

FY2016 First Half Results Briefing

Contents

- ◆ Summary of Consolidated Business Performance
 - ◆ Summary of Performance and Business Plan by Segment
 - ◆ Change of Accounting Period and Future Planning
 - ◆ [Reference] Balance Sheet Overview
- Performance by Segment and by Region

The forecast or projections set out in this presentation are based on the assumptions and beliefs of our management in light of the information available to it as of November 10, 2016. Changes in global, economic and business conditions could cause actual results to differ materially from these forecasts. All amounts are rounded to the nearest 100 million yen.

- Decrease in sales: Net sales did not grow due to foreign exchange fluctuations and the stagnation of LCD-related products.
- Increase in profit: Profit increased thanks to sales expansion in overseas markets and stable raw material prices.

(Unit: 1 billion yen)

	FY2016 forecast	First half of FY2016	First half of FY2015	Increase/decrease (%)
Net sales	290.0	133.1	140.9	-5.6
Operating income	19.5	8.9	8.5	4.8
Recurring income	20.0	7.9	8.7	-10.0
Net income*	12.0	5.3	5.7	-7.5
Operating margin	6.7%	6.7%	6.0%	0.7 (point)
Overseas sales ratio	45.0%	42.2%	44.1%	-1.9 (point)

	FY2016 (forecast)	FY2015
Dividend (full-year, yen)	16.0	15.5

Exchange rate	Basis for projections	FY2016 First half avg.	FY2015 First half avg.
1USD =	¥115.0	¥105.39	¥121.72
1EUR =	¥125.0	¥117.69	¥135.32
1RMB =	¥17.5	¥15.90	¥19.43

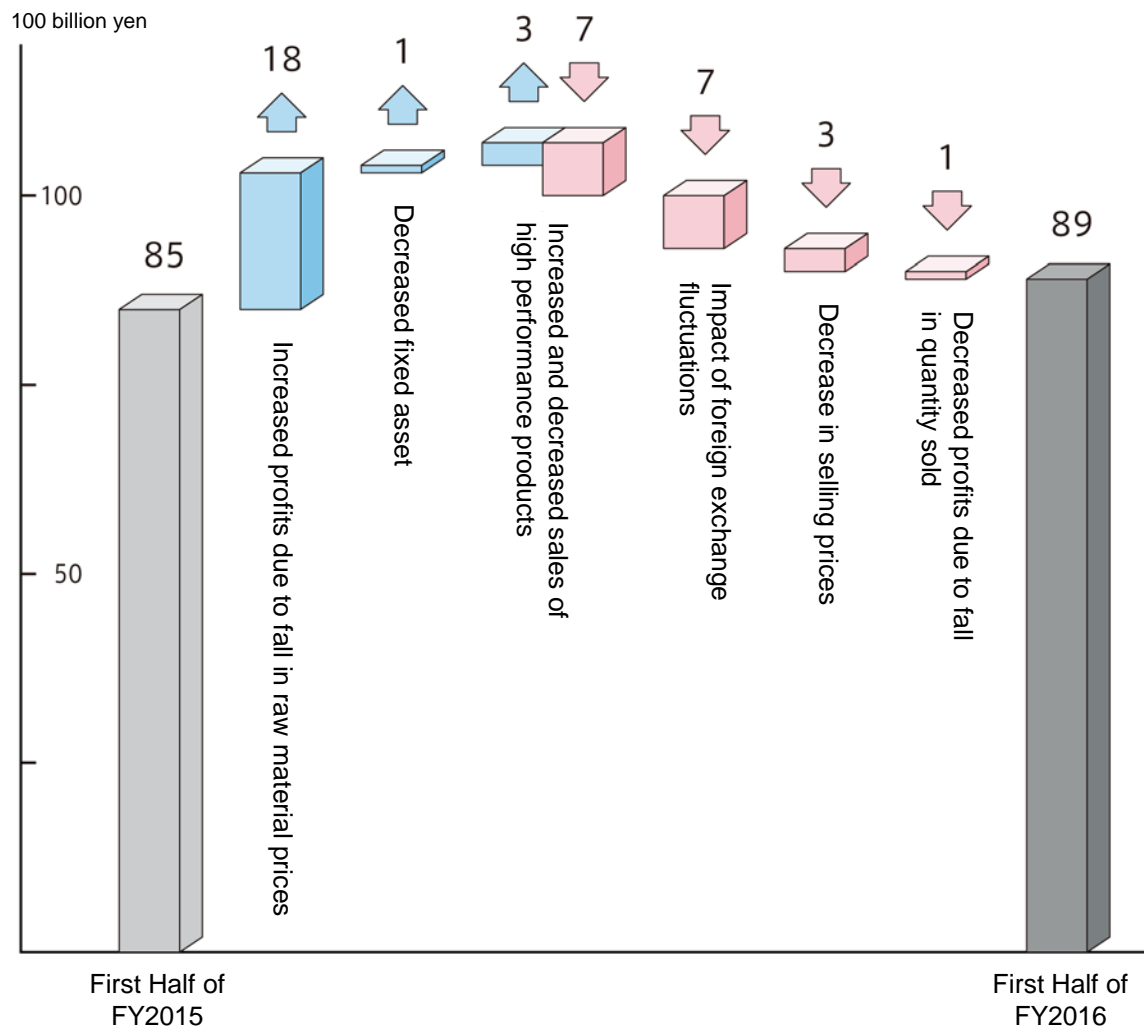
(Unit: 1 billion yen)

	Full-year plan	FY2016 First half result	FY2015 First half
Capital investment	13.1	6.2	6.0
Depreciation	10.4	5.1	5.1

* Net income attributable to owners of parent

FY2016 First Half Operating Income and Analysis of Factors Behind YoY Difference

First Half of FY2015 8.5 billion yen
First Half of FY2016 8.9 billion yen
Remarks
<ul style="list-style-type: none"> ■ Increased profits due to fall in raw material prices(positive impact of 1.8 billion yen) Switched to alternative raw materials Revised raw material prices ■ Decrease in fixed costs (positive impact of 0.1 billion yen) ■ Decreased sales of high performance products (negative impact of 0.4 billion yen) Decreased sales of other high performance products such as hard coatings (HC) (positive impact of 0.3 billion yen) Decreased sales of LCD-related products, etc. (negative impact of 0.7 billion yen) ■ Impact of foreign exchange fluctuations (negative impact of 0.7 billion yen) ■ Decrease in selling prices (negative impact of 0.3 billion yen) ■ Decreased profits due to fall in quantity sold (negative impact of 0.1 billion yen)



Summary of Performance and Progress by Segment (Colorants and Functional Materials)

(Unit: 1 billion yen)

Summary of Performance	Full-year Plan	FY 2016 First Half Actual	FY2015 Full-year Actual	FY2015 First Half Actual
Sales	72.5 (0.9)	32.2 (-12.7)	71.9	36.8
Operating income	4.8 (7.6)	1.5 (-37.2)	4.5	2.4

Key Product Sales Targets	Full-year Targets	First Half Actual
LiB (Lithium-ion Batteries) carbon dispersants	0.4	0.14
Media materials	22.5	9.3

* Figures in parentheses are percentage changes from FY2015 Actual.

Market Overview and Progress of Strategy

Chemicals

- Pigment sales were slow in the printing segment, but grew in use for coatings and plastic colorants.
- Demand for CF paste declined and profit declined.

Display Materials

- The operation of the panel market in Japan recovered. China and Taiwan showed signs of recovery, but Korea remains sluggish.
- Promoted early sales of the newly developed resist inks for panels and image sensors.

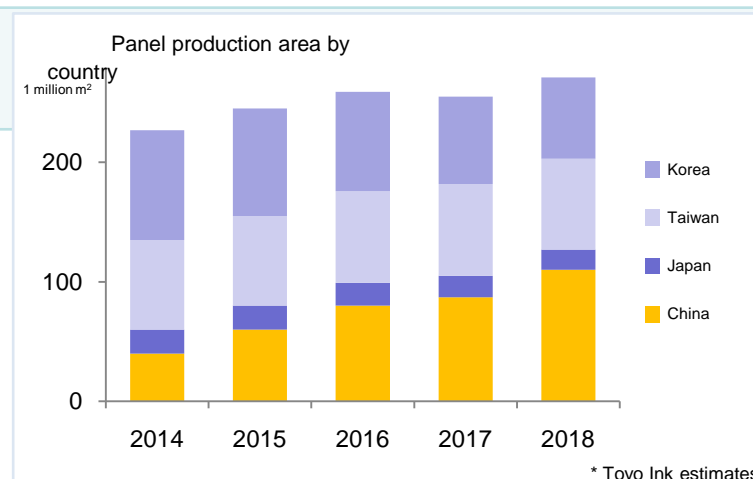
Colorants

- Sales of automobile-related products remained strong. The market share of container-related products increased, and demand for beverage-related products was high.
- Steadily implemented the horizontal expansion of products for global key accounts and promoted sales of solar cell-related products under review.

Boosting sales in the CF Business (1): Cultivation of Chinese Market

Development and marketing for the Chinese panel market that is growing based on an increase in 4K panels and demand for larger panels.

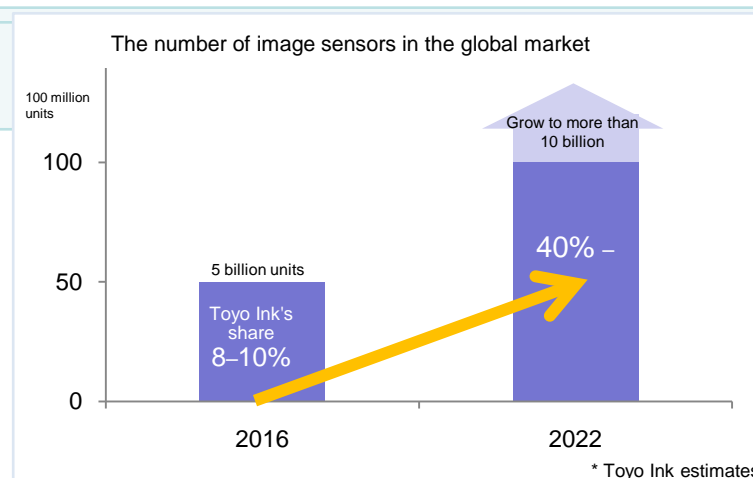
- Add our new original pigments to meet demand for higher quality.
- Two-grade strategy using general-purpose and high-quality lines backed by wide-ranging products targeting the Chinese market.
- Development into organic EL display market expected to grow in the future (respond to increasingly diverse displays).



Boosting sales in the CF Business (2): Making profits from products developed

On-chip resists for image sensors

- Year 2022 => age of trillion sensors (market of one trillion sensors)
-> Image sensors are expected to increase to more than 10 billion units.
- Develop resists for image sensors using our colorant development technology and dispersion technology.
- As application development, cultivate the market of space recognition sensors based on infrared control technology.



Boost sales of pigment dispersions and colorants

Develop use for products such as automobiles, energy, and healthcare using our original materials and technologies.

Summary of Performance and Progress by Segment (Polymers and Coatings)

(Unit: 1 billion yen)

Summary of Performance	Full-Year Plan	FY2016 First Half Actual	FY2015 Full-year Actual	FY2015 First Half Actual
Sales	63.5 (4.3)	29.1 (-3.3)	60.9	30.1
Operating income	6.3 (13.6)	3.2 (29.1)	5.5	2.5

Key Product Sales Targets	Full-year Targets	First Half Actual
Electronic/optical products	4.0	1.6
Healthcare-related products	2.0	0.8

* Figures in parentheses are percentage changes from FY2015 Actual.

Market Overview and Progress of Strategy

Packaging

- Overseas expansion of packaging adhesives increased.
- Sales of can coating continued to increase.
- Sales of adhesives for paper and films and for labels decreased due to market decline.

Electronic/optical

- New sales of adhesives for ICT-related products increased.
- Sales of functional films increased in Korea and China. New products contributed to sales expansion. The impact of foreign exchange was significant.

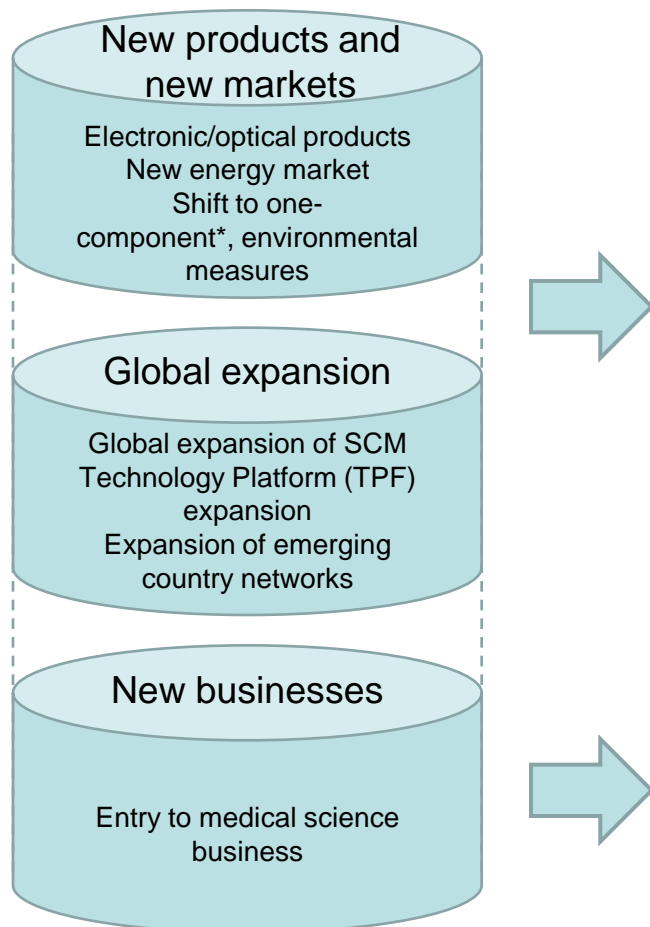
Automobiles and industrial use

- Sales of adhesives for automobiles and industrial materials such as building materials increased.

Healthcare

- The operation of the adhesive-based medical product business commenced in July 2016.

Three Pillars of Growth Strategy



Key Targets

Sales expansion in the electronic/optical product markets (development in Japan, Korea, Taiwan, and China)

- Enter the OLED market and boost sales
Boost sales of functional films and adhesives
- Boost sales in the Chinese market
Boost sales of display adhesives and functional resins

2017 sales targets
(Apr. – Dec.)

Coating products: **2.4** billion yen

Polymer products: **2.1** billion yen

Expansion of medical science products

- Increase healthcare products
- Increase adhesive-based medical products
- Increase drug premix products

2017 sales targets
(Apr. – Dec.)

2.1 billion yen

* Adhesives based on one-component acrylic solvents

Summary of Performance and Progress by Segment (Packaging Materials)

(Unit: 1 billion yen)

Summary of Performance	Full-Year FY2016 Forecast	FY2016 First Half Actual	FY2015 Full-year Actual	FY2015 First Half Actual
Sales	67.5 (4.5)	31.9 (-0.4)	64.6	32.0
Operating income	3.4 (24.9)	1.6 (37.7)	2.7	1.1

Key Product Sales Targets	Full-year Targets	First Half Actual
Flexographic inks for films	1.5	0.8
Liquid inks (Southeast Asia/China)	18.5	7.6
Liquid inks (India, Brazil, and Turkey)	4.5	1.9

* Figures in parentheses are percentage changes from FY2015 Actual.

Market Overview and Progress of Strategy

Domestic

- The domestic packaging market remained strong. There was a shift from rigid containers to pouches, and demand for individual packaging increased.
- Developed high-performance gravure inks for reverse and surface printing and steadily acquired customers entering the flexographic printing business.

Overseas

- Proposed environmental product (water-based/EB) solutions at Drupa. Water-based products made profits in Asia due partly to the VOC regulations.
- In Asia (incl. India), sales of middle-grade products were strong. Business performance expanded to new bases in inland China, Brazil, etc.

Summary of Performance and Progress by Segment (Printing and Information)

(Unit: 1 billion yen)

Summary of Performance	Full-Year FY2016 Forecast	FY2016 First Half Actual	FY2015 Full-year Actual	FY2015 First Half Actual
Sales	88.5 (1.2)	40.5 (-5.8)	87.4	43.1
Operating income	4.0 (34.4)	1.6 (77.3)	3.0	0.9

Key Product Sales Targets	Full-year Targets	First Half Actual
UV-curable inks	23.0	9.9
Inkjet inks	3.0	1.0
Offset inks (India, Brazil, and Turkey)	6.0	2.7

* Figures in parentheses are percentage changes from FY2015 Actual.

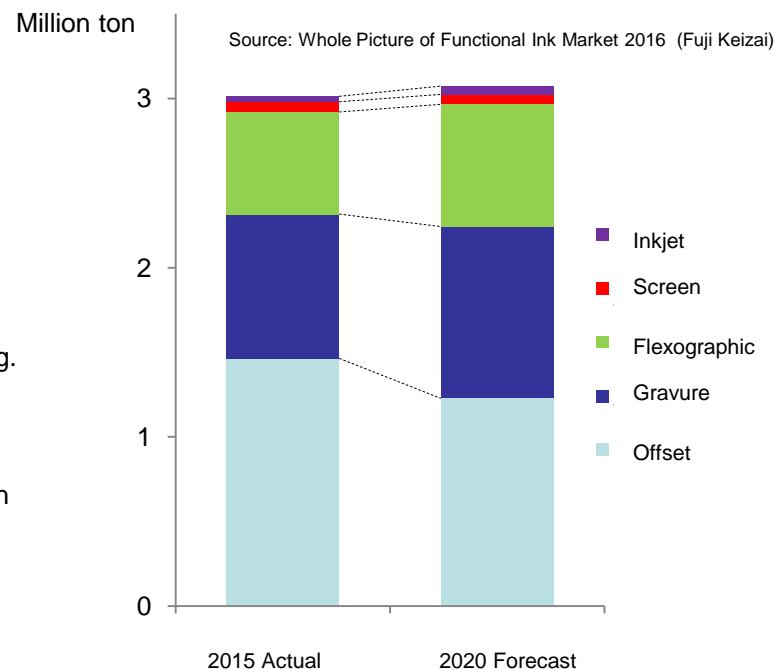
Market Overview and Progress of Strategy

- | | |
|----------|--|
| Domestic | <ul style="list-style-type: none"> ● The declining trend of the offset printing market (commerce, publishing, and newspaper) has not changed. The overall market decreased by 3% in the first half. ● Promoted the rationalization of the above products and the further sales expansion of UV-curable inks, for which a new office was established. ● Among LCD coating agents, sales of anti-electrification HC for OLED-TV in the Korean market grew significantly. Demand for Optical HC grew in the Chinese market thanks to the strong smartphone market. |
| Overseas | <ul style="list-style-type: none"> ● The offset printing market is shrinking structurally. The UV-curable ink market has been continuing to grow led by packaging inks and demand for energy conservation. ● Production at plants in Brazil and India increased. UV-curable ink production is transferred to various countries. |

Response to Changes in Market Structure

Printing and Information (Domestic):	The offset printing market (commerce, publishing, and newspaper) is shrinking (4-5%/yr.), but the UV printing market is growing.
Packaging Materials (Domestic):	Sales of packaging gravure inks are strong (growth 2%/yr.). Many new companies are entering the flexographic printing market.
Printing and Information (Overseas):	The sheet-fed printing and offset rotary markets are shrinking. The UV ink market is growing (3-4%/yr.).
Packaging Materials (Overseas):	The market remains strong (3-4% growth/yr.). In particular, emerging countries are maintaining greater than 5% growth. In China, demand for water-based inks and non-solvent adhesives has been growing due to the VOC regulations.

Global market forecast by printing method



Pursue comprehensive rationalization

Promote standardization and integration.
Combine domestic SCM bases. Reduce production process.

Accelerate responses

Establish overseas R&D bases (China and Thailand).
Implement sales activities for food-grade offset inks.

Invest resources in growth markets

Accelerate the development of UV-curable inks, EB inks, and water-based inks.
Localize overseas production and promote sales of UV-curable ink products.

Improving Products for High Value-added Niche Markets

Metal inks
-> Increase overseas
business development

Accelerate globalization in the two-piece can market
Increase Toyo Ink's presence in the multi-color printer market

FY2015 sales: 4.7 billion yen FY2020 sales target: 6.8 billion yen

Inkjet inks
-> Develop various uses

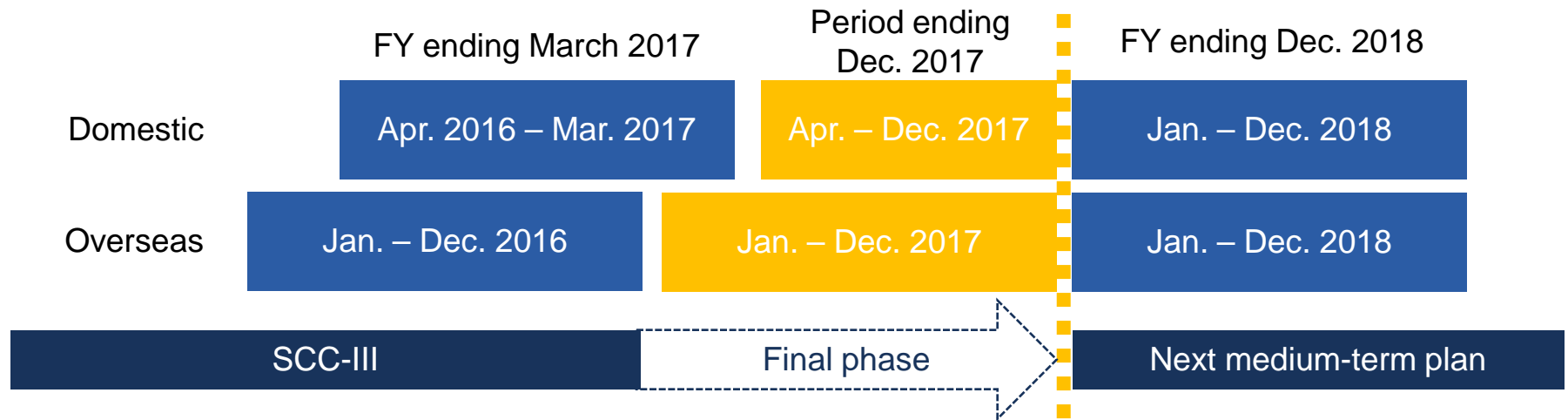
Textile printing, labels for the U.S. and Europe, for use on cardboard
Find new customers for UV signs

FY2015 sales: 2.1 billion yen FY2020 sales target: 5.2 billion yen

Screen inks
-> Differentiation of
products

Film decoration and forming
Market: dummy forming, amusement
Carbon nanotubes
Market: in-vehicle products

FY2015 sales: 1.4 billion yen FY2020 sales target: 2.0 billion yen



- Change of accounting period

The fiscal year end will be changed to December from the next fiscal year.

[Purpose] To eliminate gaps in accounting periods among different regions and simplify comparisons with other companies by introducing the international standards.

Promote unified operation of global business.

Increase management transparency through timely and appropriate disclosure of business information.
- Future planning

FY ending Dec. 2017: Positioned as the year for the final phase of the current medium-term plan (SCC-III)

FY ending Dec. 2018: First fiscal year of the next medium-term plan (announcement scheduled for Nov. 2017)

Key Achievements from SCC-III and Activities for Final Phase

Achievements during SCC-III period

Activities for final process

New products and new markets

■ **Life science**

Develop and promote sales of environmentally harmonious gravure inks and healthcare adhesives and integrate the adhesive-based medical product business.

■ **Communication science**

Develop electromagnetic shielding films, electrically conductive materials, urethane adhesives for optical products, UV-curable adhesives, green resist inks, and resist inks for image sensors.

■ **Sustainability science**

Develop colorants for solar cells and carbon dispersions for Li-ion batteries (LIB).

Life science

Create group synergy for the medical product segment based on adhesive-based medical product business.

Communication science

Boost sales of green resist inks and resist inks for image sensors. Expand the UV-curable ink and IJ ink business.

Sustainability science

Expand and boost sales of LIB-related products.

Global development

■ **Increasing profit**

[Thailand] Polymer plant extension

[Indonesia] New can coating plant

[Malaysia] Ink plant extension

[China] New inland ink plant (Chengdu)

[Korea] Adhesive plant extension, new resist ink plant

■ **Increasing brand power**

[U.S.] Adhesive plant improvement, new Inkjet (IJ) plant

[Europe] UV-curable ink plant improvement

■ **Stabilizing earning power**

[India] New resin plant

Ink and IJ plant extension

[Brazil] New offset ink plant

■ **New market development**

[Turkey] Full-scale market entry through M&A of former DYO

[Mexico] New company establishment

Increasing and stabilizing earnings

[China] Increase sales of new CF-related products.

[India] Further increase earnings.

[Brazil] Get the regional business on track.

[Mexico] Increase sales of packaging colorants.

New development

[Turkey] Cultivate markets in neighboring countries.

Management base

■ **Organization and governance**

Transfer authority to business company, implement cross-group projects.

■ **Human resources**

Increase diversity and improve the HR and employment system (nationalities, genders, specialization, and senior employees).

■ **Technologies and manufacturing**

Develop high-functional materials and three-grade product strategy.

■ **Environment**

Respond to the VOC regulations (China), install solar power generation facilities.

■ **Information and system**

Commence installation of ERP system.

Organization and governance

Define missions for the independence of Group companies.

Technologies and manufacturing

Create new value by combining existing technology platform (TPF) and taking on the challenge of expanding the science segment.

Information and system

Prepare for the change of the accounting period.

(Reference) Consolidated Balance Sheet

(Unit: 1 billion yen)

	As at September 30, 2016	As at March 31, 2016	Increase/ decrease (%)
Current assets	173.1	184.1	-5.9
Fixed assets	170.5	176.5	-3.4
Total assets	343.7	360.5	-4.7
Current liabilities	92.7	85.7	8.1
Long-term liabilities	46.7	60.2	-22.4
Total liabilities	139.3	145.9	-4.5
Total net assets	204.3	214.7	-4.8
Total of liabilities and net assets	343.7	360.5	-4.7

The decrease in assets is due primarily to foreign exchange calculations for overseas businesses.

The increase in current liabilities is due to the conversion of the repayment period for syndicate loans from long term to short term.

The decrease in interest-bearing debts is due to foreign exchange calculations.

	As at September 30, 2016	As at March 31, 2016
Interest-bearing debt (1 billion yen)	65.2	67.3
Net worth ratio (%)	57.8	57.7
D/E ratio	0.34	0.35

	As at September 30, 2016	As at March 31, 2016
Consolidated subsidiaries	6.9	6.8
Equity method companies	1.1	1.2

(Reference) Performance by Segment

		Results for Second Quarter of FY2016 (1 billion yen)		Increase/Decrease (%) Year on Year		Increase/Decrease from the 1 st Quarter of FY2016 (%)		Total Results (1 billion yen)		Increase/Decrease (%) Year on Year	
		Net sales	Operating income	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income
Colorants and Functional Materials	Japan	10.2	1.0	-1.2	32.1	8.2	257.9	19.7	1.2	-4.0	-24.0
	Overseas	9.1	0.0	-24.8	-92.7	-0.4	-84.1	18.1	0.3	-21.5	-62.0
	Total	16.4	1.0	-12.0	-26.3	4.7	95.8	32.1	1.5	-12.7	-37.2
Polymers and Coatings	Japan	10.9	1.0	-1.5	9.6	4.2	9.5	21.4	1.9	-1.9	21.2
	Overseas	5.1	0.7	-13.5	47.3	-5.0	0.6	10.4	1.3	-9.1	41.9
	Total	14.6	1.6	-5.3	20.7	0.5	4.9	29.1	3.2	-3.4	29.1
Packaging Materials	Japan	10.2	0.7	0.2	53.6	7.4	94.4	19.6	1.0	-1.1	37.8
	Overseas	6.2	0.3	-4.3	26.9	0.3	39.8	12.4	0.6	0.8	35.1
	Total	16.3	1.0	-1.7	41.9	-13.2	69.6	31.8	1.6	-0.4	37.7
Printing and Information	Japan	12.4	0.3	-10.4	92.4	4.2	71.5	24.3	0.5	-8.0	196.1
	Overseas	9.2	0.6	-7.7	25.1	-0.3	74.6	18.4	0.9	-3.7	43.4
	Total	20.5	1.0	-8.8	55.6	3.1	71.9	40.5	1.6	-5.8	77.3
Others		1.4	0.5	-2.2	-41.9	-9.0	-20.7	3.0	1.0	5.5	-35.3
Adjustment		-1.6	0.0	-	-	-	-	-3.4	-0.0	-	-
Total consolidated		67.6	5.1	-7.0	4.9	3.2	33.1	133.1	8.9	-5.6	4.8

(Note) The segment performance for Japan and overseas does not take into account eliminations between regions.

FY2016 First Half Results Briefing

(Reference) Performance by Region

FY2016 Actual	Results for 2 nd Quarter FY 2016 (3 months) (1 billion yen)		Increase/Decrease Year on Year (%)		Increase/Decrease from the 1 st Quarter of FY2016 (%)		Total Results for FY2016 (1 billion yen)		Increase/Decrease Year on Year (%)	
	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income
	Japan	44.6	3.4	-3.7	11.8	5.7	48.1	86.7	5.6	-3.7
Asia-Oceania	21.1	1.7	-19.0	8.5	-1.4	12.4	42.5	3.2	-15.8	21.0
Europe	4.8	0.0	17.0	-89.4	4.0	-52.3	9.4	0.1	26.8	-73.0
The Americas	3.1	-0.1	-13.9	-	-6.9	-	6.4	-0.1	-7.4	-
Adjustment	-5.9	0.0	-	-	-	-	-12.0	0.1	-	-
Total consolidated	67.6	5.1	-7.0	4.9	3.2	33.1	133.1	8.9	-5.6	4.8

FY 2015 (1 billion yen)	1 st Quarter		2 nd Quarter		3 rd Quarter		4 th Quarter		Total	
	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income	Net sales	Operating income
Japan	43.8	2.6	46.3	3.0	47.0	3.5	44.8	2.7	181.9	11.9
Asia-Oceania	24.4	1.1	26.1	1.5	25.2	1.8	25.0	1.9	100.7	6.3
Europe	3.3	0.1	4.1	0.3	3.5	0.0	3.6	-0.0	14.5	0.4
The Americas	3.3	-0.1	3.6	-0.1	3.7	-0.0	3.6	0.1	14.2	-0.1
Adjustment	-6.6	-0.0	-7.3	0.1	-7.0	0.0	-7.1	-0.0	-28.1	0.1
Total consolidated	68.2	3.6	72.7	4.8	72.5	5.4	69.8	4.6	283.2	18.5

TIG EXPO



2017

TOYO INK GROUP PRIVATE SHOW

Tokyo Venue

Date: February 2 (Thursday) and 3 (Friday), 2017
10:00 – 17:00

Venue: Tokyo International Forum

Osaka Venue

Date: March 10 (Friday), 2017, 10:00 – 17:00
Venue: Osaka International Convention Center
(Grand Cube Osaka)

* Advance applications are scheduled to be accepted from December.