

1ST HALF FY2020/3 FINANCIAL REVIEW

November 6, 2019

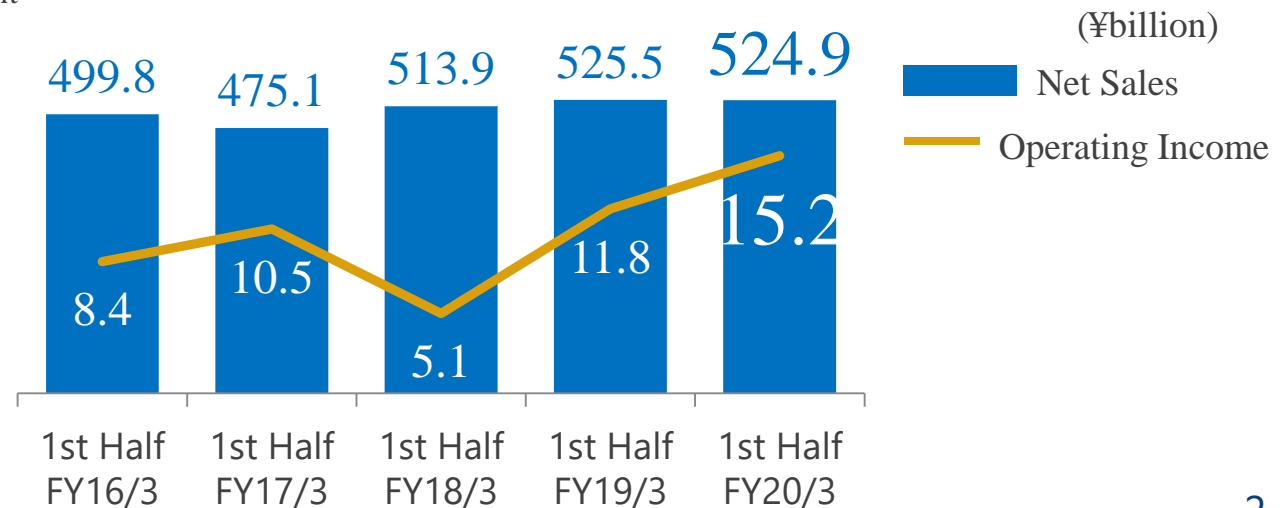
1st Half FY2020/3 Financial Results

Consolidated Statement

(¥billion)

	1 st Half FY2019/3 Results	1 st Half FY2020/3 Results	Variance	
			Amount	Rate of change
Net Sales	525.5	524.9	-0.6	-0.1%
Operating Income	11.8	15.2	3.4	29.0%
Ordinary Income	13.1	15.4	2.3	17.6%
Net Income*	-6.0	9.6	15.6	-

* Profit attributable to owners of parent



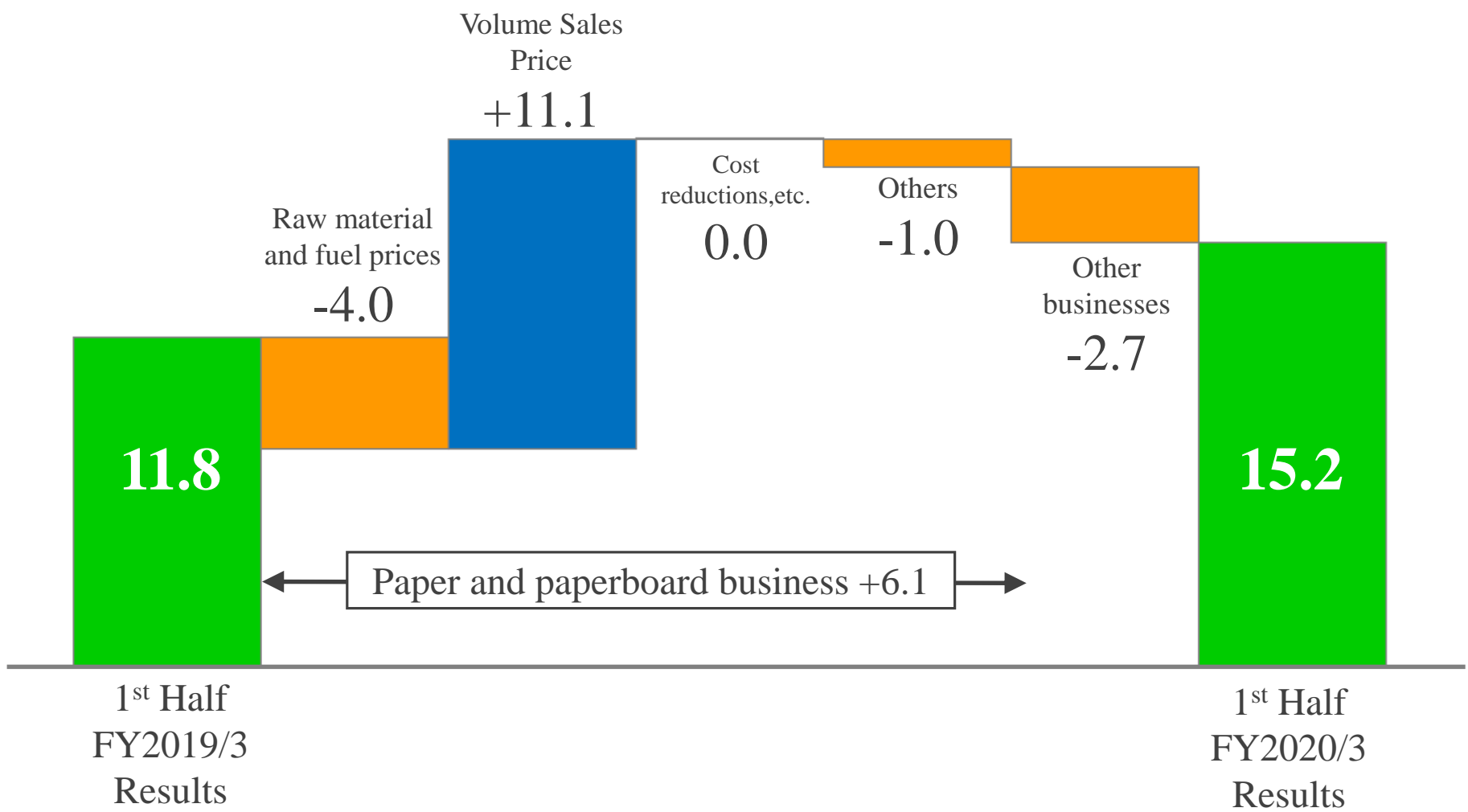
1st Half FY2020/3 Financial Results

Results by Segment

(¥billion)

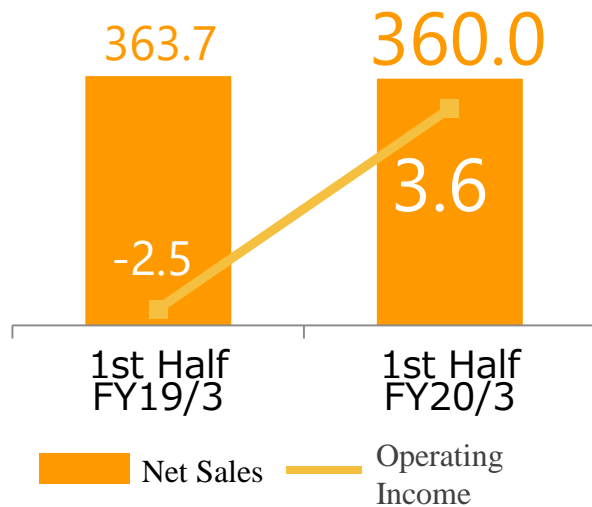
	Net Sales			Operating Income		
	1 st Half FY2019/3 Results	1 st Half FY2020/3 Results	Variance	1 st Half FY2019/3 Results	1 st Half FY2020/3 Results	Variance
Paper and paperboard	363.7	360.0	-3.7	-2.5	3.6	6.1
Daily-life products	100.5	105.2	4.7	6.3	4.5	-1.8
Energy	18.2	16.3	-1.9	4.3	3.2	-1.1
Wood Products and construction related	28.0	28.5	0.5	2.2	2.5	0.3
Others	15.1	14.9	-0.2	1.5	1.4	-0.1
Total	525.5	524.9	-0.6	11.8	15.2	3.4

Variance analysis for operating income



Paper and paperboard business

Net Sales and Operating Income (¥ billion)

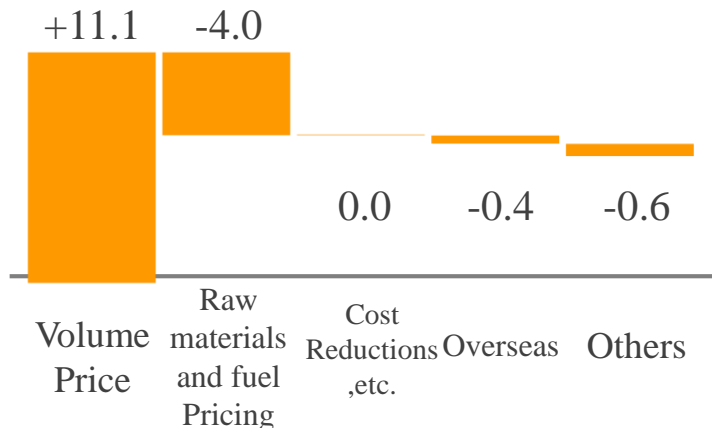


- Paper (Domestic)
Domestic sales volume was sluggish due to the decrease in newspaper circulation and weak demand for printed advertisement. Operating income rose due to the effect of price adjustment for printing paper, business communication paper and newsprint although the prices of raw materials such as woodchip rose.

- Paperboard(Domestic)
Domestic sales volume was down year on year due to unfavorable weather conditions. Export volume was also decreased due to the weak demand in China and other Asian regions.

- Oversea business
Sales and profits declined year on year partly due to the decrease in sales volume and sales prices of Jujo Thermal.

Variance analysis for operating income (¥ billion)



1st Half FY2020/3 Financial Results

Sales Volume(Paper & Paperboard)

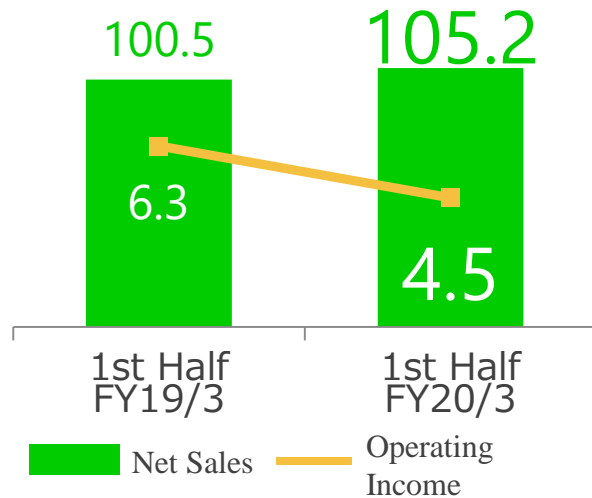
	1H FY2019/3	1H FY2020/3	YOY ('000 tonnes)
Newsprint	451	415	-8.0%
Printing paper	768	740	-3.7%
Business communication paper	240	252	4.8%
Others	183	180	-1.4%
Domestic sales (paper)	1,642	1,587	-3.4%
Export (paper)	207	161	-22.2%
Paper total	1,849	1,748	-5.5%
Container board	850	821	-3.4%
Folding box board and others	180	173	-4.3%
Domestic sales (paperboard)	1,030	994	-3.5%
Export (paperboard)	99	84	-14.6%
Paperboard total	1,129	1,078	-4.5%
Grand total (paper and paperboard)	2,977	2,825	-5.1%

* Each sales volume is the total of Nippon Paper Industries, Nippon Paper Papyrus, Nippon Paper Creca, and Shin-Tokai Paper (excluding sanitary paper)

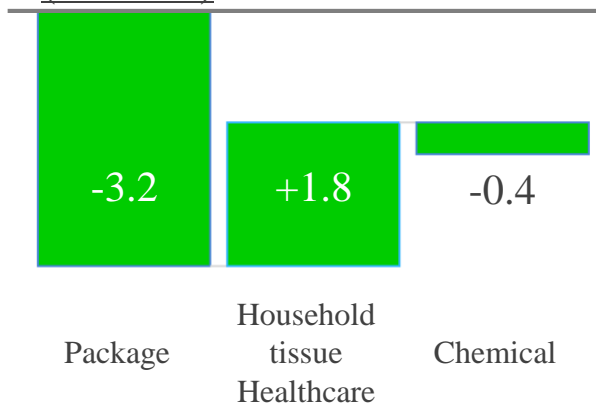
1st Half FY2020/3 Financial Results

Daily-life products business

Net Sales and Operating Income (¥ billion)



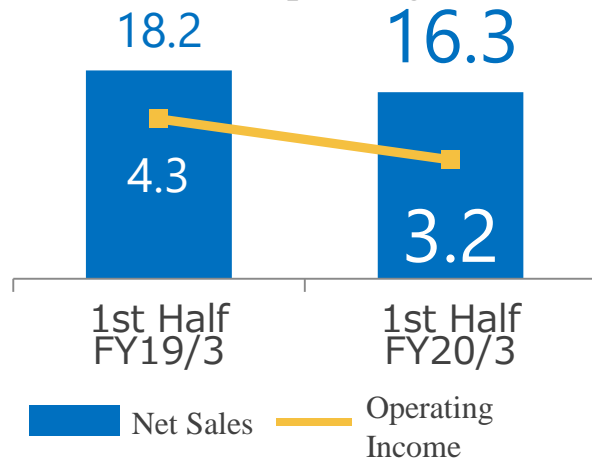
Variance analysis for operating income (¥ billion)



- Package
Domestic sales volume of liquid packaging cartons was down year on year due to sluggish beverage demand affected by unseasonable cold weather. Operating income of Nippon Dynawave Packaging declined due to the decrease in sales volume and the impact of maintenance shutdown.
- Household tissue and Health Care
Sales volume was up year on year due to strong demand for household tissue and toilet roll. Sales and profit rose as the price adjustment effect has gradually appeared.
- Chemical
Sales volume of functional films for small and medium sized displays was solid and increased year on year. However, sales volume of dissolving pulp declined due to sluggish overseas demand. As a result, chemical business saw higher sales and lower operating income.

Energy business

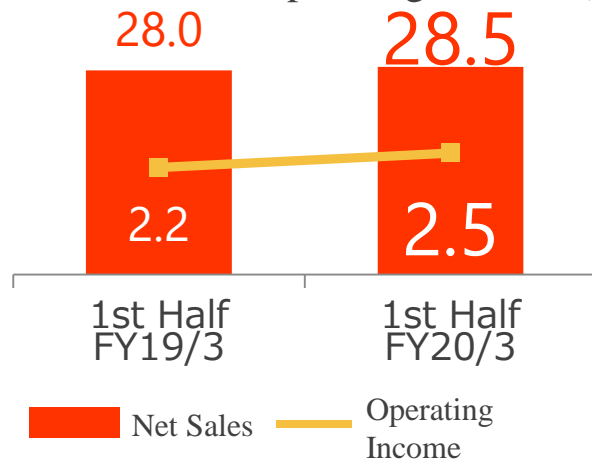
Net Sales and Operating Income (¥ billion)



In 1st Quarter, sales and profits declined due to the decrease of operating days at the power generation facilities and the increased fixed costs. Sales and operating income in 2nd Quarter were on a par with the same period of the previous fiscal year.

Wood products and construction related business

Net Sales and Operating Income (¥ billion)



Sales volume of Nippon Paper Lumber was down year on year due to weak new housing starts. On the other hands, sales for civil engineering and construction was up because the completion of some projects was pushed forward. Sales of AMCEL products were firm. As a result, higher sales and profits were recorded year on year.

1st Half FY2020/3 Financial Results

Consolidated Balance Sheets

	(¥billion)		
	Mar.31, 2019	Sep.30, 2019	Variance
Total assets	1,390.8	1,363.2	-27.6
Cash and time deposit	63.5	41.3	-22.2
Inventories	177.9	180.6	2.7
Other current assets	274.0	266.7	-7.3
Property, equipment, and intangible fixed asset	688.8	686.8	-2.0
Investment and other assets	186.6	187.8	1.2
Total liabilities	995.5	965.1	-30.4
Interests bearing liabilities	688.7	685.8	-2.9
Other liabilities	306.8	279.3	-27.5
Total net assets	395.3	398.1	2.8
Shareholder's equity	355.1	361.3	6.2
Total liabilities and net assets	1,390.8	1,363.2	-27.6
Net interest-bearing debt	625.2	644.5	19.3
Net D/E ratio	1.76	1.78	0.02

Consolidated Statement

(¥billion)

	FY2019/3 Results	FY2020 Revised Forecast	FY2020 Previous Forecast	Variance
Net Sales	1,068.7	1,070.0	1,120.0	-50.0
Operating Income	19.6	30.0	30.0	0
Ordinary Income	23.9	28.0	28.0	0
Net Income*	-35.2	13.0	13.0	0

* Profit attributable to owners of parent

Major assumptions (Second half)

Raw material and fuel prices	Wastepaper	The forecast for the second half is based on actual results for the first half
	Crude oil	\$65/BL (Dubai)
	Coal	\$80/t (Australian coal benchmark price)
FOREX	U.S. dollars	¥110/USD

Results by Segment

(¥billion)

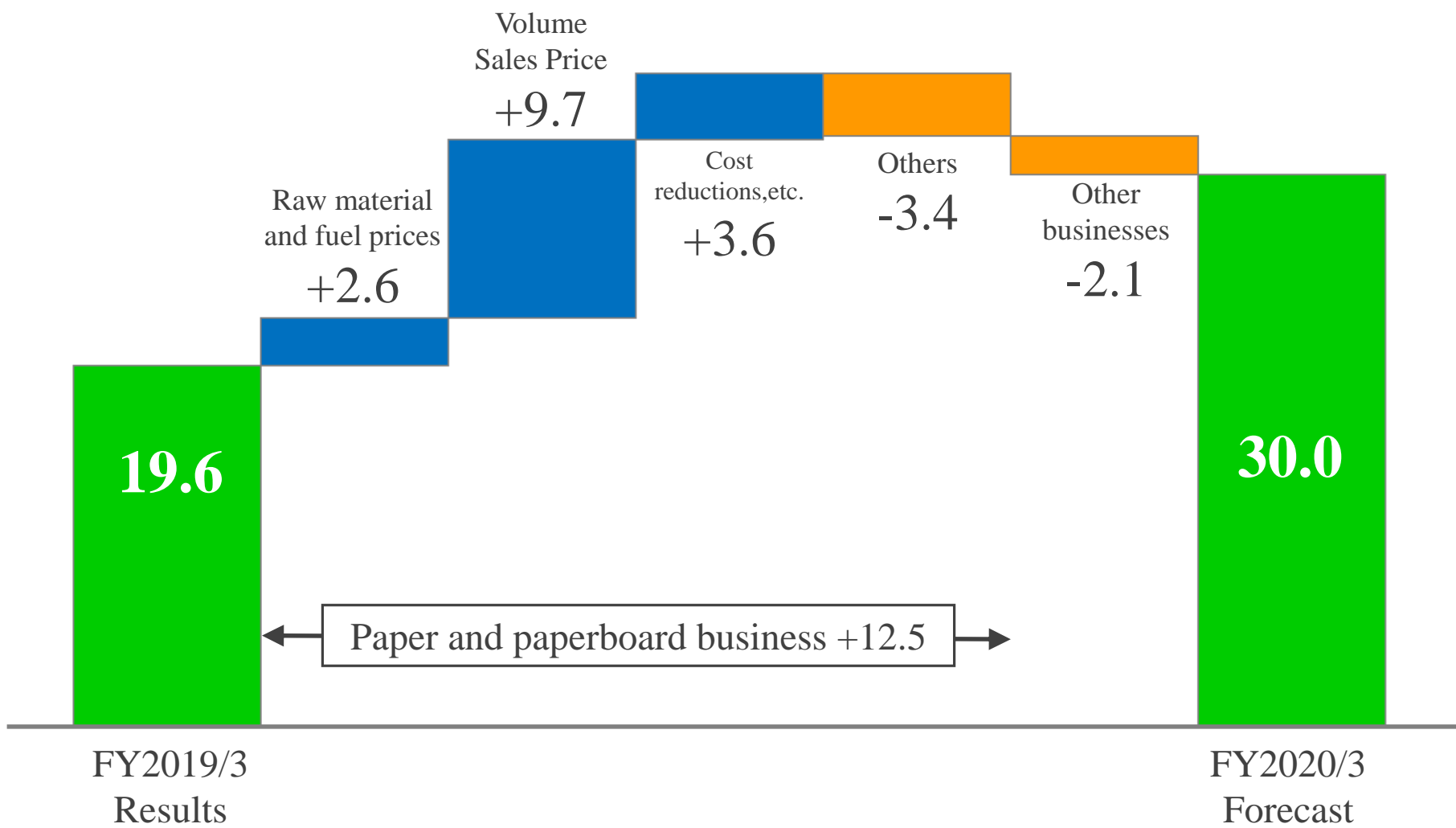
	Net Sales			Operating Income		
	FY2019/3 Results	FY2020 Forecast	Variance	FY2019/3 Results	FY2020 Forecast	Variance
Paper and paperboard	738.5	730.0	-8.5	-8.1	4.4	12.5
Daily-life products	201.7	215.0	13.3	11.6	11.9	0.3
Energy	36.2	33.0	-3.2	7.9	6.6	-1.3
Wood Products and construction related	59.8	60.0	0.2	4.9	4.6	-0.3
Others	32.5	32.0	-0.5	3.3	2.5	-0.8
Total	1,068.7	1,070.0	1.3	19.6	30.0	10.4

Sales Volume(Paper & Paperboard) Outlook

	FY2019/3 results	FY2020/3 estimate (As of Nov.6)	YOY	(’000 tonnes) FY2020/3 estimate (As of May.15)
Newsprint	904	819	-9.4%	824
Printing & Business communication paper	2,068	1,977	-4.4%	1,993
Others	375	366	-2.3%	377
Domestic sales (paper)	3,347	3,162	-5.5%	3,194
Export (paper)	402	356	-11.5%	402
Paper total	3,749	3,518	-6.2%	3,595
Domestic sales (paperboard)	2,052	1,994	-2.8%	2,094
Export (paperboard)	203	184	-9.3%	215
Paperboard total	2,255	2,179	-3.4%	2,309
Grand total (paper and paperboard)	6,004	5,696	-5.1%	5,904

※ Sales Volume Total of Nippon Paper Industries Co., Ltd., Nippon Paper Papyrus Co., Ltd., Nippon Paper Crexia Co., Ltd., and Shin Tokai Paper Co., Ltd. (excluding sanitary paper)

Variance analysis for operating income



Cellenpia®(Cellulose Nanofiber)

Applied for high performance tires in World-First

TEMPO oxidised CNF “Cellenpia®” was the world’s first one applied for the high-performance tires, “ENASAVE NEXTIII” newly produced by Sumitomo Rubber Industries, Ltd. (*Our research)

Used for the concept car

CNF-Reinforced Resin was used for the "Natural Cars Made from Wood," a concept car produced by the Ministry of the Environment's NCV project.

SHIELDPLUS ®

Investment in SHIELDPLUS ® for European Business Expansion

We have decided the investment in Jujo Thermal to commercially commence production of SHIELDPLUS® aiming for European market.

Newly adopted as ready-made package

Fukujuu Co.Ltd., a packaging material provider, has added SHIELDPLUS® to its ready-made paper bag products because SHIELDPLUS® is an eco-friendly paper material and performs high barrier properties.

REFERENCE MATERIALS

Key indicators

	FY2016/3	FY2017/3	FY2018/3	FY2019/3	FY2020	
					1st Half Results	Full year forecast
Operating income to net sales	2.2%	2.4%	1.7%	1.8%	2.9%	2.8%
Ordinary margin on sales	1.7%	2.7%	1.8%	2.2%	2.9%	2.6%
Capital expenditure (¥ billion)	46.9	51.3	72.8	60.3	33.1	73.2
Depreciation (¥ billion)	57.7	55.1	57.9	60.4	29.1	58.2
EBITDA (¥ billion)*1	83.1	81.5	78.1	82.5	45.7	91.0
Net interest-bearing debt (¥ billion)	591.3	588.0	634.6	625.2	644.5	640.0
Net D/E (times)	1.47	1.49	1.61	1.76	1.78	1.7 times
Number of employees	11,741	13,057	12,881	12,943	13,005	12,914
Earnings per share (¥)	20.95	72.57	67.80	-304.34	83.35	112.34
Dividends per share (¥)	60	60	60	30	10	40
ROA*2	2.0%	2.6%	1.9%	2.2%	-	2.6%

* 1: EBITDA=Operating income+Depreciation+Dividend income +Interest income

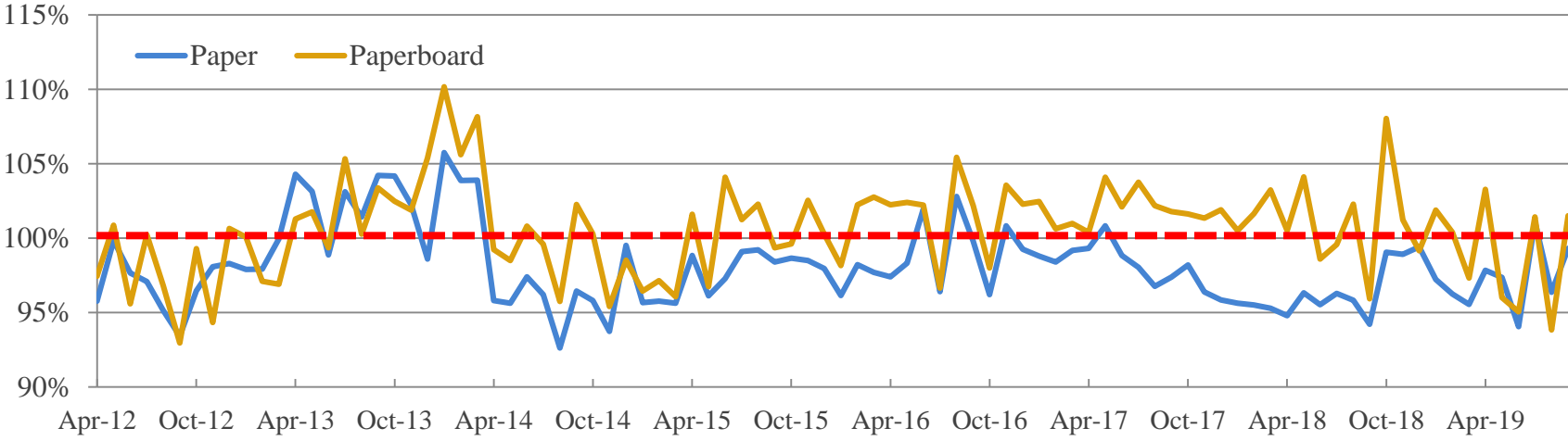
* 2: ROA =(Ordinary income+Interest expense)/Total assets *2020 are based on Total assets at the end of September 2019.

Domestic Demand and Export (Paper& Paperboard)

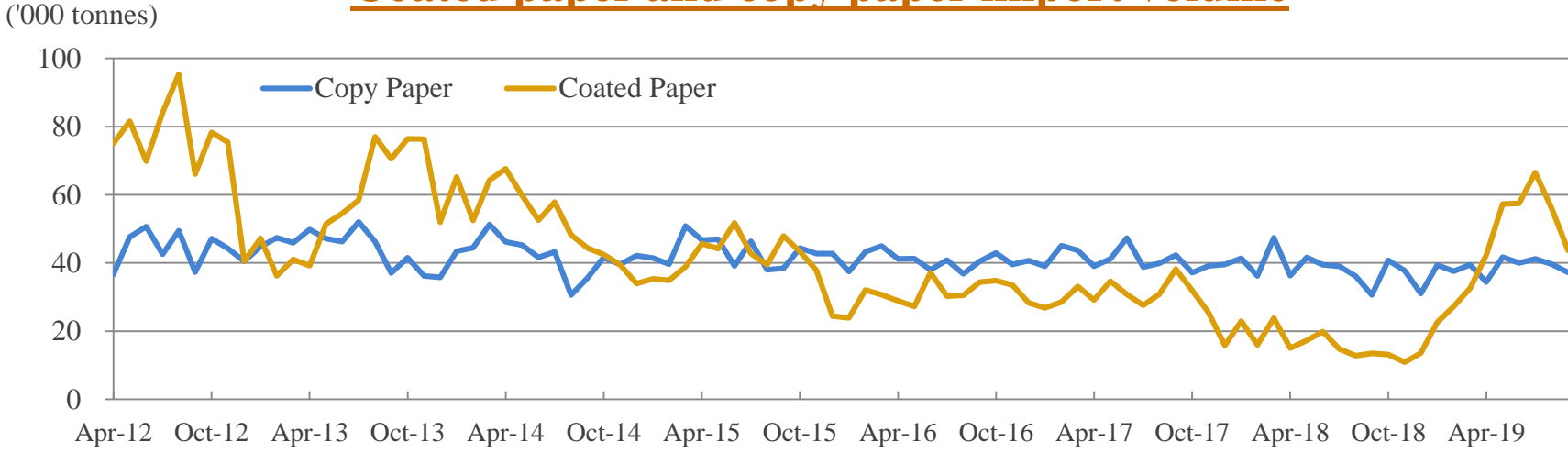
	April,2019 - September,2019									
	Domestic shipments(A)		Exports(B)		(A+B)		Imports(C)		Domestic demand(A+C)	
	volume	YOY	volume	YOY	volume	YOY	volume	YOY	volume	YOY
Newsprint	1,186	-7.0%	0	—	1,186	-7.0%	1	-63.9%	1,187	-7.1%
Printing & business communication paper	3,384	-2.5%	257	-38.9%	3,641	-6.4%	592	73.0%	3,976	4.3%
Coated paper *	1,836	-4.9%	188	-38.0%	2,024	-9.4%	323	247.0%	2,160	6.6%
Uncoated paper	877	-0.8%	55	-46.0%	932	-5.4%	35	33.7%	912	0.2%
Business communication paper	671	2.5%	15	-11.7%	686	2.2%	234	5.0%	905	3.2%
Other papers	1,606	1.8%	157	4.6%	1,763	2.0%	27	17.5%	1,633	2.0%
Paper total	6,176	-2.3%	414	-27.5%	6,590	-4.4%	620	68.8%	6,796	1.6%
Container board	4,548	-1.1%	216	-19.0%	4,763	-2.1%	22	-7.6%	4,570	-1.1%
Folding box board and others	1,079	-2.9%	13	1.0%	1,092	-2.9%	143	0.5%	1,222	-2.5%
Paperboard total	5,627	-1.4%	229	-18.1%	5,856	-2.2%	165	-0.6%	5,792	-1.4%
Paper and paperboard total	11,803	-1.9%	643	-24.4%	12,446	-3.4%	785	47.2%	12,588	0.2%

※ "Bitoko-shi" paper is included in coated paper.

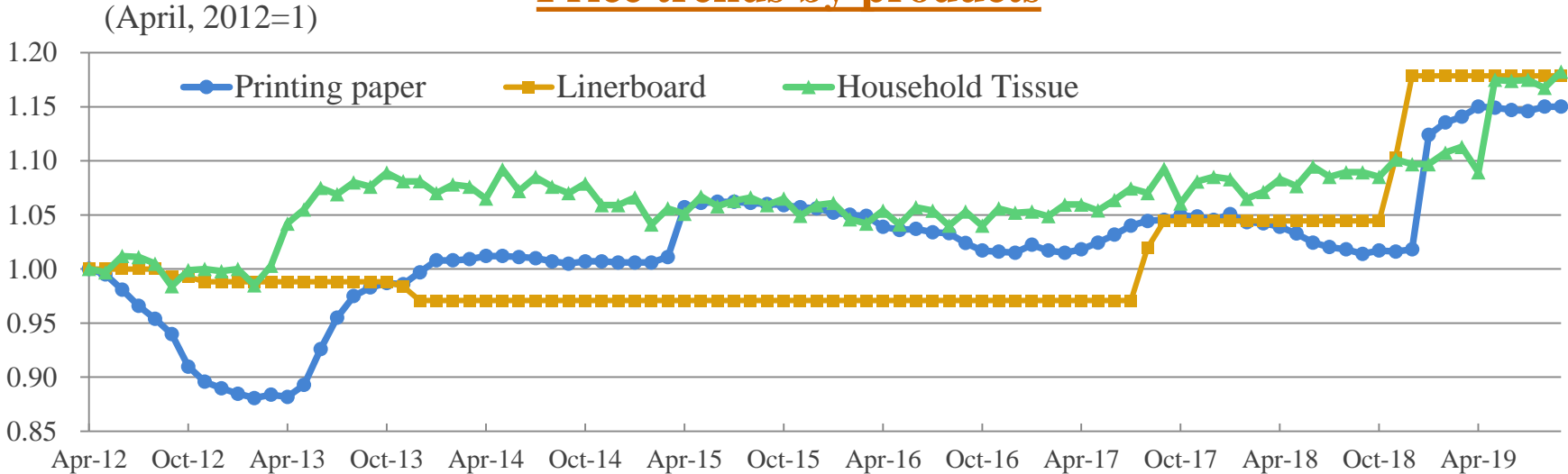
Domestic shipment of paper industry(YOY)



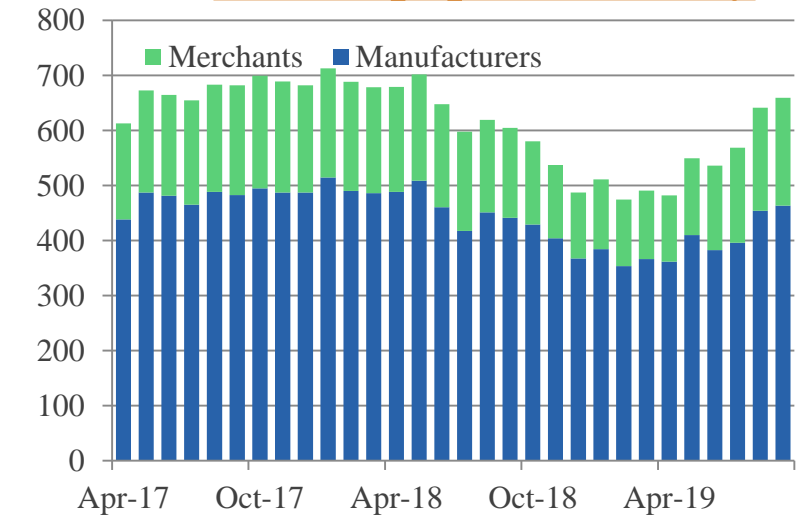
Coated paper and copy paper import volume



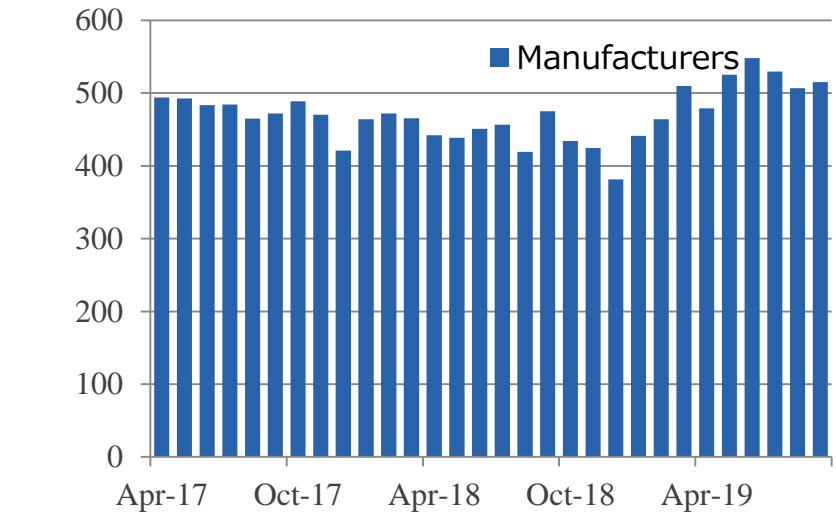
Price trends by products



Coated paper inventory ('000 tonnes)

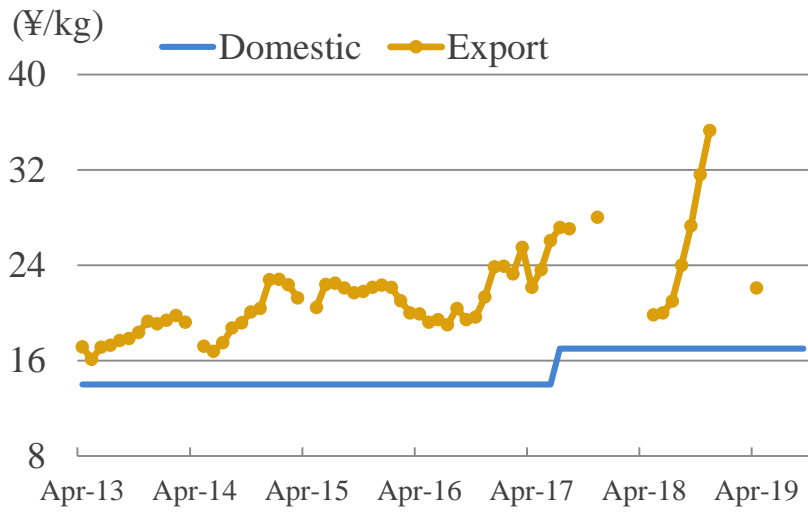


Containerboard inventory ('000 tonnes)

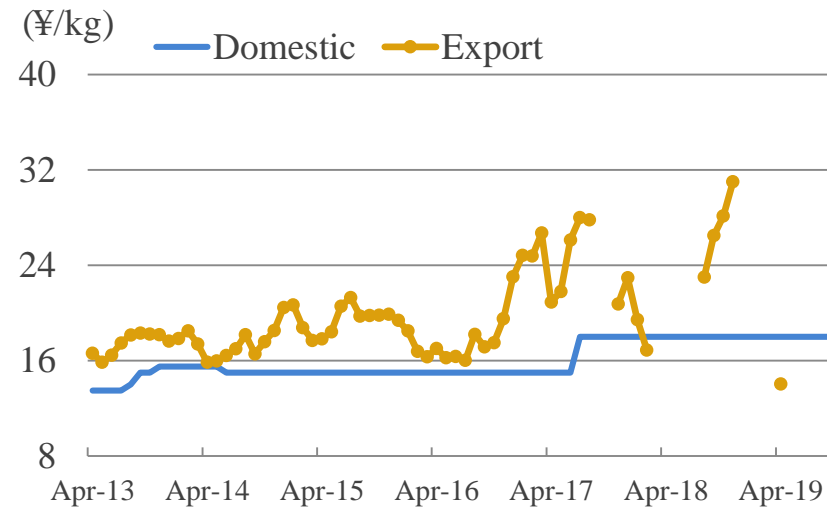


Source: Japan Paper Association, Bank of Japan(Corporate Goods Price Index)

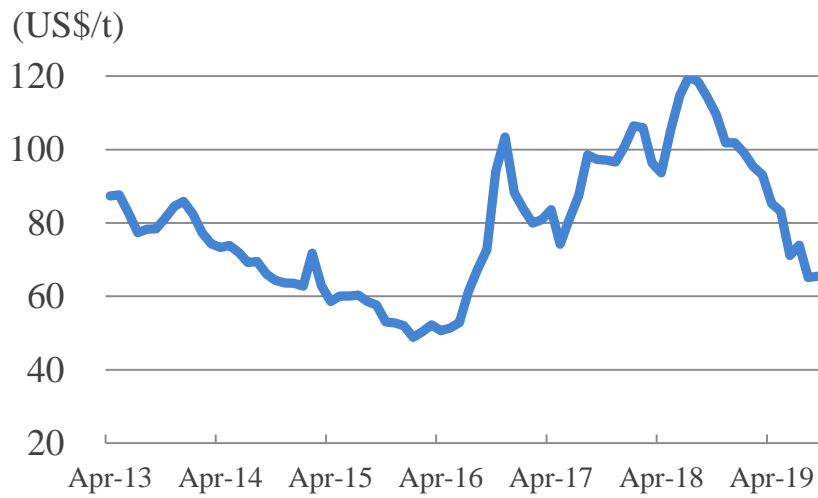
ONP



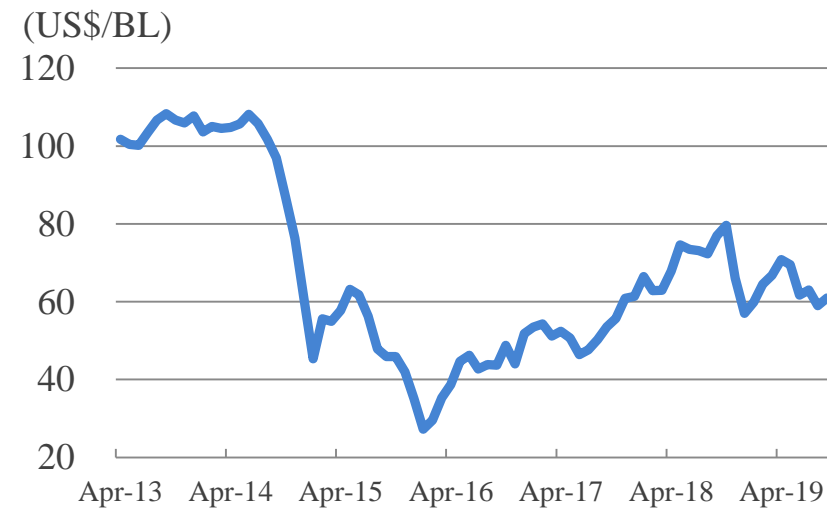
OCC



Coal



Crude oil



Source: Paper Recycling Promotion Center, Kanto Seishi Genryo Chokuno Shoko Kumiai, Nikkei, Global Coal Index

The Nippon Paper Group aims to contribute to better living and cultural progress everywhere it does business.

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Any statements in this presentation document, other than those of historical fact, are forward-looking statements about the future performance of Nippon Paper Industries Co., Ltd., and its Group companies. These statements are based on management's assumptions and beliefs in light of information currently available and involve risks and uncertainties. Actual results may differ materially from these forecasts.

NIPPON PAPER INDUSTRIES CO.,LTD.

Acquisition of Orora Limited's Fiber Packaging Business in Australia and New Zealand

November 6, 2019

ORORA Limited



Australia-listed packaging company with global operations, mainly in Australia and North America

Revenue

A\$4,761m – FY2019

Employees

7,200 Employees (43 production sites / 96 logistics and procurement sites / 7 countries)

Total Asset

A\$3,918m – FY2019

ORORA
(Australia listed /
Headquarters in Melbourne)

Australia / NZ Business:

Sales: A\$2,150m

North America Business:

Sales: A\$2,611m

Paper and Packaging
Department
(Business to be acquired)

Beverage
Bottles

Packaging
Department

Commercial Printing
Department

Counterparty: Orora Limited

Price: A\$1,720m

Acquired business:

Fiber Packaging business in ANZ of Orora Ltd.
(manufacture and sale of paperboard, corrugated board
and paper cartons)

Business information (as of June 2019*)

Sales:	A\$1,426m
Operating Profit:	A\$91m
Employees:	approx.3,300

* Fiscal year of Orora is July 1st to June 30th



Paper and recycling division (No.2 Australian share)

- 1 factory • 1 paper machine
- Owns new and innovative equipment for the manufacturing of recycled base paper for corrugated board (liner / medium)
- Has original system to collect wastepaper



Corrugated board processing division (No.2 Australia share, No.1 NZ share)

- 11 Manufacturing plants (8 in Australia and 3 in NZ)
- Corrugated board manufacturing (Agricultural products, beverages, meat, consumer goods)
- Provide and maintain mobile box-producing machines
- Procurement and sales of packaging materials and business materials



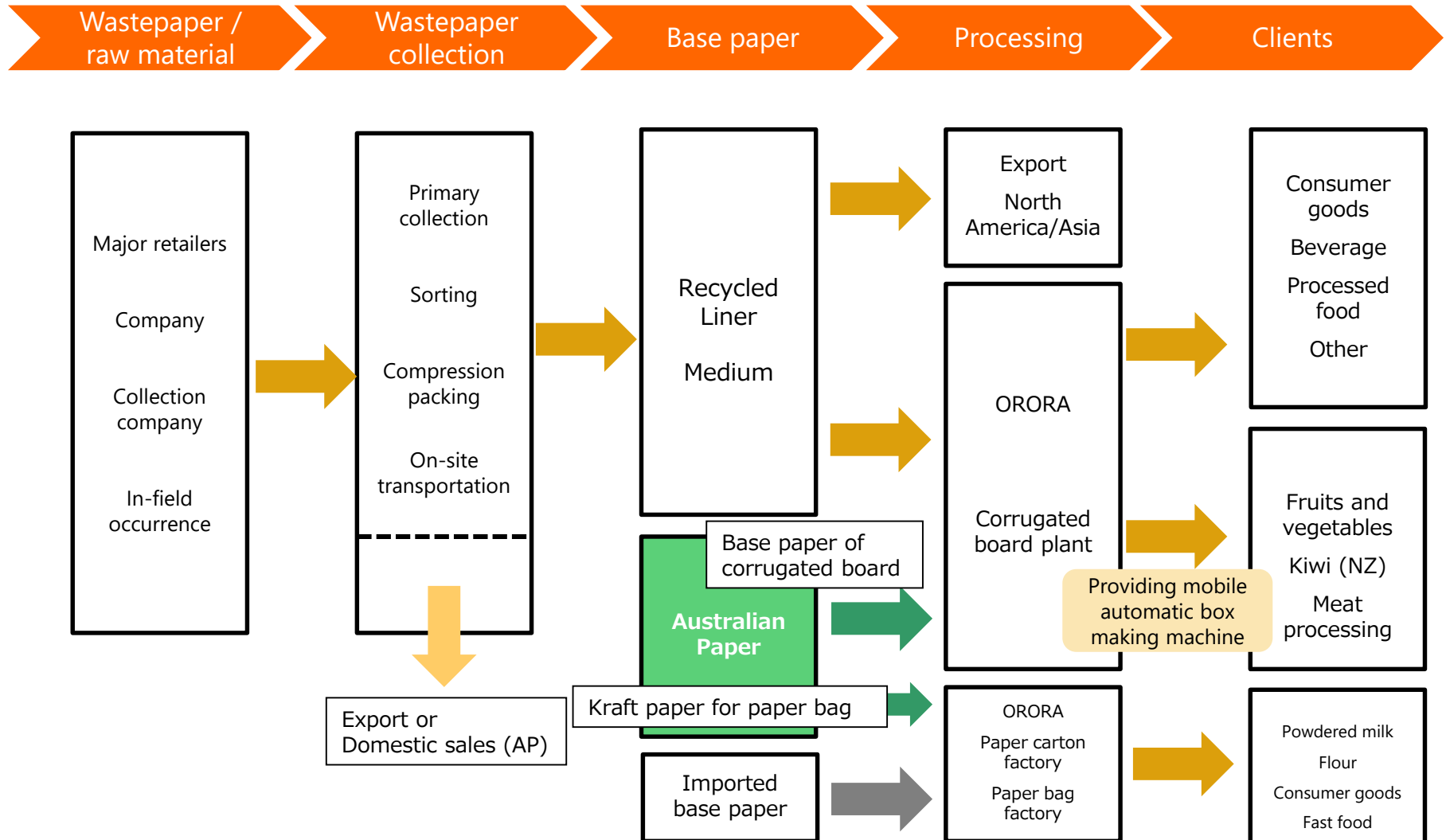
Paper cartons and paper bag division

(No.1 Australia share and No.1 NZ share)

- Cartons: 5 Manufacturing plants (3 in Australia, 2 in NZ)
- Processing, production and sales of general paper cartons (Food packaging, consumer goods, fast food)
- Bags: 2 Manufacturing plants in Australia
- Heavy-bag processing and manufacturing (for agricultural products, dairy and industrial purposes)

Supply Chain of ORORA Fiber Packaging Business (ANZ)

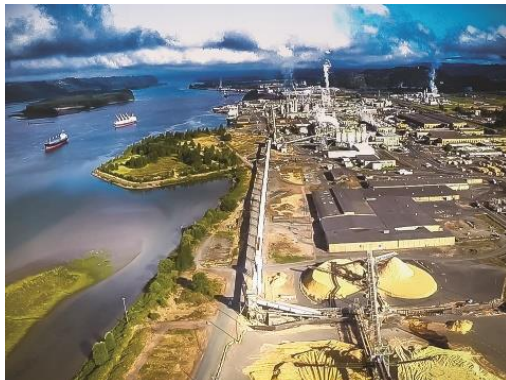
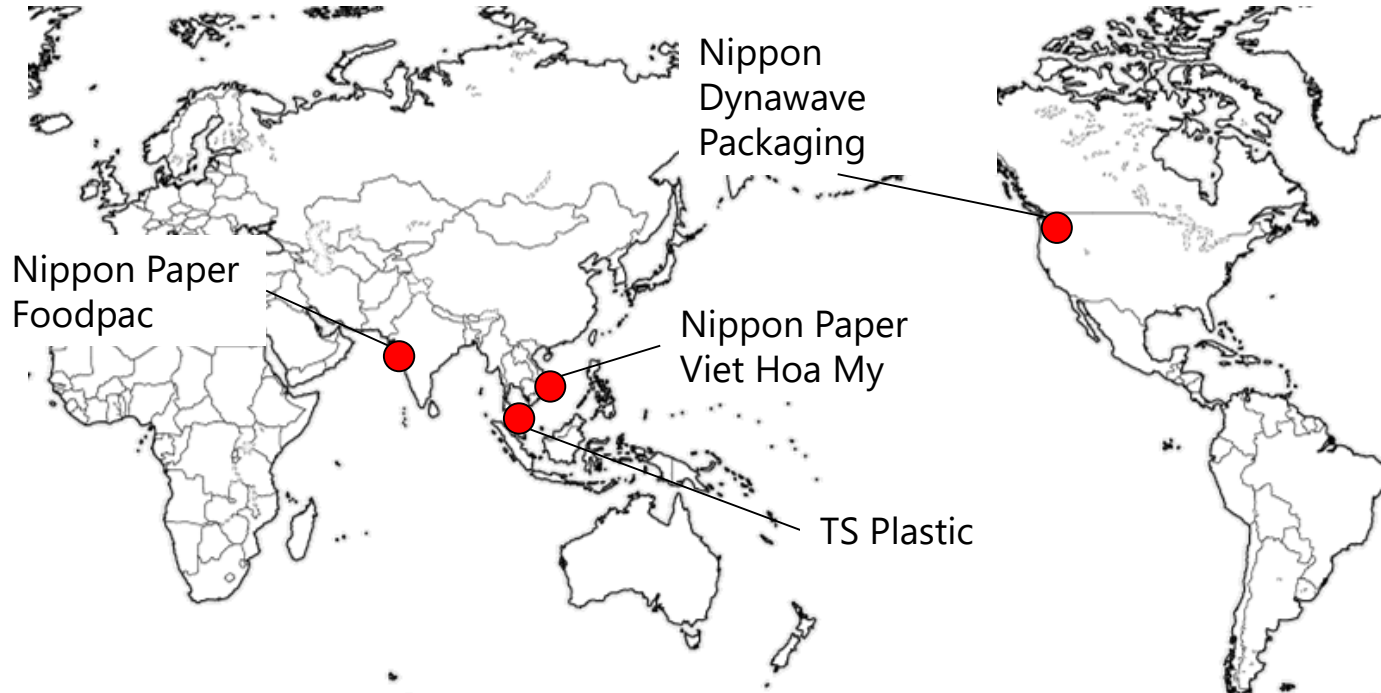
Integrated process from original waste-paper collection system to Corrugated board. Our subsidiary (AP) is already a part of the supply chain



- **Expand Acquisition Business in Growing ANZ Market**
 - Actively capture growing packaging market for fruits, vegetables, meat and other consumer goods, through continued strategic investment
- **Optimize Business in Oceania through Integration of AP and Acquisition**
 - Early-staged synergies through smooth PMI (eg. procurement, logistics)
- **Expand packaging business in Asia and Oceania**
 - Utilize human resources and know-how of the acquired business

Overseas expansion of Packaging business ①

Actively developing overseas packaging business through business acquisitions and alliances.



Nippon Dynawave Packaging



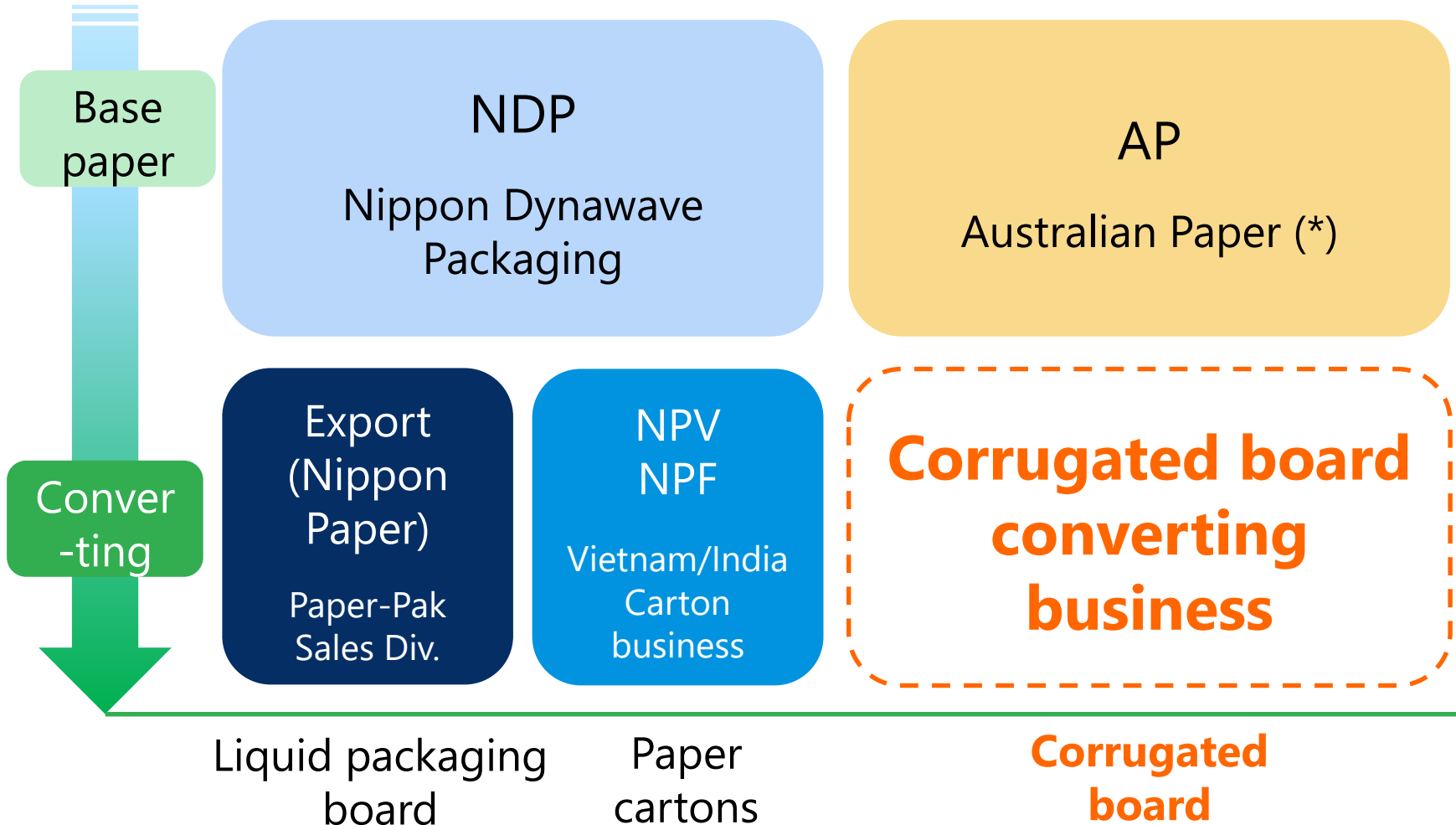
Nippon Paper Viet Hoa My



Nippon Paper Foodpac

Overseas expansion of Packaging business ②

Entering into the corrugated board processing business will expand the value chain in packaging on a global scale.

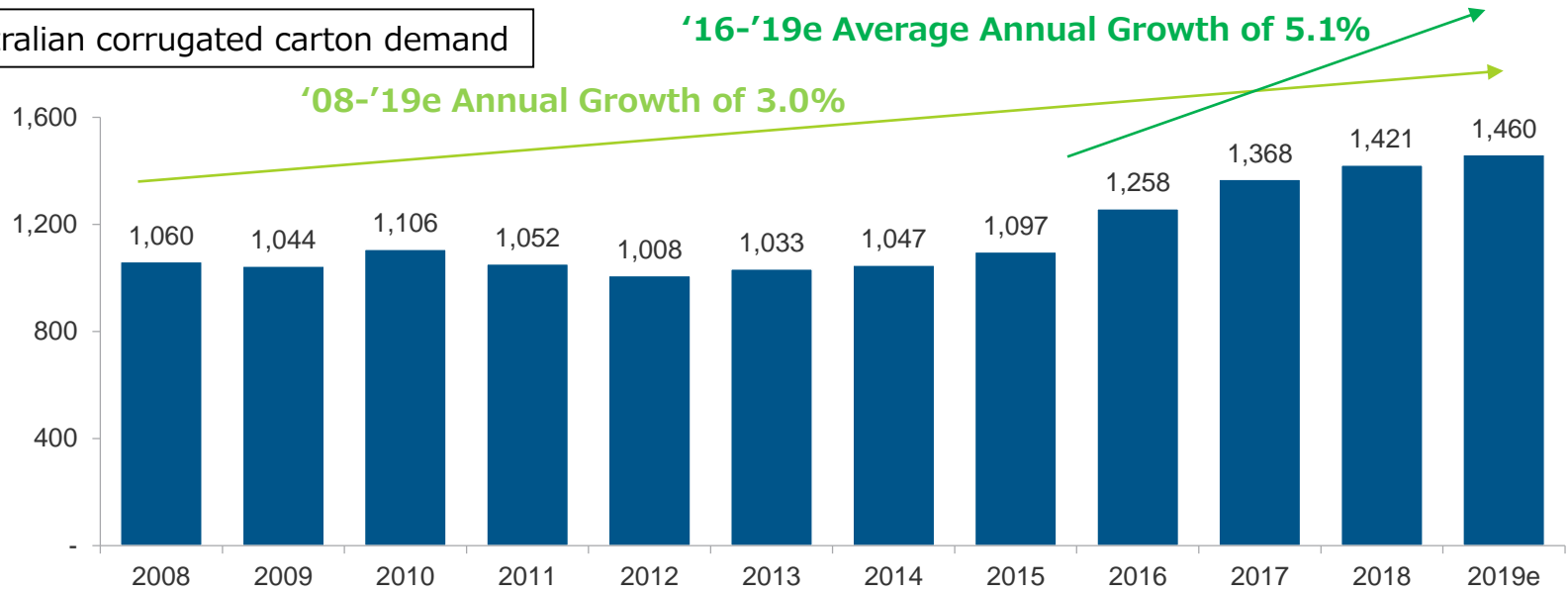


(*) AP base paper of business corrugated board included in Paper • Paperboard segment

(Appendix) Australian Corrugated carton Market

Solid domestic demand and export of final products (fruits and processed meat products) are attracting demand

Australian corrugated carton demand



Australian corrugated carton demand – Demand trends and outlook by application

(Prepared by Nippon Paper based on data from BIS Oxford Economics)

	'11	'16	'17	'18	'19e	Annual Average Growth Rate '16-'19e	Demand Forecast
Fruits and vegetables	177	235	255	265	275	5.4%	↑
Meat and fish	121	140	155	165	170	6.7%	↑
Dairy products	35	45	50	55	55	6.9%	↑
Beverage	196	205	225	235	240	5.4%	↑
Industrial goods	43	45	45	50	50	3.6%	↔
Others	480	588	638	651	670	4.4%	
Total	1,052	1,258	1,368	1,421	1,460	5.1%	

(Prepared by Nippon Paper based on data from BIS Oxford Economics)

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