heavy Oil	:based on current Dubai
	crude oil price (US\$75/bbl)

Effects of fluctuation on operation profit (per annum)							
Exchange rates [JPY]	: approx. ¥0.83 billion with a fluctuation of US\$ by 1% (strong US\$ -)						
[BRL]	: approx. ¥0.41 billion with a fluctuation of US\$ by 1% (strong US\$ +)						
[NZD]	: approx. ¥0.82 billion with a fluctuation of US\$ by 1% (strong US\$ +)						
Price of pulp	: approx. \pm ¥3.16 billion with a fluctuation of US\$10/t (high price +)						
Price of woodchip	: approx. \pm ¥5.14 billion with a fluctuation of US\$10/BDt (high price -)						
Price of recovered paper	: approx. \pm ¥3.07 billion with a fluctuation of ¥1/kg						
Price of Dubai crude oil	: approx. \pm ¥0.34 billion with a fluctuation of US\$1/bbl						
	(heavy oil, bunker, naphtha and others)						



1 Financial Forecast for FY2024 (consolidated)

Domestic Companies - Breakdown of Operating Profit Difference (FY2023 vs FY2024F)



FY2023

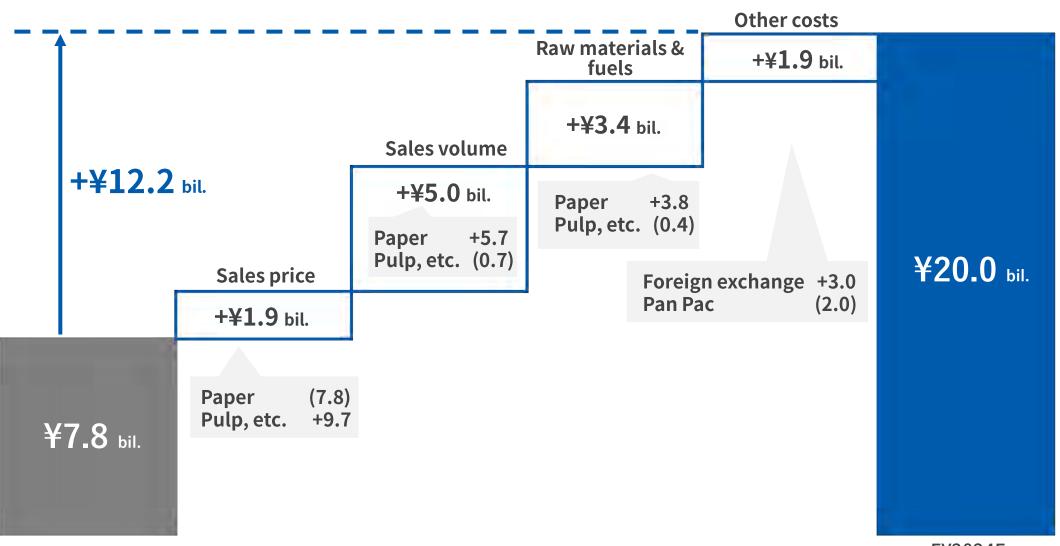
FY2024F



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1 Financial Forecast for FY2024 (consolidated)

Overseas Companies - Breakdown of Operating Profit Difference (FY2023 vs FY2024F)



FY2023

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2 Sales and Operating Profit by Segment [FY2024 Forecast]

(¥ billion)

	FY2023		FY2024F		Increase (Decrease)	
	Net Sales Ope	erating Profit	Net Sales Ope	erating Profit	Net Sales Op	perating Profit
Household & Industrial Materials	798.7	21.2	846.6	11.0	47.9	(10.2)
Functional Materials	227.5	9.1	240.1	12.0	12.6	2.9
Forest Resources & Environment Marketing	359.6	19.6	409.2	30.0	49.6	10.4
Printing & Communications Media	299.4	16.8	293.0	9.0	(6.4)	(7.8)
Others	11.1	5.9	88.1	8.0	77.0	2.1
Total	1,696.3	72.6	1,877.0	70.0	180.7	(2.6)

^{*1:} Sales include inter-segment sales *2: Others include adjustment amount

OIL HOLDINGS

3 Operating Profit by Segment

Household & Industrial Materials

	FY2023	FY2024F
Net Sales	798.7	846.6
Operating Profit	21.2	11.0
[Domestic]	[26.1]	[18.3]
[Overseas]	[(4.9)]	[(7.3)]
Operating Margin	2.7%	1.3%

Operating Profit (¥10.2 bil.)

Domestic (¥7.8 bil.)

Overseas (¥2.4 bil.)

Functional Materials

	FY2023	FY2024F
Net Sales	227.5	240.1
Operating Profit	9.1	12.0
[Domestic]	[7.2]	[7.1]
[Overseas]	[1.9]	[4.9]
Operating Margin	4.0%	5.0%

Operating Profit **¥2.9 bil.**

Domestic (¥0.1 bil.)

Overseas +¥3.0 bil.

Forest Resources & Environment
Marketing

	FY2023	FY2024F
Net Sales	359.6	409.2
Operating Profit	19.6	30.0
[Domestic]	[5.5]	[5.5]
[Overseas]	[14.1]	[24.5]
Operating Margin	5.5%	7.3%

Operating Profit ¥10.4 bil.

Domestic +¥0.0 bil.

Overseas +¥10.4 bil.

Printing &
Communications
Media

	FY2023	FY2024F
Net Sales	299.4	293.0
Operating Profit	16.8	9.0
[Domestic]	[17.4]	[9.2]
[Overseas]	[(0.6)]	[(0.2)]
Operating Margin	5.6%	3.1%

Operating Profit (¥7.8 bil.)

Domestic (¥8.2 bil.)

Overseas +¥0.4 bil.

4 Impact on Operating Profit from External Environment



(¥billion/year)

◆Changes in exchange rates			Household & Industrial Materials	Functional Materials	Forest Resources& Environment Marketing	Printing& Communi- cations Media	Tota	al	
Impact from USD fluctuation on	Japanese Yen	(%)	Assumed exchange rates for 2nd-half of FY2024 155.00 円/USD						(8.3)
trade & profit- conversion	Brazilian Real	(BRL)	5.70 BRL/USD						+3.6
(in case of stronger USD by 10%)	New Zealand Dolla	ar (NZD)	1.67 NZD/USD						+8.2
(※) The figure includ	des the effect of conve	rsion of profit in	USD to JPY				D: :: 0		
◆Changes in pulp prices			Household & Industrial Materials	Functional Materials	Forest Resources& Environment Marketing	Printing& Communi- cations Media	Tota	al	
Pulp sales & pu	rchase (USD 10/t hig	gher)		\			\		+3.4

OJI HOLDINGS

5 FY2024 Comparison with Previous Forecast

(¥ billion)

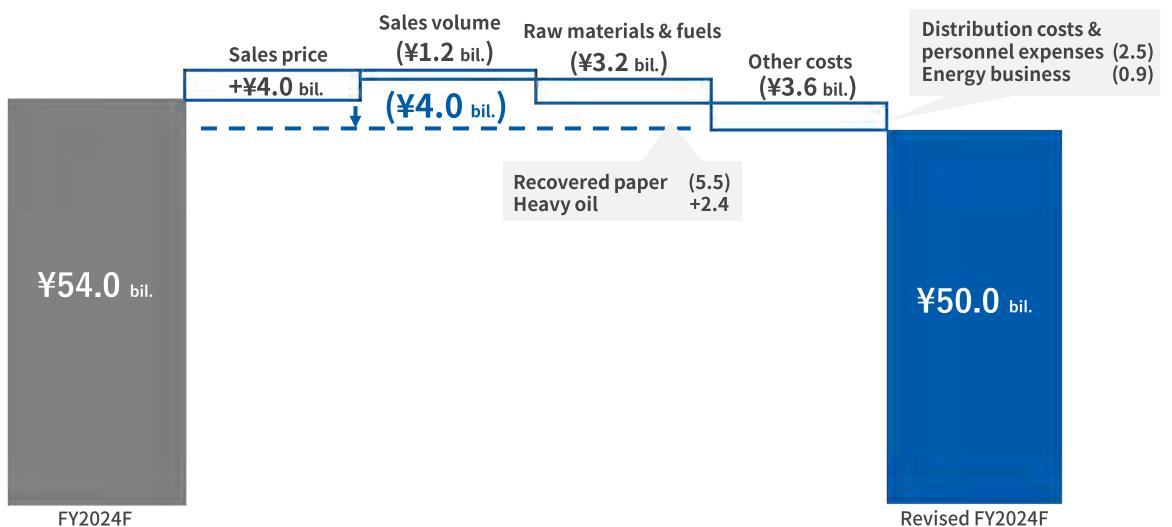
	FY2024F	FY2024F (Revised)	Increase(Decrease)
Net Sales	1,950.0	1,877.0	(73.0)
Operating Profit [Domestic Companies] [Overseas Companies]	95.0 [54.0] [41.0]	70.0 [50.0] [20.0]	(25.0) [(4.0)] [(21.0)]
Ordinary Profit	100.0	73.0	(27.0)
Profit Attributable to Owners of Parent	75.0	57.0	(18.0)
Depreciation	92.0	88.0	(4.0)
Overseas Sales Ratio	41.6%	40.7%	(0.9pt)
Average Exchange Rate(\(\frac{\pma}{US}\))	155.0	153.9	(1.1)
Dividend(¥/share)	24	24	-
Dividend payout ratio	31.5%	41.7%	10.2pt

Dividend policy

We will maintain a stable dividend commensurate with profitability for the time being, with a minimum annual dividend of ¥24/share and payout ratio of 30% as an adequate ratio, while considering internal reserves to prepare for investment in growth to enhance corporate value over the long term.



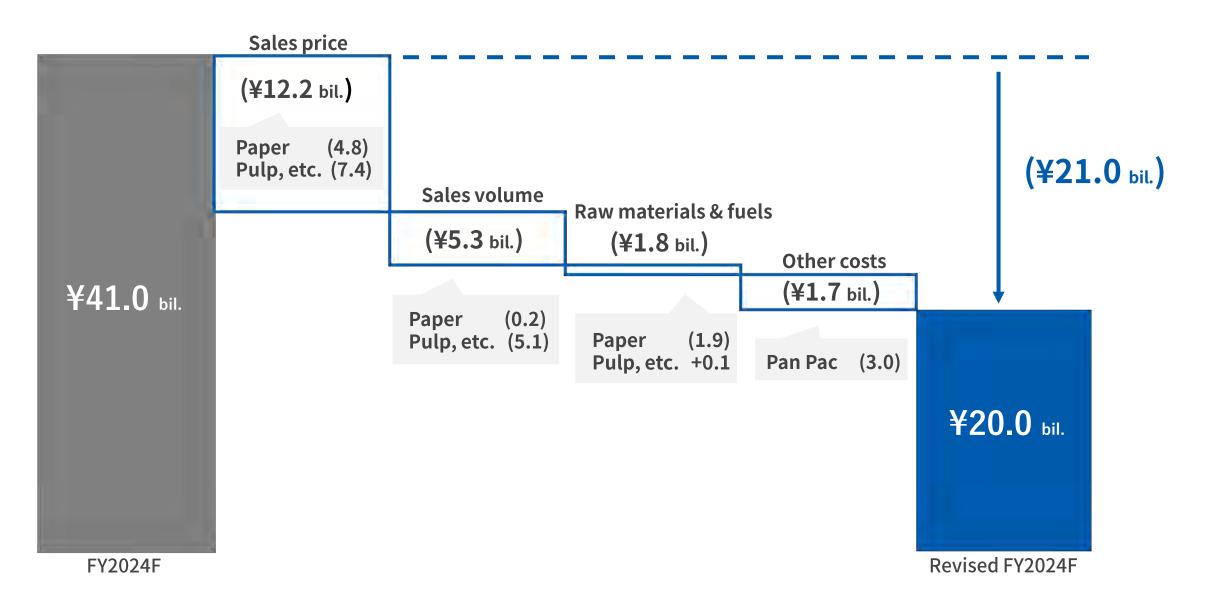
(5) Revised Financial Forecast for FY2024 (consolidated) Domestic Companies - Breakdown of Operating Profit Difference (FY2024F vs Revised FY2024F)





5 Revised Financial Forecast for FY2024 (consolidated)

Overseas Companies - Breakdown of Operating Profit Difference (FY2024F vs Revised FY2024F)



OIL HOLDINGS

6 Sales and Operating Profit by Segment [Revised FY2024 Forecast]

(¥ billion)

		FY2024F		FY2024F (Revised)		Increase (Decrease)	
		Net Sales Ope	erating Profit	Net Sales Ope	erating Profit	Net Sales Op	perating Profit
	Household & Industrial Materials	866.0	20.0	846.6	11.0	(19.4)	(9.0)
	Functional Materials	247.0	11.0	240.1	12.0	(6.9)	1.0
	Forest Resources & Environment Marketing	442.0	47.0	409.2	30.0	(32.8)	(17.0)
	Printing & Communications Media	298.0	12.0	293.0	9.0	(5.0)	(3.0)
ı	Others	97.0	5.0	88.1	9.4	(8.9)	4.4
	Total	1,950.0	95.0	1,877.0	70.0	(73.0)	(25.0)

^{*1:} Sales include inter-segment sales *2: Others include adjustment amount

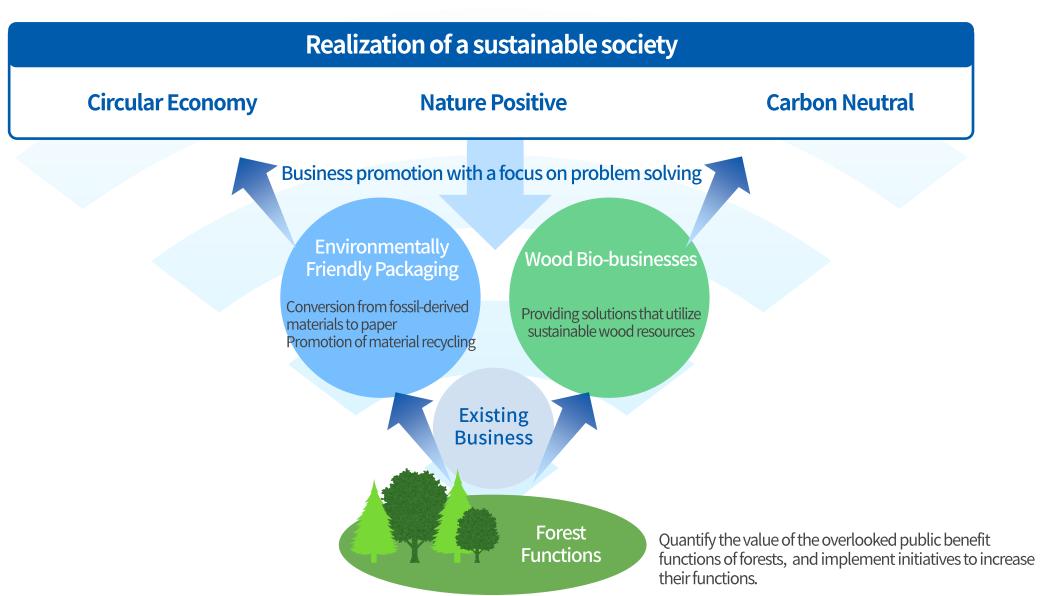


03

Topics

Initiatives for Sustainable Growth-State





Initiatives for Sustainable Growth-State of Progress





Announcement of economic value assessment of company owned forests (Oji Forests) and quantification projects in Japan

②TNFD Report

► Issuance of "Oji Group TNFD Report 2024"

- 1)#9 Machine in Tomakomai
- Restructuring of production system
- Convert for wood bio-businesses in the future
- ②Streamlining of Assets
- Promoting reuse and sale of assets
- Promoting reduction of shares held
- 1) Walki Case Study
- Adopted by a brand of major French dairy cooperative
- Development of environmentally friendly packaging
- ②Investments in Deluxe
- Investments in Deluxe, high-end molded pulp packaging equipment and product manufacturer in Taiwan
- 3 Material Recycle
- Establishing a new business model with Hoshino Resorts
- Recycling used paper cups into hand towels
- (4) Contest Awards
- Received awards at JAPAN PACKAGING CONTEST 2024 •OJI Materia's easy-to-transparent base paper "Sankayou"
- **5**Exhibiting at Tokyo Pack
- Provided sustainable packaging solutions
- (1)(Plastics, fuels) Sugar solution, Ethanol
- Scheduled to be completed in Dec 2024(sugar solution), Mar 2024(ethanol)
- •Contributing to decarbonization by replacing petroleum-based fuels and plastics with "wood-based" fuels and plastics
- ②Biomanufacturing **Ecosystem**
- Selected as NEDO Research and Development of Technologies to Promote Biomanufacturing
- Promote to reduce shareholdings
- ③Cellulose Resin Composite Pellets
- Developed "ToughCel pellet VF" with low acetaldehyde emissions
- 4 Licorice, Wood-derived Pharmaceuticals
- •OJI Pharma is licensed as 1st & 2nd class marketing authorization holders of pharmaceuticals
- Expand licorice into pharmaceutical, cosmetics and food fields

Environmentally **Friendly Packaging**

Aim for early expansion



Investments Deluxe

(3) Material Recycle



Awards

Exhibiting at Tokyo Pack (Plastics, fuels) Sugar solution.

> Cellulose Resin Composite

Ethanol

(2)

Wood Bio-businesses

As next-generation core business

Biomanufacturing Ecosystem

Pellets

Licorice. Wood-derived **Pharmaceutic**

Existing Business



(2) **Streamlining** of

Assets

<u>Ec</u>onomic

Forest **Functions** Aim to create economic value

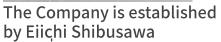
TNFD Report



Business Activities Rooted in Forest Resources









Oji Zorin is established



Total area of Oji Forests 635k ha

Production forest 472k ha

Sustainable management through reforestation

Conservation forest 163k ha

Focusing on forest conservation activities

1873

1875

1890

1937

2024

Continuing Nature Positive

Management rooted in forest resources

Wood pulp production starts

A factory is built in Oji, Tokyo
Waste cloth was used as a raw material

"Those who use trees have the responsibility to plant trees."

> Ginjiro Fujiwara President, Oji Paper Co., Ltd. (1930s)

Topics

1

p.28

Visualization of Forest Public Benefit Functions

Topio

2

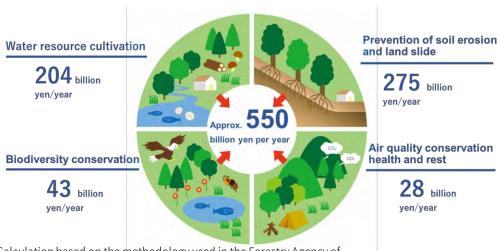
Initiatives for the Conservation of Biodiversity





Visualization of non-financial information on forests to promote nature positivity

Evaluation of the public value of Oji Forests in Japan (190k ha)



*Calculation based on the methodology used in the Forestry Agency of Japan's Valuation of the Public Benefit Functions of Forests. Reviewed



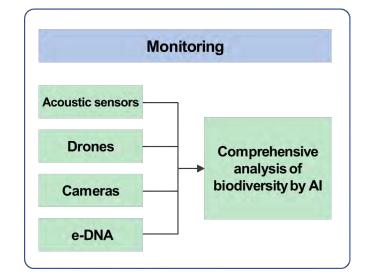
Area by region of Oji Forests (k ha)

Biodiversity Visualization Project in Sarufutsu

- Efforts are underway to further improve accuracy in Oji Forests in Sarufutsu,
 Hokkaido, which is estimated to be of high biodiversity importance
- Collaboration with Hokkaido
 University and a startup with
 biodiversity visualization technology



Safurutsu Forest and Mokeuni Marsh with the Sea







2 Issuance of TNFD Report





Disclosing the Oji Group's nature-related issues and initiatives

Visualize the value of nature and accelerate the initiatives to enhance that value

Topics of the TNFD Report

CENIBRA (Brazil) Forest, the largest in the Oji Group

Initiatives

- Of the 250,000 ha of forest owned and managed, 107,000 ha (43%) are conservation forests.
- Monitor biodiversity regularly.
- Implement various protection and conservation activities, including the reforestation and the protection of endangered species.
- Build close relationships with local communities through the CENIBRA Institute.



Reforestation in wastelands

- Sustainable forest management for approximately 50 years.
- Obtained LIFE certification, indicating that the positive impact of biodiversity conservation outweighs the pressure from corporate activities.
- Identified nature-related dependencies, impacts, risks and opportunities and organized responses.
- Set measurable time-bound targets for nature.

Japanese forests of high biodiversity importance



Fairy pitta in Koyagauchi Company-owned forest, Kochi Prefecture, Japan.

- Registered Kochi Koyagauchi Company-owned forest as an OECM, contributing to the achievement of the 30 by 30.
- Visualized forest value by quantifying the importance of biodiversity and the water source cultivation function.
- The annual economic value of forest functions is approx. 550 billion yen.

1 Production Facilities Shutdown



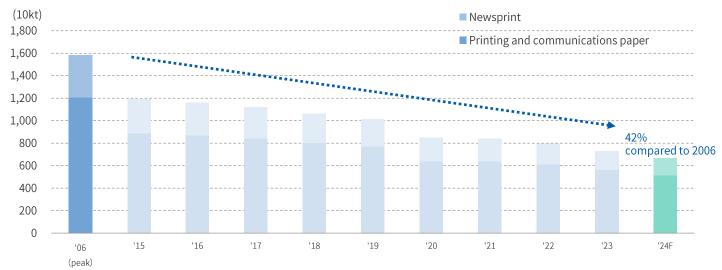
Reduce fixed costs and improve production efficiency through machine consolidation and establishing an optimized production system.

	Name	Products	% of annual capacity reduction
Overview	Oji Paper Tomakomai Mill, #9 Machine	Printing paper	(5%)

Trend for domestic demand for graphic paper (Newsprint, printing and communications paper)

Continued decline since peaking in 2006, due to structural environmental changes such as advancements in ICT, declining birth rates, and population decrease.

<Domestic demand trend for graphic paper>



Graphic paper production facilities shutdown since '08

No. of shutdown	21 facilities (5 facilities since '20)
Reduced volume	1,780 kt/year
Capacity reduction	53% reduced
Future direction	 Avoid efficiency deterioration by shutting down facilities in response to current declining demand and thoroughly implement cash flow management. Convert graphic paper production facilities to wood bio-businesses in the future

Source: Japan Paper Association "Statistics on Paper and Paperboard

2 Streamlining of Assets

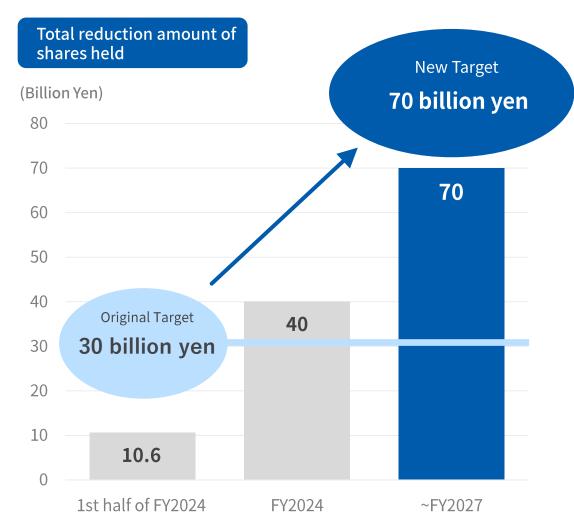


Promoting reuse and sale of assets

- Determination of policy on the sale of real estate for rent held in Tokyo
- Continuous consideration on the sale of non-core businesses and assets

Promoting reduction of shares held

- Strengthen initiative to reduce strategic shareholdings
- Thoroughly reconsider current shareholdings with focus on the shares contributed to retirement benefit trust



Funds from the sale of shares will be utilized for investments to support sustainable growth, shareholder returns (dividends, acquisition of own shares), etc.

Initiatives to provide a solution for plastic-free products



Existing business

Strengthening the product lineup, acquiring technology and know-how, expanding the area

Total packaging that contributes to Carbon Neutral

Products

Corrugated container
General packaging paper
General folding carton

Acquisition of a liquid packaging company (Italy/IPI)

- Joint Investments in a folding carton company (Vietnam/Songlam)
- Acquisition of an advanced materials conversion company (Finland/Walki)
- Investments in a molded pulp company (Taiwan/Deluxe)
- Development of non-fluorine oil-resistant paper
- · Development of laminated paper using plant-derived polylactic acid
- Promotion of material recycling

Japan SEA Oceania



Initiative of Sustainable Packaging Solutions in EU (French Pastry Product)



Investments in Deluxe, High-end Molded Pulp Packaging Equipment and Product Manufacturer in Taiwan Corrugated container
General packaging paper
General folding carton
Liquid packaging
High-performance packaging paper
(Non-fluorine, high barrier etc.)
Molded pulp packaging



Japan SEA Oceania India EU

1 Initiative of Sustainable Packaging Solutions in EU (French Pastry Product)



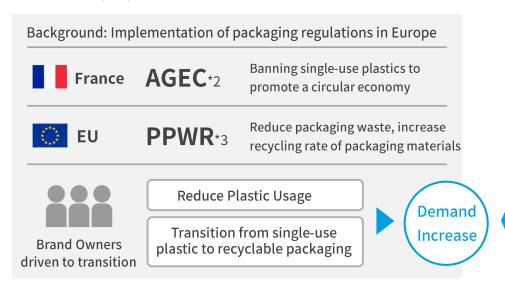


Future

Dev

Walki's Recyclable Packaging adopted for the Secondary Packaging of "Paysan Breton", a brand of Major French Dairy Cooperative, Laita*1

~Packaging Solutions Compliant with European Environmental Regulations for Packaging Materials.~

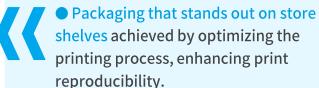




A leading company with advanced technologies in material conversion (Joined Oji Group in April 2024)

Proposals Based on Walki's Unique Technology

 Recyclable packaging ensures runnability and material sturdiness.





Laïta's pancake brand "Paysan Breton" secondary packaging

Walki's sustainable packaging

(Consumer Packaging)

- paper-based aluminum-free lids
- Plastic-free paper-based packaging
- PET-free trays for food (Industrial Packaging)
- Water/oil resistant barrier liner

Expand and upgrade sustainable packaging solutions in Japan, Asia, Oceania and other regions to

Establish sustainable growth and industry leadership in the environmentally friendly packaging industry

- *1) Laïta, one of the leading dairy cooperatives in Western France.
- *2) Anti-Gaspillage pour une Économie Circulaire: a French law on waste management for a circular economy
- *3) Packaging and Packaging Waste Regulation (Regulations aimed at reducing packaging waste and increasing the recycling rate of packaging materials in the EU)

03. Topics [Early Expansion of Environmentally Friendly Packaging]

2 Investments in Deluxe, High-end Molded Pulp Packaging Equipment and Product Manufacturer in Taiwan









①Trays adopted in Europe for small consumer electronics ②Food/beverage cups ③Precise embossing and sharp molding is also available

[Deluxe Overview]

Company Name	Deluxe Technology Group Co., Ltd
Location	Taipei city, Taiwan
Business	Manufacturing and sales of molded pulp packaging equipment and products

Deluxe Features

High-end Molded Pulp Packaging with Strength and Refined Finish

Advanced Technology

Development Expertise Adopted by Global Brands



Oji Holdings
acquired Deluxe products
and equipment's

Global Sales in Rights

Japan India

exclusive sales rights

0-degree draft angle* technology certified by leading global brand owners
 Meets strict quality requirements for applications such as electronics,

cosmetics, and food products.

 High dimensional stability for mass production, with a strong track record of adoption across Europe and Asia.

* "0-degree draft angle" – processing technology that requires extremely high precision, as the side surface is completely perpendicular to the direction of mold removal

Applications as Alternatives to Plastic Packaging

Integrated production from wood pulp to molded pulp packaging

Expanding Sustainable Total Packaging Solutions

Create innovative fiber-based solutions including molded pulp products, corrugated containers, and folding carton packaging for the markets in Japan, India, Southeast Asia, Oceania and Europe

Material Recycling Initiatives



Has maintained a high recovered paper utilization ratio by continuously working on the recycling of various types of recovered paper Implementing initiatives aimed at further increasing the domestic recovered paper utilization ratio

Start of paper production using recovered paper as raw material

▶ p.36

1950s

- Recycling confidential documents
- Installing equipment to process difficultto-decompose recovered paper
- Recycling paper tubes, mill wrapper, and laminated paper

Recycling of paper cups, etc., which had been handled as prohibited materials and disposed as combustible waste.

Contributing to a sustainable society through material recycling



Establishing a new business model

by proposing recycling systems



Initiatives with Super Hotel

Recycling into corrugated board





Initiatives with Tetra Pak

Recycling into corrugated board





Initiatives with Thespa Gunma, Kuribara Medical instruments, KPP

Recycling into box tissue case









Initiatives with Shimizu Corporation

Recycling into hand towel





OJI HOLDINGS

※ 1pack: 200 pcs

3 Establishing a new business model by proposing recycling systems

Recycling promotion activities – case study: A joint initiatives with Hoshino Resorts

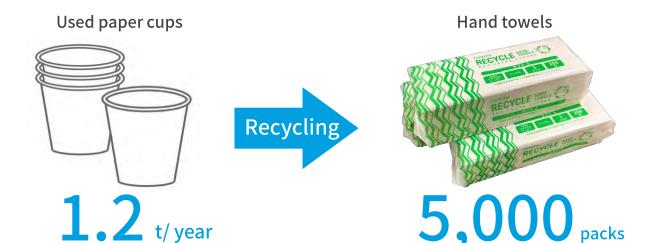
Background

Paper cups are generally laminated with plastic to enhance their water resistance, as a result they are handled as prohibited materials in current recycling system, and mostly **disposed as combustible waste.**

As a part of actions to achieve a paper recycling rate of over 70% stated in our "Environmental Action Goals 2030", we are establishing a recycling system for various paper packaging.

[Initiatives]

Start	July,2024
Place	Karuizawa, Nagano Pref
Recycle material	Used paper cups
Recycle product	Nepia Hand towels



Material recycling from "used paper cups" at Hoshino Onsen Tombo-no-Yu into "Hand towels"

Hoshino Onsen Tombo-no-Yu



Collect used paper cups

Existing distribution network



Sub-contract factory of Oji Nepia



Recycle as hand towels

Hoshino Onsen Tombo-no-Yu



Provide to customers

4 Action for Plastic-free Society(Contest awards)



Two works using OJI Materia's easy-to-transparent base paper "Sankayou" received Japan Star Awards.

Kami ale processing, which processes paper itself to make it transparent, realizes a single paper package as an alternative material to plastic.



JAPAN STAR

[Minister of Economy, Trade and Industry Award] *Highest award

[Kami-ale Design Window]

Japan Pulp & Paper Co., Ltd. / IMURA & Co., Ltd Base paper: OJI Materia's "Sankayou"



JAPAN STAR

[Chairman of Japan External Trade Organization (JRTRO) Award]

FUDE DE MANNEN by THE SAILOR

PEN THE SAILOR PEN CO., LTD. / IMURA & Co., Ltd Base paper: OJI Materia's "Sankayou"

JAPAN PACKAGING CONTEST 2024 Winning Entry

Appropriate Packing Award

Great Improvement!! "A Home-Use Automatic Fire Extinguisher Case" That Possesses All Features



Food Packaging Award 720g UD Eco PET



Biomass-Allocated OPS Lid Via Mass Balance Approach

Food Packaging Award



Large-sized Equipment Packaging Award Reliable Strength Is Secured by Hiple-ACE with American Lock



Daily Necessities and General Merchandise Packaging Award Eco Package HANABI



Daily Necessities and General Merchandise Packaging Award Corrugated Paper Cat Puzzle Box



Transport Packaging Award
Bee Star 1000



Large-sized Equipment Packaging Award Improvement of Automotive Fender Carton



5 Action for Plastic-free Society(Exhibiting at Tokyo Pack)



Packaging Materials: TOKYO PACK (Tokyo International Packaging Exhibition 2024) (Oct 23-25, 2024)

→ Theme: "GREEN INNOVATION —To the Next Frontier —"

For promoting wide range of environment friendly products across Oji Group to the public, we offered 3 solutions as the total packaging provider of sustainable packaging materials. We offered appropriate solutions to the various level of requests from visitors.

Number of registered visitors to Tokyo Pack: 70,712

Number of visitors to our booth: 16,836

Special Web Site of Oji Group for TOKYO PACK: https://oji-tokyopack2024.com



[Solution 1 – Replaced with Paper]



Proposing developed products that replaces current plastic products with paper or reduced plastics amount. As a result, we are able to contribute to the reduction of plastics used in daily life. The products developed were numerous and responding the needs of society.

- *1 Sankayo *2 O-hajiki *3 SILBIO CLEAR
- *4 Eco Multi Combi *5 Latest®Bio
- *6 100% paper bags with window for fruits and vegetables

[Solution 2 – Global Network]





Proposing eco-friendly packaging materials from Walki of Finland as a solution that complies with advanced EU packaging and packaging waste regulations. Also proposing high quality pulp molds that have been adopted as an alternative to plastic containers by many brand owners mainly in Europe and Asia.

*1 Walki Products *2 Deluxe Products

[Solution 3 – Expansion of Recycling]



Showing expansion of recycle system with paper cups and paper cartons with aluminum which had been eliminated from recycling system and burned.

*1 Corrugated container *2 Hand towel *3 Folding carton

Initiatives toward a Carbon-Neutral World



Wood resources for paper

Wood resources for materials other than paper

Realization of a carbon-neutral world through the sustainable use of wood resources

Wood pulp production starts

Wood-derived Sugar solution and Ethanol

Development at the bench plant (completed)





Wood-derived Sugar solution and Ethanol pilot plant





Biomanufacturing Ecosystem Construction Project

Mass production

Identifying issues at the pilot plant

[Case study]

- PLA for film and laminated paper
- Ethanol for SAF
- Petroleum alternative materials for rubber and fiber
- Cellulose Resin Composite Pellets for automotive interior components
- Pharmaceuticals
- Polyelectrolyte membrane for fuel cells
- Advanced Semiconductor Photoresist
- E-methane made in Japan



Expands Applications for Cellulose Resin Composite Pellets



Licorice, Wood-derived Pharmaceuticals

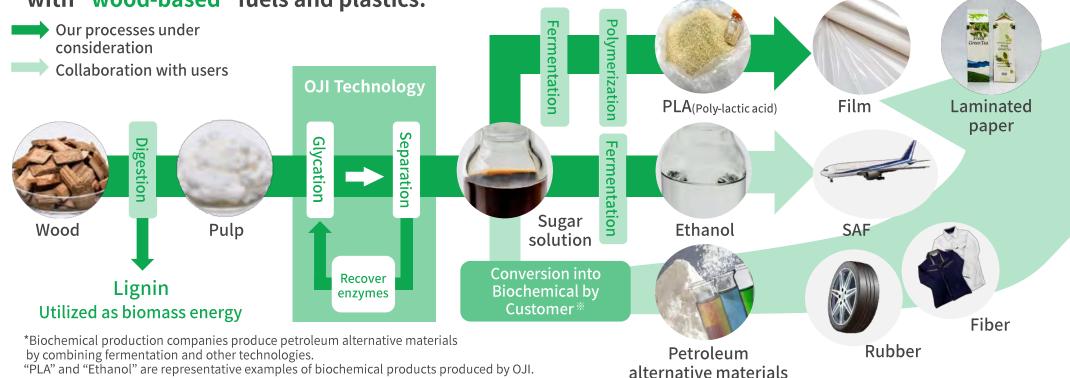
03. Topics [Wood Bio-businesses]

1 Progress of Wood-derived Sugar solution and Ethanol pilot plant at Yonago



Contributing to decarbonization by replacing petroleum-based fuels and plastics

with "wood-based" fuels and plastics.



Summary of wood-based sugar and ethanol pilot plant

Project is progressing as planned

Wood-derived sugar solution Dec 2024
Wood-derived ethanol Mar 2024

- Location: Oji Paper Co., Ltd. Yonago Mill
- Max 3,000t/year
- Max 1,000kL/year





03. Topics [Wood Bio-businesses]

CO_{2 emissions}

at disposing

or incinerating





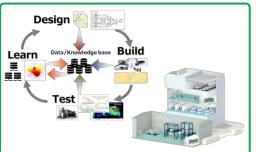
A consortium of six companies selected as NEDO Research and Development of Technologies to Promote Biomanufacturing

Oji Holdings Corporation (managing company), Bacchus Bio innovation Co., Ltd., JGC Holdings Corporation, ENEOS Materials Corporation, Osaka Gas Co., Ltd., Toray Industries, Inc.

Paper mill (existing infrastructure) Forest resources Design 🧶 **Domestic** materials Pulp Paper Conversion into key materials for biomanufacturing Imported Wood-derived sugar solution, ethanol, etc. wood chips Converting a paper mill into a bio-manufacturing factory **Abundant** biomass resources CO_{2 emissions} at manufacturing absorption

Chemical products, Clothing, Transportation fuel, Medical care, Food, Tire, Others

Integrated Biofoundry^{®*2}



Bio manufacturing **Providing** technology

Quickly respond to market needs for small quantities and a wide variety of products

Role of Oji HD

- Utilizing several hundred thousands tons of wood chips and recovered paper, which are surplus due to the decline in paper demand as unused resources
- Developing materials that solve social issues such as "wood-derived sugar solution, ethanol, polylactic acid from wood, Conducting production demonstrations for industrialization. and Considering commercialization.

*1:Ecosytem

A structure in which products from companies in the same field collaborate with each other, or companies in different industries generate profits while sharing their respective technologies and know-how.

*2:Integrated Biofoundry®

A one-stop bio-manufacturing platform that handles everything from developing and improving microorganisms to scaling up culture tanks and developing production processes.

3 Expands Applications for "ToughCel" Series of Cellulose Resin Composite Pellets



Developed "ToughCel pellet VF" with low acetaldehyde emissions

Before

Cellulose Resin Composite "ToughCel pellet"



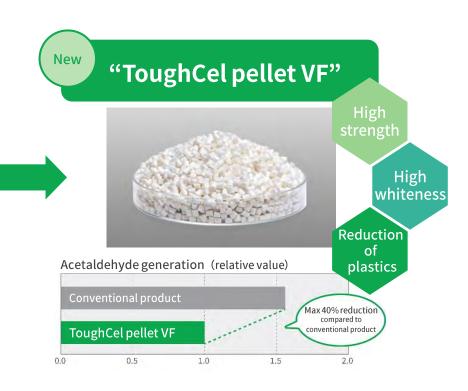


- Granular (pellet) form that can be molded into various shapes
- Manufactured using Oji's unique method
- Excellent rigidity and impact strength due to Uniformly dispersed cellulose and resin
- High whiteness due to less damage to cellulose
- Cellulose content is up to 52%
- Reduction of plastics

Issues/Requests

- VOC (*1) generation is a bottleneck for applications, such as large automotive interior components
- The molten pellets flow more easily into the mold, when producing components.
- *1) Volatile Organic Compounds

 Acetaldehyde is a kind of VOC



- Reduce acetaldehyde emissions during injection molding
- Improve material flowability

ToughCel pellet VF



Sample work started ▶

Adoption for automotive interior components

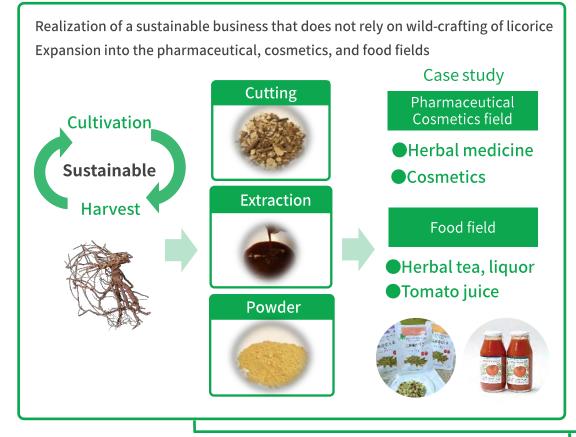
Expansion of supply system

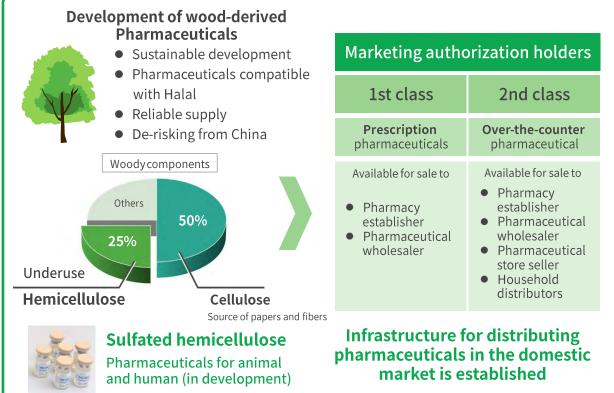
4 Licorice, Wood-derived Pharmaceuticals — Establishing Infrastructure for Commercialization



Success in large-scale cultivation with "proprietary breeding technology" of Licorice

OJI Pharma is licensed as 1st & 2nd class marketing authorization holders of pharmaceuticals





Accelerating the development of pharmaceuticals sales, including herbal medicine

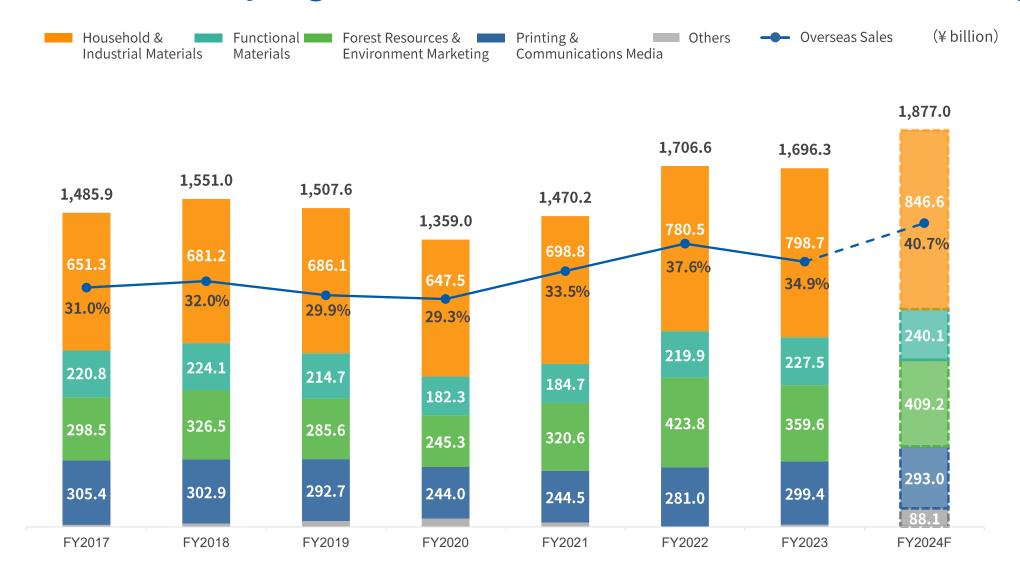


04

Reference Materials

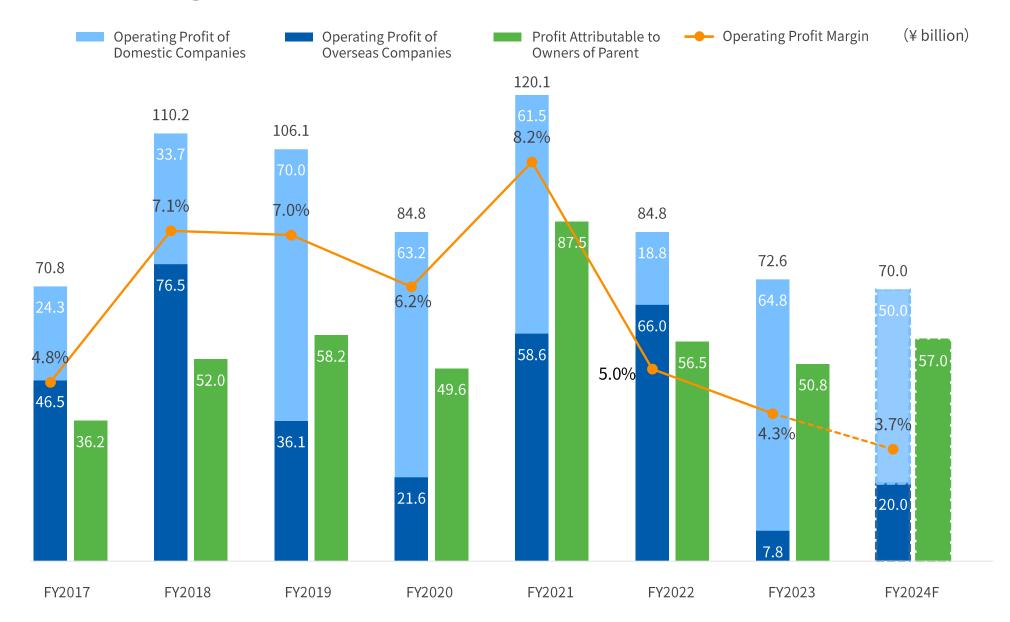
OJI HOLDINGS

Trends of Net Sales by Segment (consolidated)



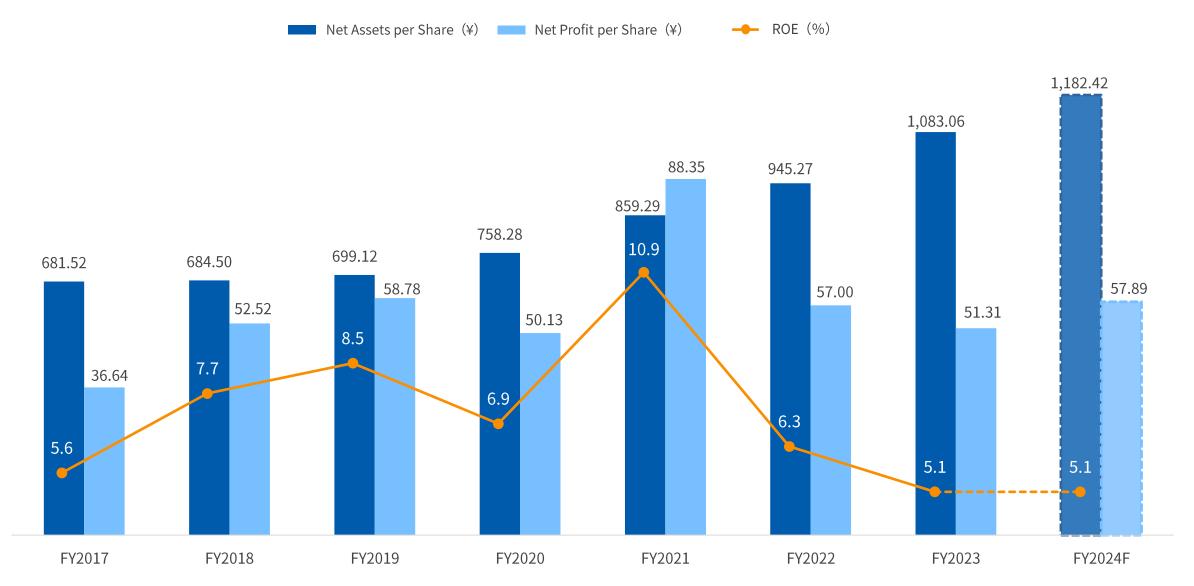
OJI HOLDINGS

Trends of Operating Profit (consolidated)



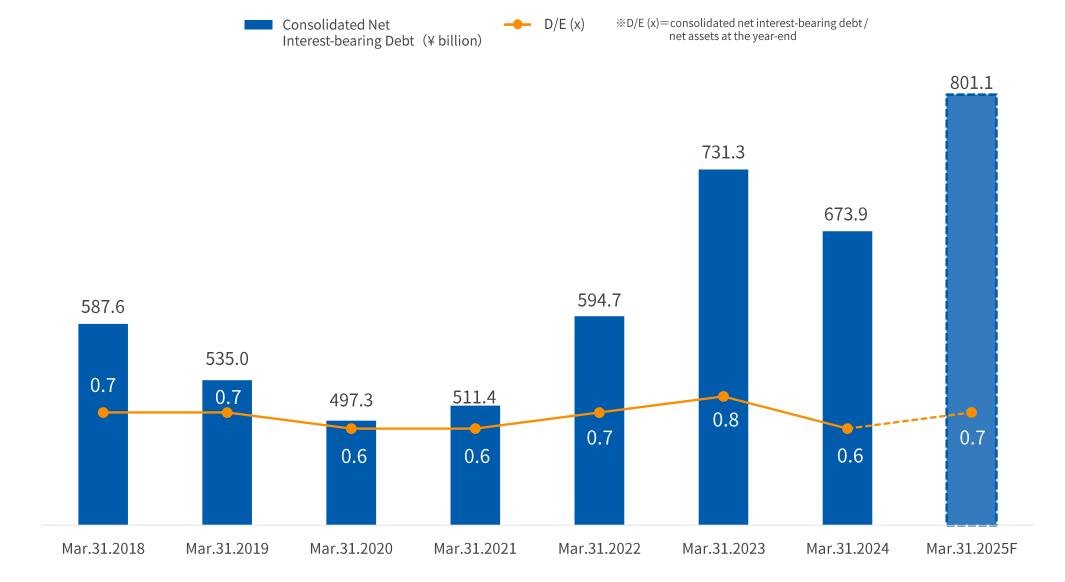
Trends of Return on Equity (ROE)





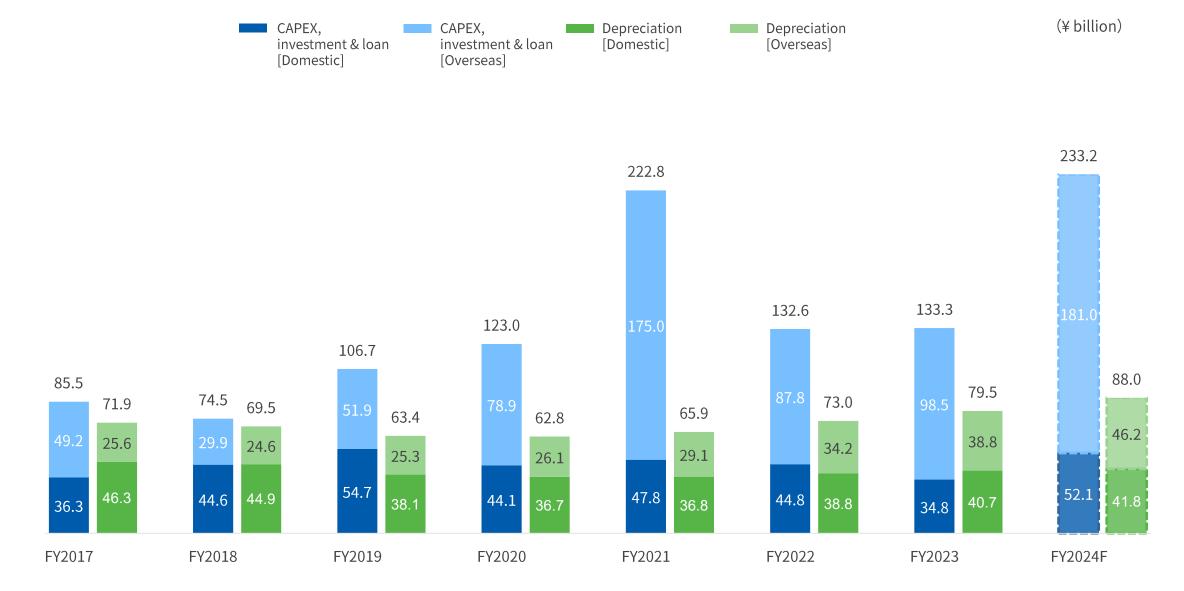
OJI HOLDINGS

Trends of Net Interest-bearing Debt (consolidated)



Trends of CAPEX / Depreciation (consolidated)





36,144

19,062

17,082

Mar.31.2018

17,140

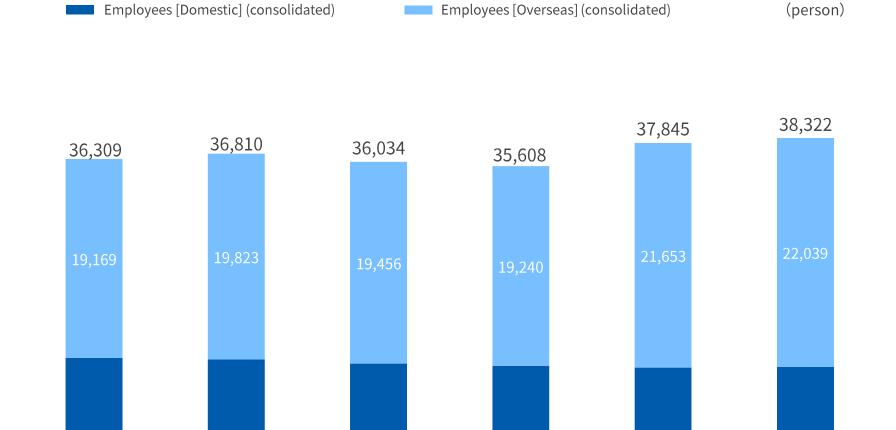
Mar.31.2019

16,987

Mar.31.2020

History of the Number of Employees (consolidated)





16,368

Mar.31.2022

16,192

Mar.31.2023

16,283

Mar.31.2024

16,578

Mar.31.2021

1st-half of FY2024 Industry Demand



(thousand ton)

		Domestic Shipments		Imports (Custom-cleared)		Total	
			Year-on-Year		%1 Year-on-Year		Year-on-Year
Paperboard	Containerboard	4,324	99.4%	13	119.9%	4,336	99.4%
	Boxboard	721	102.1%	103	108.8%	824	102.9%
	Other Paperboard	278	100.4%	11	78.6%	289	99.4%
Paperboard Total		5,323	99.8%	126	106.3%	5,449	99.9%
Paper	Sanitary Paper	915	101.4%	122	103.9%%2	1,037	101.7%
	Packaging Paper	298	100.0%	6	117.3%	304	100.3%
	Newsprint	748	90.5%	0	40.2%	749	90.5%
	Printing/Communications Paper	2,277	92.6%	259	98.4%	2,536	93.2%
	Miscellaneous Paper	271	106.3%	10	134.8%	281	107.1%
Paper Total		4,509	95.1%	397	100.9%	4,907	95.6%
Paperboard and Paper Total		9,833	97.6%	523	102.1%	10,356	97.8%

(million m²)

Corrugated Containers %3	7,069	99.9%		7,069	99.9%
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Source: Japan Paper Association - Statistics on Paper and Paperboard; Trade Statistics of Ministry of Finance, Japan; Japan Corrugated Case Association - Production Volume of Corrugated Case

^{*1:} Statistics for customs cleared imports of paper: April 2024 - September 2024(preliminary)

^{*2:} The figure includes secondary products (processed goods)

^{*3:} The figure represents the production volume of corrugated board