

First Quarter FY2020 Financial Results

Ushio Inc.
July 31, 2020

This report contains forward-looking statements, including earnings forecasts, which are based on information currently available to the Company and on certain assumptions deemed to be reasonable. Please be advised that actual results may differ substantially from those forward-looking statements due to various factors.

- * All figures in the material have been rounded down to the nearest billion yen.
- * FY2020 starts from April 1st, 2020 through March 31st, 2021.

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USHIO
Applying Light to Life



- Update on Impact of the Spread of the Novel Coronavirus (COVID-19)
- **Net Sales and Earnings Decreased** to YoY for 1Q FY2020 (Result) and YoY for FY2020 (Full-year Forecast) because of COVID-19 impact
- FY2020 Annual Dividend per Share : **maintain JPY 26 yen**

- I. Update on Impact of the Spread of the Novel Coronavirus (COVID-19)**
- II. Financial Results for 1Q FY2020
- III Forecast for FY2020
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Update on Impact of the Spread of the Novel Coronavirus (COVID-19)

Latest status of Ushio Group's business sites (summary)

(Note) Information as of July 31, 2020

- ✓ For the purpose of measuring infection prevention, continue to operate under teleworking and flex-time basis at domestic sites and mainly in North America.
- ✓ For production sites, maintain normal production system, however, production adjustments have been made at domestic and overseas sites as follows:
 - Lamps for cinema (Japan and Philippines): additional production adjustments after 2Q FY2020
 - Imaging equipment (Canada and China): under production adjustments

FY2020 Performance Impact (precondition)

Visual Imaging Field

- ✓ Continuous suspensions of approximately 90% of world's movie theater operations; expect gradual recovery after 2Q, however, recovery to certain level will be expected after 2H.
- ✓ Amusement parks and industrial facilities have reopened in some areas but at low level; continuous suspensions of world's events.
- ✓ While investment movements declined, facility replacements postponed continuously due to prolonged impact of COVID-19.

Electronics Field

- ✓ While demand remains steady, we might expect delays in acceptance inspections caused by delays in installations.

Others

- ✓ UV light disinfection and virus inactivation device Care222 is to start mass production and to be sold from this fall
- ✓ FY2020 YoY forecast does not include second wave of COVID-19 and additional lockdowns.

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Highlights of Financial Results for FY2019

Net Sales : 23.6 billion yen (▲15.2 billion yen YoY, ▲39.1%)

Significant decline in sales of image equipment and lamps for cinema (light source business) due to COVID-19

Operating Income : ▲0.7 billion yen (▲2.8 billion yen YoY)

Decline in profit due to COVID-19, despite of SGA reduction effort

Profit Attributable to Owner of Parent: ▲1.0 billion yen
(▲2.3 billion yen YoY)

※FOREX (FY19) : US\$1 = 109 yen

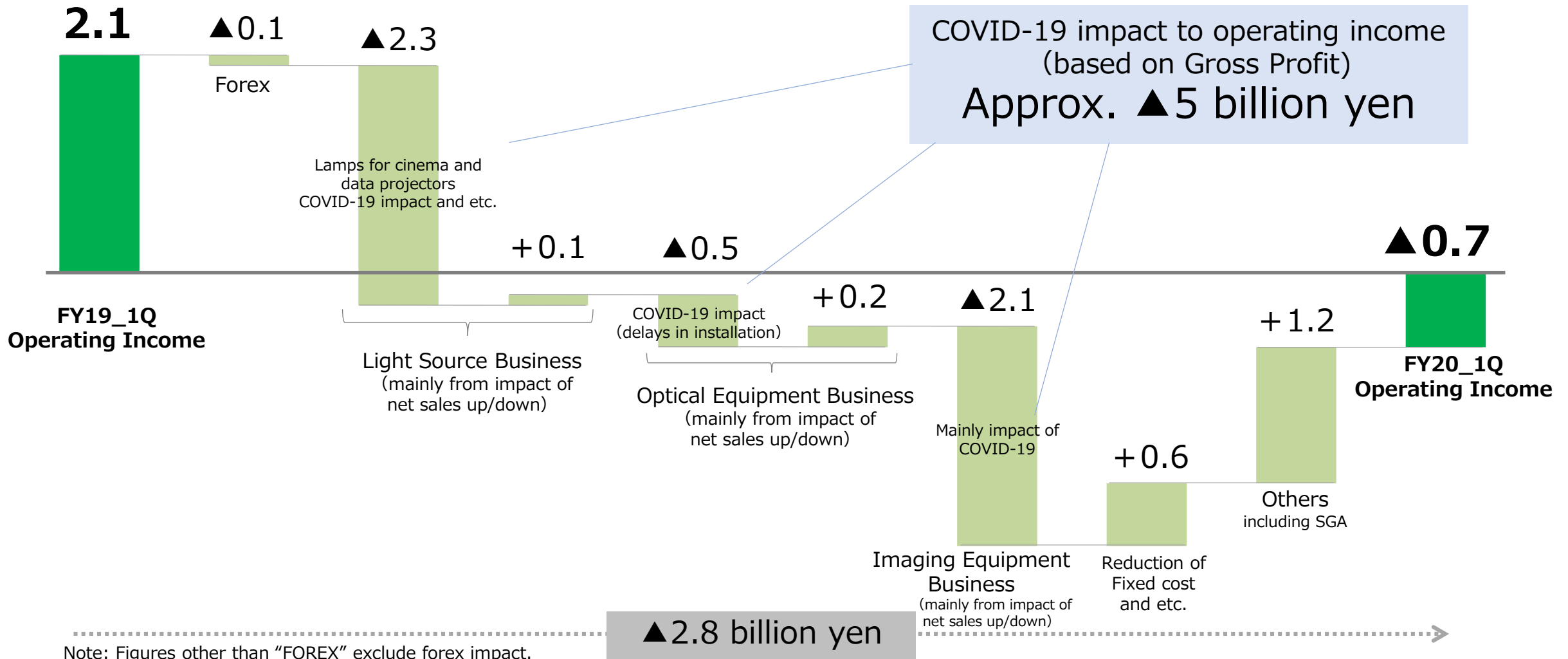
Summary of Financial Results

(billion yen)		FY19 1Q	FY20 1Q	YoY	
				Changes	%
Net Sales		38.9	23.6	▲15.2	▲39.1
Operating Income (Loss)		2.1	▲0.7	▲2.8	—
Operating Income (Loss) (%)		5.5	▲3.1	▲8.7P	—
Ordinary Income		2.9	0.3	▲2.6	▲89.1
Profit (Loss) Attributable to Owners of Parent		1.2	▲1.0	▲2.3	—
EPS (yen)		10.02	▲8.76	▲18.78	—
Forex (yen)	USD	111	108	▲3	—
	EUR	124	118	▲6	—

FOREX sensitivity: Amount of impact from 1 yen fluctuations (full-year)

	Net Sales	Operating Income
against USD	Approx. ¥ 1.0 billion	Approx. ¥ 0.15 billion

YoY Variation Analysis of Operating Income



Financial Results by Business Segments

(billion yen)		FY19 1Q	FY20 1Q	YoY		Ref : Net sales breakdown for Light Source Business				
				Changes	%	FY19 1Q	FY20 1Q	Changes	%	
Light Source Business	Net Sales	15.4	10.4	▲5.0	▲32.5	UV lamp	10.8	6.7	▲4.0	▲37.6
	Operating Income	1.9	0.4	▲1.4	▲75.1	Halogen lamp	2.6	2.0	▲0.6	▲24.4
	Operating Income (%)	12.5	4.6	▲7.9P	-	Solid state light source	2.0	1.7	▲0.3	▲15.5
Optical Equipment Business	Net Sales	8.9	7.1	▲1.8	▲20.4					
	Operating Income	0.1	0.0	▲0.0	▲30.2					
	Operating Income (%)	1.2	1.1	▲0.2P	-					
Image Equipment Business (*)	Net Sales	13.7	5.4	▲8.3	▲60.5					
	Operating Loss	▲0.0	▲1.2	▲1.2	-					
	Operating Income (%)	▲0.2	▲23.9	▲23.7P	-					
Others	Net Sales	0.7	0.6	▲0.0	▲8.3					
	Operating Income (Loss)	0.0	▲0.0	▲0.0	▲230.3					
	Operating Income (%)	2.5	▲3.6	▲6.1P	-					
Elimination and corporate	Operating Income	0.1	0.0	▲0.0	▲85.5					

* : Including 「Illumination Equipment and others subtracted from Equipment Business」 by FY2019

* : Net sales indicates sales to unaffiliated customers. Operating income ratio indicates the ratio of operating income against sales to unaffiliated customers.

Business Environment and Business Segment Overview

Electronics Field

<p>Business Environment</p>	<p>In electronics-related markets, operation is coming back to before COVID-19 level, new capital investments are gradually in recovering stage towards to 2H.</p> <ul style="list-style-type: none"> • FPD: Capital investments in large-size LCD market have settled down and new investment is shifting to OLED. Despite LCD production slowing down in Korea, operation in China is solid. • Semiconductor and PCB: 5G related investments are solid, while smartphone-related consumer demand is unclear. 	
<p>Light Source Business</p>	<p><u>Comparison to 1Q FY2019</u></p> <p>UV Lamps +0.1 billion yen +2%</p>	<ul style="list-style-type: none"> • Sales increased as partial demand moved in due to procurement concerns related to COVID-19 • LCD panel oversupplied and replacement demand decreased due to production decline in Korea
<p>Equipment Business</p>	<p>UV Equipment ▲0.3 billion yen ▲8%</p>	<ul style="list-style-type: none"> • Sales decreased of DI exposure system due to demand recovery delayed by the impact of COVID-19 • Sales increased of Large Field Stepper for latest IC package at full scale after 2Q
	<p>Cure Equipment ▲1.8 billion yen ▲70%</p>	<ul style="list-style-type: none"> • Sales decreased of LCD-related equipment as investments settled down
	<p>Others +0.3 billion yen +13%</p>	<ul style="list-style-type: none"> • Sales increased of EUV light source for EUV lithography mask inspection

Note: Indicated value (income, %) represents YoY comparison.

Business Environment and Business Segment Overview

Visual Imaging Field

<h3>Business Environment</h3>	<p>Due to COVID-19, visual imaging-related markets are generally sluggish.</p> <ul style="list-style-type: none"> • Movie theaters are still closed worldwide. Partially reopened, however, resumption is entrusted to the policy of each country and the situation after 2Q is uncertain. • Amusement parks and industrial facilities have reopened in some areas in Asia but at low levels; Continuous suspensions of world's events • Due to impact of COVID-19, demand declined for data projectors and OA equipment 	
<h3>Light Source Business</h3>	<p><u>Comparison to 1Q FY2019</u></p> <p>Lamps for cinema ▲2.9 billion yen ▲91%</p>	<ul style="list-style-type: none"> • Replacement demand decreased as movie theaters closed worldwide and screen operation diminished substantially
	<p>Lamps for data projectors ▲1.0 billion yen ▲59%</p>	<ul style="list-style-type: none"> • Lamp demand declined as projector demand declined due to COVID-19
	<p>Lamps for OA ▲0.4 billion yen ▲28%</p>	<ul style="list-style-type: none"> • Lamp demand declined as OA equipment declined due to COVID-19
<h3>Equipment Business</h3>	<p>Cinema ▲3.3 billion yen ▲58%</p>	<ul style="list-style-type: none"> • Projector sales decreased as investment movements declined due to continuous suspensions of movie theaters worldwide
	<p>General Imaging ▲4.9 billion yen ▲65%</p>	<ul style="list-style-type: none"> • Projects decreased for events and industrial facilities, such as amusement parks

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Summary of Financial Results FY2020

(billion yen)		FY20 Forecast		FY19 Result	Changes		FY20 1Q
			~				
Net Sales		125.0	~	135.0	159.0	▲34.0 ~ ▲24.0	23.6
Operating Income (Loss)		▲5	~	0.5	6.6	▲11.6 ~ ▲6.1	▲0.7
Operating Income (%)		▲4.0	~	0.4	4.2	▲8.2 ~ ▲3.8	▲3.1
Ordinary Income (Loss)		▲3.5	~	2.0	8.7	▲12.2 ~ ▲6.7	0.3
Profit (Loss) Attributable to Owners of Parent		▲7.5	~	▲2.0	8.9	▲16.4 ~ ▲10.9	▲1.0
EPS (yen)		▲62.23	~	▲16.59	73.25	▲135.48 ~ ▲89.84	▲8.76
ROE (%)		▲3.8	~	▲1.0	4.3	▲8.1 ~ ▲5.3	▲0.5
Capital Expenditures				8.0	8.2	▲0.2	1.8
Depreciation				7.0	7.1	▲0.1	1.5
R&D Expenses				10.0	10.1	▲0.1	2.4
Forex (yen)	USD			105	109	▲4	108
	EUR			120	121	▲1	118

Net Sales by Sub-segment / Comment on after 2Q

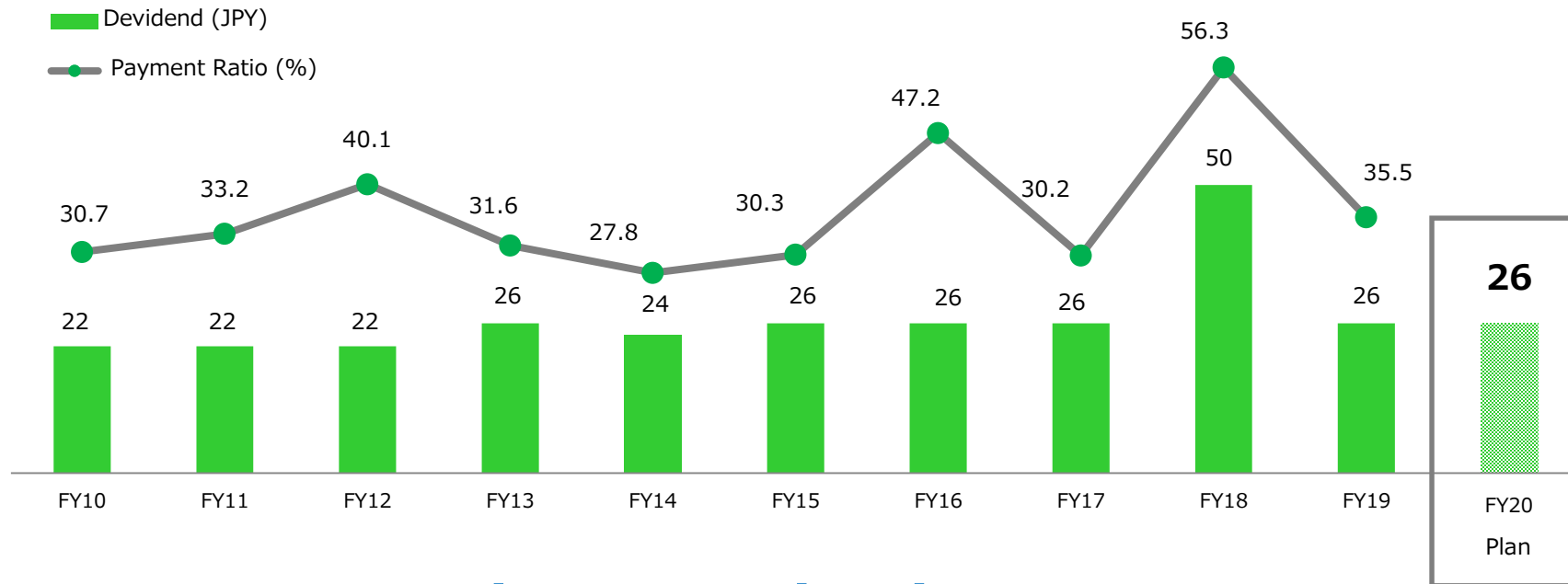
(billion yen)		FY20 Forecast	FY20 1Q	Comment on after 2Q
Light Source Business	Net Sales	48.0 ~ 52.0	10.4	<ul style="list-style-type: none"> • Lamps for cinema : Movie theater operation slowly reopen (*) (Max) After 2Q, operation slowly recovering (Min) After 3Q, operation slowly recovering but contribution being limited • UV lamps : Related market demand slowly increasing • Lamps for data projectors • Lamps for OA : sluggish demand
	Operating Income (Loss)	▲2.0 ~ 0.5	0.4	
	Operating Income (%)	▲4.2%~ 1.0%	4.6	
Optical Equipment Business	Net Sales	40.0 ~ 42.0	7.1	<ul style="list-style-type: none"> • Steady sales of Large field Stepper for latest IC package • Slowly sales increase of DI exposure system for print circuit board due to 5G-related demand • Sluggish sales of roll to roll lithography tools (UFX series) despite expansion in FY2019 as investments settled down
	Operating Income	0.0 ~ 1.0	0.0	
	Operating Income (%)	0.0%~ 2.4%	1.1	
Imaging Equipment Business*	Net Sales	33.0 ~ 36.0	5.4	<ul style="list-style-type: none"> • Movie theater operation forecast same as lamps for cinema (*) • Amusement parks/industrial facilities and investments to companies will slowly restart but at lower levels than normal. Continuous suspensions of world's events and uncertainty continue. • Implementation of Optimize production/sales system adjusted to business environment
	Operating Loss	▲3.0 ~ ▲1.0	▲1.2	
	Operating Income (%)	▲9.1%~ ▲2.8%	▲23.9	
Others	Net Sales	4.0 ~ 5.0	0.6	
	Operating Income	0.0 ~ 0.0	▲0.0	
	Operating Income (%)	0.0%~ 0.0%	▲3.6	
Total	Net Sales	125.0 ~ 135.0	23.6	<ul style="list-style-type: none"> • Second wave of COVID-19 (such as lockdown) is not taken into account
	Operating Income (Loss)	▲5.0 ~ 0.5	▲0.7	
	Operating Income (%)	▲4.0%~ 0.4%	▲3.1	

* : Including 「Illumination Equipment and others subtracted from Equipment Business 」 by FY2019

Shareholders Return

Dividend per share and payout ratio

FY2020 annual dividend (plan) will **be maintained 26 yen per share** in a stable and consistent manner



Share Buyback

Ushio purchases own treasury shares, taking flexible approach. We retain our treasury shares of approximately 5% of the total number of issued shares at maximum and cancel the excess portion of the treasury shares in each year.

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Sales Expansion of Exposure Equipment for Latest IC Package Substrates USHIO

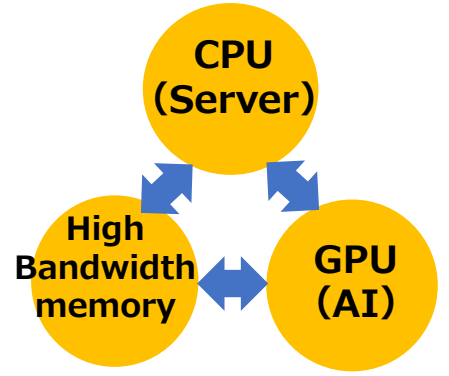


Large Field Stepper (UX-5) Production and sales



With IoT evolution, demand increased for servers for data centers processing high capacity and high speed data processing

Data center market
 >20% growth per year (self-survey)
 ⇒ Expanding Adoption of next-generation package substrates



● **World wide share:**
Maintain 100%
 High-end BGA substrate exposure market (self-survey)



- **UX-5 Strength (Feature)**
1. Large-area projection
→ **High productivity & low CoO**

 2. Non-contact mask work
→ **Yield enhancement**

 3. Deep focal depth
→ **Process margin & substrate warping**

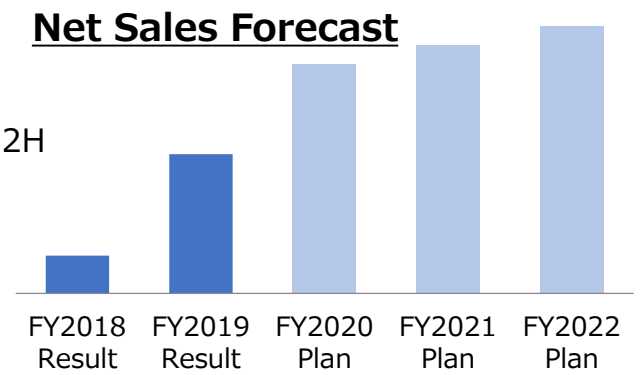
 4. High Resolution/alignment accuracy
→ **Pitch miniaturization & process margin**

Large Field Stepper (UX-5) Sales Trend

FY19 (Result)
 Contributing to sales from 2H

▼

After FY20 (Plan)
 Sales unit expanding



EUV Light Source for Mask Inspection

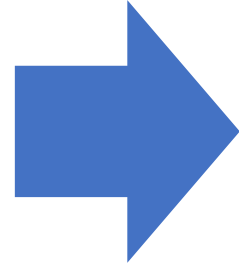


EUV light source for next-generation semiconductor mass-production process
Development, Production, Sales



Mask Inspection equipment manufacturer/ Research & development institution

Next-generation semiconductor mass-production needs with EUV lithography technology evolution



Semiconductor device manufacturers

Increase EUV light source needs for inspection and development

Contribution of Ushio's EUV light source

Expect to expand business opportunities of EUV light source for mask inspection

● Ushio EUV Light Source Development History

- 2000 EUV light source development started
- 2001 Established EUVA*
*Extreme Ultraviolet Lithography System Development Association
- 2013 Withdrew from Lithography related development
- 2016 Delivered EUV light source to TNO
- 2018 Delivered first EUV light source for inspection (for test purpose)
- 2019 Delivered and received first acceptance for mass production process

● Ushio Strength

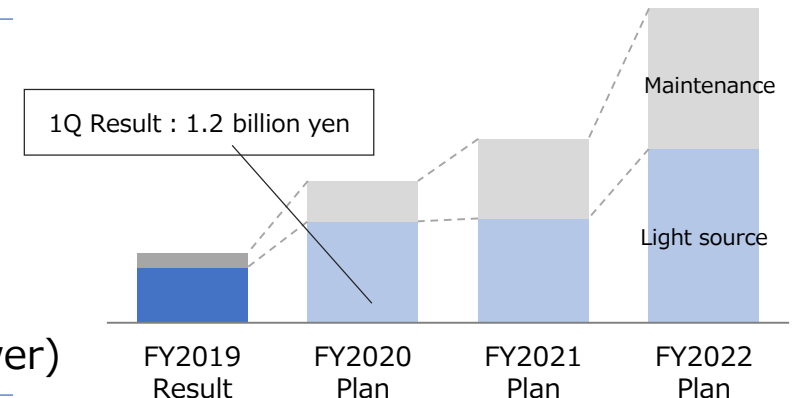
Long business experience in semiconductor industry

+

Many years of experience in EUV technology

(Compact/High-brightness/High Power)

● Sales Forecast

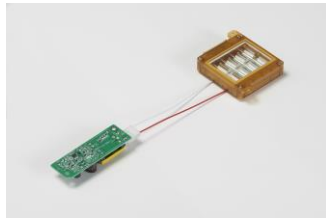


Care222 for Disinfection and Virus Inactivation Solution



Uses 222nm ultraviolet (UV-C) light, safe and secure to skin and eyes of humans and animals, enables disinfect germs and inactivate viruses

New Environmental Hygiene Solution



Module type



Unit type (demo unit)

● Ushio Strength

- ✓ Exclusive licensee of ultraviolet sterilizing process which is harmless to humans with Columbia University
- ✓ Accumulation of optical irradiation process solutions to meet various types of spaces
- ✓ High-quality excimer lamp/module production technology acquired from LCD/semiconductor industry

Our Goal of Social Contribution

Safe and Secure Environment, which does not cause Pandemics
(To help avoid collapse of the medical system for COVID-19)

- Short-Term Target: in 2021
Improve hygiene level of public spaces by disinfection・elimination of infection source
ex: exam rooms・lobby・toilets in hospitals, nursing facilities, trains・airplanes・airports, etc.
- Long-Term Target: in 2025
Prevent nosocomial infection with drug-resistant bacteria (excluding viruses)
=> operating room disinfection, operating equipment disinfection, etc.

Latest Status・Challenges

- Preparation for mass production
 - ✓ Provide demo units to research institutions and medical organizations
 - ✓ Lamp development completed
 - ✓ Module in prototype stage: Specification development by usage environment
 - ✓ Capital investment for mass production / Continuous collecting of various types of data

【Challenges】

- Short Term: Collecting demonstrating experiment data for security guarantee
=> cooperate with universities to accelerate data collection
- Long Term: Authorization for PMD Act, etc.
=> started activities to accelerate the authorization

Care222 for Disinfection and Virus Inactivation Solution

● Ushio Care222 Specialty

<Ultraviolet light common feature>

Mainstream of conventional germicidal lamp was 254nm mercury lamp

1. Enables disinfection of virus, such as norovirus, spore fungus
2. Does not produce drug-resistant bacteria
3. Non-contact, non-chemical, easy disinfection



<Unique features for Care222>

1. Enables continuous irradiation under manned environment
 - harmless wavelength to human eyes and skin
2. Mercury-free: Environment-friendly/reduction of environmental burdens
 - ultraviolet lamp using excimer irradiation without mercury

● Ushio Care222 Development History

- 1992 Ushio commercialized excimer lamp ahead of the world
- 2015 Ushio and Columbia University entered into exclusive university and research agreements for ultraviolet disinfection method to reduce microbials
- 2018 Ushio and Kobe University achieved world's first successful reduction of bacteria using 222nm irradiation that is harmless to normal human skin
- 2020 No development of skin cancer or other symptoms; demonstrated continuous irradiation of 222nm ultraviolet light (UV-C) to be safe ahead of the world

※About COVID-19

Demonstrating experiment has started to confirm inactivation of coronavirus in the United States.

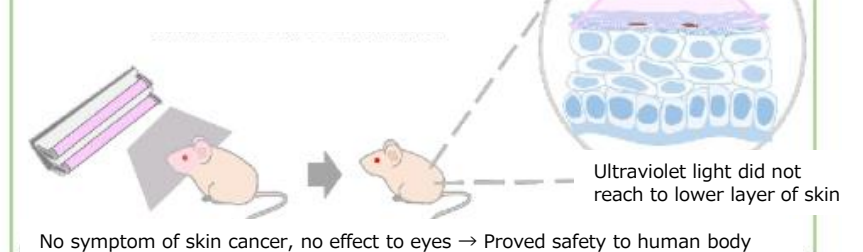
Development of germicidal lamp, which is safe to human body

[Conventional Germicidal Lamp] Prohibited because it was harmful



[Newly Developed Light Source]

Continuous irradiation of 222nm light to experimental mouse



[Future Application] Can be used and applied from medical field to regular everyday life



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Projector Comparison

Light Source	Laser		Lamp	
	RGB Laser	LaPH	Xenon Lamp	Super High-Pressure UV Lamp
Cinema	 <p>CP4450-RGB CP4440-RGB CP4330-RGB CP2320-RGB Lumen (lm) <50,000</p>	No Lineup	 <p>CP2308 Lumen (lm) <45,000</p>	No Lineup
General Imaging	 <p>D4K40-RGB Lumen (lm) <40,000</p>	 <p>Crimson GS series Lumen (lm) <30,000</p>	 <p>Roadie Lumen (lm) <45,000</p>	 <p>Boxer Lumen (lm) <30,000</p>
Price	★★★★★	★★	★★	★
Life	★★★★★	★★★★	★★★★★ (Lamp replacement is necessary)	★★★★★ (Lamp replacement is necessary)
Color	★★★★★	★★	★★★	★★

Reference: Summary of Quarterly Financial Results

(billion yen)		FY19				FY20	FY20 1Q - FY19 1Q		FY20 1Q - FY19 4Q	
		1Q	2Q	3Q	4Q	1Q	Changes	%	Changes	%
Net Sales		38.9	43.0	38.0	38.9	23.6	▲15.2	▲39.1	▲15.2	▲39.2
Operating Income (Loss)		2.1	2.7	1.4	0.3	▲0.7	▲2.8	–	▲1.0	–
Operating Income Ratio (%)		5.5	6.3	3.9	0.8	▲3.1	▲8.7P	–	▲3.9P	–
Ordinary Income		2.9	2.8	2.5	0.3	0.3	▲2.6	▲89.1	+0.0	+0.7
Profit (Loss) Attributable to Owners of Parent		1.2	1.7	5.7	0.1	▲1.0	▲2.3	–	▲1.2	–
EPS (Yen)		10.02	14.43	47.87	1.22	▲8.76	▲18.78	–	▲9.98	–
Forex (Yen)	USD	111	108	109	109	108	▲3	–	▲1	–
	EUR	124	120	120	121	118	▲6	–	▲3	–

Reference: Summary of Quarterly Financial Results by Business Segments

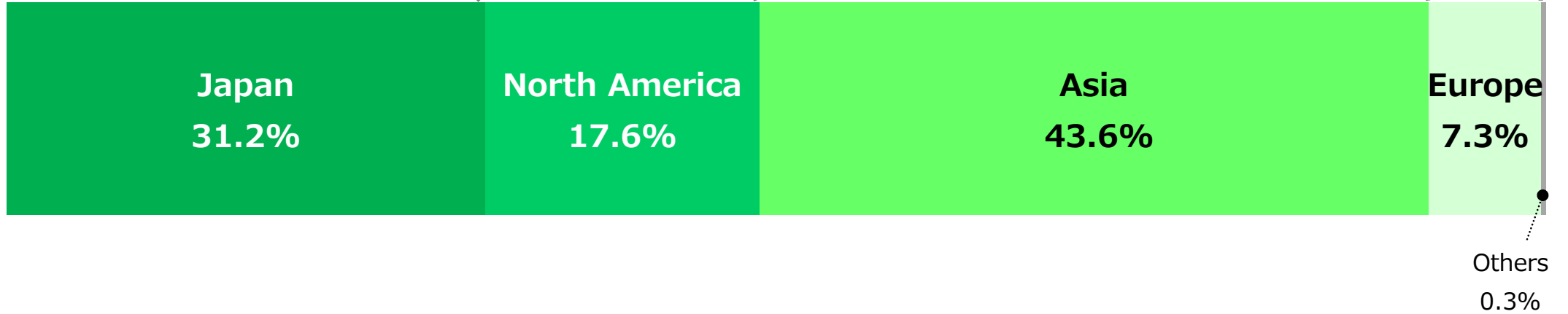
(billion yen)		FY19					FY20	FY20 1Q - FY19 1Q		FY20 1Q - FY19 4Q	
		1Q	2Q	3Q	4Q	Total	1Q	Changes	%	Changes	%
Light Source Business	Net Sales	15.4	14.9	14.3	13.7	58.5	10.4	▲5.0	▲32.5	▲3.3	▲24.1
	Operating Income	1.9	1.6	1.0	1.3	6.0	0.4	▲1.4	▲75.1	▲0.9	▲65.3
	Operating Income Ratio (%)	12.5	11.2	7.3	10.1	10.3	4.6	▲7.9P	–	▲5.5P	–
Optical Equipment Business	Net Sales	8.9	9.1	6.6	11.4	36.1	7.1	▲1.8	▲20.4	▲4.3	▲37.8
	Operating Income (Loss)	0.1	0.2	▲0.1	▲0.7	▲0.5	0.0	▲0.0	▲30.2	0.8	110.0
	Operating Income Ratio (%)	1.2	2.4	▲2.0	▲6.8	▲1.6	1.1	▲0.2P	–	7.9P	–
Imaging Equipment Business	Net Sales	13.7	18.0	16.2	12.7	60.8	5.4	▲8.3	▲60.5	▲7.3	▲57.5
	Operating Income (Loss)	▲0.0	0.7	0.5	▲0.3	0.9	▲1.2	▲1.2	–	▲0.9	▲276.1
	Operating Income Ratio (%)	▲0.2	4.0	3.4	▲2.7	1.5	▲23.9	▲23.7P	–	▲21.2P	–
Others	Net Sales	0.7	0.9	0.7	0.9	3.3	0.6	▲0.0	▲8.3	▲0.2	▲28.6
	Operating Income (Loss)	0.0	▲0.0	0.0	▲0.0	0.0	▲0.0	▲0.0	▲230.3	▲0.0	▲80.3
	Operating Income Ratio (%)	2.5	▲0.0	3.5	▲1.4	0.9	▲3.6	▲6.1P	–	▲2.2P	–

Reference: Sales Ratio by Region

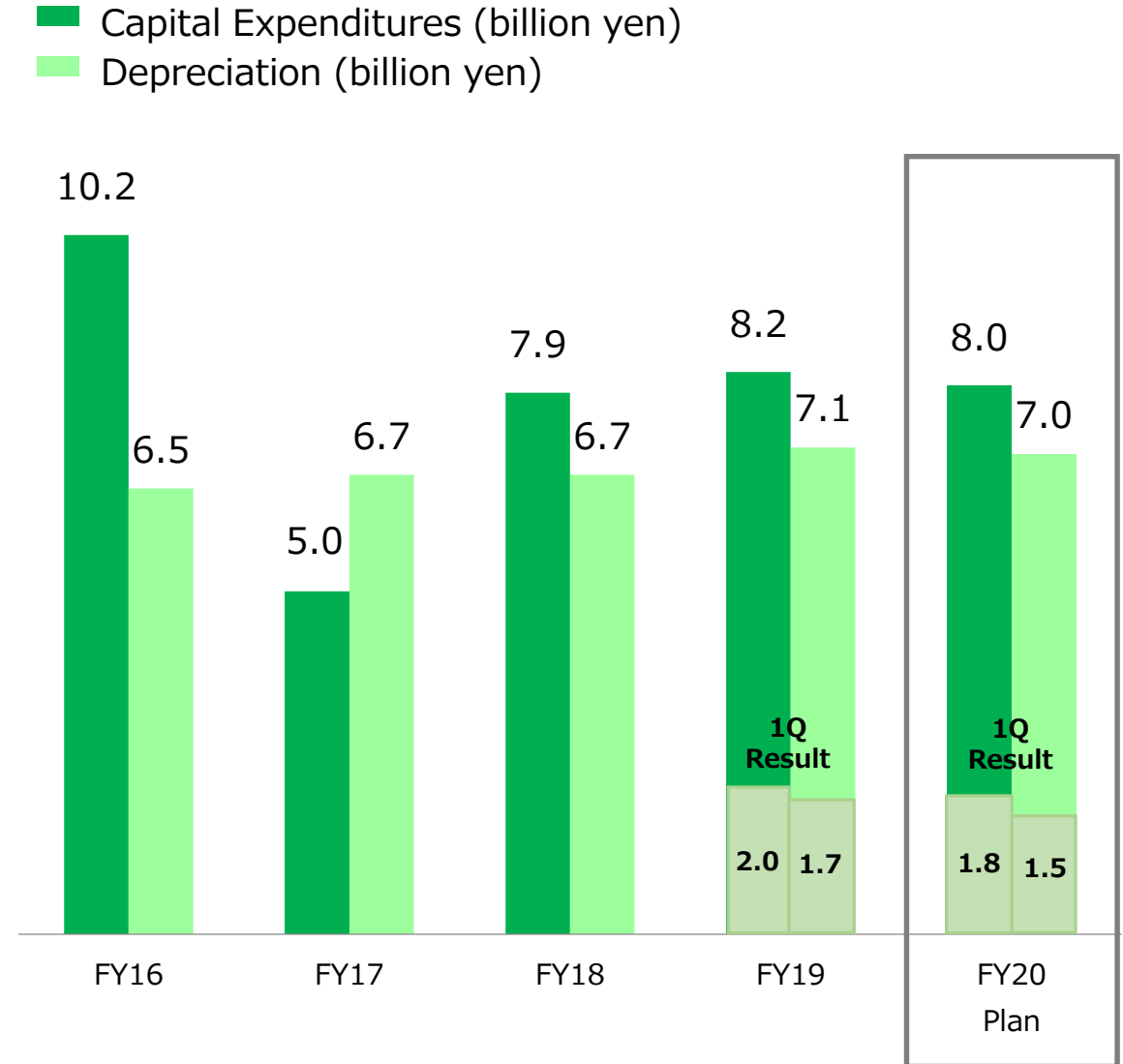
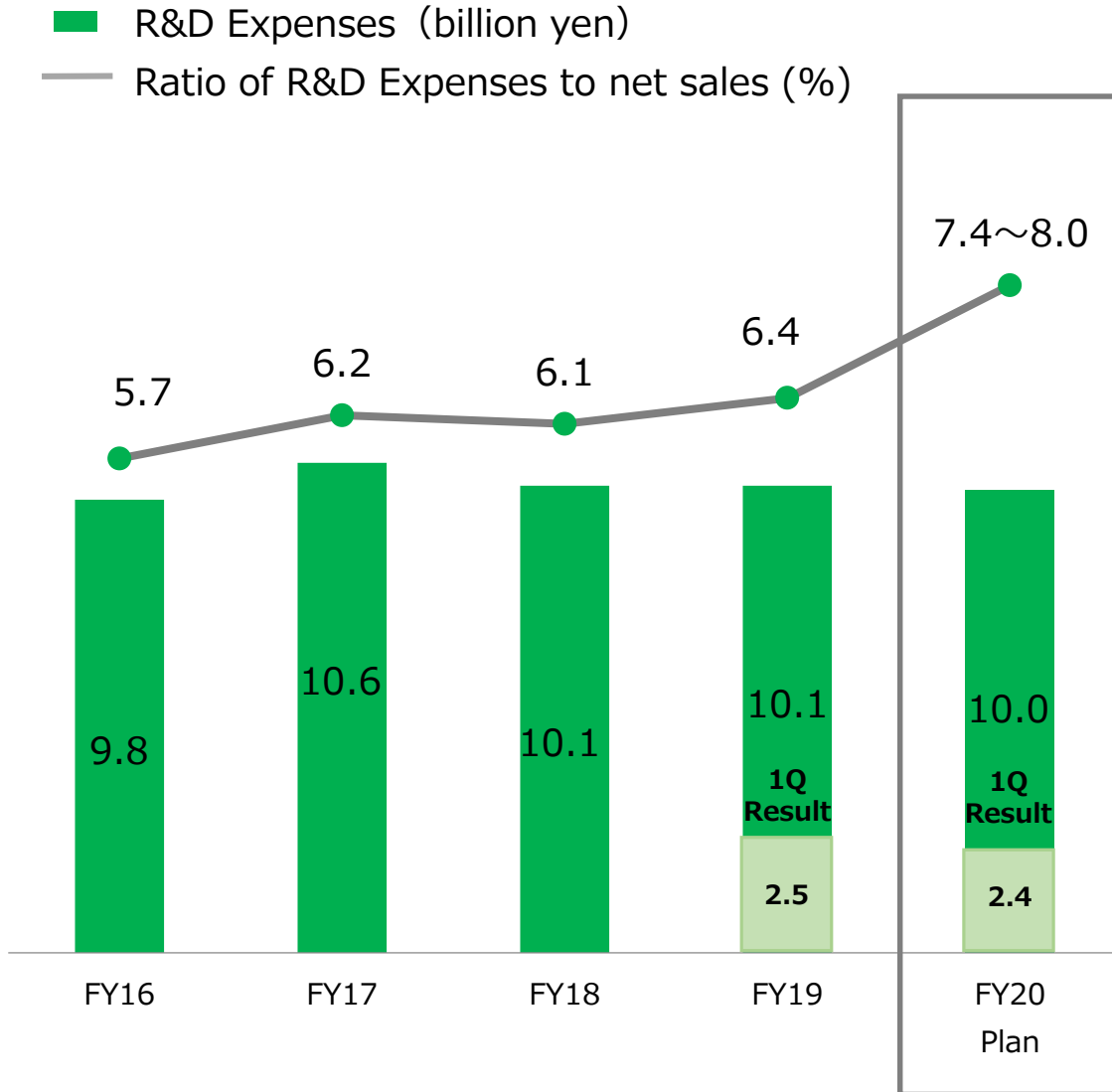
FY19_1Q
Net Sales
38.9
billion yen



FY20_1Q
Net Sales
23.6
billion yen

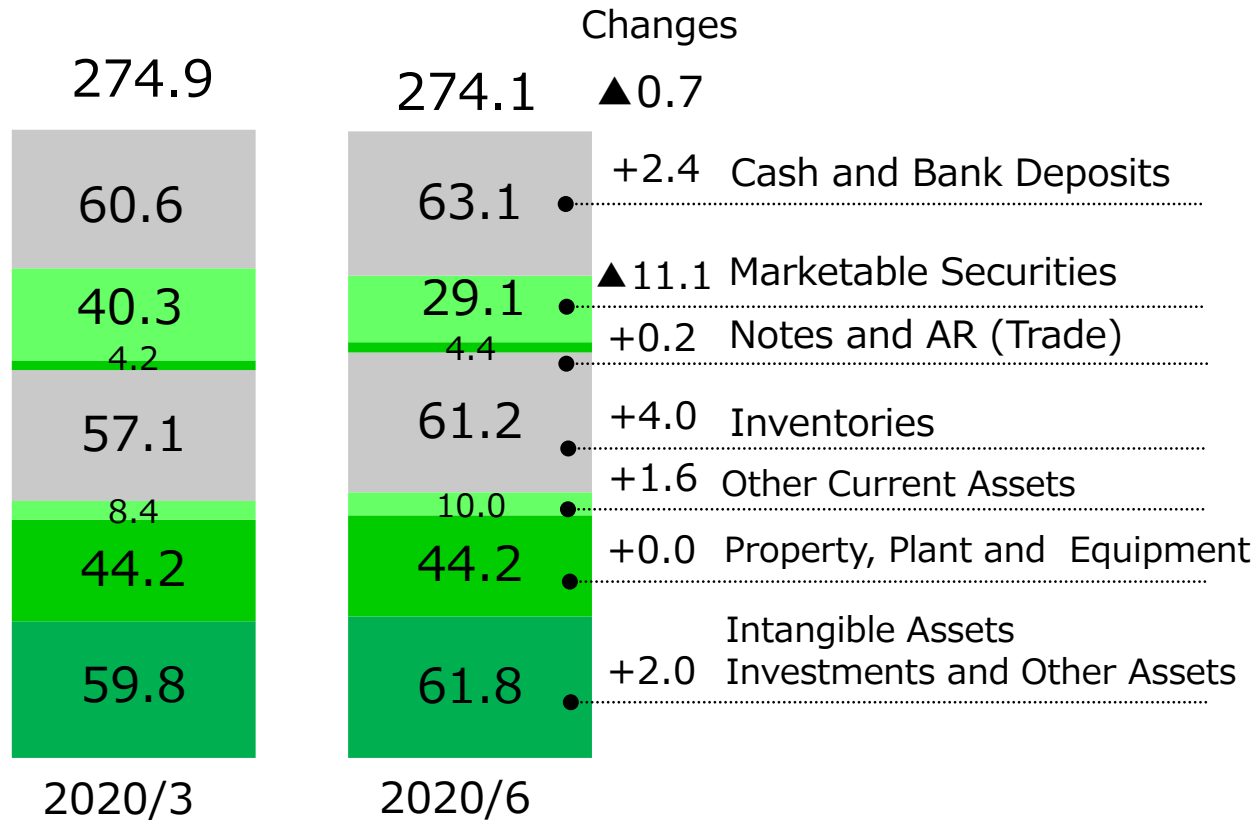


Reference : R&D Expenses/Capital Expenditures and Depreciation

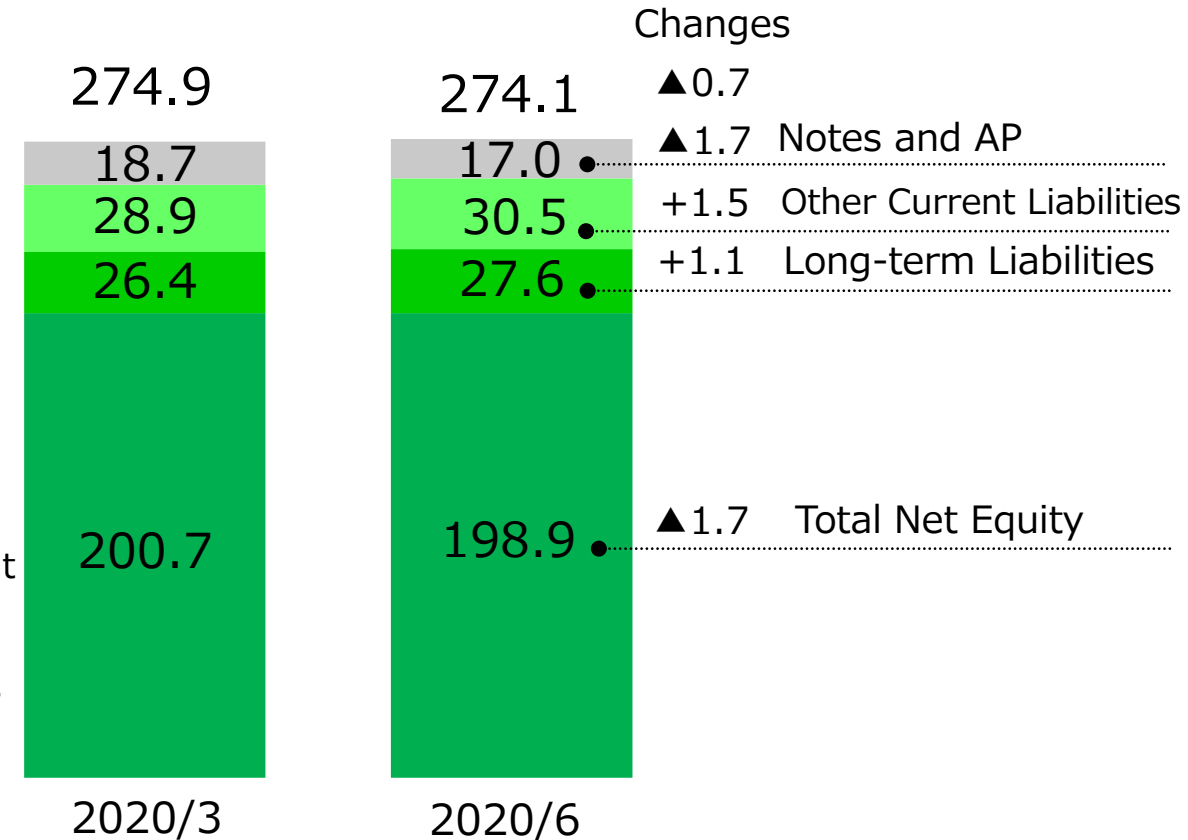


Reference: Balance Sheet

◆ Assets (billion yen)



◆ Liabilities/Total Net Equity (billion yen)

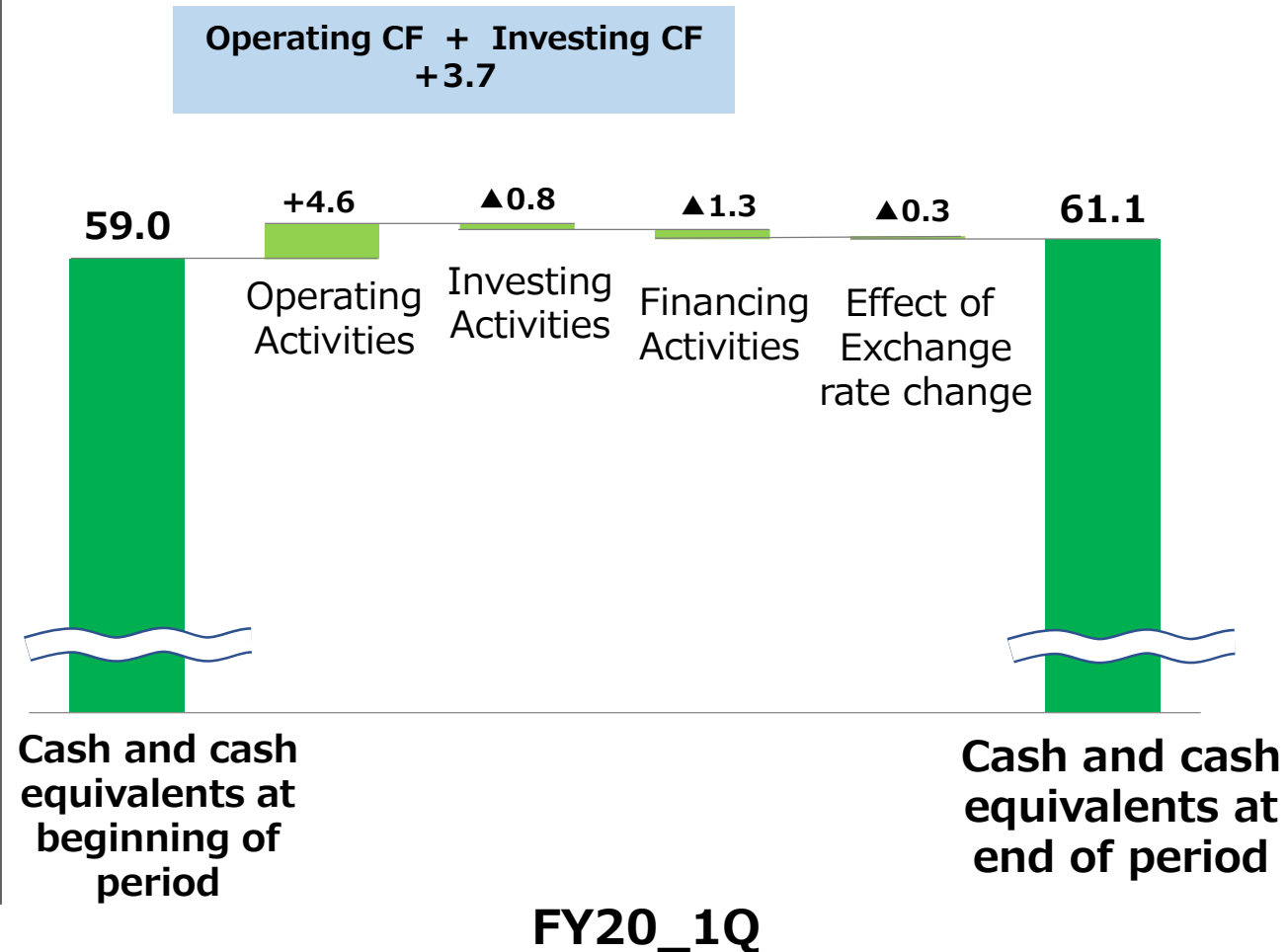
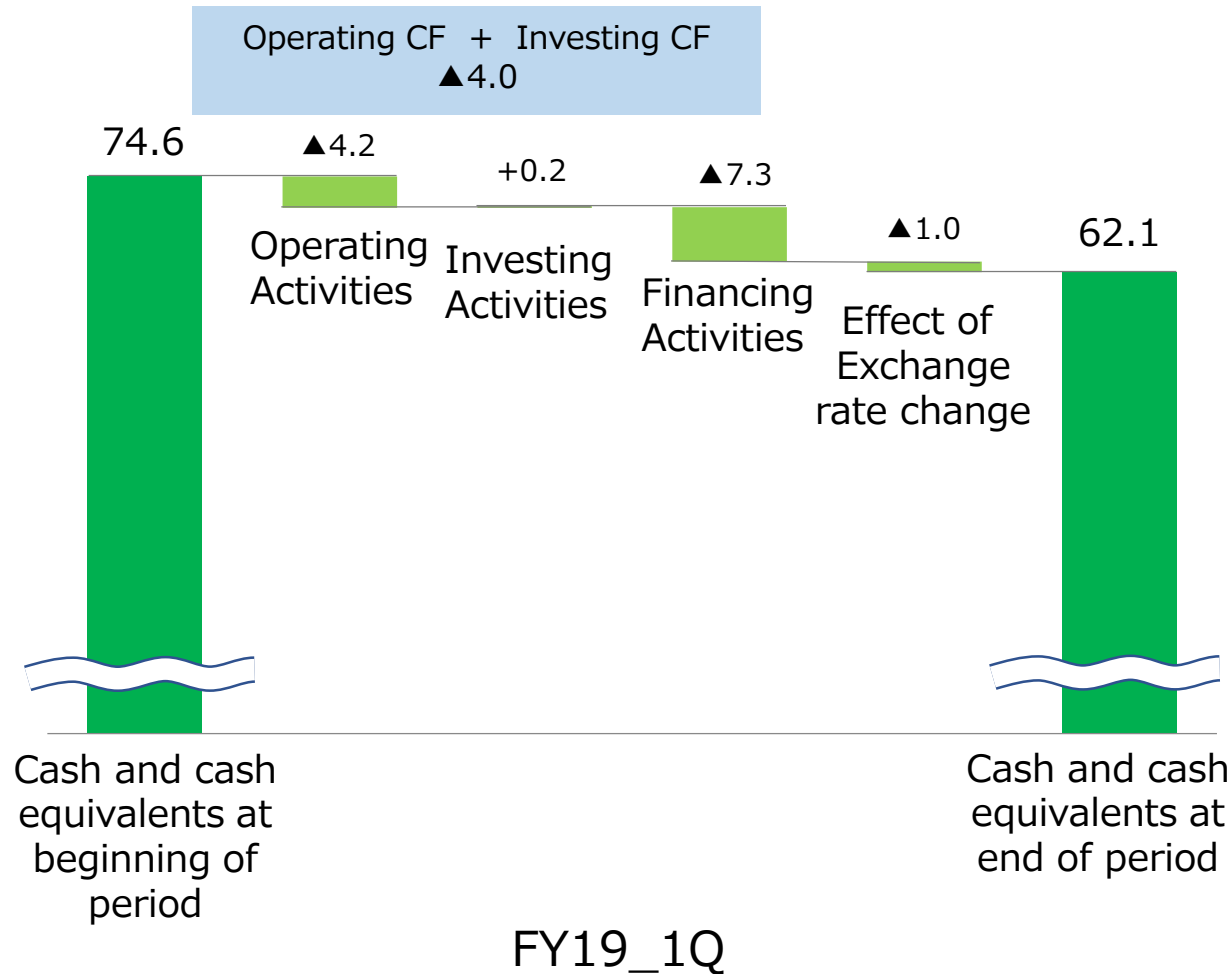


● Turnover (month)	2020/3	2020/6
Receivable-trade	3.0	4.4
Inventories	4.5	7.5

● Equity Ratio (%)	2020/3	2020/6
	73.0	72.5

Reference: Cash Flow

(billion yen)



AI	Artificial Intelligence
BGA	Ball Grid Array
COF	Chip on Film
CoO	Cost of Ownership
CPU	Central Processing Unite
DI	Direct Imaging
EUV	Extreme Ultraviolet Radiation
FPD	Flat Panel Display
GPU	Graphic Processing Unit
IoT	Internet of Things
LaPH	Laser Phosphor
OA	Office Automation
OLED	Organic Light Emitting Diode
PCB	Printed-Circuit Board
RGB	Red Green Blue
TNO	The Netherlands Organization of Applied Scientific Research
UV	Ultraviolet
5G	5 th Generation Mobile Communication System



Contact:
Corporate Planning Department, USHIO INC.
Email: ir@ushio.co.jp
<https://www.ushio.co.jp/en/>