Challenge for the Future

We develop with society and continue to fulfill our goals of being a responsible and innovative company.

CONTENTS

The Value TOK Creates

02 Readers’ Guide/TOK’s Photoresists
04 Our History/Our History of Value Creation as a Pioneer
06 Our Strengths/Our Strengths, as the Source of the Value We Create
08 Value Creation Process/TOK’s Sustainable Value Creation Process
10 TOK at a Glance/Business Portfolio and Product Portfolio
14 10-year Financial Highlights
16 10-year ESG Highlights
18 A Message from the President
25 Initiatives to Enhance Medium- to Long-Term Corporate Value
26 A Message from the CFO
28 Shareholder Value
30 SPECIAL FEATURE/TOK’s Sustainable Value Creation Capabilities
36 2017/12 Review of Operations

Forward-looking statements

This annual report contains forward-looking statements that describe future prospects of TOKYO OHKA KOGYO CO., LTD. (the Company) in terms of business planning, earnings and management strategies. Such statements are based on management’s judgment, derived from information available to it at the time such information was prepared. Readers are cautioned not to rely solely on these forward-looking statements, as actual results and strategies may differ substantially according to changes in the Company’s business environment.
Management Principles
Continue efforts to enhance our technology; Raise the quality levels of our products; Contribute to society; and, Create a frank and open-minded business culture.

Management Vision
Aim to be a globally trusted corporate group by inspiring customers with high value-added products that have satisfying features, low cost and superior quality.

The Source of the Value We Create
—Microprocessing Technologies That Create Inspiration
TOK delivers value in a wide variety of fields, including the manufacture of semiconductors, by rolling out microprocessing and applied technologies for the nanoscale* domain, along with implementing our strategy of building close relationships with customers and developing high value-added technologies from new standpoints.

* Nanometer (1nm) = one millionth of a millimeter; one hundred-thousandth the width of a human hair

Foundations for Value Creation
44 Environmental, Social, and Governance (ESG) Information
44 TOK Creates Value for the Environment through Business Activities
46 Environmental Initiatives
50 Social Initiatives
54 Dialogue between Independent Officers/
What TOK Needs to Do to Become a “100-Year Company”
59 Corporate Governance

Financial Information/Corporate Information
72 10-year Financial Summary
74 FY2017/12 Market Trends, Results of Operations, Financial Position, and FY2018/12 Performance Outlook
78 Consolidated Financial Statements
83 Corporate Information/External Evaluation
84 Global Network
TOK’s Photoresists

TOK is the world’s No.1 manufacturer of photoresists, which are photosensitive materials indispensable for the manufacture of semiconductors. We will explain the functions and performance of photoresists in the semiconductor manufacturing process.

Front-end processes of semiconductor manufacturing

Process of making integrated circuits on a silicon circuit board and producing LSI chips. The process utilizes photoresists’ resistance to etching.

(1) Coating of photoresists
Coat the photosensitive resin photoresists.

(2) Exposure
A photomask (circuit design) is transferred to the photoresist.
* Magnified cross-section of a silicon wafer

(3) Development
Photoresist patterns identical to the photomask (circuit design) are formed.

(4) Etching (Engraving)
Patterns are formed in the etching process. (Photoresist works as a protective film.)

(5) Removal of photoresists
Photoresist having served its purpose is removed from the circuit board.

(6) Formation of a semiconductor field
A semiconductor field is formed by coating with a diffusing agent and baking at high temperature.

Our Value Creation

We have accumulated deep knowledge of all front-end processes of semiconductor manufacturing through our engagement not only in photoresists, but also in high purity chemicals and process equipment.

→ Toward creating further high added value

TOK’s Semiconductor
Photoresist Business

Breakdown

TOK’s Semiconductor Photoresist Business

Worldwide Share of Semiconductor Photoresists*1

Global No.1
TOK 26.9%

Company A 17.1%
Company B 13.0%
Company C 12.5%
Company D 10.6%
Company E 8.3%
Company F 3.7%
Other 7.9%

*1 Based on actual total sales volume of ArF, KrF-g-Line and i-Line photoresists in 2017 (Calculated by TOK based on Fuji Keizai’s “Whole View of Photo-functional Material and Product Market 2018”)

Evolving Miniaturization of Semiconductors*2

We have accumulated deep knowledge of all front-end processes of semiconductor manufacturing through our engagement not only in photoresists, but also in high purity chemicals and process equipment.

→ Toward creating further high added value
Achieving SDGs through Our Core Business

Value for Society
Mounted in various types of end products and social issues are resolved

Our Strength
Providing photoresists that become growth drivers in both front-end processes and back-end processes of semiconductor manufacturing

Back-end processes of semiconductor manufacturing
Process of dicing individual IC chips and inserting in each type of packaging. The process utilizes photoresists’ thick-film forming capabilities.

EX. 1
Fan-out wafer level packaging (FOWLP) with photoresists for RDL fabrication

EX. 2
2.5D interposer with photoresists for RDL fabrication

Source (Example 1): Nikkei Electronics, March 2016 issue

Our Cutting-Edge
TOK has developed and provides EUV (Extreme Ultraviolet) photoresists for the line width of 7nm node, the world’s most advanced miniaturization of semiconductors.

Special Feature Page 30–31

1.0,000nm (1970s)
2.0,000nm
3.1,500nm (1980s)
4.1,000nm
5.800nm
6.600nm (1990s)
7.350nm
8.250nm
9.180nm
10.130nm (2000s)
11.90nm
12.65nm
13.45nm
14.32nm (2010s)
15.22nm
16.14nm
17.10nm
18.7nm (2018)

(7) Formation of wiring
Aluminum or copper wirings are formed.

(8) Formation of integrated circuits
ICs are formed by repeating the processes (1) through (7).

(9) Completion of an integrated circuit
Multiple ICs are created on wafer surface using microprocessing technology.

(10) Dicing of wafers
Wafer is diced into chip-sized components.

(11) IC chips completed
After dicing, each wafer portion becomes an IC chip.

Cross-section of a completed IC

Foundations for Value Creation
The Value TOK Creates
Financial Information/Corporate Information

Annual Report 2017/12
03
Our History

Our History of Value Creation as a Pioneer

Our founder Shigemasa Mukai established a strong ideal of “challenge ourselves to develop products that entail any difficulties but are useful to society and are not offered by other companies.” Based on this ideal, TOK challenges developing products that are the first of their kind in the world, Japan and the industry.

In the Japanese economy at the outset of the Showa era (1926–1989), ensuring the safety of coal miners, who supported the coal industry, had been a major social issue. After six grueling years, in 1934, founder Shigemasa Mukai was finally able to develop high-purity potassium hydroxide, an essential material for making batteries used in hard hat lights for coal miners. As the only domestic manufacturer mass producing this material, we played our part in improving the safety and security of coal mining. This philosophy of our founder lives on in our DNA today, as we create high value-added products for niche fields and help solve social issues.

As a material essential for the urban development of modern Japan, chlorinated naphthalene is used in coatings for electrical wires. In 1943, TOK developed “a chlorinated naphthalene composition with elasticity, high insulation, and short impregnation time.” This material was also its first patent registration. Chlorinated naphthalene is widely used in electrical wire coatings, as well as a material for condensers and an anti-knock agent for aircraft engines. Chlorinated naphthalene sales have increased overseas as well. Along with high-purity potassium hydroxide, chlorinated naphthalene became the wellspring for our core competency in high purification technology and the framework for the early part of the Company’s history.

1961–1999

- 1961: Launched employee proposal system
- 1970: Received award from Governor of Kanagawa Prefecture as a distinguished plant for trade and commerce
- 1974: Established the Pollution Prevention Committee
- 1978: Created the Hazardous Materials Management Committee
- 1979: Established Employee Stock Ownership Plan, Established the Earthquake Countermeasure Committee and the Energy-Saving Committee
- 1987: Established the Tokyo Ohka Foundation for The Promotion of Science and Technology
- 1991: Achieved 5.4 million hours of zero-accident (type 1) operations at Sagami Operation Center
- 1996: Created quality policy
- 1996: Obtained ISO 9002 certification at the Gotemba Plant and Sagami Operation Center
- 1999: Konyama, Utsunomiya, and Gotemba plants acquired ISO 14001 certification

History of ESG

1961
- Launched employee proposal system
1970
- Received award from Governor of Kanagawa Prefecture as a distinguished plant for trade and commerce
1974
- Established the Pollution Prevention Committee
1978
- Created the Hazardous Materials Management Committee
1979
- Established Employee Stock Ownership Plan, Established the Earthquake Countermeasure Committee and the Energy-Saving Committee
1987
- Established the Tokyo Ohka Foundation for The Promotion of Science and Technology

1991
- Achieved 5.4 million hours of zero-accident (type 1) operations at Sagami Operation Center
- Received the Environmental Conservation Award from the Kanagawa Environmental Conservation Association

1996
- Created quality policy
- Obtained ISO 9002 certification at the Gotemba Plant and Sagami Operation Center

1999
- Konyama, Utsunomiya, and Gotemba plants acquired ISO 14001 certification

First Registered Patent

1934: Batteries for hard hat lights used by coal miners in the early Showa era
1943: Kawasaki Plant in about 1947
Patent certificate for “chlorinated naphthalene composition,” the Company’s first registered patent

Our DNA

Our founder Shigemasa Mukai, TOK founder
As a manufacturer of high-purity chemicals, TOK has mastered microprocessing technologies and obtained knowledge in the electronics field, beginning with the photoresist business on a full scale in 1968. In 1971, TOK developed an eco-friendly synthetic rubber photoresist, and then expanded its world market share in 1979 with g-Line photoresists and again in 1987 with i-Line photoresists. In 1997, TOK’s KrF excimer laser photoresists became the industry standard, solidifying its position as the leading manufacturer of semiconductor photoresists.

TOK has gradually expanded overseas with bases in North America, Asia, and Europe. In 2012, we established TOK Advanced Materials Co., Ltd. in South Korea, where the growth of the semiconductor industry has been remarkable. With cutting-edge development functions, TOK Advanced Materials Co., Ltd. is a customer-oriented site that uses an integration of “the trinity” platform covering development, manufacturing, and sales. We have established similar development systems in North America and Taiwan, and have built a development platform capable of responding quickly to live feedback from customers in the cutting-edge field of semiconductors. We create high added value in the front-end process and back-end process of both 2D and 3D semiconductors.
Our Strengths

Our Strengths, as the Source of the Value We Create

As strengths unique to TOK, our world-leading microprocessing technology and high purification technology, coupled with our strategy of building close relationships with customers, allow us to provide new added value that inspires our customers and end users.

Technology

Microprocessing technology

Using our world-leading microprocessing technology, we rapidly develop products that satisfy the advanced needs of our customers, semiconductor manufacturers and electronic device manufacturers, while contributing to the resolution of various social issues.

- Accumulation and demonstration of world-leading technological capabilities in the development and production of materials to make semiconductor circuit line widths fine, materials used to make high-density semiconductor packages, and materials for stacking semiconductor devices in three dimensions
- Development and provision of EUV photoresists for 7nm and narrower nodes, the finest circuit widths in the world, for the miniaturization of semiconductors

Value creation domain = 1nm*¹

![value creation domain](image)

*¹ One nanometer is approximately one hundred-thousandth the width of a human hair

High purification technology

To leverage microprocessing technologies, TOK supplies chemical products (cleaning solutions, thinner, developing solutions, etc.) with the highest level of purity in the world. In the mass production of cutting-edge devices, our chemical products add value for customers by improving yields on their production lines.

- World’s highest level of purity, thanks to our focus on clear, identifiable reductions in impurities in chemical products
- Creation of new value based on development of high-quality grade tailored to customers’ processes
- Leverage strengths in highly challenging domains, such as controlling performance at the molecular level

Detection sensitivity for metal impurities in cutting-edge high-purity chemicals = Less than 10 ppt*²

![detection sensitivity](image)

*² Equivalent to less than one drop of coffee in a 50-meter Olympic-size swimming pool
TOK is focusing on a strategy of building close relationships with customers in order to emphasize speed more than anything else in the development of materials for cutting-edge semiconductor fields.

- Operations based on “the trinity” of development, manufacturing, and sales locations close to customers in the U.S., Taiwan, South Korea, and Japan
- We provide finely tuned tailor-made products swiftly for the different needs of each customer or process. This strength is derived from not only close physical proximity to customers, but also deep relationships with customers based on information exchange and trust

Having inherited the DNA that has existed in TOK since its founding, we are developing a business to continue to create materials that support advanced technologies and that cannot easily be imitated by other companies. Our business model is to develop and bring to market new, high-end, high-value-added products in niche fields.

- Our primary domains are niche business fields shaped by extremely disruptive and rapid cycles of technological change
- New business development that focuses on open innovation while specializing in world-first and niche top products
- Global Niche Top Companies Selection 100 (Electricity and electronics) (Ministry of Economy, Trade and Industry) (2014)

Products

Niche Top Products

Having inherited the DNA that has existed in TOK since its founding, we are developing a business to continue to create materials that support advanced technologies and that cannot easily be imitated by other companies. Our business model is to develop and bring to market new, high-end, high-value-added products in niche fields.

- Our primary domains are niche business fields shaped by extremely disruptive and rapid cycles of technological change
- New business development that focuses on open innovation while specializing in world-first and niche top products
- Global Niche Top Companies Selection 100 (Electricity and electronics) (Ministry of Economy, Trade and Industry) (2014)
Value Creation Process

TOK’s Sustainable Value Creation Process
As a global niche top company, TOK is contributing to solving social issues by developing products that are useful to society and are not offered by other companies, based on the strategy of building close relationships with customers. In the semiconductor-related business, where technologies change at an extremely fast pace, our ability to sustainably create value is supported by our robust financial capital, the world’s highest level of technological capabilities, ceaseless R&D efforts and a strategic patent portfolio. Under the TOK Medium-Term Plan 2018, with the aim of realizing our “overarching aspiration” for 2020 by further strengthening and evolving these management
resources, we will focus on promoting Diversity 2.0, open innovation, and Responsible Care in collaboration with our employees. Looking ahead, TOK will use this series of initiatives to contribute to the evolution of all types of industry and technological innovation, and creation of an environmentally friendly society, as well as reinvest with an eye on sustainable value creation and work toward the realization of becoming a “100-year company”.

Contribution to the evolution of all types of industry and technological innovation/creation of an environmentally friendly society

By providing products indispensable for the development and production of cutting edge-semiconductors, we:

- Contribute to the evolution of all types of industry and technological innovation; and
- Contribute to more compact, higher performance, energy-saving products.

By providing products indispensable for the production of power semiconductors, we:

- Contribute to the spread and evolution of renewable energy systems and various types of energy-saving products.

Through new businesses, we:

- Aim to contribute to the creation of an environmentally friendly society, and extension of healthy life spans.

[SDGs to be achieved through our core business]
We are leveraging the Material Business, our current earnings driver centering on cutting-edge domains, and realizing synergy with our Equipment Business, which is cultivating new niche business domains.

**Material Business**

- Develops high value-added products as an earnings driver
  - **Photoresists**: Widely used materials indispensable for the microprocessing of devices including semiconductors, LCDs, and other electronic products
  - **High-density integration materials**: Packaging photoresists and MEMS materials compatible with multilayer stacking accompanying advances made in semiconductor microprocessing
  - **High-purity chemicals**: Developing solutions, cleaning solutions, thinners and other chemicals with world-leading high purity
  - **Inorganic and organic chemicals**: Chemicals used in a wide range of industries

**Equipment Business**

- Getting one step ahead of market needs in synergy with the Material Business
  - **Semiconductor manufacturing equipment**: TOK’s Zero Newton wafer handling system that enables significant increases in efficiency of the 3D packaging process of semiconductors
  - **LCD panels manufacturing equipment**: Various types of process equipment including UV curing machines used to manufacture flexible displays, coating machines that can achieve high-precision performance, and coating machines for R&D

**M&E (Materials & Equipment) Strategy**

- Strengthen our value creation in all directions in the 2D and 3D semiconductor markets

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*Due to a change in fiscal year-end, the fiscal year ended December 31, 2017 was an irregular nine-month period in Japan, and 12 months overseas.*
Global Expansion

As a result of our focus on the semiconductor field and strategy of building close relationships with customers, overseas net sales account for approximately 75% of consolidated net sales, and are on an upward trend.

Overseas sales ratio (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Japan</th>
<th>Taiwan</th>
<th>South Korea</th>
<th>The U.S.</th>
<th>Other*2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>61.3%</td>
<td>58.1%</td>
<td>61.9%</td>
<td>66.1%</td>
<td>12.7%</td>
</tr>
<tr>
<td>2010</td>
<td>61.9%</td>
<td>58.0%</td>
<td>66.1%</td>
<td>69.2%</td>
<td>10.4%</td>
</tr>
<tr>
<td>2011</td>
<td>66.1%</td>
<td>69.2%</td>
<td>71.5%</td>
<td>75.6%</td>
<td>12.7%</td>
</tr>
<tr>
<td>2012</td>
<td>71.5%</td>
<td>75.6%</td>
<td>77.0%</td>
<td>74.2%</td>
<td>20.9%</td>
</tr>
<tr>
<td>2013</td>
<td>75.6%</td>
<td>77.0%</td>
<td>74.2%</td>
<td>75.6%</td>
<td>43.8%</td>
</tr>
<tr>
<td>2014</td>
<td>77.0%</td>
<td>74.2%</td>
<td>74.2%</td>
<td>75.6%</td>
<td>20.9%</td>
</tr>
<tr>
<td>2015</td>
<td>74.2%</td>
<td>75.6%</td>
<td>74.2%</td>
<td>77.0%</td>
<td>43.8%</td>
</tr>
<tr>
<td>2016</td>
<td>74.2%</td>
<td>77.0%</td>
<td>74.2%</td>
<td>77.0%</td>
<td>43.8%</td>
</tr>
<tr>
<td>2017/3</td>
<td>75.6%</td>
<td>77.0%</td>
<td>74.2%</td>
<td>77.0%</td>
<td>43.8%</td>
</tr>
<tr>
<td>2017/12</td>
<td>77.0%</td>
<td>77.0%</td>
<td>74.2%</td>
<td>77.0%</td>
<td>43.8%</td>
</tr>
</tbody>
</table>

*2 Other: China, Europe, and Singapore, etc.

Customer-oriented sites

—Close ties to regional customers, with an integration of “the trinity” platform covering development, manufacturing, and sales—

*1 Due to a change in fiscal year-end, the fiscal year ended December 31, 2017, was an irregular nine-month period in Japan, and 12 months overseas.
We excel in niche areas in both the front-end process and back-end process of semiconductor manufacturing, and we excel at both miniaturization and 3D packaging. We also offer cutting-edge value in the fields of high-purity chemicals, which are non-photosensitive materials, and equipment.
Main Target Markets, Applications, and End Products, etc.

All of TOK’s products are based on the B-to-B business, and people never see our products in their daily lives. However, these materials are essential for the evolution of end products, and they contribute to various innovations and to solving a range of social issues.
10-Year Financial Highlights

* The fiscal year ended December 31, 2017, was an irregular nine-month period due to a change in fiscal year-end.

**Net sales/Overseas sales ratio***

<table>
<thead>
<tr>
<th>Year</th>
<th>Net sales (Millions of yen)</th>
<th>Overseas sales ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>80,016</td>
<td>61.3</td>
</tr>
<tr>
<td>2010</td>
<td>80,037</td>
<td>61.9</td>
</tr>
<tr>
<td>2011</td>
<td>80,074</td>
<td>66.1</td>
</tr>
<tr>
<td>2012</td>
<td>80,096</td>
<td>69.2</td>
</tr>
<tr>
<td>2013</td>
<td>79,299</td>
<td>71.5</td>
</tr>
<tr>
<td>2014</td>
<td>75,097</td>
<td>77.0</td>
</tr>
<tr>
<td>2015</td>
<td>80,761</td>
<td>79.1*</td>
</tr>
<tr>
<td>2016/12</td>
<td>92,411*</td>
<td></td>
</tr>
</tbody>
</table>

* Due to a change in fiscal year-end, the fiscal year ended December 31, 2017 was an irregular nine-month period in Japan, and 12 months overseas.

**Operating income (loss)/Operating margin***

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating income (loss) (Millions of yen)</th>
<th>Operating margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>7,872</td>
<td>13.3</td>
</tr>
<tr>
<td>2010</td>
<td>10,025</td>
<td>15.0</td>
</tr>
<tr>
<td>2011</td>
<td>12,438</td>
<td>11.2</td>
</tr>
<tr>
<td>2012</td>
<td>9,954</td>
<td>11.5</td>
</tr>
<tr>
<td>2013</td>
<td>9,310</td>
<td>9.9*</td>
</tr>
<tr>
<td>2014</td>
<td>8,818</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>7,716</td>
<td></td>
</tr>
<tr>
<td>2016/12</td>
<td>82.2%</td>
<td></td>
</tr>
</tbody>
</table>

* Due to a change in fiscal year-end, the fiscal year ended December 31, 2017 was an irregular nine-month period in Japan, and 12 months overseas.

The overseas sales ratio has been on an uptrend as a result of our strategic focus on building close relationships with customers and an increase in the market share for our core products, mainly at overseas customers. Although TOK recorded our first operating loss since going public in the fiscal year ended March 31, 2009, immediately following the collapse of Lehman Brothers, we have steadily held profits at a certain level since the fiscal year ended March 31, 2011, thanks to business structural reform that included the streamlining of domestic plants, divestiture of an overseas subsidiary, and withdrawal from the printing material business. In the fiscal year ended March 31, 2015, we achieved record-high operating income as a result of concentrating on growth in cutting-edge materials for semiconductors, strengthening our strategy of building close relationships with customers overseas, and reshaping our business portfolio since the fiscal year ended March 31, 2013. Under the "TOK Medium-Term Plan 2018," which began in the fiscal year ended March 31, 2017, we are continuing to pursue "high-quality profits," even though profit growth has recently been sluggish partly due to implementing one of our largest-ever rounds of investment.

TOK has maintained an equity ratio of around 85% due to need to have a solid financial position as an R&D-driven company that targets niche top products. Through balance sheet management since the fiscal year ended March 31, 2017, TOK is pursuing an optimal balance between investment, cash reserves, and shareholder returns. The equity ratio has shifted to a downtrend mainly due to implementing the Company’s largest share buyback in November 2017.
Dividends applicable to the year per share/Payout ratio

<table>
<thead>
<tr>
<th>Year/Year-end</th>
<th>Dividends applicable to the year per share (Yen)</th>
<th>Payout ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>35.0</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>38.0</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>40.7</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>44.8</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>46.2</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>50.0</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>52.0</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>60.0</td>
<td></td>
</tr>
<tr>
<td>2017/3</td>
<td>64.0</td>
<td></td>
</tr>
<tr>
<td>2017/12</td>
<td>64.0</td>
<td></td>
</tr>
</tbody>
</table>

Until the fiscal year ended March 31, 2016, our basic policy targeted a consolidated dividend payout ratio of at least 30%. In the fiscal year ended March 31, 2017, we updated our guidelines and changed to a policy that targets a sustained dividend at a consolidated payout ratio of at least 40% while taking current levels into account. Although the fiscal year ended December 31, 2017 was an irregular nine-month fiscal period, we left dividends per share unchanged at ¥64, and dividends were, in effect, increased.

R&D costs*/Ratio of R&D costs to net sales

<table>
<thead>
<tr>
<th>Year/Year-end</th>
<th>R&amp;D costs (Mills of yen)</th>
<th>Ratio of R&amp;D costs to net sales (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>10.2</td>
<td>9.8</td>
</tr>
<tr>
<td>2010</td>
<td>9.8</td>
<td>7.9</td>
</tr>
<tr>
<td>2011</td>
<td>7.7</td>
<td>8.5</td>
</tr>
<tr>
<td>2012</td>
<td>7.7</td>
<td>8.5</td>
</tr>
<tr>
<td>2013</td>
<td>7.7</td>
<td>8.5</td>
</tr>
<tr>
<td>2014</td>
<td>7.8</td>
<td>8.5</td>
</tr>
<tr>
<td>2015</td>
<td>7.8</td>
<td>8.5</td>
</tr>
<tr>
<td>2016</td>
<td>9.2</td>
<td>10.7</td>
</tr>
<tr>
<td>2017/3</td>
<td>8.207</td>
<td>9.2</td>
</tr>
<tr>
<td>2017/12</td>
<td>6.240</td>
<td>7.5</td>
</tr>
</tbody>
</table>

TOK’s spending on R&D is equivalent to roughly 8% of net sales, much higher than the all-industry average of 4.1%.*2 Over the past few years, R&D costs have been on an uptrend for the development of high value-added materials, equipment, and production technologies, as well as an increase in the supply of samples for cutting-edge semiconductor fields.

Investment in plant and equipment*/Depreciation and amortization*

<table>
<thead>
<tr>
<th>Year/Year-end</th>
<th>Investment in plant and equipment (Mills of yen)</th>
<th>Depreciation and amortization (Mills of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>5,631</td>
<td>2,672</td>
</tr>
<tr>
<td>2010</td>
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<td>2017/3</td>
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<td>5,216</td>
</tr>
<tr>
<td>2017/12</td>
<td>6,632</td>
<td>6,035</td>
</tr>
</tbody>
</table>

After an uptrend in depreciation alongside one of our largest-ever rounds of capital investment under the “TOK Medium-term Plan 2018,” the rate of increase in depreciation and amortization has been slowing down as these large-scale investments wind down.

* Due to a change in fiscal year-end, the fiscal year ended December 31, 2017 was an irregular nine-month period in Japan, and 12 months overseas.

Exchange rate

<table>
<thead>
<tr>
<th>Year/Year-end</th>
<th>Exchange rate (Yen/U.S. dollars, As of March 31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>98</td>
</tr>
<tr>
<td>2010</td>
<td>93</td>
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<td>2016</td>
<td>112</td>
</tr>
<tr>
<td>2017/3</td>
<td>113</td>
</tr>
<tr>
<td>2017/12</td>
<td>113</td>
</tr>
</tbody>
</table>

Our profits have become more sensitive to fluctuations in foreign exchange rates along with a higher ratio of overseas sales, and our foreign currency hedges to mitigate this sensitivity have, on their own, lost some effectiveness. For this reason, TOK aims to minimize financial risk, including foreign currency risk, by focusing more on global cash management that entails adjusting the balance of cash positions across overseas sites.
By the fiscal year ending December 31, 2019, TOK targets a reduction of 10 points in energy consumption compared with the base unit indexed to fiscal 2009. Thanks to smooth progress on various fronts, the Company achieved a reduction of 16 points in fiscal 2017, compared with the base unit indexed to fiscal 2009. Energy usage has been on an uptrend lately due to higher production volumes and the installation of new evaluation equipment, but we will continue efforts to reduce environmental impact.

* Due to a change in fiscal year-end, totals for 2009 and 2013 onward are from January through December.

TOK has achieved zero emissions*, as the volume of its industrial waste headed to landfill disposal via intermediate treatment has remained below 1% the total. TOK fell short of its target for reducing the total volume of industrial waste by 10 points by fiscal 2015 compared with the base unit indexed to fiscal 2010, so the Company is redoubling efforts with the goal of reducing it by 5 points by fiscal 2020 compared with the base unit indexed to fiscal 2015.

*1 Total sum of general industrial waste and specially controlled industrial waste. Due to a change in fiscal year-end, totals for 2013 onward are from January through December.

*2 Definition of zero emissions: Landfill disposal volume (direct or after intermediate treatment) of less than 1% of industrial waste discharged by business activities.

TOK has achieved zero emissions*, as the volume of its industrial waste headed to landfill disposal via intermediate treatment has remained below 1% the total. TOK fell short of its target for reducing the total volume of industrial waste by 10 points by fiscal 2015 compared with the base unit indexed to fiscal 2010, so the Company is redoubling efforts with the goal of reducing it by 5 points by fiscal 2020 compared with the base unit indexed to fiscal 2015.

*1 Total sum of general industrial waste and specially controlled industrial waste. Due to a change in fiscal year-end, totals for 2013 onward are from January through December.

*2 Definition of zero emissions: Landfill disposal volume (direct or after intermediate treatment) of less than 1% of industrial waste discharged by business activities.

At TOK, the number of foreign employees has been increasing as a result of its strategy of building close relationships with customers overseas and emphasis on merit-based hiring of new graduates regardless of their nationality. Based on spirit of a frank and open-minded business culture, one of our management principles, and the basic philosophy that human resources are a company asset, we have expanded our personnel systems and training programs. As a result, the ratio of new graduate hires who quit within three years of joining the Company has stayed at zero percent in recent years. In February 2018, TOK was recognized in the 2018 Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500).
Over the past few years, the number of female employees has increased as a result of initiatives in merit-based hiring and leveraging human resources with the ultimate aim of strengthening our competitiveness. In recognition of our initiatives to promote women in the workplace, such as offering flexible work styles and support with career formation plans, TOK was selected as a constituent stock in the 2017 MSCI Japan Empowering Women Index.

TOK conducts training and drills through the Safety and Health Committee, set up a Safety and Health Liaison Unit, and keeps emergency response manuals up to date. Moreover, the Company encloses facilities and improves ventilation equipment based on risk assessments of chemical substances used. As a result, TOK’s severity rate of workplace accidents has remained far below the chemical industry average of 0.01*.

* Source: Ministry of Health, Labour and Welfare’s 2017 Survey on Industrial Accidents/Chemicals Industry (1,000 employees or more)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of female employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>138</td>
</tr>
<tr>
<td>2010</td>
<td>132</td>
</tr>
<tr>
<td>2011</td>
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<tr>
<td>2016</td>
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<td>2017/3</td>
<td>135</td>
</tr>
<tr>
<td>2017/12</td>
<td>139</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Severity rate of workplace accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>0.0000</td>
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<tr>
<td>2010</td>
<td>0.0000</td>
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<tr>
<td>2011</td>
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<td>2012</td>
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<td>0.0000</td>
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<tr>
<td>2017/3</td>
<td>0.0000</td>
</tr>
<tr>
<td>2017/12</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

TOK increased the number of outside auditors by one to three in 2013, and increased the number of outside directors by one to two in 2015. The ratio of outside officers on the Board of Directors is now 41.7%.

The ratio of outside auditors on the Board of Auditors has been 75.0% ever since the number of outside auditors was increased by one to three in 2013.
Challenge for the Future

By continuing to turn changes into opportunities, we aim to become a “100-year company” through sustainable value creation.

Ikuo Akutsu
President & Chief Executive Officer
The semiconductor market remains brisk, but compared with a year ago, qualitative changes seem to be underway. What are these recent changes in the semiconductor market, your future outlook, and TOK’s position and social mission?

TOK targets sustained growth through steadily generating earnings by constantly expanding growth opportunities while fulfilling its social mission.

- **Constantly Expanding Growth Opportunities**

  We forecast the semiconductor market will expand 12.4%* year on year in 2018 and reach its largest size ever, owing to robust growth in datacenter applications and other areas, as well as accelerating market expansion in industrial equipment and automotive power semiconductors and sensors, despite slowing growth in cutting-edge semiconductors for smartphones. We expect these growth trends to continue for some time. Talk by some stock market participants since last year about a “super cycle” on the semiconductor market no longer signifies sharp growth like that seen in 2017, but we believe strong market expansion is becoming entrenched for the long run.

  TOK has a leading share* of the world market for semiconductor photoresists, and semiconductor-related businesses generate 85% of consolidated net sales*3. We are concentrating on expanding market share in ArF and KrF excimer laser photoresists used in cutting-edge semiconductors, and working to achieve more growth in i-Line photoresists used to make power semiconductors. By continuing to create value in semiconductor-related businesses, we see a high likelihood of even more profit growth after posting record-high profits.

  
  *1 World Semiconductor Trade Statistics
  
  *2 Share of sales volume for 2017 (Calculated by TOK based on Fuji Keizai’s “Whole View of Photo-functional Material and Product Market 2018”)
  
  *3 FY2017/12 (result)

- **Growth Factors from Population to Data**

  Some stock market participants have voiced strong concerns about excess supply and falling product prices once Chinese manufacturers have ramped up mass production of semiconductors. However, the main driver of growth in semiconductor-related industries is shifting away from population growth toward data volume, which has been increasing exponentially alongside advances in IoT, artificial intelligence (AI), and next-generation 5G communications technology. We therefore see the outlines of a new growth trajectory that is different from smartphones, displays and solar cells, markets that depend on growth in the population. Even if excess supply materializes temporarily after Chinese manufacturers start mass production, we expect “explosive growth in data volume” to create demand that offsets this factor. In our view, growth on the Chinese market is basically a positive factor for TOK.

- **Management Principles and Our Social Mission**

  Continued expansion in growth opportunities for TOK also means that the Company will have more opportunities to help solve social issues. We will leverage our strengths in the front-end process and back-end process for the production of semiconductors, as well as cutting-edge semiconductors, power semiconductors and sensors. While focusing on medium- to long-term earnings growth, we will advance initiatives related to SDGs and ESG to continue fulfilling our social mission as a chemicals manufacturer. In turn, these initiatives will lead to the realization of our management principles, namely to continue efforts to enhance our technology, raise the quality levels of our products, contribute to society, and create a frank and open-minded business culture.
From TOK’s standpoint, what is value creation, and how does it tie in with the Company’s management principles?

**Value Creation is the Act of Turning Changes into Opportunities**

Our management principles of continuing efforts to enhance our technology, raising the quality levels of our products, contributing to society, and creating a frank and open-minded business culture are applicable in the current business environment, as we believe our constant efforts in R&D effectively turn changes into opportunities while we continue to help solve social issues. Based on our strategy of building close relationships with major semiconductor manufacturers, we are leveraging our development strengths in high value-added, cutting-edge fields, while at the same time focusing efforts on serving smaller companies in the industry and tackling development concepts for other industries. This is because our experience has been that focusing development activities on fields with nascent markets, regardless of the size of customers or technical field, has created many new opportunities and led to the establishment of business in new niche fields while solving social issues. We will continue to create value with our diverse stakeholders based on our strategy of building close relationships with customers.

**Value Creation for Mass Production in Cutting-Edge Semiconductor Fields**

—ArF Excimer Laser Photoresists & High-Purity Chemicals—

On a mass production basis, 10nm level semiconductors are on the cutting edge in the world, and TOK’s ArF excimer laser photoresists are adopted by major semiconductor manufacturers in North America and South Korea. The Company expects earnings to expand as the 10nm level process enters mass production in full scale. In cutting-edge semiconductor fields, amid rapidly strengthening needs for higher purities, we supply high-purity chemicals to major customers in North America and Taiwan. Our products are of such high quality that impurities amount to only one drop of coffee (0.025 ml) in a 50-meter Olympic size swimming pool. We continue our efforts to develop even higher-purity processing.

**Value Creation in 3D Semiconductors**

—KrF Excimer Laser Photoresists—

TOK is harnessing its ability to create value in 3D packaging. The market for 3D-NAND has been expanding on demand for solid state drives (SSDs) used in high-performance data servers and compact PCs. TOK is a global market share leader in the KrF excimer laser photoresists needed to make the multi-layer structures of 3D-NAND, providing the photoresists to major customers. Growth had once slowed on the mature market for these photoresists, but they became a growth driver once again as a result of TOK going back to the basics and developing these photoresists for new applications (sources of demand). The high-speed servers and compact PCs made by 3D-NAND and our photoresists have contributed to improvement in work-life balance and changes in working styles throughout society, through faster data processing at offices and out of offices, and greater efficiency by allowing employees to work at home via teleworking.

(→ Refer to pages 32–33 “Special Feature” for details)

**Value Creation in Semiconductor Miniaturization and Cutting-Edge Fields**

—EUV Photoresists—

As an example of value creation, our EUV (extreme ultraviolet) photoresists for 7nm–5nm nodes, used by the most advanced semiconductors in the world, have been praised by major customers and are beginning to contribute to sales. Cutting-edge semiconductors are found not only in the latest smartphones, but also in the FinTech field including cryptocurrency. As such, they are helping to advance blockchain technology and may eventually solve social issues in a variety of fields. We aim to secure the top market share for these photoresists, and will continue advancing R&D based on our strategy of building close relationships with customers.

(→ Refer to pages 30–31 “Special Feature” for details)
Value Creation in IoT and Power Semiconductor Fields
—i-Line Photoresists—

We project steady growth in demand for i-Line photoresists used on the 350nm–250nm nodes to make IoT sensors, power semiconductors, and analog semiconductors. Our i-Line photoresists have contributed greatly to safety and security in an IoT society and the creation of a more environmentally friendly society. We make every effort to ensure stable supply of these photoresists, and are developing them for next-generation power semiconductors used in electric vehicles.

(Refer to page 45 “TOK Creates Value for the Environment through Business Activities” for details)

Value Creation in the Back-end Process of Semiconductor Manufacturing
—High-density Integration Materials and Equipment Business—

In addition to the front-end process, where integrated circuits are made on semiconductors, we also create value in the back-end process, where semiconductor packaging is performed to connect (mount) semiconductors onto circuit boards to fulfill their functions.

Our high-density integration materials are used in the high-density packaging of semiconductors. We are developing and providing thick-film photoresists for fan-out wafer level packaging, which contribute to making cutting-edge devices including high value-added smartphones thinner and lighter.

In the Equipment Business, we are receiving an increasing number of inquiries alongside growth in TSV equipment development projects for 3D semiconductors and next-generation processors, which are likely to be used in next-generation servers, image sensors, autonomous vehicles, and game consoles. It takes time to launch these cutting-edge markets, so earnings are unlikely to benefit strongly over the short term. However, the Equipment Business is a field where emerging trends in electronics technologies can be identified at the earliest stages, creating significant qualitative synergies with the Materials Business. For this reason, we will continue to concentrate on our unique Materials & Equipment (M&E) strategy and develop both the Materials Business and Equipment Business.

(Refer to page 43 “2017/12 TOPICS” for details)
Can you discuss the progress made so far on the “TOK Medium-Term Plan 2018,” which is entering its final fiscal year, and the direction of the next medium-term plan?

We target further growth in profits toward achieving a new record high as quickly as possible by maximizing the strengths of our strategy to build close relationships with customers.

**Review of the Second Year of “TOK Medium-Term Plan 2018”**

Under the three-year “TOK Medium-Term Plan 2018,” which commenced in the fiscal year ended March 31, 2017, we target a new record high in operating income in the fiscal year ending December 31, 2018, the final year of the plan. We have concentrated on reforming our business portfolio, evolving the strategy of building close relationships with customers, developing global personnel, and strengthening the management foundation. To reinforce our ability to constantly create new values, we executed one of our largest ever strategic investments. In the fiscal year ended December 31, 2017, the second year of the plan, consolidated net sales increased 14%, with sales of ArF excimer laser photoresists up 10% year on year, KrF excimer laser photoresists up 15%, and high-purity chemicals up 25%, underscoring the robust demand in the Materials Business. Operating income declined 1.3% due to higher raw material costs from the final quarter of the year, and one-time expenses arising because of the change in the fiscal year-end.

For the fiscal year ending December 31, 2018, the final year of the plan, we see a strong likelihood that raw material costs will continue to increase. We project that shipments of ArF excimer laser photoresists for cutting-edge semiconductors to major customers in North America and South Korea will be slow to gain momentum due to launch delays in final device markets and customer-specific factors. This is the largest factor for not being able to close the gap between our earnings forecasts announced in February 2018 and our initial target for operating income in the final fiscal year of the medium-term plan.

However, our initiatives to date have begun to have an unmistakable effect on strengthening our strategy to build close relationships with customers in North America, Taiwan, and South Korea, and we have enhanced our development capabilities in cutting-edge fields through one of our largest-ever rounds of strategic investments. We will continue to focus on evolving our strategy of building close relationships with customers and reforming our business portfolio with the aim of attaining a new record high in operating income as quickly as possible through ongoing profit growth.

**Toward the Next Medium-Term Plan**

We are still working out the details of the next medium-term plan that will commence in the fiscal year ending December 31, 2019. While addressing the current issues of strengthening the Equipment Business and creating new businesses, TOK will continue to create value by turning changes into opportunities as a company that specializes in R&D in niche fields. In addition to our core competencies in microprocessing technology and high purification technology, we will continue to reinforce our strategy of building close relationships with customers, contribute to solving social issues, and sustain enhancement of corporate value with the ultimate aim of becoming a “100-year company” in 2040.

One of the most important strategies to this end will be enhancing our personnel measures, in my opinion. With this and other important strategies on our mind, we are engaging in dialogue with stakeholders, analysts and institutional investors while working out the details of the next medium-term plan, which we intend to unveil around February 2019.
Please describe your future investment strategy, financial and capital policies and plan for increasing ROE.

We will continue to pursue an optimal balance between investment, cash reserves, and shareholder returns.

- **Strategic Investments Executed**
  As mentioned earlier, the Company executed one of its largest-ever strategic investments during the “TOK Medium-Term Plan 2018.” At overseas customer-oriented sites, we launched new mass production lines for high-purity chemicals for cutting-edge semiconductors at our Tongluo Plant in Taiwan (Tongluo No. 2 Plant). In Japan, we increased capital investments in cutting-edge fields, including the installation of high-resolution exposure equipment for accelerating the development of ArF eximer laser photoresists at the Sagami Operation Center, our core R&D facility. The TOK Group is also constructing a new R&D Building at the Sagami Operation Center to serve as a site for open innovation that will show external stakeholders the wonders of our technologies while bringing people together over the long term. Plans call for completing construction on this facility in September 2019. Our hope is that it will serve as a site that draws in from the outside a variety of technological seeds, needs, ideas, and concepts that inform the creation of new businesses, reform our business portfolio, and drive value creation at the TOK Group as it moves toward becoming a “100-year company.”

- **Implementation of Largest Share Buyback Program/Large-Scale Investments Unlikely in Immediate Future**
  At TOK, we consider returning profits to shareholders to be one of our most important management objectives, and while taking a long-term perspective, we return profits to shareholders based on a comprehensive consideration of factors such as our financial position and business performance.

In November 2017, TOK implemented a share buyback program up to ¥10 billion, its largest-ever program, to enhance shareholder returns by buying back its own shares. We also distributed an annual dividend of ¥64 per share in the fiscal year ended December 31, 2017, which was effectively a higher dividend due to the shorter nine-month fiscal period during the change in fiscal year-end. This constituted a consolidated dividend payout ratio of 46.3%. For the fiscal year ending December 31, 2018, the Company plans to increase dividends by ¥8 year on year to ¥72 per share. Management is committed to maintaining its basic policy on profit distribution through a consolidated payout ratio of at least 40%.

With a firm presence in niche fields in the electronics market, which includes the rapidly and constantly changing semiconductor industry, we will hone our business model so that we can beat the competition, despite competitors being much larger than us and having different cash generation structures. To this end, TOK will ensure it has sufficient cash reserves and make the necessary investments to pull this off. With that said, we do not plan to make any large-scale investments like those during the “TOK Medium-Term Plan 2018” that were deemed necessary for sustainable value creation over the long run. We will accordingly focus on returns on these investments through top-line growth and stronger profits, and strive for the optimal balance between investments, cash reserves, and shareholder returns in line with this phase.

- **Aiming to Increase ROE via Profit Growth**
  ROE was 4.1% in the fiscal year ended December 31, 2017, signaling that more needs to be done to achieve our target for ROE of at least 7% in the fiscal year ending December 31, 2018 and 8% or higher in the fiscal year ending December 31, 2020. The Company will continue to focus on profit growth in line with its policy of increasing the numerator in the ROE equation. For the denominator of this equation, our policy is to strengthen balance sheet management, which began in the second year of the current medium-term plan. We intend to share more details about this in the next medium-term plan.
Q

Given the increase in opportunities to help solve social issues, what are the initiatives TOK is taking to address SDGs and ESG?

We are committed to sustaining value creation through initiatives that address SDGs and ESG.

Creating a PDCA Cycle to Contribute to Resolving Social Issues
Reforms to corporate governance in Japan began in earnest in 2014. We have also taken steps to improve corporate governance by increasing the number of independent officers, conducting evaluation of the Board of Directors, setting and disclosing ROE targets, and emphasizing diversity for Board of Directors members and employees. In 2017, TOK became a constituent stock in the MSCI Japan Empowering Women Index and the SNAM Sustainability Index. In February 2018, TOK was recognized in the large enterprise category of the 2018 Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500).

Backed by these achievements, we will evolve our ESG initiatives. In light of ongoing expansion in semiconductor-related businesses, our core domain, we will create a system for value creation in core businesses that aligns with SDGs, and share this system with both internal and external stakeholders, while linking it to a PDCA cycle for contributing to the resolution of social issues and generating profits.

Resolving Social Issues through Core Businesses—Initiatives in SDGs—
In resolving social issues through core businesses, TOK contributes to the advancement of various industries and technological innovation through its ongoing strategy of building close relationships with customers, mainly in semiconductor photoresists, as described in parts of this report.

Specifically, TOK will contribute to producing higher-performing, more compact, energy-saving industrial equipment, and will encourage more efficient work styles for people and value creation by developing and providing high-purity chemicals, high-density integration materials, and EUV, ArF, and KrF photoresists that are essential for miniaturizing and increasing the density of semiconductors. Through the reliable supply of i-Line photoresists essential for the production of power semiconductors and sensors, TOK contributes to the creation of a secure and safe society, as well as the proliferation and advancement of renewable energy systems, eco-cars, and energy-conserving equipment. All of our products in these core businesses will contribute to achieving “Affordable and clean energy” (SDG 7), “Decent work and economic growth” (SDG 8), and “Industry, innovation and infrastructure” (SDG 9).

Focusing on ESG Material Issues
TOK focuses on the following ESG material issues as initiatives that support value creation through core businesses.

TOK’s ESG Material Issues
◊ Reduce environmental impact in production processes
◊ Work to reduce environmental impact more than required by law
◊ Enhance personnel measures and promote diversity to improve competitiveness
◊ Encourage open innovation to strengthen competitiveness
◊ Create great workplaces that allow employees to strike a work-life balance/promote occupational health and safety
◊ Instill the Group Management System globally (controls/risk management/compliance)
◊ Tightly manage information about cutting-edge technology

Achieving SDGs

By focusing on these ESG material issues, we will make steady progress toward achieving SDGs 7, 8, 9, 13, and 17 in our core businesses. We also aim to contribute to the achievement of “Gender equality” (SDG 5), and “Clean water and sanitation” (SDG 6).

We are currently examining how to address the latest revisions to the Corporate Governance Code in Japan, which was updated in June 2018, from the perspective of strengthening our ability to constantly create value and improve corporate value.

We kindly request the ongoing support and understanding of all our stakeholders.
Initiatives to Enhance Medium- to Long-Term Corporate Value

Becoming a “100-year company” in 2040

[Next medium-term plan] Working out the details to be announced in February 2019

Direction*

- Continue to create value by turning changes into opportunities as a company that specializes in R&D in niche fields
- Further enhancement of the strategy of building close relationships with customers in addition to our microprocessing technology and high purification technology that contributes to resolving social issues
- Strengthen initiatives in the Equipment Business and new businesses that have been issues under “TOK Medium-Term Plan 2018”
- Aim to increase ROE via profit growth emphasizing the numerator and stronger balance sheet management at the core
- Further strengthen personnel measures

* Readers are cautioned not to rely solely on the excerpts of the direction listed in this Annual Report as actual events may differ compared to those at the time of editing (July 2018).


Long-term Management Vision — “Overarching aspiration for 2020” —

- Operating income: ¥ 20 billion
- ROE: Over 8%

"Aim to be a globally trusted corporate group by inspiring customers with high value-added products."

[TOK Medium-Term Plan 2015 (FY2014/3–FY2016/3)]

Results

- Achieved record-high profits (FY2015/3 Operating income: ¥13.2 billion)
- Strategy of building close relationships with customers made significant progress
- Diversified earnings drivers

[TOK Advanced Materials Co., Ltd. (South Korea)]


Targets

- Surpass record-high earnings
- Enhance business foundations that support sustainable growth

Strategy

- Build close relationships with regional users
- Reform business portfolios
- Develop global personnel

Strengths (The source of the value we create) ➔ Pages 6–7

Value Delivered to Society: Contributing to the evolution of all types of industry and technological innovation/creation of an environmentally friendly society ➔ Page 24

We develop with society and continue to fulfill our goals of being a responsible and innovative company.
TOK will continue to pursue a new optimal balance between investment, cash reserves, and shareholder returns, evolving its balance sheet management to become a “100-year company.”

Q1 Please tell us about the Company’s share buyback program, its largest ever, which was implemented in November 2017.

A It was our first round of “credit rebalancing” in balance sheet management.

TOK is pursuing the optimal balance for investments, cash reserves and shareholder returns with an eye on long-term growth as a global niche top company. With the Company’s 80th anniversary approaching in 2020, we have all had more opportunity to think about the shape of the TOK Group as a “100-year company.” We reassessed our initiatives toward becoming a “100-year company” within the context of major changes on capital markets in Japan, such as the Corporate Governance Code, and came to the conclusion that we should begin taking steps to reinforce balance sheet management from a long-term perspective without waiting for the next medium-term plan to begin in 2019. The TOK Group is undertaking balance sheet management not only as a financial capital strategy, but also as an initiative to reform awareness internally, as a new management method toward becoming a “100-year company.” In addition to returning value to shareholders, the recent share buyback can be viewed as our first round of “credit rebalancing” in balance sheet management with the aim of becoming a “100-year company.”

Q2 Why did management decide on ¥10 billion as the amount for the share buyback?

A It aligns with our provisional target for an equity ratio of around 80%.

The Group’s equity ratio has long hovered around 85%. In pursuit of an optimal asset composition that takes into account the capital cost, TOK set an equity ratio of around 80% as a provisional target for the final fiscal year of the current medium-term plan. To achieve this target, we implemented the share buyback as a part of reassessing financial leverage. After equity was reduced as a result of the November 2017 share buyback, we are aiming to reach an equity ratio of around 80% by the end of 2018 while continuing to ensure sufficient cash reserves through ¥10 billion in long-term debt financing that was implemented in the first half of this year.

Q3 What are the Company’s future plans for strengthening balance sheet management?

A We will concentrate on both “debit management” and “debit and credit balance management.”

We plan to provide more information along with the full details of the next medium-term plan. For now, the general direction we will take entails a flexible approach to “credit management,” which includes share buybacks, from a long-term perspective while considering future business strategies, investment plans, and performance trends. After starting with credit management, TOK plans to strengthen “debit management” and “debit and credit balance management.” We are still working out the details, examining the clarification of our policy on cash holdings and the reassessment of the substance of credit within the context of debit management.

Q4 The fiscal year ended December 31, 2017, the second year of the medium-term plan, was a year of external factors having an unexpectedly large impact, such as delay in a generational switch in customers’ processes and sharp increases in raw material prices. In light of this, how will TOK’s future financial and investment strategies change?

A Without flinching from short-term changes, we will settle down and concentrate on our long-term business strategies and balance sheet management.

Regrettably, these external factors caused us to miss our earnings targets in the current medium-term plan. This also resulted in a decline in the net margin, a key element of ROE. During the remaining months of this year, we are making every effort to get back on track.
However, the uncertainties that led to the rise of these external factors may increase further in the semiconductor industry that TOK calls its main business domain. TOK will stand its ground with its business model of being a global niche top company without a presence in bulk fields and a long-run R&D-driven company centered on electronics-related materials. To continue creating value through bold and flexible investments that leverage its appropriate cash reserves, TOK will take the long view without being distracted by short-term changes and concentrate on its business strategies and balance sheet management.

Q5 How is management working to improve ROE?
A Under the next medium-term plan, TOK will rebuild measures for the numerator and take a more flexible and evolved approach in measures for the denominator over the long term.

With regard to improving ROE, we are prioritizing improvements in the numerator and long-term profit growth. We are rebuilding our business strategies by returning to the basics of being an R&D-driven company with a strong presence in niche fields. As a part of this initiative, we are pursuing a more evolved approach to taking flexible measures for the denominator over the long term. Accordingly, among the elements that make up ROE, we are prioritizing improvements in net margin. Regarding financial leverage and the total asset turnover ratio, we are working to avoid a decline and shore up these metrics through stronger balance sheet management.

Q6 For the current TOK Medium-Term Plan 2018, management raised its target for the dividend payout ratio from 30% or higher to 40% or higher. Although earnings are trending below initial forecasts, is management still committed to a payout ratio of 40% or higher?
A We are well positioned to reward long-run shareholders as much as possible.

We will not change our stance on emphasizing dividends. Our current policy of maintaining a stable dividend while targeting a payout ratio of 40% or higher is very important as long as TOK has a business model that befits a long-run R&D-driven company. When engaging in long-run R&D activities and reaping the benefits, there is naturally a certain time lag that depends on market conditions and technological trends. We aim to reward shareholders who have supported TOK over the long run and understand the Company’s unique traits with a consistent and strengthening dividend policy and sustained profit growth over the long term. To clarify our stance on maintaining a stable dividend, we are considering the introduction of new targets in addition to our target for a consolidated dividend payout ratio of 40% or higher.

Q7 The Equipment Business has been criticized by some investors for incurring losses for three consecutive years. As CFO, what are your thoughts on this segment?
A TOK will continue to invest in the Equipment Business based on its unique long-run development model.

Around 2007, prior to the collapse of Lehman Brothers, the Equipment Business generated strong earnings, mainly on coating machines used in LCD panel manufacturing. Currently, TOK is turning around the business domain drastically in light of changes in market conditions and is pivoting toward fields that require time for launching new markets within cutting-edge semiconductor fields, such as 3D packaging. We understand why investors have their doubts when comparing it to the earnings-driving Materials Business. However, the Equipment Business is also emblematic of a business the Company had in the past as a long-run R&D-driven company in niche fields, representing new frontiers on the horizon. TOK is taking the long view in efforts to generate a return in the Equipment Business that is commensurate with other businesses and investments. We ask for investors’ understanding as we strive to meet their expectations.
**Shareholder Value**

### 10-year Trends of Dividends per Share and Dividend Payout Ratio

- **Annual dividend (¥)**
- **Consolidated dividend payout ratio (%)**

Effectively means a dividend increase due to the irregular nine-month accounting period.

* FY2016/3: Including a commemorative dividend of 4 yen for the 75th anniversary.

### 10-year Trends of TOK’s Stock Price and TOPIX

- **Changes in the medium-term plan, etc.**
- **Urgent business profitability and structural reforms**
- **Rebirth of TOK**
- **TOK Medium-Term Plan 2015**
- **TOK Medium-Term Plan 2018**

- **Purchase of treasury stock**
  - 410 billion (¥ billion)
  - (until February 2018)

- **Achieved record-high profits**
  - (FY2016/3)

- **Purchase of treasury stock**
  - (1.75 million shares)

Lehman Shock
- (September 2008)

Operations started in TOK Advanced Materials Co., Ltd.
- in South Korea
  - (November 2013)
10-year Trends of ROE-related Indicators and ROE

**Net margin (%)**
- **Total asset turnover ratio (Times)**
- **Financial leverage (Times)**

<table>
<thead>
<tr>
<th>Year</th>
<th>ROE (%)</th>
<th>Net margin (%)</th>
<th>Total asset turnover ratio</th>
<th>Financial leverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>-3.8</td>
<td>0.52*</td>
<td>0.52*</td>
<td>1.22*</td>
</tr>
<tr>
<td>2010</td>
<td>0.2</td>
<td>3.1</td>
<td>4.5</td>
<td>5.8</td>
</tr>
<tr>
<td>2011</td>
<td>3.1</td>
<td>4.5</td>
<td>5.8</td>
<td>6.2</td>
</tr>
<tr>
<td>2012</td>
<td>4.5</td>
<td>5.8</td>
<td>6.2</td>
<td>5.3</td>
</tr>
<tr>
<td>2013</td>
<td>5.8</td>
<td>6.2</td>
<td>5.3</td>
<td>4.4</td>
</tr>
<tr>
<td>2014</td>
<td>6.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017/3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017/12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The fiscal year ended December 31, 2017 was an irregular nine-month period due to a change in fiscal year-end.

Stock Information

Changes in number and composition (shareholding ratio) of shareholders

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Shareholders</th>
<th>Japanese Financial Institutions</th>
<th>Foreign Corporations and Individuals</th>
<th>Japanese Individuals and Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>10,000</td>
<td>20,000</td>
<td>30,000</td>
<td>40,000</td>
</tr>
<tr>
<td>2010</td>
<td>12,000</td>
<td>24,000</td>
<td>36,000</td>
<td>48,000</td>
</tr>
<tr>
<td>2011</td>
<td>8,000</td>
<td>16,000</td>
<td>24,000</td>
<td>32,000</td>
</tr>
<tr>
<td>2012</td>
<td>4,000</td>
<td>8,000</td>
<td>12,000</td>
<td>16,000</td>
</tr>
<tr>
<td>2013</td>
<td>2,000</td>
<td>4,000</td>
<td>6,000</td>
<td>8,000</td>
</tr>
<tr>
<td>2014</td>
<td>1,000</td>
<td>2,000</td>
<td>3,000</td>
<td>4,000</td>
</tr>
<tr>
<td>2015</td>
<td>500</td>
<td>1,000</td>
<td>1,500</td>
<td>2,000</td>
</tr>
<tr>
<td>2016</td>
<td>250</td>
<td>500</td>
<td>750</td>
<td>1,000</td>
</tr>
<tr>
<td>2017/3</td>
<td>150</td>
<td>300</td>
<td>450</td>
<td>600</td>
</tr>
<tr>
<td>2017/12</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
</tr>
</tbody>
</table>

(Notes) Treasury stock is included in “Japanese Individuals and Others.”

**Major shareholders (As of December 31, 2017)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of shares held (Thousands)</th>
<th>Ratio of shareholding (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Trustee Services Bank, Ltd. (Trust Account)</td>
<td>3,409</td>
<td>8.10</td>
</tr>
<tr>
<td>The Master Trust Bank of Japan, Ltd. (Trust Account)</td>
<td>2,923</td>
<td>6.95</td>
</tr>
<tr>
<td>Meiji Yasuda Life Insurance Company</td>
<td>1,826</td>
<td>4.34</td>
</tr>
<tr>
<td>MLPS CUSTODY ACCOUNT</td>
<td>1,485</td>
<td>3.53</td>
</tr>
<tr>
<td>The Bank of Tokyo-Mitsubishi UF J, Ltd.</td>
<td>1,207</td>
<td>2.87</td>
</tr>
<tr>
<td>Hitachi Chemical Company, Ltd.</td>
<td>1,069</td>
<td>2.54</td>
</tr>
<tr>
<td>The Bank of Yokohama, Ltd.</td>
<td>1,026</td>
<td>2.44</td>
</tr>
<tr>
<td>Tokyo Ohka Foundation for The Promotion of Science and Technology</td>
<td>984</td>
<td>2.34</td>
</tr>
<tr>
<td>Mitsubishi UF J Trust and Banking Corporation</td>
<td>953</td>
<td>2.27</td>
</tr>
<tr>
<td>Mitsubishi UF J Capital Co., Ltd.</td>
<td>860</td>
<td>2.04</td>
</tr>
</tbody>
</table>

**Stock information**

- **Stock listing**: First Section of Tokyo Stock Exchange, Inc.
- **Category of industry**: Chemicals
- **Securities code**: 4186
- **Share unit number**: 100
- **Accounting period (Year-end)**: December 31
- **Dividend record date (Year-end)**: January 1 to December 31*
- **Dividend record date (Interim)**: June 30
- **Total number of shares authorized**: 197,000,000 shares (As of December 31, 2017)
- **Number of shares issued**: 45,100,000 shares (As of December 31, 2017)

* The Company changed its fiscal year-end from March 31 to December 31 effective from fiscal 2017.

Notes:
1. The Company owns 3,021 thousand shares of treasury stock which are excluded from the above major shareholders.
2. The ratio of shareholding is calculated based on the number of shares (42,078,963 shares) obtained by subtracting the number of shares of treasury stock from the total number of shares issued.
EUV Photoresists

EUV (extreme ultraviolet) lithography, a key technology for producing semiconductors with the finest circuit line width in the world, has finally entered the commercialization stage. TOK is harnessing its technological competitiveness in cutting-edge domains to create value through EUV photoresists.

Satisfying Demanding Customer Requirements under Challenging Development Conditions

EUV light sources have a wavelength of 13.5nm, about 1/14th the wavelength of ArF light sources (193nm) currently at the cutting edge of technology. The characteristics required for EUV photoresists are the most stringent we have ever experienced in a generational change, owing to insufficient light source power in EUV exposure equipment and optical differences. From a material engineering standpoint, it was necessary to overcome various gaps stemming from the unique EUV process and photosensing mechanism, such as measures to reduce the outgas caused by the structure of the exposure equipment, and the small number of photons needed for a photoresist reaction.

For these reasons, TOK committed fully to R&D, reassessing and rebuilding from scratch its material selection and material engineering concepts. Since EUV exposure equipment is very expensive, it required a considerable investment to purchase. Because buying one for itself was prohibitive, TOK participated in a program run by IMEC*, an international research institution in Belgium, to advance R&D. TOK needed to produce certain results under challenging conditions that presented few opportunities to evaluate the prototypes it developed. Through painstaking discussions and simulations of development guidelines, issues, and experiments, TOK was able to develop products with the advanced characteristics demanded by customers.

* Interuniversity Microelectronics Centre

Evolving Miniaturization of Semiconductors*

---

10,000nm (1970s)
3,000nm
1,500nm (1980s)
1,000nm
800nm
600nm (1990s)
350nm
250nm
180nm
130nm (2000s)
90nm

---

g-Line
i-Line
KrF
ArF (dry)
EUV photoresists
market forecast:

CAGR 225.7%*
(2018 ➝ 2022)
* Based on sales volume (Calculated by TOK based on Fuji Keizai’s “Whole View of Photo-functional Material and Product Market 2018”)

Total development years spent on EUV photoresists at TOK:
About 17 years

Value for Society

- 7nm and 5nm semiconductors made with EUV lithography are expected to be used in high-performance servers for AI, deep learning, cryptocurrency mining, and 5G communications systems as well as high-value-added smartphones.
- In the future, these semiconductors are also likely to be used in automobiles to instantly process large volumes of data.

Akiyoshi Yamazaki
General Manager, Advanced Material Development Div. 1, Research and Development Dept.

Aiming for top share of global market for EUV photoresists

TOK has won over a major customer for its EUV photoresists to be used in the mass production of 7nm semiconductors. The high reactivity of various materials used in TOK’s photoresists is one reason why. The key requirements of EUV photoresists, namely sensitivity, resolution, and line-width roughness (LWR), are in a trade-off relationship with each other. With a deep understanding of the reaction mechanisms of photoresists, TOK aims to optimize materials by clarifying key parameters and moving through a PDCA cycle that applies this understanding to materials engineering. TOK is currently focusing on the development of photoresists for 5nm semiconductors, and aims to acquire the top share of the world market for EUV photoresists by sticking with its strategy of building close relationships with customers and the PDCA cycle.
SPECIAL FEATURE

TOK’s Sustainable Value Creation Capabilities

—Existing Business Domains—

KrF Excimer Laser Photoresists

By concentrating R&D on existing fields in addition to cutting-edge domains, TOK maintains an ability to constantly create value. Its KrF excimer laser photoresists, which allowed the Company to pivot to cutting-edge materials through new applications development, provide value via 3D-NAND memory across a broad swath of society.

New Value Creation

Value chain in KrF excimer laser photoresists for 3D-NAND

- Make every effort to satisfy customer requirements, even at initial stages when applications are unclear
- Fuse together thick film formation technology and microprocessing technology
- Development that envisions the customer’s usage environment
- Build relationships of trust between customers and TOK’s engineers
- Procurement division participates from initial stages of development
- Stabilize procurement and optimize costs by having TOK decide on structure and synthesis of raw materials, then depend on suppliers from mass production stage

KrF excimer laser photoresists market forecast:

CAGR 6.1%*

(2018-2022)

* Based on sales volume (Calculated by TOK based on Fuji Keizai’s “Whole View of Photo-functional Material and Product Market 2018”)

Value for Society

- 3D-NAND, created from KrF excimer laser photoresists, is being increasingly used in solid state drives (SSDs) as a key device that contributes to making high-performance PCs and tablet devices smaller, and speeding up servers. 3D-NAND is contributing to work style reforms in society by allowing employees to work from home via teleworking and shortening the time it takes to process data outside the office.
Creating New Value with Ability to Form Thick Films of Photoresists

Although the volume used in cutting-edge processes has declined due to miniaturization, KrF excimer laser photoresists have returned to a growth trajectory thanks to close-knit development with customers and new demand emerging for thick film formation, where the staircase structures unique to 3D-NAND are formed.

Working hard to increase its share of the KrF excimer laser photoresists market, TOK saw the limits to growth by tapping into demand for new processes. Instead, TOK has successfully concentrated resources on the development of KrF excimer laser photoresists for 3D-NAND, which were expected to be used extensively in new applications.

Overcoming hardship with various techniques based on strategy of building close relationships with customers

The biggest challenges we faced developing KrF excimer laser photoresists for 3D-NAND were “resolution” of the same level required of conventional 2D semiconductors and “strength” at a level able to endure the formation of staircase structures in 3D-NAND. Through close-knit meetings and information exchanges with customers, we were able to achieve “strength” by making resist layers thicker while clearing requirements for “resolution” by using innovative techniques in solvents and constituent concentrations. Moreover, we satisfied customer requirements for “reactivity” to light by rebuilding the process for 3D-NAND. TOK is currently developing photoresists for 96-layer and 128-layer 3D-NAND. Technological difficulties are much higher for 128-layer 3D-NAND, but I am confident we will overcome these challenges by various techniques developed through our strategy of building close relationships with customers.

Earning Trust and Increasing Adoption through Strategy of Building Close Relationships with Customers

In pursuing its strategy of building close relationships with customers toward increasing adoption of KrF excimer laser photoresists for 3D-NAND, TOK participated in repeated meetings with customers to nail down the details of both lithography and etching requirements for the height, width, and shape of staircase structures. TOK modified its facilities with the intention of approximating as closely as possible the customer’s usage conditions, going through repeated trial and error to produce a result that satisfied the customer, earning their trust in the process. By building relationships based on trust, TOK receives more information from customers that makes it possible to move faster on the development front, which in turn leads to adoption by the customer. While continuing to leverage this advantage, the Company will endeavor to develop photoresists compatible with even more layers.

Yoshiaki Ono
Advanced Material Development Div. 1, Research and Development Dept.
High-Functional Films Business
The high-functional films developed by TOK are completely new products made by applying past technologies we had in the dry film business to porous polyimide. These products feature high heat resistance, high chemical resistance, and ultra-low dielectric constants for excellent safety and insulation performance. Development of these products had focused on separators for lithium-ion batteries as an application, but due to the discovery of characteristics that help improve the quality of electronic materials, initiatives are now underway in new business development as well. In light of these characteristics, TOK is working on their commercialization as separators for specialty batteries, while continuing new applications development with heavy investments intended to further improve their performance.

Bio-Chip Materials Business
In the life sciences industry, products that use semiconductor technology are gradually being commercialized as medical diagnostic devices. The aim is to use semiconductor technologies to run tests with very little medical data. Attention has been focusing on photolithography-related technologies that TOK excels in, especially materials that remain on devices as permanent films. TOK is concentrating efforts on commercializing bio-chip materials, using its extensive expertise in photoresist technologies to add features that are required in the medical diagnostic device fields, such as low autofluorescence, surface free energy, and adhesiveness.

Nanoimprint Materials Business
Since nanoimprinting technology is based on photosensitive material technologies and has strong affinities to the Company’s own technologies, TOK is focusing on developing new business in this field. In various industries, needs have been rising recently for optical structures for displays. In this context, TOK has been advancing the commercialization of nanoimprint material as a process material for making structures that control light. Needs are increasing for deep ultraviolet LEDs that do not use mercury ahead of the enactment of the Minamata Convention on Mercury in 2020. Since existing technologies have very low light extraction efficiency, TOK is moving to apply nanoimprint processing technology in the commercialization of structures able to more efficiently extract light.

Meeting Customer Expectations with Chemicals
Using our unique technologies, we strive to precisely identify and satisfy customer needs. Through value creation that is taken for granted in existing business domains and applying it to new business domains, TOK aims to create new niche top products and accelerate reform of its business portfolio with an eye on becoming a “100-year company” in 2040.
Aiming to increase awareness of TOK products among more people in society

In charge of bio-chip materials, I oversee the design, assembly, and evaluation of culture chips with micro structures while working with partners on the commercialization of cell function assessment kits. With many uncertainties in new business development, I need to perform tasks and make proposals from objective, practical, and theoretical perspectives and drawing on an appropriate technical background. While nurturing the passion needed to reach goals, I take joy in trying to make new discoveries with a curiosity backed by being observant and recognizing issues. Since I often collaborate with people from other fields, I often come into contact with a wide array of diverse observations and issues. As this feeds my own curiosity, I move toward achieving my goals while balancing flexibility with staying true to the mission. People from outside the Company often comment on how hard it is to see TOK’s technologies in final products even though its technologies are used in a wide range of fields. For this reason, it is my goal to create a product for TOK that is visible to consumers to raise awareness among even more people.
## Material Business Overview

Manufacturing and sales of electronic functional materials and high-purity chemicals

### 2017/12 Review of Operations

#### Material Business

Director, Officer, Department Manager, Marketing Dept.

Keiichi Yamada

<table>
<thead>
<tr>
<th>Segment</th>
<th>FY2016/3</th>
<th>FY2017/3</th>
<th>YoY*</th>
<th>FY2017/12 Result*</th>
<th>Change</th>
<th>%</th>
<th>FY2017/12 Calendar year adjustment*</th>
<th>Change</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>87,280</td>
<td>86,558</td>
<td>78,842</td>
<td>90,532</td>
<td>+11,690</td>
<td>+14.8%</td>
<td>98,247</td>
<td>3,852</td>
<td>+3.9%</td>
</tr>
<tr>
<td>Electronic functional materials</td>
<td>51,134</td>
<td>53,074</td>
<td>47,318</td>
<td>51,230</td>
<td>+3,911</td>
<td>+8.3%</td>
<td>56,947</td>
<td>1,552</td>
<td>+2.7%</td>
</tr>
<tr>
<td>High-purity chemicals</td>
<td>35,931</td>
<td>33,475</td>
<td>31,026</td>
<td>38,676</td>
<td>+7,649</td>
<td>+24.7%</td>
<td>41,165</td>
<td>2,334</td>
<td>+5.7%</td>
</tr>
<tr>
<td>Other</td>
<td>214</td>
<td>9</td>
<td>496</td>
<td>623</td>
<td>+126</td>
<td>+25.5%</td>
<td>134</td>
<td>100</td>
<td>(25.8)%</td>
</tr>
<tr>
<td>Segment income</td>
<td>16,203</td>
<td>14,470</td>
<td>12,448</td>
<td>12,816</td>
<td>+367</td>
<td>+3.0%</td>
<td>14,868</td>
<td>(268)</td>
<td>(1.8)%</td>
</tr>
<tr>
<td>Segment income margin</td>
<td>18.6%</td>
<td>16.7%</td>
<td>15.8%</td>
<td>14.2%</td>
<td>–</td>
<td>–</td>
<td>15.1%</td>
<td>14.3%</td>
<td>–</td>
</tr>
<tr>
<td>Segment assets</td>
<td>90,734</td>
<td>97,542</td>
<td>–</td>
<td>106,220</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Depreciation</td>
<td>5,220</td>
<td>5,831</td>
<td>–</td>
<td>5,833</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

* Due to the change in fiscal year-end, adjusted results for the fiscal years ended December 2016 and December 2017 are presented as adjusted figures for nine months (April–December 2016) earnings of companies that ended their fiscal years in March 2017 (the Company and its domestic consolidated subsidiaries). Revised results for the fiscal year ended December 2017 are presented as adjusted figures for 12 months (January–December 2017) earnings of companies that end their fiscal years in March (the Company and its domestic consolidated subsidiaries).
Earnings Drivers: Worldwide Share of Immersion KrF Excimer Laser Photoresists and ArF Excimer Laser Photoresists
(Based on sales volume in 2017)

<table>
<thead>
<tr>
<th>Photoresists</th>
<th>Company A 21.2</th>
<th>Company B 17.3</th>
<th>Company C 9.6</th>
<th>Company D 7.7</th>
<th>Company E 5.8</th>
<th>Others 3.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>KrF excimer laser photoresists</td>
<td>TOK 32.7</td>
<td>(%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ArF excimer laser photoresists</td>
<td>TOK 20.7</td>
<td>(%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Memory capacity per unit of surface area

2017/12–2018 Market Conditions
Cutting-edge semiconductor fields steadily advancing while overcoming more difficult and prolonged development

The pace of miniaturization in semiconductor front-end processing has slowed somewhat since reaching the 10nm level process, and markets for end products that utilize these nodes are slow to take off in some cases due to high costs and other factors.

Meanwhile, the EUV (extreme ultraviolet) lithography market is showing signs of gaining traction, some 10 years later than initial projections, owing to the longer amount of time it has taken to develop challenging technologies, such as for miniaturization, in the cutting-edge semiconductor field. These challenges are being steadily overcome through collaboration among semiconductor and materials makers and equipment suppliers.

In semiconductor back-end processing, which has advanced quickly relative to the slower pace of miniaturization over the past few years, packaging and 3D packaging technologies have continued to gain ground in new application domains. Backed by its robust financial foundation, TOK continues to persevere in the development of technologies for cutting-edge fields by leveraging its ability to provide cutting-edge materials for both the front-end process and back-end process stages of semiconductor production, as well as its ability to develop technologies that translate into advantages in terms of greater miniaturization, higher densities, and 3D packaging.

Growth Strategy
Focus on expanding the market share of earnings drivers

Under the TOK Medium-Term Plan 2018, the Company has focused on expanding the market share of ArF excimer laser photoresists to make them our largest earnings driver. The 10nm-level logic market, in which we already secured adoption of our ArF excimer laser photoresists by customers, is gradually emerging, and TOK is concentrating on securing and expanding a share of the 10nm-level DRAM market.

While expanding sales, TOK is committed to ensuring a stable supply of KrF excimer laser photoresists for 48-layer and 64-layer 3D-NAND memory. At the same time, the Company is focusing on its strategy of building close relationships with customers (semiconductor manufacturers) to ensure its advantage in next-generation technologies for 96-layer and 128-layer 3D-NAND (Refer to the Special Feature on pages 32–33).

TOK intends to secure a top share of the world market for KrF excimer laser photoresists through ceaseless R&D while expanding market share in these photoresists for DRAM by pursuing high quality and advanced performance.

In high-density integration materials, growth has stalled in MEMS materials used in electronic components, but packaging photoresists are being increasingly used by customers. We will therefore concentrate more on our strategy of building close relationships with customers.

Performance Improves as the Number of Layers Increases in 3D-NAND Memory

<table>
<thead>
<tr>
<th>Layers</th>
<th>Memory capacity*</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>About 1.65 times greater</td>
</tr>
<tr>
<td>64</td>
<td>About 1.4 times greater</td>
</tr>
<tr>
<td>96</td>
<td>Start of mass production</td>
</tr>
</tbody>
</table>

* Calculated by TOK based on Fuji Keizai’s “Whole View of Photo-functional Material and Product Market 2018”

Source: Collated by TOK based on news releases of major semiconductor manufacturers
### SWOT Analysis — Material Business —

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global structure of close relationships with customers (Japan, North America, Taiwan, South Korea)</td>
<td>Fewer customers, with the same number of photoresist manufacturers</td>
</tr>
<tr>
<td>Earnings drivers in both the pre-process and post-process of semiconductor manufacturing</td>
<td>Over-concentration of business domains in the electronics industry (delay in new business development)</td>
</tr>
<tr>
<td>Development capability in cutting-edge materials (miniaturization, high-density integration, 3D packaging)</td>
<td>Resistance to price hikes based on industry business practices</td>
</tr>
<tr>
<td>Proposal ability for semiconductor manufacturing processes (synergies with Equipment Business)</td>
<td>Increasing needs for ultra-miniaturization (ArF and EUV photoresists)</td>
</tr>
<tr>
<td>Increasing needs for ultra-miniaturization (ArF and EUV photoresists)</td>
<td>Growing needs for cutting-edge packaging technologies (2.5D, 3D semiconductor packaging)</td>
</tr>
<tr>
<td>Growing needs for cutting-edge packaging technologies (2.5D, 3D semiconductor packaging)</td>
<td>Volume of data growing due to AI and IoT</td>
</tr>
<tr>
<td>Volume of data growing due to AI and IoT</td>
<td>New semiconductor needs from launch of 5G communications systems</td>
</tr>
</tbody>
</table>

---

**Challenging the boundaries of high purity**

Recently, sales of our high-purity chemicals including cleaning solutions, thinner, and developing solutions have increased to customers in North America and Taiwan for 10nm-level semiconductor production lines at the most advanced levels of miniaturization in the world on a mass production basis.

Every year, requirements become more stringent for contaminant reduction in cutting-edge semiconductor fields. Two decades ago, the level of contamination was measured in parts per million (ppm), and now it is measured in parts per trillion (ppt), and beginning to be measured in parts per quadrillion (ppq). TOK will continue to create value by taking on the challenge of attaining higher levels of purity in the fields of raw material refining technologies, cleaning technologies for production facilities and product containers, and manufacturing environments.

**Human resource training that focuses on passing along technologies**

In high purification technologies, metal analysis abilities have become increasingly important over the years to keep metallic impurities below specified levels in photoresists and high-purity chemicals. TOK aims to further hone its analysis abilities by installing the most advanced evaluation equipment, optimizing analysis conditions for product samples and each element, and enhancing collaboration among sites.

For human resources in particular, TOK is keen to raise the level of experience of its employees once they have full knowledge of product characteristics and understand how to use equipment, while keeping manuals up to date. Since sensory skills must also be learned, we emphasize having young engineers work alongside their veteran seniors on the front lines to receive sound guidance and inherit their technical skills.

**Ongoing value creation via customer-oriented strategy**

TOK has customer-oriented sites in North America, Taiwan, and South Korea, the regions that lead cutting-edge semiconductor fields. Approximately five years have passed since we began our full-scale strategy of building close relationships with customers through the local adaptation of "the trinity" of development, manufacturing, and sales. In addition to the close physical proximity of our sites, customers have voiced appreciation for the high level of data correlation via samples and the sheer volume of available information, as well as our operation of secure firewalls in information management. This is also a strength unique to TOK as a part of its solid foundation for value creation. While leveraging its strengths to their fullest, TOK is focusing intently on establishing a top position in new global niche markets.

---

**Investment in a world-leading manufacturer of high refractive index materials that contribute greatly to lower power consumption**

In April 2018, TOK invested about ¥220 million in Pixelligent Technologies, LLC in the U.S., one of the world’s leading manufacturers with the technology to mass produce zirconium oxide capped nanoparticles, a high refractive index inorganic material, with sub-10nm diameters. The objective is to promote supply of high refractive index materials that help improve the brightness and sensitivity of OLED displays and CMOS image sensors, two areas with growth potential.

High refractive index materials are expected to lead to lower power consumption in OLEDs and CMOS image sensors by improving the efficiency of light extraction.

Through this investment, TOK supports R&D of Pixelligent Technologies, while aiming to create applications in broader fields by combining the strengths of the two companies. We are advancing the scale up of high refractive index inorganic material production and the development of high refractive index material markets.
Keeping Moore’s Law alive

The end of Moore’s Law was proclaimed

The miniaturization of semiconductors has proceeded at a steady pace since the 1970s through 2015 or so, basically in accordance with Moore’s Law, which predicts that the number of transistors in a dense integrated circuit will double every 18 months. Moore’s Law is named after Gordon Moore, one of the founders of Intel Corporation, who made this prediction in 1965. In 2015, however, circuit line width reached the 10nm level, and since then it has become exponentially more difficult and costly to develop technologies that enable further miniaturization. This had led to the widespread view that Moore’s Law has come to an end. Along similar lines, the International Technology Roadmap for Semiconductors (ITRS), which has served as a guideline for semiconductor-related companies, will no longer be updated after the 2015 edition.

A new stage of miniaturization begins with EUV lithography

Since 2016, however, major semiconductor manufacturers took the lead in accelerating the development of technologies for commercializing EUV lithography, which enables line width of single-digit nm level. Now that most problems inhibiting commercialization have been solved in terms of technologies and costs, 2017 saw the first trial runs for mass production of 7nm semiconductors using EUV lithography. In 2018 and 2019, a number of semiconductor manufacturers are likely to begin mass production using EUV lithography.

Compared with 14nm semiconductors made with ArF lithography, 7nm semiconductors made with EUV lithography have 30% more processing power and use 60% less power. This value, i.e., higher performance and lower power consumption, would constitute an extension of Moore’s Law. Once mass production ramps up in the future, costs should come down in accordance with lower costs, another value typically created by Moore’s Law, after higher capital investment and process costs, due to the greater technological difficulties, run their course.

TOK’s EUV Photoresists

TOK has worked on the development of EUV photoresists since around 2000. The Company has secured adoption by major semiconductor manufacturers to use its EUV photoresists as a result of R&D based on the verification of preliminary theories, as well as the focused utilization of customer-oriented sites overseas. (→ Refer to the Special Feature on pages 30–31)

The performance threshold of chemically amplified EUV photoresists is currently thought to be around the 5nm node. For this reason, TOK invested in Inpria Corporation in 2016 to gain access to its metal-oxide EUV photoresist technologies with the aim of creating value beyond the 3nm node over the long term.

TOK’s photoresists are compatible with various line widths along the semiconductor miniaturization spectrum

<table>
<thead>
<tr>
<th>Light source for lithography</th>
<th>i-Line</th>
<th>Krf (krypton fluoride) excimer laser</th>
<th>ArF (argon fluoride) excimer laser</th>
<th>Extreme ultraviolet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength of light source</td>
<td>Long</td>
<td>248nm</td>
<td>193nm</td>
<td>13.5nm</td>
</tr>
<tr>
<td>Line width of semiconductors*</td>
<td>350nm&gt;~250nm</td>
<td>250m&gt;~130nm</td>
<td>130m&gt;~10nm</td>
<td>10nm&gt;~</td>
</tr>
<tr>
<td>Main applications and end products, etc.</td>
<td>Automotive power semiconductors, Sensors, LEDs, etc.</td>
<td>Mass-market smartphones, Game consoles, etc.</td>
<td>Cutting-edge smartphones, Wearable devices, High-performance servers, etc.</td>
<td>Next-generation servers, Next-generation supercomputers, Next-generation communications systems, etc.</td>
</tr>
</tbody>
</table>

* Only the round figures of primary ranges are shown.
## Equipment Business
Manufacturing, sales and maintenance of semiconductor manufacturing equipment and panel manufacturing equipment

### Officer, Department Manager,
Process Equipment Manufacturing Dept.
Tsukasa Honkawa

#### Equipment Business Performance

<table>
<thead>
<tr>
<th></th>
<th>FY2016/3</th>
<th>FY2017/3</th>
<th>YoY*</th>
<th>FY2017/12 Result*</th>
<th>FY2017/12 Calendar year adjustment*</th>
<th>FY2018/12 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Change</td>
<td>%</td>
<td>Change</td>
</tr>
<tr>
<td>Net sales</td>
<td>2,748</td>
<td>2,252</td>
<td>1,943</td>
<td>1,921</td>
<td>(21) (1.1%)</td>
<td>6,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(423)</td>
<td>(750)</td>
<td>+4,625</td>
</tr>
<tr>
<td>Segment income (loss)</td>
<td>(423)</td>
<td>(750)</td>
<td>(333)</td>
<td>(664)</td>
<td>(330)</td>
<td>+122.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2,174)</td>
<td>(1,073)</td>
<td></td>
</tr>
<tr>
<td>Segment income margin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.9%</td>
</tr>
<tr>
<td>Segment assets</td>
<td>3,738</td>
<td>3,296</td>
<td>3,026</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>169</td>
<td>45</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Due to the change in fiscal year-end, adjusted results for the fiscal years ended December 2016 and December 2017 are presented as adjusted figures for nine months’ (April–December) earnings of companies that ended their fiscal years in March 2017 (the Company and its domestic consolidated subsidiaries). Revised results for the fiscal year ended December 2017 are presented as adjusted figures for 12 months’ (January–December) earnings of companies that end their fiscal years in March (the Company and its domestic consolidated subsidiaries). Net sales for the FY2017/12 calendar year adjustment and FY2018/12 forecast are the figures after elimination of inter-segment sales.
In the Semiconductor Manufacturing Equipment Field, TOK’s Business Specializes in Niche Domains

2017/12–2018 Market Conditions
Expanding growth potential in target markets
The commercial use of EUV lithography marks a new beginning in the miniaturization of semiconductors, but it will take time for the market to expand as costs come down. For this reason, back-end process technologies, such as 3D packaging and high-density integration, will still play an important role in the advancement of semiconductor devices.

Through-silicon-via (TSV) is a multilayering technology that layers semiconductor wafers in 3D, using a through-silicon process to pass between the layers. It is one of the most promising fields and a key to 3D packaging technology that enables more compact semiconductors with reduced power consumption and higher processing speeds. In the fiscal year ended December 31, 2017, the segment, which handles TSV equipment as a core product, posted losses for three consecutive years, owing to delays in acceptance inspections at customers. However, the growth potential of target markets continues to expand, so TOK will continue R&D in this area based on its strategy of building close relationships with customers.

Growth Strategy
Ongoing development of TSV equipment for next-generation memory and GPUs
High Bandwidth Memory (HBM) is likely to be used in next-generation mobile devices, computer graphics, and cloud servers. Since HBM has a much higher number of chip layers, TOK’s strength in silicon thinning technology has caught the attention of major semiconductor manufacturers, who are gradually adopting the Company’s TSV equipment on production lines for HBM devices. Moreover, demand has been increasing for graphics processing units (GPUs) used in autonomous vehicles. Since the TSV method is highly likely to be used for these GPUs as well, TOK will continue to push ahead with R&D based on its strategy of building close relationships with customers.

Focusing on development of equipment for fan-out panel level packages
TOK is concentrating on the development of equipment for fan-out panel level packages (FOPLP) as an application for its TSV equipment. FOPLP is an extension of fan-out wafer level packages (FOWLP), which has helped make mobile devices thinner and lighter, and TOK supplies thick-film photoresists for FOWLP. FOPLP is able to produce roughly five times as many semiconductor packages as FOWLP, so if FOPLP reaches the commercial stage as a mass production technology, it would drastically reduce the cost of 5G communications and an IoT society, which requires huge volumes of compact, high-performance IC chips. We are therefore focusing keenly on the development of equipment for this field.

Fan-Out Package Production (%) Panel/Wafer Breakdown

Expanding our business portfolio by leveraging strengths in displays and semiconductors

As core competencies, TOK’s microprocessing technology and high-purification technology have the potential for wide adoption in display production, in addition to semiconductor production. Throughout our history, TOK has deepened our connections to the electronics industry, expanding our business portfolio by leveraging strengths in semiconductors and displays, as demonstrated by Ohkaseal high-purity potassium silicate, which was released in 1955, contributing greatly to the proliferation of TVs among families as a solution for CRT phosphor bonding, as well as processing equipment for LCD panels that led to record-high net sales (FY2007/3) in the Equipment Business segment.

TOK’s strengths in materials technology, accumulated in photoresist and high-purity chemicals, have not only enhanced the performance of equipment, but also become a competitive advantage from the standpoint of swiftly providing solutions to customers, because the time required to optimize processes is significantly reduced at the development stage. The display device market is projected to continue expanding, driven by growing needs for higher resolutions. TOK aims to increase earnings on display-related equipment by leveraging these competitive advantages.

Ongoing development of flexible (Organic EL) display-related equipment amid increasing needs for higher resolutions

The flexible (Organic EL) display market has been in a correction phase lately for smartphones, but is poised to take off on growing user needs in high-end virtual reality (VR) devices and broadcasting equipment, as well as their increasing use in automotive displays and lighting applications. For this reason, TOK is concentrating on flexible (Organic EL) display-related equipment.

The Company’s UV curing machines* for Organic EL production have successfully increased the resolution of related photoresists and improved yields on the high-resolution etching process. A number of display manufacturers have already installed our UV curing machines, and inquiries from new customers are on the rise. As needs grow for higher resolutions, we expect UV curing machines to contribute to earnings.

* Ultra violet curing
Toward further development of the M&E (Materials & Equipment) strategy

In cutting-edge semiconductor devices, there is a growing trend for development to assemble around miniaturization, high-density integration, and 3D packaging. With earnings drivers in all of these fields, TOK aims to create unique value by focusing on its Materials & Equipment (M&E) strategy.

**TOK’s M&E Strategy**

*—When using TSV for 2.5D, 3D semiconductor packaging—*

**Material Business**

*Provide adhesive materials*

- Application of adhesive materials
- Silicon wafer
- Bonding a carrier plate
- Carrier circuit board
- Grind the silicon wafer
- The reverse side of the silicon wafer
- Forming a through-via

**Equipment Business**

*Provide thick-film photoresists*

- Forming a through-via
- Back-end process of semiconductor manufacturing (TSV process)

**Material Business**

*Provide thinner for cleaning adhesive materials*

- Debonding the carrier plate

**Equipment Business**

*Provide thick-film photoresists*

- TWM series
- Zero Newton bonding machine
- TWR series
- Zero Newton debonding machine

**Continuing TOK’s Unique M&E (Materials & Equipment) Strategy**

Earnings in the Equipment Business segment have been stagnant for the past few years, prompting criticism from analysts and investors who suggest we integrate it with the Material Business segment or withdraw entirely.

However, TOK’s Equipment Business is starkly different from the Material Business, for the following reasons:

- Fabless production method specializing in development without owning plants, contrary to the Material Business
- Longer lead times from order receipt to sales recognition than the Material Business, and
- Higher costs and prices per product than the Material Business.

**Toward Further Development**

The Company’s M&E strategy currently focuses on 2.5D, 3D semiconductors using TSV and image sensors. In the future, we may pursue our M&E strategy to the following fields. While deepening and integrating our knowledge of both materials and equipment, we will leverage our unique strengths.

- Fan-out panel level packaging equipment/thick-film photoresists
- LCD panel manufacturing equipment/TFT resists
TOK Creates Value for the Environment through Business Activities

TOK creates environmental value through business activities via its core competencies in microprocessing technology and high purification technology. In new business fields, TOK develops new products that contribute to the realization of an environmentally friendly society through its high value-added technological expertise accumulated in the semiconductor-related businesses.

Our Photoresists Contribute to the Miniaturization of Semiconductors, Which Create Value in an Environmentally Friendly Society

By reducing the line width of semiconductors by half through advances in photolithography technologies using photoresists, power consumption can be reduced by 75% on semiconductor chips. TOK’s track record in miniaturization over a span of more than 40 years has continued to help reduce the line width to 1/1,000, thereby cutting power consumption to 1/1,000² of what it used to be. Going forward, TOK will further contribute to the creation of an environmentally friendly society in conjunction with the expansion of the EUV market.

TOK will continue to develop and provide cutting-edge photoresists that contribute to the creation of an environmentally friendly society.

* A rough estimate for two-dimensional semiconductors based on scaling laws

Through various devices and finished products, contributing to creation of an environmentally friendly society
Possible applications include environmental cleaning technologies, renewable energy devices, storage batteries and fuel cells.
As a Global Company, TOK is Furthering Environmental Initiatives with the Aim of Improving Corporate Value Further.

We will contribute to improving the global environment as one aspect of our Group Management System.

The TOK Group helps solve various environmental issues through business activities that include supplying materials that contribute to the miniaturization and lower power consumption of semiconductors, while focusing on reducing environmental impact in manufacturing processes and the supply chain as a manufacturer that handles chemical substances and large quantities of water.

In accordance with progress on its strategy of building close relationships with customers in cutting-edge fields, TOK has seen a continued increase in the overseas sales ratio and overseas production ratio. At the same time, laws and regulations regarding chemical substance management are tightening overseas, and customer requirements are becoming stricter.

Under the “TOK Medium-Term Plan 2018,” the Company has focused on its Group Management System (GMS) (see page 67) to rebuild and strengthen the global group management structure, as well as Responsible Care* activities led by the EHS Div. In October 2017, TOK added EHS management as a core function to the GMS Committee to improve corporate value through the integrated management of environmental initiatives for the entire TOK Group, both inside and outside Japan, while enhancing collaboration across departments and overseas sites. We are advancing environmental initiatives as a part of activities that translate TOK’s expanding value creation around the world into sustained growth in corporate value.

* Activities in which companies handle chemical substances voluntarily take environmental, safety and health measures in every process from chemical substance development through manufacturing, logistics, use and final consumption to disposal and recycling, and announce the results of these activities while engaging in dialogue and communication with the public. (Defined by Japan Chemical Industry Association)

Nobuo Tokutake
Director, Officer, Department Manager, Manufacturing Dept.
General Manager for Environmental Management
Responsible Care Management

Basic concept
TOK appropriately identifies risks associated with its production and sales activities, and invests management resources to secure clean environment/health/safety across the life cycle (development/production/consumption/recycling/disposal) of chemical products including photoresists for semiconductors and displays, as well as manufacturing equipment. We also continue improvement initiatives effectively to shape a sustainable society through our business.

Responsible Care (RC) activity framework
We have added EHS management as a core function of the GMS Committee we created in October 2017, and formulated the EHS Management Policy. The EHS Div. is the main body in charge of supervising the EHS work conducted in Japan and overseas subsidiaries, and it also screens weakness and engages in improvement activities to strengthen the system.

Self-imposed standards tougher than legal mandates
While adhering to related laws and regulations, TOK has set its own environmental and safety standards that are stricter than legally mandated levels, and strives to achieve them. In the past, the Company has set numerical targets for reducing industrial waste, and worked to reduce greenhouse gas emissions through initiatives to conserve energy, achieving reductions in excess of requirements under the Act on the Rational Use of Energy. More recently, the Company has continued its ambitious activities by setting new targets for reducing waste and conserving energy over the medium term, to 2019 or 2020.

EHS activities in the fiscal year ended December 31, 2017
The TOK Group often adopts new structures in chemical substances to meet customer requirements for functionality and quality in its products. To prevent confusion in the development process from different names being used for the same chemical substance, TOK adopted a proprietary shared ID management system for the raw materials it uses, beginning in the fiscal year ended December 31, 2017. This system has helped prevent mistakes in information related to chemical substances, while enabling rapid screening of products under development and swiftly applying for the registration of chemical substances in each country.

Moreover, TOK has strengthened its compliance structure by putting in place a chemical substance screening system for new products entering mass production and changes are made to existing products to prevent leaks of notifications and reports based on legal and customer requirements.

In addition, TOK has reduced workplace accidents as a result of reviewing work environments to prevent occupational accidents caused by physical weakness in employees.

The Company has also seen measurable results from its activities to reduce waste, including the refining and reuse of process effluents, internal processing of effluents, internal heat recovery, and the conversion of waste into items of value.

TOK is taking a more proactive stance on tackling global environmental issues and SDGs.

The TOK Group is advancing initiatives centered on CO₂ reduction, industrial waste reduction, and proper management of chemical substances. As a core function of GMS, we are taking a more proactive approach to solving various issues because it became clear that the EHS Div. is responsible for the centralized management of the Group’s environmental initiatives. We believe our mission should include global issues outlined by SDGs, which may not seem a part of our daily lives in Japan. It is for this very reason that the EHS Div. is assuming a leadership role by bringing up these issues and educating employees about them. With regard to the problem of water risk, which has become more widely recognized as a serious global risk in recent years, we are working to identify the current state of risks and will examine what we can and should do to address this risk.

Kimitoshi Kato  General Manager, EHS Div.
Address Climate Change Issues

Basic concept
TOK quantitatively measures the environmental impact of its value chain, and works to reduce environmental burden with a full understanding of the impact our production activities have on the environment. TOK aims to achieve sustainable development alongside society through the development of products that help conserve resources and energy, and initiatives to utilize natural energy, such as the installation of solar panels at some manufacturing sites overseas.

Improving energy usage efficiency and reducing CO₂ emissions
TOK constantly seeks to improve its manufacturing processes, work efficiency, and facility operations with the objective of continuously improving energy efficiency. TOK makes concerted efforts to reduce the environmental impact of facilities by upgrading to high-efficiency equipment and enhancing heat insulation around steam pipes. The Company is currently working toward its target of reducing both energy-related CO₂ emissions and energy consumption by 9 points compared with the base units indexed to 2009.

Measures to prevent global warming at overseas manufacturing sites
The ratio of energy consumption at TOK Group’s overseas manufacturing sites changes in tandem with fluctuations in the overseas sales ratio. In the fiscal year ended December 31, 2017, the ratio of energy usage by overseas manufacturing sites increased by 1.5 points. Through a PDCA cycle for environmental management systems, TOK will engage in production activities with a focus on energy conservation.

Worldwide initiatives
The Group views global warming and climate change as social issues on a global scale. Currently, each site is in charge of its own activities to address such issues because energy procurement costs and supply processes vary by site. Going forward, we will formulate a clear vision, focus more on collaborative initiatives to increase the ratio of renewable energy and use lower-carbon energy sources by switching from coal and heavy oil to natural gas for energy.

Key climate change-related indicators

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic energy consumption (kL crude oil equivalent)</td>
<td>15,205</td>
<td>14,934</td>
<td>14,117</td>
<td>14,434</td>
<td>14,859</td>
</tr>
<tr>
<td>CO₂ emissions* (10,000t-CO₂)</td>
<td>3.4</td>
<td>3.3</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Energy consumption ratio of overseas manufacturing sites (%)</td>
<td>19.4</td>
<td>33.0</td>
<td>39.9</td>
<td>40.2</td>
<td>41.7</td>
</tr>
</tbody>
</table>

* Energy consumption conversion

Water Risk Initiatives

Basic concept
The Group must use large quantities of pure water in its products and manufacturing processes, and therefore makes a concerted effort to minimize the amount of water consumed by production activities and to maintain and improve the quality of wastewater. We aim to contribute more in this regard through business activities that consider the issue of virtual water*.

Understanding water consumption volume and water risk
Water usage volume changes when manufacturing processes and output change. TOK constantly monitors the state of industrial water and city water usage, and reviews related equipment. Our degree of exposure to water risk is higher at the Koriyama, Utsunomiya and Kumagaya plants than it is at our other three sites. Overseas, water consumption is much greater at our sites in China than other regions, owing to the high volume of cooling water used. TOK is reinforcing efforts to build a sustainable production system that takes into account local water environments, as well as the state of water resources and supply systems at each site.

* Based on the World Resources Institute’s (WRI) water risk map (Aqueduct) standards

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water usage at all domestic plants (1,000m³)</td>
<td>428</td>
<td>402</td>
<td>404</td>
<td>400</td>
<td>404</td>
</tr>
</tbody>
</table>

Reducing Industrial Waste

Basic concept
To effectively use limited natural resources, TOK engages in 3R activities (reduce, reuse, recycle). The Company strives to maintain zero emissions* by restricting waste volume and increasing the volume of recycled waste by thoroughly sorting waste by type, as well as by reducing landfill disposal volume through intermediate treatment, stabilization, and volume reduction initiatives.

* Landfill disposal volume (direct or after intermediate treatment) of less than 1% of industrial waste discharged by business activities

Zero emissions achieved
By 2020, TOK aims to cut industrial waste by 5 points compared with the base unit indexed to 2015, at a rate of 1 point per year. Intermediate treatment waste volume has remained under 1% and TOK has achieved zero emissions.

Volume of industrial waste

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>General industrial waste</td>
<td>1,492</td>
<td>1,527</td>
<td>1,532</td>
<td>1,554</td>
<td>1,550</td>
</tr>
<tr>
<td>Specially controlled industrial waste</td>
<td>3,300</td>
<td>3,672</td>
<td>3,475</td>
<td>4,006</td>
<td>3,470</td>
</tr>
</tbody>
</table>
**Preservation of Air, Water and Soil**

**Basic concept**

The Group takes steps to lighten its environmental impact through reductions in greenhouse gases and chemical substance emissions by upgrading equipment, switching fuels, and reviewing manufacturing processes to preserve the air, water, and soil environments upon which our livelihoods depend.

**Prevent air, water and soil pollution**

At the Sagami Operation Center, Shonan Operation Center, Utsunomiya Plant, and Koriyama Plant, the Company has switched boiler fuel from heavy oil to natural gas, achieving a steady reduction in SOx emissions. In 2017, however, there were two incidents at the Sagami Operation Center where its incinerator exceeded standards under environmental regulations, and these were duly reported to the government authorities. Steps were taken to remedy the problem. To prevent a similar incident from occurring again, TOK is strengthening management in terms of inspecting equipment and revising operation management guidelines. At the same time, the Company is working to achieve its targets for the fiscal year ending December 31, 2018.

Effluent from various processes is released into public water systems after being purified with activated sludge treatment and other processing. High-concentration effluent is disposed of as industrial waste as a part of efforts to reduce substances in industrial effluent that have an impact on the environment.

We periodically monitor for soil contamination, and in the event that contamination is found, we cooperate with government entities to prevent its spread and clean up the contamination. No soil contamination was discovered in the fiscal year ended December 31, 2017.

**Reducing ozone-depleting substances**

TOK introduced a management system for chlorofluorocarbons in conjunction with the April 2015 enactment of the revised Act on Rational Use and Proper Management of Fluorocarbons, updating its environmental system on the proper management, filling, and disposal of chlorofluorocarbons. As a result, TOK’s estimated CFC leakage volume was 25t-CO₂ in the fiscal year ended December 31, 2017, much less than the specified value that mandates reporting (1,000t-CO₂).

**Reducing emissions of PRTR regulated substances**

TOK uses the chemicals and PRTR management system to accurately calculate and report figures related to the release and transfer of chemical substances. In the fiscal year ended December 31, 2017, TOK handled 39 of the PRTR Law’s chemical substances. TOK handled 1,300 tons of these substances during the fiscal year and released an estimated 2 tons of these chemicals into the atmosphere and public water systems. For some of the substances regulated by the PRTR Law, TOK intends to introduce alternative effluents and take other steps to reduce their emissions.

### SOx/NOx/BOD emissions

<table>
<thead>
<tr>
<th>(Year)</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOx emissions (t)</td>
<td>3.0</td>
<td>3.0</td>
<td>2.4</td>
<td>1.2</td>
<td>1.4</td>
</tr>
<tr>
<td>NOx emissions (t)</td>
<td>10.2</td>
<td>11.2</td>
<td>6.6</td>
<td>5.9</td>
<td>7.8</td>
</tr>
<tr>
<td>BOD emissions (t)</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.3</td>
</tr>
</tbody>
</table>

### Flow of chemical substance risk management in the supply chain

To properly manage chemical substance risk in the supply chain, it is necessary to provide information in accordance with the flow of materials. For each stage of development, manufacturing, sales, and disposal, TOK has created procedures for complying with laws and regulations and managing risks.

1. **Development stage**
   - For raw materials used in newly developed products, the Company has put in place a system for complying with legal requirements and ascertaining the existence of regulated substances under the REACH Regulation or other laws governing conflict minerals, etc.
   - Moreover, the Company has created the TOK Group Standards on Chemical Substances Management, which define the chemical substances that are prohibited or should be managed, and works to reduce their use if standard thresholds are exceeded by proposing alternative plans.

2. **Production stage**
   - All raw materials used to manufacture products are subject to occupational health and safety risk assessments. The Company identifies hazardous factors in the production environment, clarifies the hazardous factors, and eliminates what is necessary to mitigate and eliminate the hazardous factors based on their risk level, and then takes action to lower the risk. In this way, TOK maintains a proper work environment for its employees.

3. **Sales stage**
   - TOK has connected its ERP system, which manages product shipment volumes, and its chemicals and PRTR management system, which manages chemical substance composition, to create a framework for automatically calculating the volume of chemical substances transferred. With this framework, TOK is able to appropriately report chemical substance volumes and apply for their usage in accordance with the Chemical Substances Control Law and the PRTR Law in Japan, as well as the laws and regulations of the countries that import its products.

4. **Disposal stage**
   - Waste from each site is thoroughly sorted by type and recycled, and properly disposed when necessary. For waste disposal companies contracted to dispose the waste, TOK provides information about the type of waste handling precautions through Waste Data Sheet (WDS).
   - The Company periodically visits the waste disposal companies to perform on-site audits and ensure waste is being disposed properly in accordance with contractual agreements.
We advance collaboration with society while strengthening our ability to create value and moving toward becoming a “100-year company.”

TOK is keen to collaborate with its stakeholders within the context of strengthening its ability to sustainably create value as a global niche top company.

In the cutting-edge semiconductor fields that the Group is focusing on, development timeframes have become longer amid growing complexity in technological development and mass production technologies. As a result, TOK aims to reinforce its management foundation and strengthen its ability to sustainably create value through constructive dialogue with shareholders and investors, as well as by redoubling efforts to collaborate with all stakeholders, including customers, suppliers, employees, and local communities. In collaborating with employees, the Company conducted a survey of employee awareness last year, and scored better than the average for other companies on responses like, “I would like to work here a long time,” “I’m proud of my company’s brand,” and “Teamwork is good.” In addition, the turnover rate for new graduates up to their third year at the Company has been kept at 0% in recent years. As we allocate human resources to strengthen competitiveness, we are hiring more non-Japanese employees and increasing the ratio of women in management positions in an effort to promote “Diversity and Inclusion”.

Under the TOK Medium-Term Plan 2018, TOK is making steady progress on building up technological advantages in cutting-edge semiconductor fields, while pursuing its strategy of building close relationships with customers and making of its largest-ever investments. However, there are still some issues to address, including new business development, to reform our business portfolio into one for a “100-year company” by 2040. With an eye on accelerating new business development and open innovation, the key to reforming our business portfolio, our new R&D Building at the Sagami Operation Center, which will be completed in 2019, will be a center for building social and relationship capital with a broader and deeper segment of society by augmenting our accumulated knowledge with suppliers, academics, and venture companies.

The TOK Group works to continuously improve corporate value and achieve long-term growth toward becoming a “100-year company” by furthering this collaboration with society.

* Inclusion: Acknowledging and taking advantage of the skills and opinions of diverse human resources
Personnel Measures for a “100-Year Company”
Launch of new initiatives
The TOK Group makes concerted efforts to train the next
generation of employees through education, participation
in management, and incentives to foster a sense of
ownership in their work and careers as they take the
initiative on their own. In the fiscal year ended December
31, 2017, TOK launched an initiative to improve its per-
sonnel measures. With an eye on becoming a “100-year
company”, we created the Personnel System Examination
Committee comprising of all department managers,
presidents of major overseas subsidiaries, and the Human
Resources Div. led by the President, and conducted
a survey of employee awareness to identify areas of
organizational strength and weakness at the Company.

Selected as 2018 Certified Health & Productivity Management
Outstanding Organizations Recognition Program (White 500)
In February 2018, TOK was recognized in the 2018
Certified Health & Productivity Management Outstanding
Organizations Recognition Program (White 500) by
the Ministry of Economy, Trade and Industry and the
Nippon Kenko Kaigi. This distinction recognizes the TOK
Group’s awareness that employee health is essential to
sustainable value creation, as well as its implementation
of Data Health Plans since 2015 in collaboration with the
Tokyo Ohka Kogyo Health Insurance Society, which use a
PDCA cycle for preventing and discovering diseases while
encouraging employees to take better care of their health.
The Company will continue to encourage its employees
and their families to maintain and improve their health.

Level-based Training Program
In light of the overseas ratio of net sales being about 80%,
our Level-based Training Program focuses efforts on the
training of self-reliant human resources as TOK Group
employees who can display competence while shouldering
risks by themselves in Japan or abroad. This training includes
participants from various departments forming teams to
take on challenging tasks together, using their practical skills
and pushing their abilities to greater heights (→ see the list
of courses below). The following accomplishments have
been achieved since this program began five years ago.

◆ The Logical Thinking Course has improved employees’
ability to iteratively hypothesize and evaluate outcomes
in the technological development process.
◆ The passing rate has risen on promotion exams for
various positions.

TOK Global Practical Training for Selected Members
The TOK Global Practical Training for Selected Members
has consistently shown outcomes, such as 8 of the 47
participants (over the course of 3 training sessions) being
assigned to overseas positions and 6 participants being
promoted to management positions. The abilities of almost
all participants showed signs of improvement in terms of the
five requirements for global human resources (→ see
the list below). Moreover, employees who participated in
the training even showed growth in broadening their
horizons and sensitivity, the ability to gather and analyze
information to identify problems, and the ability to
execute the PDCA cycle, which are all requirements to be
considered a candidate for executive positions. This
training has already shown promise for grooming
the next generation of executives at TOK.

Level-based Training Program

<table>
<thead>
<tr>
<th>Step</th>
<th>Course</th>
<th>Theme</th>
<th>Content</th>
<th>Personal Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Logical Communication</td>
<td>Kick-Off Seminar</td>
<td>Participants learn the fundamentals of different cultures and English communication and methods for accurately expressing the points they wish to convey.</td>
<td>Flexibility</td>
</tr>
<tr>
<td>2</td>
<td>Team-Building</td>
<td>Win-Win Communication</td>
<td>Participants learn how to identify points of commonality and difference with a person having a different opinion, as well as how to negotiate and craft solutions.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Logical Thinking</td>
<td>Overseas Training (Singapore)</td>
<td>Participants directly experience a different culture and find ways to “break out of their own shells” to quickly solve problems under a given set of difficult circumstances.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Leadership</td>
<td>Leadership</td>
<td>Participants define and imagine for themselves “ideal leadership” and create a plan of action to bridge the gap between the current reality and the ideal.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Junior Management Training</td>
<td>Mental Toughness</td>
<td>Participants become aware of their own level of growth through challenging exercises with people who are not Japanese. They come to understand their own abilities and strengths and to control motivation.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>New Manager Training</td>
<td>Presentation and Results Announcement</td>
<td>Participants make a presentation in English to executives.</td>
<td></td>
</tr>
</tbody>
</table>

— Undergoing TOK Global Practical Training for Selected Members —
I thought it was easy to stay motivated because all the participants were highly motivated and skilled. The training was beneficial in the context of identifying imperfections in my current situation and setting new goals. The training program was six months long, and presented opportunities to communicate with many people in departments that I usually do not interact that much with. It was also a great opportunity to build relationships within the Company, which was helpful in smoothing things out at work later. For regular work, I have become more conscious of how I proceed with conversation and putting together presentations. Recently, I have been working more with people at overseas sites. Generally, when Japanese people talk to each other, ambiguities may arise that are not immediately addressed for clarification. I will do my best to make sure this does not happen when communicating and working in different cultures, since it is so important to confirm that my meaning is accurately conveyed to coworkers.

Taiju Miyachi Public Relations Section, Public Relations Div., General Affairs Dept.
Promote Diversity and Inclusion for strengthening competitiveness

To become a “100-year company,” TOK is keen to introduce people who have a different take on things to accelerate open innovation and new business development, in addition to reinforcing its competitiveness in cutting-edge semiconductor fields. The Company must create a completely new paradigm by promoting the exchange of diverse opinions. During the past few years, we have therefore been reinforcing our policy of hiring and promoting based on actual ability without regard to gender, nationality, and so forth. As a result, the ratios of female and non-Japanese employees have risen. Our efforts to empower female employees were recognized in 2017 with the inclusion of TOK as a constituent stock in the MSCI Japan Empowering Women Index. In 2012, TOK received the Kurumin mark as a company that supports child-raising, based on the Act on Advancement of Measures to Support Raising Next-Generation Children.

Hiring, retaining, and promoting women to management positions

Based on the Act of Promotion of Women’s Participation and Advancement in the Workplace, our hiring targets entail a total female hiring ratio of at least 20%, and over the past few years, the ratio of newly hired females has hovered around 30–40% thanks to our renewed focus on merit-based hiring strategy. The ratio of female employees has steadily risen as a result of stronger measures to retain women by improving awareness of work-life balance, assistance in career formation as well as reviewing and upgrading systems for helping with childcare, nursing care, and employee transfers, while encouraging women to take advantage of these systems. Regarding the promotion of women to management positions, the ratio of female managers has been trending upward thanks to their proactive participation in overseas assignments and selective training. We aim to increase this ratio further by assisting female employees with aggressive career-formation plans and eliciting the understanding of their bosses on the importance of their career paths.

Indices related to female employee participation*1

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Ratio of women among new hires (%)</td>
<td>16.7</td>
<td>45.0</td>
<td>40.0</td>
<td>45.8</td>
<td>29.2</td>
</tr>
<tr>
<td>Ratio of women among the overall employees (%)</td>
<td>10.0</td>
<td>10.2</td>
<td>10.6</td>
<td>11.4</td>
<td>11.7</td>
</tr>
<tr>
<td>Difference in average tenure figures for men and women (years)</td>
<td>6.6</td>
<td>7.7</td>
<td>8.0</td>
<td>8.7</td>
<td>8.9</td>
</tr>
<tr>
<td>Ratio of women in senior and middle management (%)</td>
<td>0.5</td>
<td>0.5</td>
<td>1.1</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Ratio of women on the Board of Directors (%)</td>
<td>0.0</td>
<td>0.0</td>
<td>8.3</td>
<td>8.3</td>
<td>8.3*2</td>
</tr>
</tbody>
</table>

*1 Non-consolidated basis employees exclude those seconded from TOK to other companies and contract workers, and include people seconded from other companies to TOK

*2 As of 2018

Toward sustainable value creation as a global niche top company

To continue growing as a global niche top company with a rising ratio of overseas net sales, TOK believes the most important point is to hire more non-Japanese employees so they can be even more active. The ratio of non-Japanese employees is up on a consolidated basis as a result of expanding overseas customer-oriented sites and merit-based hiring/promoting regardless of nationality. Moreover, a non-Japanese person has been appointed to the top position at TOK Advanced Materials Co., Ltd., and locals have been promoted to key positions at subsidiaries in the U.S. and Taiwan. Our non-Japanese employees at overseas sites have the same level of advanced technical knowledge as their Japanese counterparts, and work together toward common goals. Also, non-Japanese employees contribute to deepening the strategy of building close relationships with customers, including obtaining live, honest feedback from local customers. The Company will make every effort to motivate its employees and inspire their creativity by improving measures for unifying its employees on a global basis while sharing its management principles and proactively increasing the number of non-Japanese employees.

Number of non-Japanese employees

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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of non-Japanese employees (non-consolidated)</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Number of non-Japanese employees (consolidated)</td>
<td>226</td>
<td>259</td>
<td>301</td>
<td>312</td>
<td>323</td>
</tr>
<tr>
<td>Ratio of non-Japanese employees (consolidated, %)</td>
<td>15.0</td>
<td>16.8</td>
<td>19.2</td>
<td>19.5</td>
<td>20.0</td>
</tr>
</tbody>
</table>

Engaging more with senior personnel as a part of our competitive strategy and measures to pass technologies onto the next generation

In the semiconductor field and other cutting-edge domains, as well as in new business development, technologies from previous generations and technologies from businesses that no longer exist occasionally provide clues about possible breakthroughs in new technologies. When training personnel on the front lines, we thus believe it is important to work shoulder-to-sholder with veterans and learn sensory skills as a supplement to keeping manuals up to date. We therefore emphasize further expanding roles for senior personnel in the Company. TOK has had a rehiring system in place since 2003 for all employees who have reached mandatory retirement age or fulfilled their employment contracts. With regard to a system for postponing the retirement age, management will work with labor unions to smooth it out as a common issue.
Occupational Health and Safety Initiatives
A core component of our Group Management System (GMS)

Occupational health and safety is a part of EHS activities, a key function of the GMS, and a pillar of Responsible Care management, like environmental preservation. At Japanese companies, occupational health and safety is typically the responsibility of each business site based on the Industrial Safety and Health Act. At the TOK Group, however, we closely coordinate occupational health and safety activities among business sites with the Safety and Health Liaison Unit, which consists of managers and leaders in charge of activities at each site. With the EHS Division taking the lead, the Company is keeping its Occupational Health and Safety Manual up to date, and taking steps to review and improve measures for creating better workplace environments by strengthening its global management structure based on GMS.

Constantly evolving safety training and disaster drills
In providing diverse products that help solve social issues, TOK has put in place a business continuity plan (BCP) that is constantly updated based on experience to minimize the impact on society from a halt in production in an emergency situation. At the Aso Plant, where repair work was needed after the Kumamoto Earthquake struck in April 2016, TOK managed to promptly resume production by dispatching mobile power generators and taking other recovery measures. Based on its experience here, the Company has since then redoubled efforts in regular disaster drills that simulate a major earthquake.

Aiming for zero risk of workplace accidents
We have built an effective framework to prevent and handle workplace accidents. Our efforts include: setting up a Safety and Health Committee at each of our offices to conduct activities for preventing workplace accidents including regular safety training and drills for employees; establishing a Safety and Health Liaison Unit, which manages all activities for preventing workplace accidents through information sharing among offices; and preparing manuals for emergency safety measures in the event of workplace accidents. In the fiscal year ended December 31, 2017, TOK worked to improve the risk awareness of employees by implementing “sensory training” that simulates workplace accidents using actual machinery.

◆ Injuries resulting in lost workdays in the fiscal year ended December 31, 2017: 0

We will continue to make concerted, Company-wide efforts to prevent workplace accidents, to achieve our goals of “zero accidents” as well as “zero accident risks.”

Dialogue with Stakeholders
Communication for co-creating value
As a member of society, the TOK Group will continue to create value and help address social issues while engaging in dialogue with stakeholders to gain insight into their expectations for the Group.

Social Contribution Activities
Contributing to scientific and technological progress
Established in 1987 by our founder Shigemasa Mukai, the Tokyo Ohka Foundation for The Promotion of Science and Technology (hereinafter, “the Foundation”) was founded on the philosophy that the development of Japan, a nation with few natural resources, depends on the development of innovative technologies from advances in fundamental research, and the application of these technologies in industry will lead to peace and prosperity for humanity. With the aim of contributing to the invigoration and advancement of science and technology around the world, the Foundation provides the following four grant programs and bestows one award.

Grant Programs

- Grants for Research Projects
  2017: 11 grants totaling ¥11 million

- Grants for International Exchange
  2017: 8 grants totaling ¥2.69 million

- Support for the Promotion of Research Exchange Programs
  2017: 1 grant totaling ¥1 million

- Grants for Promotion of Science Education
  2017: 47 grants totaling ¥12.85 million

Award Presentations

- Mukai Award Presentation Events & Commemorative Science Lectures
  2017: Award presented to Mr. Shin-ichi Ohkoshi (Professor at Department of Chemistry, School of Science, the University of Tokyo) “Development of New Functional Substances with Solid State Physical Chemistry”
TOK’s five independent officers had a conversation about the initiatives the company should take to continue value creation as a global niche top company aiming to become a “100-year company” in 2040.

What TOK Needs to Do to Become a “100-Year Company”

TOK’s five independent officers had a conversation about the initiatives the company should take to continue value creation as a global niche top company aiming to become a “100-year company” in 2040.

Hiroshi Kurimoto
Outside Director
Became an outside director for TOK in June 2014, after having held positions including representative director and president of a global niche top company with strengths in ESG products, including eco-friendly bearings and seismic isolation devices.

Noriko Sekiguchi
Outside Director
Became an independent certified public accountant after working at a major foreign investment bank and a major auditing firm in Japan. Became an outside director for TOK in June 2015, after having been a monitoring committee member of an international cooperation organization.

Hiroshi Saito
Outside Auditor
Became an outside auditor for TOK in June 2015, after having held positions as head of asset management and investment planning at a major domestic trust bank, CFO of a major bank holding company and then president of one of its group companies.

Kazumasa Fukada
Outside Auditor
Became an outside auditor for TOK in June 2017, after having worked for a major domestic non-life insurance company as a branch manager, the head of the sales department, and managing director.

Koichiro Takahashi
Outside Auditor
Became an outside auditor for TOK in June 2017, after having worked at a major domestic life insurance company as general manager of the marketing planning & research department, branch general manager, general manager of the human resources department, chief general manager of the retail sales department, senior managing executive officer, and president of one of its group companies.

Moderator: Standing Statutory Auditor, Hajime Fujishita
TOK’s Strengths and Weaknesses

As we discuss the initiatives TOK should take toward becoming a “100-year company,” let me first ask your opinions of TOK’s strengths and weaknesses.

Kurimoto
I believe one of TOK’s strengths is its competitive position of being able to respond to sophisticated customer requirements that rivals cannot match, while TOK advances its strategy of building close relationships with customers specializing in niche fields. Another strength is management’s ability to boldly take risks with investments that are massive at times. On the other hand, I believe a weakness is the difficulty of discovering new businesses that can rise to the expectation of becoming a source of earnings on par with photo-resists, because growth will taper off if the Company becomes complacent with existing businesses, so it must therefore establish a top presence in new niche fields. Other threats and weaknesses the Company should ameliorate include the sensitivity of the silicon-cycle to economic trends, and its low ROE that results from a high equity ratio.

Saito
I believe one strength is TOK’s strong reputation for quality in niche fields. In my view, other strengths include the highly specialized team of engineers in both R&D and production technology, high degree of maneuverability in marketing and development afforded by a corporate scale that is not too large, a frank and open-minded corporate culture and the strong loyalty of its employees. One issue is the Company’s low ROE due to the equity ratio being too high. With that said, we must not forget that its abundance of cash allows the Company to spend on R&D with medium- to long-term timeframes and ride out the ups and downs of the semiconductor industry. A weakness is the passive nature of the Company’s R&D direction because it will always be a follower of technological advances and changes in final products as a materials maker, not an end product manufacturer. As a consequence, TOK tends to lack the wherewithal to allocate resources in R&D that could lead to a major breakthrough. Moreover, TOK has seen its ability to negotiate prices weakened as the number of its customers declines as a result of mergers and acquisitions. I believe another weakness is that higher sales volume for its products does not necessarily lead to greater profits.

Takahashi
I agree that the Company’s strengths include its strong technological development capabilities and marketing ability via collaboration with customers. Moreover, I think yet another strength is its open, family-like corporate culture from a human resources perspective. Its small product portfolio is a reflection of its niche top status. The fact that its ROE is not particularly high is preordained to a degree because TOK is an R&D-driven company. I think measures must be taken to improve ROE based on a well thought-out plan, instead of sweeping measures.

Sekiguchi
In my opinion, one of the Company’s strengths is its history of developing technologies and products that precisely meet customer needs in tune with the changing times. Perhaps its greatest strength is the trust placed in the TOK Group that has been earned by its pioneering technologies and strategy of building close relationships with customers. Meanwhile, I think issues include the Company’s lifeline depending on investments in R&D and human resources due to its extremely high degree of concentration in cutting-edge fields, and always keeping a global perspective with a high overseas sales ratio. I think these issues are preordained for TOK as a global niche top company.

Fukada
Since its founding, I believe TOK’s strengths can be summed up as its foresight in technological development and perseverance in satisfying customer needs. Moreover, I think one of its strengths is its patient approach to seizing the next opportunity and turning it into a success even if it stumbles once in development competition. On the other hand, I believe weaknesses include the Company’s somewhat lacking sense of crisis and urgency about the future due to past success in growing its business, as well as a lack of enough key personnel for global business development. On the governance front, I think the Company must move quickly to secure and train key personnel for internal auditing.
Thank you for your opinions. Next, I would like everyone to talk about their position on future business conditions for TOK.

Kurimoto  The world is shifting from a focus on hardware to a focus on software. Profit margins at hardware-oriented companies tend to be lower than at software companies. Semiconductors continue to be essential for industry, and will be essential for livelihoods in the future, as demand will steadily expand for IoT and other innovations. I therefore believe there is sufficient potential for growth in the near term. To latch onto these trends and improve profitability, TOK must maintain an ability to develop technologies that keep rivals at bay. Finding the next niche field is the most important challenge for TOK. Within the context of the manufacturing industry, excluding software, a new growth industry that rivals the semiconductor industry does not exist at present. I therefore think it will be important for TOK to look for new fields in the semiconductor industry, even if they are small. Instead of hoping for a new source of earnings on the same scale as photoresists, a more realistic strategy may be to target overall sales growth through initiatives in numerous small niche fields, even if the size of sales in each niche field is small.

Sekiguchi  Although there are high barriers to entering the photoresists industry, it is one where product shares can turn around at any moment, and competition only increases in intensity. I understand that it is important to continue creating new products that satisfy customer needs while accurately anticipating advances in technology.

Saito  The semiconductor industry continues to grow, and compared with other industries, it still has sharper swings. It is therefore necessary for TOK to have rock-solid financial positions able to support investments in development to keep up with rapid technological innovations. I believe TOK should explain to its stakeholders in clear quantitative terms its equity ratio and cash position requirements in preparation for earnings fluctuations and cash outflows.

Fukada  With the AI and IoT era on the horizon, I believe TOK’s customers, business partners, investors and other stakeholders will only expect more from the Company. At the same time, competition from rivals and customer requirements are likely to increase to new levels, making it more challenging to earn stable earnings and sustain growth. Starting up new businesses will not be easy. With a healthy sense of crisis and broader scope in R&D, TOK must further strengthen its corporate culture and become more determined to succeed in existing businesses while taking on new challenges and honing its technological advantages.

Takahashi  As overseas production keeps expanding, I think TOK needs to sophisticate global management, strengthen internal controls, and reinforce its resilience to geopolitical risks. In light of major changes on capital markets in Japan, as shown by the Corporate Governance Code, the Company should focus on strengthening balance sheet management to facilitate a more advanced capital policy, flatten its organization to expand diversity management, enhance borderless recruitment and improve its global personnel management system.

Based on your individual backgrounds and fields of specialty, please give your opinion on what TOK should focus on toward becoming a “100-year company” in 2040, while continuing to create value as a global niche top company.

Kurimoto  Even while facing issues recently, the management team and all employees of TOK take pride in its corporate activities, and I also believe the Company’s activities are of a high standard. Lately, however, reports have surfaced on an almost daily basis about scandals at what had been regarded as first-class companies, reminding us that a company can lose trust in an instant. The management team and all employees should never forget that initiatives in governance and compliance never cease. The Company’s products are
unfamiliar to the general public, but are essential in the production of semiconductors that are becoming more prevalent in our lifestyles. For this reason, I hope that all employees understand that if a problem causes TOK to stop supplying its products, it would have an impact on society, causing major turmoil. Next, I see a need for debate about future management strategy from multiple angles and approaches. When it comes to niche fields, I think a debate is needed about which fields to concentrate on, and in which domains. In existing businesses, attention must always be paid to issues of deep interest to customers, issues related to technological innovation, and new technologies that could replace existing technologies. I believe TOK needs to consider more carefully whether its products can be applied to business fields other than semiconductors. As for strategy, TOK should build on success by doing what other companies do not attempt. For this reason, I believe the Company needs to think more about taking a multi-faceted strategy and approach to business.

Sekiguchi I specialize in internal controls, so I will talk in these terms. Internal controls should constantly be reviewed in order to stay in tune with changes in the internal and external environment. In determining whether internal controls are effectively working, it is naturally imperative that each employee follows laws, regulations, and internal rules. Moreover, employees must engage in activities with a strong sense of ethics, responsibility, and sincerity while conforming to social norms and thoroughly adhering to compliance. Currently, I see no causes for concern in TOK’s internal control system, which is under the direct control of the president and takes basic steps to ensure effectiveness, such as distributing compliance handbooks to all employees. While ensuring the basics, as a specialist in internal controls, I will help advance efforts to reduce risks so that the Company can evolve its internal control flexibly, responding to changes in the business environment. With regard to advancing the careers of female employees, I think there is a correlation between the ratio of women hired and the ratio of women in management positions. In some years, TOK’s new hires have been over 45% women, and I look forward to seeing these women eventually be assigned to key positions within the organization to carry TOK into the future. I encourage all female employees to build up the courage to raise your hands and voices when you want to try something new. Your coworkers will warmly encourage you to succeed, as I believe this is embedded in TOK’s corporate culture.

Saito Medium-term growth in earnings, as well as continuous improvement in capital and asset efficiency, are important not only for investors but all stakeholders. For this reason, I think management needs to create a system able to more quantitatively and accurately measure the efficiency and effectiveness of capital investments and R&D. If possible, this system should be applicable to individual projects, departments and fields, in addition to encompassing the entire company.

Fukada These days, Business Continuity Management (BCM) has become a necessity to deal with the risk of business interruptions from the possibility of damage from major natural disasters, such as Tonankai earthquakes or earthquakes directly beneath the greater Tokyo area, and cyber terrorism or other accidents. TOK has created a Business Continuity Plan (BCP) and conducts crisis response drills. However, I believe honing the ability of all employees to identify risks is most important. It is also important for employees to learn how to stop thinking such risk has nothing to do with them, and take ownership of all risks within their reach. I believe it is possible to reduce the unexpected to as close to zero as possible once employees become more aware of the risks surrounding them.

Takahashi I think TOK needs to raise the level of its organization and human resource management to global standards. The Company’s organization and human resource management system has advanced over the years, and this progress is beginning to show with a lower percentage of younger employees leaving, as well as TOK being chosen for inclusion in the MSCI Japan Empowering Women Index, and being recognized in the 2018 Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500). As the overseas sales ratio continues to rise, I think the Company should advance reforms that keep it up to date with a maturing and diversifying social and economic environment along with the emergence of an IoT society. More specifically, I think it is important for the Company to enhance borderless recruitment and find an optimal balance between central and local authority.
Finally, please tell us how you would like TOK to become as a “100-year company” in 2040, and the challenges you see for TOK to achieve this vision.

**Kurimoto** I would like TOK to become a company with several times as many product lines as now, with new products generating 50% of overall sales. One way of thinking about 20 years from now is understanding the “future” that has already happened. In this sense, it is evident that demand will increase for food and energy around the world, people will live longer, regional disparities will increase, and greenhouse gases will need to be controlled. I would like to see a discussion about what TOK can do to address such issues that are certain to come up in the future, starting with its current trajectory or a slight pivot in a different direction. In 20 years, some employees aged 35–40 now will be managers, so these employees should be included in the discussion.

**Saito** I am of the same opinion that TOK should build a more diversified business portfolio, such as by having semiconductor-related businesses account for about 50% of the total, for example. Even if the size of the Company or nature of its business changes, I hope that TOK continues to have a frank and open-minded corporate culture that retains its positive vibe and ability to draw in young people, talented engineers, and globally-minded people from various fields.

**Sekiguchi** I hope TOK will continue to be a global niche top company. My wish is to see it remain a company that works closely with its customers to take on new challenges in technologies and products that are number one (better than rivals), leveraging its high technological capabilities, and the only one (not available anywhere else). Like today, I want TOK to be a company where employees can work without worry and are satisfied with their contributions to the Company.

**Fukada** I think three elements will be essential going forward: the ability to create technologies and value essential to society, trust from customers rooted in high quality, and passionate employees well-versed in management principles. These three elements are firmly embedded in TOK today, and by repeatedly talking about them with employees to raise the bar, I believe TOK’s corporate culture will rise to a level commensurate with a “100-year company.”

**Takahashi** As TOK aims to become a “100-year company,” I think the key will be drawing out the abilities of the millennial generation in particular. As the hiring of global personnel is increasingly becoming a sellers’ market, I believe it is essential to foster team spirit and improve human resource management at overseas sites based on the principles of respect for individuals, including diverse work styles, while working toward a flatter organization, including the delegation of authority.
Corporate Governance

We will further strengthen corporate governance, looking to sustainably enhance our corporate value.

TOK’s Path to Stronger Corporate Governance

<table>
<thead>
<tr>
<th>Year</th>
<th>Executive officer system introduced</th>
<th>Number of directors adjusted to an appropriate level</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td></td>
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<table>
<thead>
<tr>
<th>Year</th>
<th>Selected one outside director for the first time</th>
<th>Tenure of directors shortened from two years to one year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Added one outside auditor, bringing the total to three</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td></td>
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<table>
<thead>
<tr>
<th>Year</th>
<th>Appointed a (female) outside director, bringing the total to two</th>
</tr>
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<tbody>
<tr>
<td>2015</td>
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Basic Concept

We have had a management vision of aiming to be a globally trusted corporate group by inspiring customers with high value-added products that have satisfying features, low cost and superior quality, under our management principles since our establishment (“Continue efforts to enhance our technology,” “Raise the quality levels of our products,” “Contribute to society,” and “Create a frank and open-minded business culture.”). We believe that realizing this will lead to benefits shared by shareholders and all other stakeholders and will improve corporate value.

Realizing the management vision is the means to maintain sound and transparent management and to enhance operational efficiency, with speeding up of the decision-making process as one of the most important management issues.

Type of System

As a company with corporate auditors, TOK employs the corporate auditor system. We are taking actions to strengthen audits performed by the corporate auditors with the greater authority endowed by the Companies Act of Japan. In addition, TOK is taking advantage of the benefits of reforms to its Board of Directors, establishment of the executive officer system, and the election of an independent outside director to fortify the management decision-making and supervisory function and the business execution function while clarifying responsibility for performing these functions. We are convinced that these measures are the most effective means to upgrade our corporate governance.
Directors and Board of Directors

To quickly respond to changes in the operating environment and clarify accountability for the directors concerning operating results in each fiscal year, we have shortened the tenure of the directors from two years to one year since June 2006. To make the activities of the directors more transparent and reinforce the corporate governance system, there have been two independent outside directors since June 2015.

In principle, the director system has a flat structure with two levels: representative director and directors. This creates a framework that allows the Board of Directors to fulfill its primary responsibilities by effectively reaching management decisions and supervising the Company’s management.

As of March 29, 2018, we had eight directors, including two outside directors. In principle, the Board of Directors meets once a month on a regular basis and holds extraordinary meetings as required. The meetings are held to decide important matters of business execution, with the goal of supervising the business duties executed by the representative director and directors.

The number of directors on the Board of Directors is set to not exceed 10 directors in the Company’s Articles of Incorporation. The articles also stipulate that resolutions for the election of directors must be approved by a non-cumulative majority vote at a General Meeting of Shareholders with a third or more of the shareholders in attendance.

Assessment of the Effectiveness of the Board of Directors

Our directors and auditors conduct an assessment and discuss at the Board of Directors using an anonymous self-evaluation questionnaire format of the composition of the Board of Directors; the effectiveness of the Board of Directors; information related to the Board of Directors; the decision-making process; and external communications. This offers an analysis and assessment of the effectiveness of the Board of Directors as a whole.

The following opinions were received during the fiscal year ended December 31, 2017, the third time the assessment has been conducted:

- having a composition offering inside directors with thorough understanding of each field, and a good balance between experience and actual performance
- maintaining diversity by incorporating outside directors with differing backgrounds, knowledge and expertise
- realizing rapid decision-making, a high degree of transparency with participation of outside directors and outside auditors and conducted in a frank and open atmosphere
- generally good self-improvement and in-house check-and-balance functions

Meanwhile, issues needing resolution from the previous fiscal year were:

- preparation of materials to enhance deliberations of the Board of Directors
- improvement of the manner in which business execution and resolutions and reports are explained
- enhancement of training.

Due to steps that included prompt delivery or addition of required materials and conducting a training seminar, the issues above were noted to have improved to a certain degree.

We will continue to work on devising methods and improvements and address issues that newly arose in the most recent assessment, which were enlivening discussions, and engage in external communications, as well as seek to further enhance the effectiveness of the Board of Directors.
Establishment of Independent Officer Meetings

TOK has established meetings for its independent officers, currently two outside directors and three outside auditors. They are held with the same frequency as Board of Directors meetings. The standing statutory auditor also attends the meetings.

The meetings aim to strengthen the effectiveness of and add vigor to deliberations at the Board of Directors through:
- additional explanations on topics from management meetings that were not on the agenda of the Board of Directors
- exchange of opinions on themes to be taken up at the next Board of Directors meeting
- explanations of cutting-edge technology matters

Officers and Committee of Officers

While taking steps to strengthen the Board of Directors’ functions in management decision making and supervision, TOK has the Committee of Officers made up of all officers to reinforce its business execution capabilities. The committee members include the chief executive officer, the chief operating officer, senior executive officers, executive officers and officers. Those officers’ ranks derive from differences in business responsibilities and other considerations.

As of March 29, 2018, the Company had 15 officers, including six officers also serving as directors. In principle, the Committee of Officers meets once a month on a regular basis and holds extraordinary meetings as required. The meetings are held to share instructions and orders resolved by the Board of Directors and information among the officers, and with the goal of deliberating and approving certain important decisions that are not subject to a Board of Directors resolution.

Auditors and Board of Auditors

As of March 29, 2018, we had four auditors, including three outside auditors. In principle, the Board of Auditors meets once a month on a regular basis and holds extraordinary meetings as required. The meetings are held to receive reports regarding important auditing matters from each auditor, with the goal of deliberating and reaching resolutions on those matters. The auditors attend the Board of Directors, the Committee of Officers, and other important meetings. Their duties are performed in accordance with auditing standards (Corporate Auditor Auditing Regulations), the auditing policy, the division of tasks, and other considerations. In addition, the auditors check the performance of directors by receiving reports from directors and other corporate staff, and requesting an explanation if necessary. For financial audits, the auditors receive reports from the accounting auditor and use other means, including requesting an explanation if necessary, to verify the suitability of financial accounting methods and the results of these audits.

Note that the corporate auditors (including standing statutory and outside auditors) hold regular quarterly meetings with the outside directors in an effort to share information and opinions. To improve the effectiveness of corporate audits, and to ensure smooth execution of audit duties, one person is also assigned to assist the auditors.

Internal Auditing Division

The Internal Auditing Division, under the direct control of the president, comprises six full-time staff members. In addition to internal audits, this division offers suggestions, proposals, and advice for continuous improvement through evaluations of the effectiveness of internal controls in financial reporting.

Accounting Auditor

The accounting auditor conducts accounting audits of the Company from an impartial and independent standpoint. There were two certified public accountants who conducted the accounting audit of the Company in the fiscal year ended December 31, 2017: Yasuhiro Ohnaka and Masato Shoji, both of whom are designated limited liability partners and executive members of accounting auditor Deloitte Touche Tohmatsu LLC. Moreover, there were five other certified public accountants, two junior accountants, and 13 other people who assisted in conducting the Company’s accounting audit. The details of the remuneration of the Company’s certified public accountants (Deloitte Touche Tohmatsu LLC) for conducting the accounting audit during the fiscal year ended December 31, 2017 are as follows:
- Remuneration in relation to the services set forth in Article 2, Paragraph 1 of the Certified Public Accountants Act (Act No. 103 of 1948): ¥50 million

Legal Adviser, etc.

The Company has concluded advisory contracts with a number of law firms, and receives appropriate advice from legal advisors in situations requiring legal assessment.

Efforts to Invigorate the Shareholders’ Meeting and Facilitate Smooth Exercise of Voting Rights

To facilitate the exercise of voting rights by shareholders, we hold our General Meeting of Shareholders in March, when most other Japanese companies’ shareholder meetings are not hosted at the same time, set a period for reviewing the resolutions for approval by the meeting that is longer than the number of days required by law, and send our Notice of Convocation of the General Meeting of Shareholders out early (21 days (three weeks) before the day of the meeting). It is also published on our website ahead of time, four weeks before the day of the meeting.

To enable the shareholders in attendance to better understand the proceedings of the General Meeting of Shareholders, we use narrated video footage to report the items up for resolution. In addition, we also upload the Notice of Convocation, Notice of Resolution, and Results of the Exercise of Voting Rights to the General Meeting of Shareholders for disclosure on the Company website.
Cooperation between the Auditors, Internal Auditing Division and Accounting Auditor

**Internal Audit and Corporate Audit**

The auditors receive reports on the result of accounting audits and other work from the accounting auditor (auditing firm) four times a year. They also receive an explanation of the auditing plan from the accounting auditor once a year. In addition, the auditors also accompany the accounting auditor to the factory audits the accounting auditor conducts if necessary, as well as examine the auditing method of the accounting auditor. Apart from this, the auditors also exchange information and opinions with the accounting auditor as required.

**Relationship between internal audits, corporate audits, accounting audits and Internal Auditing Division and the internal control department**
The TOK Group's internal control department comprises divisions in charge of compliance and risk management in addition to the Internal Auditing Division, which is in charge of evaluating the effectiveness of internal control as it pertains to internal audits and financial reporting.

The Internal Auditing Division, as a part of the internal control department, reports the results of internal audits to the president, auditors and the relevant divisions. In addition, it provides the relevant divisions with suggestions, proposals and advice as required.

As for corporate audits, the auditors report the results of their corporate audits of directors’ execution of duties to the president and the accounting auditor (auditing firm). In conducting internal control audits, the auditors receive evaluation reports and other information from the internal control department as necessary.

The accounting auditor (auditing firm) reports the results of its accounting audits to the President and auditors. It also holds discussions with the internal control department to help them with internal control audits.

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Election of Outside Directors and Outside Auditors

The Company has eight directors, of whom two are outside directors, as well as four auditors, of whom three are outside auditors.

The Company has established the following criteria and policies regarding independence in the election of outside directors and outside auditors.

**Independence Standards for Outside Officers**

Independent outside officers under this criteria are defined as those who fulfill the legal requirements of an outside officer, and to whom any one of the following does not apply.

- a. A person who executes the business of the Company or its consolidated subsidiaries (the “Group”), or who did so for a period of 10 years before being appointed.
- b. A person/entity for which the Group is a major client (Note 1), or who executes the business of such a person/entity.
- c. A major customer of the Group (Note 2) or a person who executes the business of such customer.
- d. A major lender of the Group (Note 3) or a person who executes the business of such lender.
- e. A person who, apart from receiving officer compensation from the Group, belongs to a consulting, accounting, or legal firm (corporate entity, cooperative, or other such group) receiving large amounts of cash or other assets (Note 4) from the Group.
- f. A person to whom the above b. through e. applied in the previous three years.
- g. A person who in the past three years has received donations from the Group averaging more than ¥2.0 million per year.
- h. Major shareholders of the Group (Note 5) or a person who executes the business of such shareholder.
- i. A person who executes the business of a company with a mutual relationship between outside officers. (Note 6)
- j. A person whose spouse or a relative within the second degree of kinship come under any one of above items a. through i.
- k. A person who has served a total of more than eight years as an outside officer.
- l. Regardless of the above provisions, a person for whom it is deemed likely that conflicts of interest will arise with the Company.

Notes:

1. A person/entity for which the Group is a major client, means a supplier that provides the Group with products or services, the amount of which transactions averaged more than ¥10.0 million per year over the past three years and represented more than 2% of the supplier’s consolidated annual revenue in the most recent fiscal year.
2. A major customer of the Group means a customer to which the Group provides products and services, the amount of which transactions averaged more than ¥10.0 million per year over the past three years and represented more than 2% of the Group’s consolidated annual revenue in the most recent fiscal year.
3. A major lender of the Group means a financial institution which has lent an amount equivalent to more than 2% of the Group’s consolidated total assets.
4. A large sum of cash or other assets, means assets that averaged more than ¥10.0 million per year over the past three years, and which in the most recent fiscal year had an economic value in excess of 2% of said consultant or accounting or legal expert’s consolidated annual revenue. (In the event the beneficiary of said assets is a corporation, association or other organization, then assets that averaged more than ¥10.0 million per year over the past three years and represented more than 2% of said consultant or accounting or legal expert’s consolidated annual revenue. (In the event the beneficiary of said assets is a corporation, association or other organization, then assets that averaged more than ¥10.0 million per year over the past three years, and which in the most recent fiscal year had an economic value in excess of 2% of said organization’s consolidated annual revenue).
5. Major shareholder, means a shareholder with a ratio of voting rights of more than 10%.
6. A mutual relationship between outside officers means a relationship in which a person who executes the business of the Group is also an outside officer at another company, and in which a person who executes the business of said outside company is also an outside officer of the Company.
### Reasons for the Election of Inside Directors

<table>
<thead>
<tr>
<th>Name</th>
<th>Reasons for election</th>
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<tbody>
<tr>
<td>Ikuo Akutsu</td>
<td>Since assuming the position of Representative Director, President and Chief Executive Officer, Akutsu has led the management of the TOK Group (“the Group”) as its top executive and contributed to the Group’s further development through the measures in the Medium-Term Plan. Thus, Akutsu can be expected to continue contributing to the management of the Company.</td>
</tr>
<tr>
<td>Harutoshi Sato</td>
<td>Sato has held important positions in the Group, serving in such roles as representative at the U.S. subsidiary, person responsible for quality assurance, and person responsible for product development before assuming the position of Department Manager, Research and Development Dept. Owing to this experience, he is well acquainted with the Company’s business characteristics and customers and consequently possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Sato can be expected to continue contributing to the management of the Company.</td>
</tr>
<tr>
<td>Kunio Mizuki</td>
<td>Assuming the position of Department Manager of the General Affairs Div. Mizuki has been working to strengthen corporate governance, including development of the information management system, the contingency management system, and the compliance system as well as improvement of investor relations. Furthermore, through his experience with the business operations in his charge, he possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Mizuki can be expected to continue contributing to the management of the Company.</td>
</tr>
<tr>
<td>Nobuo Tokutake</td>
<td>Tokutake has held important positions in the Group, serving in such roles as representative at the U.S. subsidiary, and Chairman and President of the Taiwanese subsidiary before assuming the position of Department Manager, Manufacturing Department. Owing to this experience, he is well acquainted with the Company’s business characteristics and customers and consequently possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Tokutake can be expected to continue contributing to the management of the Company.</td>
</tr>
<tr>
<td>Keiichi Yamada</td>
<td>Yamada has knowledge and rich experience in product development, sales and marketing, which he developed in previous positions. In addition, since joining the Company he has mainly been engaged in sales and marketing of mainstay products and is well acquainted with the electronic materials industry and characteristics and customers of the Company’s business based on such roles as Department Manager of the Marketing Dept. Furthermore, he possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Yamada can be expected to continue contributing to the management of the Company.</td>
</tr>
<tr>
<td>Noriaki Taneichi</td>
<td>Taneichi has held important positions in the Group, serving in such roles as representative at the U.S. subsidiary, person in charge of the sale and marketing of mainstay products, and person responsible for new business development before assuming the position of Department Manager, New Business Development Dept. Owing to this experience, he is well versed in not only the Company’s existing business areas, but also in new business areas, and consequently possesses necessary and sufficient knowledge of such matters as important decision-making by the Board of Directors and supervision of duties executed by other Directors. Thus, Taneichi can be expected to continue contributing to the management of the Company.</td>
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### Reasons for the Election of Outside Directors

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<thead>
<tr>
<th>Name</th>
<th>Reasons for election</th>
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<tbody>
<tr>
<td>Hiroshi Kurimoto</td>
<td>Kurimoto was elected on the expectation that he would continue supervising TOK’s management from an objective and neutral point of view, based on his abundant experience and considerable insight as a business executive of a listed company, and contribute to strengthening corporate governance by advising the Company on management in general.</td>
</tr>
<tr>
<td>Noriko Sekiguchi</td>
<td>Sekiguchi was elected to contribute to corporate governance and TOK’s management from an objective and neutral point of view continuously, based on her professional expertise in accounting and abundant hands-on business experience with several companies as a certified public accountant, and her thorough understanding of internal control, including from her experience as a member of external committees investigating fraudulent accounting at numerous listed companies, and advise the Company on management in general.</td>
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### Reasons for the Election of Outside Auditors

<table>
<thead>
<tr>
<th>Name</th>
<th>Reasons for election</th>
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</thead>
<tbody>
<tr>
<td>Hiroshi Saito</td>
<td>Saito was elected to contribute to auditing TOK’s management from an objective and neutral point of view, based on his abundant experience and considerable insight as a business executive including at financial institutions. Saito was once a business executive with Mitsubishi UFJ Trust and Banking Corporation, which owns stock in TOK and conducts cash deposit, stock administration agent and other transactions with the Company under routine and standard business conditions. However, these capital and business relationships were deemed not to affect Saito’s independence as an outside auditor of TOK.</td>
</tr>
<tr>
<td>Kazumasa Fukada</td>
<td>Fukada was elected to contribute to auditing TOK’s management from an objective and neutral point of view, based on his abundant experience and considerable insight as a business executive including at financial institutions. Fukada was once a business executive with Tokio Marine &amp; Nichido Fire Insurance Co., Ltd., which owns stock in TOK and conducts insurance transactions with the Company under routine and standard business conditions. However, these capital and business relationships were deemed not to affect Fukada’s independence as an outside auditor of TOK.</td>
</tr>
<tr>
<td>Koichiro Takahashi</td>
<td>Takahashi was elected to contribute to auditing TOK’s management from an objective and neutral point of view, based on his abundant experience and considerable insight as a business executive including at financial institutions. Takahashi was once a business executive with Meiji Yasuda Life Insurance Company, which owns stock in TOK and conducts insurance transactions with the Company under routine and standard business conditions. However, these capital and business relationships were deemed not to affect Takahashi’s independence as an outside auditor of TOK.</td>
</tr>
</tbody>
</table>
The Main Activities of Outside Directors and Outside Auditors

<table>
<thead>
<tr>
<th>Name</th>
<th>Attendance record and activities at Board of Directors and Auditors meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiroshi Kurimoto</td>
<td>Kurimoto attended all 11 of the 11 Board of Directors meetings (attendance rate 100%) held during the fiscal year ended December 2017. He voiced timely opinions as required when discussing resolutions, based on his broad experience and abundant expertise as a business executive.</td>
</tr>
<tr>
<td>Noriko Sekiguchi</td>
<td>Sekiguchi attended all 11 of the 11 Board of Directors meetings (attendance rate 100%) held during the fiscal year ended December 2017. She voiced timely opinions as required when discussing resolutions, based on her professional expertise in accounting and abundant hands-on business experience with several companies as a certified public accountant.</td>
</tr>
<tr>
<td>Hiroshi Saito</td>
<td>Saito attended all 11 of the 11 Board of Directors meetings (attendance rate 100%) and all 10 of the 10 Board of Auditors meetings (attendance rate 100%) held during the fiscal year ended December 2017. He voiced and raised timely opinions and questions as required at the meetings, based on his abundant experience including at financial institutions.</td>
</tr>
<tr>
<td>Kazumasa Fukada</td>
<td>Since he was elected on June 28, 2017, Fukada attended all 8 of the 8 remaining Board of Directors meetings (attendance rate 100%) and all 7 of the 7 remaining Board of Auditors meetings (attendance rate 100%) held during the fiscal year ended December 2017. He voiced and raised timely opinions and questions as required at the meetings, based on his broad experience including at a financial institution, and his abundant expertise as a business executive.</td>
</tr>
<tr>
<td>Koichiro Takahashi</td>
<td>Since he was elected on June 28, 2017, Takahashi attended 7 of the 8 remaining Board of Directors meetings (attendance rate 88%) and all 7 of the 7 remaining Board of Auditors meetings (attendance rate 100%) held during the fiscal year ended December 2017. He voiced timely opinions as required when discussing resolutions, based on his abundant experience with several companies as a certified public accountant.</td>
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</tbody>
</table>

The Major Decisions and Agenda of Board of Director Meetings
in the Fiscal Year Ended December 2017

- Enhanced manufacturing equipment for high-purity chemicals mainly used in the cutting-edge miniaturization process in semiconductor manufacturing (TOK TAIWAN)
- Enhanced quality control mainly for the cutting-edge miniaturization process in semiconductor manufacturing (TOK Advanced Materials, South Korea)
- Invested in R&D for cutting-edge products (Equipment Business, Shonan Operation Center)
- Confirmed progress on plans for new R&D Building (to be completed in 2019 at the Sagami Operation Center)

- Confirmed progress on TOK Medium-Term Plan 2018
- Decided to implement share buybacks
- Confirmed policy for balance sheet management, etc.
- Confirmed progress on Group Management System (GMS) Project
- Reviewed measures for environment/occupational health and safety and reinforced measures at domestic and overseas business sites
- Reviewed and strengthened measures for employee training programs

Remuneration of Directors and Auditors

TOK's guidelines for remunerating its directors and auditors are as follows. The guidelines focus mainly on complying with laws and regulations and maintaining sound management, while also seeking to set remuneration at a level that satisfies the expectations of shareholders and other stakeholders by increasing earnings and corporate value.

Directors’ Remuneration

Directors’ remuneration consists of a fixed salary as base remuneration, a bonus linked to financial performance in the fiscal year, and stock options linked to results, enhancement of corporate value and stock price performance as an incentive to enhance drive and motivation to increase the stock price.

The fixed salary is decided and paid within the remuneration framework approved at the General Meeting of Shareholders (of within ¥420 million per year), based on specific standards established by the Company’s Board of Directors.

Bonuses are set within the above-mentioned remuneration framework (of within ¥420 million per year). The Board of Directors decides whether or not to pay bonuses, and the amount of bonuses to be paid, after taking into consideration the performance of the Company and the individual director.

Incentives Granted to Directors

- Stock compensation-type stock options

Stock compensation-type stock options were set as a part of the above-mentioned remuneration framework (of within ¥420 million per year) when revisions to TOK’s remuneration system were approved by the Ordinary General Meeting of Shareholders. Based on certain standards set forth by TOK, the Board of Directors decides the amount of fixed salary of each director to be replaced by stock compensation-type stock options. This is done to bolster morale and motivate each director to raise the corporate value of TOK by contributing to an increase in earnings, and thereby the stock price of TOK, over the long term. Outside directors do not receive stock compensation-type stock options (subscription warrants) in consideration of their roles.
Compliance System

Based on its compliance regulations, the Group’s Compliance Committee meets, and provides a summary of the Committee’s activities to the Board of Directors. They meet to improve the group compliance system, including establishing a reporting system for internal reporting from overseas subsidiaries to TOK.

Risk Management System

Based on its risk management regulations, the Group’s Risk Management Committee meets, and a summary of the Committee’s activities is provided to the Board of Directors. TOK and domestic subsidiaries conduct periodical reviews of Business Continuity Plan (BCP) and initial action guidelines, and overseas subsidiaries conduct periodical reviews of initial action guidelines.

Based on its financial risk management regulations, the status of Group internal financial risk is reported to the Board of Directors, with annual policies for responding to that risk decided by the Board.

Business Execution Reporting and Other Group Internal Control Systems

Based on its subsidiary management regulations, the Company receives monthly business reports from its subsidiaries. In addition, a report on overseas subsidiaries is presented to the Board of Directors annually. To ensure cohesion with its subsidiaries, the Company has established policies and regulations with the goal of enhancing the Group’s corporate value, and has started to operate this system. Based on the basic policies regarding internal controls related to financial reporting, internal control assessments are conducted annually, the results of which are reported to the Internal Control Committee, with a summary provided to the Board of Directors.

Auditors’ Remuneration

Auditors are responsible for supervising and auditing business duties executed by the directors, in a position that is independent of the Board of Directors. They receive only a basic remuneration in the form of a basic salary, which is decided on and paid out following discussions among the auditors, within a remuneration framework (of within ¥72 million per year) approved by the General Meeting of Shareholders.

Remuneration Totals Paid to Directors and Auditors (Fiscal Year Ended December 2017)

<table>
<thead>
<tr>
<th>Position</th>
<th>Total remuneration (Millions of yen)</th>
<th>Stock options</th>
<th>Bonuses</th>
<th>Number of eligible personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors (Excluding outside directors)</td>
<td>129</td>
<td>102</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Auditors (Excluding outside auditors)</td>
<td>16</td>
<td>16</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Outside directors and auditors</td>
<td>35</td>
<td>34</td>
<td>—</td>
<td>0</td>
</tr>
</tbody>
</table>
Corporate Governance

Retrieval and Management of Information
- Based on the basic regulations for information management, the Information Management Committee meets with a summary of its activities provided to the Board of Directors.
- Based on the document organization and retention regulations, retention periods have been established by type for minutes of the Board of Directors, approval forms and other important information related to decision-making, and such documents are appropriately retained and managed. Moreover, the Company and domestic subsidiaries revise document organization and retention regulations to improve retention and management.

Reinforce Information Management Structure
For TOK, which engages in R&D in cutting-edge semiconductor fields under its strategy of building close relationships with its customers, a solid information management structure is one of the most important aspects of risk management.
Positioning information management as an important corporate governance issue, the Group is working to steadily implement an information management scheme based on the Information Management Policies, and to continuously reinforce that scheme. During the year ended December 31, 2017, we enhanced information management by various working groups with the aim of maintaining, managing, and improving the information management structure.

A PDCA cycle is in place to ensure information security and is implemented at a higher degree of intensity.

Information Management Structure

Information Management Initiatives of Working Groups
Based on our information management policy, the Information Management Committee has set up the following working groups (WG) as a part of the PDCA cycle for information management.
- Trade Secrets WG
- Training and Compliance with Rules WG
- Human Resources-Related WG
- IT Development WG
- Physical Security WG

Information Management Audits by the Internal Auditing Division
The Internal Auditing Division, which is independent of the Information Management Committee, regularly audits compliance with rules and other matters, and reports the results to the president. If there are problems, improvement orders are issued to the audited divisions and the Information Management Committee. In this way the division works to continuously improve our information management system.

Physical Security Measures

At major domestic and overseas production bases, applying a blindfold sticker on mobile phone cameras is mandated.
The TOK Group’s value creation has continued expanding within and outside of Japan. Since 2015, we have focused on the Group Management System as a way to tie this to steady enhancement of sustainable corporate value. The two-year project phase has finished and, moving forward, we will shift to the fixing phase where the projects results will become established aspects of the TOK Group’s overall global structures and frameworks.

Unified policies and regulations, etc., for the entire TOK Group, in Japan and overseas, were produced to outline management functions for each of the aforementioned 12 GMS fields. These have been codified under the TOK Group Documents, and global operations started on October 1, 2017.

Every fiscal year the TOK Group formulates a GMS action plan based on risks, issues, results of self-evaluations and more, and has built a framework for the Board of Directors to review the results of those activities.

TOK newly established the GMS Committee under the direct control of the president to maintain TOK Group common rules and improve continuously. We will shift to the GMS fixing phase based on the participation of all officers and employees.
IR Activities/SR Activities

Dialogue with Shareholders and Investors
The Director, Executive Officer, Department Manager of General Affairs Dept. is responsible for managing and controlling investor relations (IR), and through meetings on business results, meetings with institutional investors, company orientations for individual investors and a variety of other efforts, works to be proactive in achieving a constructive dialogue.

The Public Relations Division serves as the department responsible for TOK’s IR with regard to dialogue with shareholders and investors, and is primarily responsible for facilitating that dialogue, exchanging information with our accounting, sales, legal and other departments as needed and maintaining a coordinated collaboration. The department in charge of IR also works to provide the top management and relevant officers with records of meetings with analysts, shareholders and investors, and to share information.

Main IR activities in FY2017/12

<table>
<thead>
<tr>
<th>Activity</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business results meetings for institutional investors/analysts</td>
<td>2</td>
</tr>
<tr>
<td>Individual meetings with institutional investors/analysts</td>
<td>137</td>
</tr>
<tr>
<td>Financial results briefings for individual investors</td>
<td>8</td>
</tr>
</tbody>
</table>

IR Activities
TOK conducts proactive IR activities, centered primarily on the Public Relations Division, in an effort to enhance our dialogue with shareholders and investors. Specifically, we hold events including biannual meetings on business results, company orientations for individual investors, as well as tours of our facilities. Our CSR reports, annual reports, business reports to shareholders, and Notice of The Convocation of The Ordinary General Meeting of Shareholders are all published on our website, part of our proactive effort to provide shareholders and investors with the information they need.

Records of opinions and requests from shareholders and investors that reach us through this dialogue are collected and regularly reported to the president and other management, and we work to ensure that information is understood and shared.

In accordance with our Compliance Standards of Conduct, TOK also makes an effort to provide its shareholders and investors with consistent information, and to offer fair and timely disclosure. We have also established internal regulations regarding management of insider information, and strive to ensure those regulations are closely followed.

Anti-takeover Measures
TOK has adopted anti-takeover measures. Please refer to our website for more information.

Complying with various Principles of the Corporate Governance Code

(Principle 1.4) Cross-shareholdings
(1) Policies regarding cross-shareholdings
Given that our business centers primarily on cutting-edge fields in the electronics market, and that we are expanding our business domains, we believe that maintaining and developing smooth relationships with our business partners is essential to achieving sustainable growth in the medium- to long-term. For that reason, we may at times acquire and own shares in the companies we do business with.

Our basic policy is that such acquisition and ownership will target shares of those business partners through which such ownership will enable us to strengthen relationships, thus leading to sustained enhancement in corporate value. At the same time, the Board of Directors regularly reviews these cross-holdings in terms of whether they are fulfilling their role and purpose, and determines whether to continue holding them or sell them off.

*This Annual Report is the first issue since the shift in fiscal year-end to December, which took place in the year ended December 31, 2017 (irregular fiscal period). Consequently, these pages contain information related to the Corporate Governance Code before it was revised in June 2018.

We are still examining the response to the Corporate Governance Code since its revision, and we plan to cover that response in future publications, including the Annual Report.
(2) Criteria for exercising voting rights
In exercising voting rights with regard to cross-shareholdings, we not only look at whether such exercise will contribute to improving the corporate value of the business partner in question, but also determine whether to approve such measures based on comprehensive consideration for maintaining our rights as a shareholder and of the objectives of the cross-shareholding.

**Principal 1.7** Related Party Transactions
When engaging in transactions with its officers, major shareholders and others (i.e., related party transactions), TOK considers the rationality of pricing and other transaction terms as it would in third party transactions, to ensure that such transactions do not harm the common interests of the Company and its shareholders. At the same time, in compliance with legal provisions and our own internal regulations, particularly important transactions are presented to the Board of Directors for their approval.

**Principal 3.1** Full Disclosure
(1) Company objectives (e.g. business principles), business strategies and business plans
   → See the first page “Management Principles”; page 7 “A Strategy of Building Close Relationships with Customers”; pages 18-24 “A Message from the President” and page 25 “Initiatives to Enhance Medium- to Long-Term Corporate Value”
(2) Basic views and guidelines on corporate governance
   → See page 59 “Basic Concept”
(3) Board policies and procedures in determining the remuneration of the senior management and directors
   → See page 64-65 “Remuneration of Directors and Auditors”
(4) Board policies and procedures in the appointment of senior management the nomination of director and auditor candidates
   a. Policies and procedures in the appointment of senior management and the nomination of director candidates
      Once a year, the president prepares a draft used in determining senior management and director personnel issues (e.g. elections and dismissals), based on consideration of the Group’s performance, the contribution of senior management and directors to the medium-term plan and the previous fiscal year’s budget, and a self-assessment by the Board of Directors. Outside directors are briefed on this draft in advance, and provide advice as required. The Board of Directors then decides on a resolution to the General Meeting of Shareholders based on said draft.
   b. Policies and procedures in the nomination of auditor candidates
      In nominating auditor candidates, the president will, (a) in the case of auditors nominated from within the Company, consider the knowledge, experience and capabilities gained by the individual through execution of their duties within the Company, and, (b) in the case of outside auditors, will consider their independence, objectivity, and the knowledge, experience and capabilities gained through execution of their duties outside the Company. The president will then prepare a draft proposal for the Board of Auditors. Upon the consent of the Board of Auditors, the Board of Directors then decides on a resolution to the General Meeting of Shareholders.
(5) Explanations with respect to the individual appointments of senior management and nominations of director and auditor candidates based on (4)
   → Refer to page 63 “Reasons for the Election of Directors and Auditors” for information on the reasons for election directors and auditors.

**Supplementary Principle 4.1.1**
Based on the Board of Directors regulations, the Company’s Board of Directors decides on matters prescribed by laws and regulations, the Articles of Incorporation, and other matters concerning the execution of important business. Decision-making involving execution of business other than matters to be decided by the Board of Directors is delegated, as appropriate, to the Committee of Officers, the representative director, the directors and the officers, and those matters are clearly set forth in the Committee of Officers regulations and the Specific Authority by Position.

**Principle 4.9** Independence Standards and Qualification for Independent Directors
   → See page 62 “Independence Standards for Outside Officers”

**Supplementary Principle 4.11.1**
(1) Policies for appointment of director candidates and approach to composition of the Board of Directors
   Internal director candidates are chosen from among officers and others responsible for overall management, based on a comprehensive consideration of numerous factors, including diverse, advanced skills, knowledge and actual performance. Outside director candidates are also evaluated for similar factors, with appointments focusing on those with extensive experience at listed companies and wide-ranging knowledge in management, or from among experts with a thorough understanding of legal affairs, finances, accounting, internal control systems and other areas. We also select those who can devote sufficient time and effort as required by their duties, and who meet the standards for independence prescribed by TOK and the Tokyo Stock Exchange. With regard to the diversity and size of the Board of Directors, we strive for a balanced composition, with internal directors selected for their thorough understanding of areas including sales, development, and manufacturing, as well as whether they are newly appointed or reappointed, their experience and past performance. We also ensure diversity by bringing in multiple outside directors of differing backgrounds, knowledge and expertise. Our policy is to maintain a Board of appropriate size that will contribute to quick, bold decision-making in a manner commensurate with our business.
(2) Procedures for appointing director candidates
   Based on the above policy, the president prepares a draft appointment of director candidates. Outside directors are briefed on this draft in advance and provide advice as required. The draft is then voted on by the Board of Directors and presented as a resolution to the General Meeting of Shareholders.

**Supplementary Principle 4.11.2**
Directors serving in other important positions
   → See pages 70–71 “Board of Directors/Corporate Auditors and Officers”

**Supplementary Principle 4.11.3**
Board of Directors evaluation
   → See page 60 “Assessment of the Effectiveness of the Board of Directors”

**Supplementary Principle 4.14.2**
TOK offers its outside officers opportunities to gain knowledge of the TOK Group’s business, structure, management strategy and financial condition, as well as opportunities to deepen their understanding of the TOK Group through participation in internal meetings and visits to our plants and so forth. Upon appointment, inside officers are offered opportunities to learn their legal obligations and responsibilities as fiduciaries, as well as to recognize the attitudes and roles expected of them as officers, and to acquire the knowledge they need to appropriately execute those obligations and roles.

**Principle 5.1** Policy for Constructive Dialogue with Shareholders
   → See page 68 “IR Activities/SR Activities”
Corporate Governance

Board of Directors/Corporate Auditors and Officers

Directors

Ikuo Akutsu
Representative Director, President & Chief Executive Officer
1982 Joined the Company
2003 General Manager, Manufacturing Technology Div.
2005 General Manager, Advanced Material Development Div. 2
2007 Chairman and President of TOK TAIWAN CO., LTD.
2009 Officer; Dept. Manager, Corporate Planning Dept.
2010 Director; Executive Officer; Dept. Manager, Corporate Planning Dept.
2011 Representative Director, President and Chief Executive (to the present)

Harutoshi Sato
Director, Executive Officer
Dept. Manager, Research and Development Dept.
1984 Joined the Company
2004 General Manager, Quality Assurance Div.
2007 General Manager, Advanced Material Development Div. 2
2009 General Manager, Advanced Material Development Div. 1
2010 Director; Executive Officer; Dept. Manager, Advanced Material Development Div. 2
2011 Director; Dept. Manager, Research and Development Dept.
2017 Director; Executive Officer; Dept. Manager, Research and Development Dept. (to the present)

Kunio Mizuki
Director, Executive Officer
Dept. Manager, General Affairs Dept.
1985 Joined the Company
2005 General Manager, General Affairs Div.
2009 Officer; Dept. Manager, Administration Dept. and General Manager, General Affairs Div.
2012 Officer; Dept. Manager, General Affairs Div.
2013 Director; Officer; Dept. Manager, General Affairs Dept.
2017 Director; Executive Officer; Dept. Manager, General Affairs Dept. (to the present)

Nobuo Tokutake
Director, Officer
Dept. Manager, Manufacturing Dept.
1984 Joined the Company
2003 Chairman and President of TOK TAIWAN CO., LTD.
2007 General Manager, Quality Assurance Div.
2009 Senior General Manager, Production Control Div. and General Manager, Quality Assurance Div.
2013 Officer; Dept. Manager, Manufacturing Dept.
2015 Director; Officer; Dept. Manager, Manufacturing Dept. (to the present)

Keiichi Yamada
Director, Officer
Dept. Manager, Marketing Dept.
1983 Joined Japan Synthetic Rubber Co., Ltd. (present JSR Corporation)
2001 General Manager, Kyushu Office of JSR Corporation
2002 Business Director of Shipley Far East Ltd. (present Rohm and Haas Electronic Materials K.K.)
2004 General Manager, Japan of Rohm and Haas Electronic Materials K.K.
2008 Senior Deputy General Manager, Electronic Material Marketing Control Div. of the Company
2012 Dept. Manager, Marketing Dept. of the Company
2013 Officer; Dept. Manager, Marketing Dept. of the Company
2016 Director, Officer; Dept. Manager, Marketing Dept. (to the present)

Noriko Sekiguchi
Outside Director
(Representative of Sekiguchi CPA Office)
1986 Joined Manufacturers Hanover Bank (present JPMorgan Chase Bank, N.A.)
1987 Joined Akari Shimpai Kakucho audit corporation (present KPMG AZSA LLC)
1994 Registered as certified public accountant
1999 Joined Japan Broadcasting Corporation
2001 Joined Triumph International (Japan) Ltd.
2004 Registered as certified tax accountant
2006 Registered as certified public accountant
2007 Representative of Sekiguchi CPA Office (to the present)
2011 Contract Monitoring Committee Member of Japan International Cooperation Agency (“JICA”) (to the present)
2011 External Assessment Committee Member of JICA (to the present)
2012 Registered as certified tax accountant
2015 Director (Outside Director) of the Company (to the present)

Hiroshi Kurimoto
Outside Director
(Representative of Sekiguchi CPA Office)
1950 Joined OILES CORPORATION (“OILES”)
1989 Director of OILES
2000 Director; Managing Operating Officer of OILES
2008 Representative Director, President and Chief Operating Officer of OILES
2011 Representative Director and Chairman of OILES
2014 Director (Outside Director of the Company) (to the present)
Director and Senior Advisor of OILES
2016 Executive Advisor of OILES

Noriaki Taneichi
Director, Officer
Dept. Manager, New Business Development Dept.
1986 Joined the Company
2015 Officer; Dept. Manager, New Business Development Dept.
2017 Director; Officer; Dept. Manager, New Business Development Dept. (to the present)

70

TOKYO OHKA KOGYO CO., LTD.
Auditors

Hajime Fujishita
Standing Statutory Auditor

- 1983 Joined the Company
- 2003 General Manager, Utsunomiya Plant
- 2004 General Manager, Aso Plant
- 2005 General Manager, Manufacturing Technology Div.
- 2009 Officer (Chairman and President of TOK TAIWAN CO., LTD.)
- 2012 Officer, Dept. Manager, Process Equipment Manufacturing Dept.
- 2016 Standing Statutory Auditor (to the present)

Kazumasa Fukada
Outside Auditor

- 2002 Branch Manager of Nagano Branch, Chubu and Hokuriku Headquarters of TMFI
- 2005 General Manager of Tokyo Automotive Sales Div. 4 of Tokio Marine & Nichido Fire Insurance Co., Ltd. ("TMNF")
- 2007 Associate Director, General Manager of Tokyo Automotive Sales Div. 4 of TMNF
- 2008 Executive Officer, General Manager of Head Office Sales Dept. 2 of TMNF
- 2010 Managing Director of TMNF
- 2011 Managing Director, General Manager of Tokyo Automotive Sales Div. 1 of TMNF
- 2013 Managing Director of TMNF
- 2017 Advisor of Tokio Marine & Nichido Fire Insurance Co., Ltd. (to the present)

Hiroshi Saito
Outside Auditor

- 1974 Joined Mitsubishi Trust and Banking Corporation ("MTB," present Mitsubishi UFJ Trust and Banking Corporation)
- 1998 Manager, Foreign Exchange and Money Market Div. of MTB
- 2000 Manager, Asset Management Div. 2 of MTB
- 2002 Manager, Investment Planning Div. of MTB
- 2002 Officer and Manager, Investment Planning Div. of MTB
- 2004 Officer and Manager of Kyushu Branch of MTB
- 2006 Representative Director and Managing Director of Mitsubishi UFJ Trust and Banking Corporation
- 2007 Representative Director and Senior Managing Director of Mitsubishi UFJ Financial Group, Inc.
- 2011 Representative Director and President of Mitsubishi UFJ Trust Investment Technology Institute Co., Ltd. ("MTEC")
- 2012 Corporate Auditor (Outside Corporate Auditor) of Maruhan Showa Uiyu Co., Ltd.
- 2014 Advisor of MTEC
- 2015 Auditor of the Company (Outside Auditor) (to the present)

Koichiro Takahashi
Outside Auditor

- 1978 Joined Meiji Life Insurance Company ("MLI") (present Meiji Yasuda Life Insurance Company)
- 2000 General Manager, Marketing Development Dept. of MLI
- 2001 General Manager, Marketing Planning & Research Dept. of MLI
- 2002 General Manager of Nagoya Branch of MLI
- 2005 Executive Officer, General Manager of Human Resources Dept. of Meiji Yasuda Life Insurance Company ("MYLI")
- 2006 Corporate Executive Officer, General Manager of Human Resources Dept. of MYLI
- 2008 Managing Executive Officer, Chief General Manager of Nagoya Headquarters of MYLI
- 2009 Managing Executive Officer, Chief General Manager of Retail Sales Dept. of MYLI
- 2012 Senior Managing Executive Officer, Chief General Manager of Retail Sales Dept. of MYLI
- 2014 President and CEO of MYLI Co., Ltd.
- 2016 Chairman of the Board of Meiji Yasuda System Technology Company Limited
- 2017 Auditor of the Company (Outside Auditor) (to the present)
- 2018 Auditor of Meiji Yasuda Institute of Life and Wellness, Inc. (to the present)

Officers

Yoichi Shibamura
Senior Executive Officer Dept. Manager, Accounting and Finance Dept.

Yuichi Murakami
Officer Dept. Manager, Manufacturing Dept.

Yoshio Hagiwara
Senior Executive Officer Dept. Manager, Corporate Planning Dept.

Kousuke Doi
Office President, TOKYO OHKA KOGYO AMERICA, INC.

Koichi Irino
Executive Officer Chairman and President of TOK TAIWAN CO., LTD.

Tsukasa Honkawa
Office Dept. Manager, Process Equipment Manufacturing Dept.

Jun Jang
Office President, TOK Advanced Materials Co., Ltd.

Naoki Watanabe
Office Dept. Manager, Marketing Dept.

Kazufumi Sato
Office Director Dept. Manager, Research and Development Dept.
## 10-Year Financial Summary

* The fiscal year ended December 31, 2017, was an irregular nine-month period due to a change in fiscal year-end.

### Fiscal years ended March 31 and fiscal year ended December 31

<table>
<thead>
<tr>
<th></th>
<th>2009/3</th>
<th>2010/3</th>
<th>2011/3</th>
<th>2012/3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Results of operation:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net sales</td>
<td>83,850</td>
<td>70,645</td>
<td>80,016</td>
<td>80,037</td>
</tr>
<tr>
<td>Material Business</td>
<td>72,589</td>
<td>65,091</td>
<td>71,482</td>
<td>66,645</td>
</tr>
<tr>
<td>Equipment Business</td>
<td>11,350</td>
<td>5,632</td>
<td>8,622</td>
<td>13,500</td>
</tr>
<tr>
<td>Operating income (loss)</td>
<td>(1,367)</td>
<td>364</td>
<td>6,123</td>
<td>6,102</td>
</tr>
<tr>
<td>Income (loss) before income taxes</td>
<td>(5,325)</td>
<td>114</td>
<td>6,427</td>
<td>6,577</td>
</tr>
<tr>
<td>Profit (loss) attributable to owners of the parent</td>
<td>(4,656)</td>
<td>254</td>
<td>3,649</td>
<td>3,818</td>
</tr>
<tr>
<td>Free cash flow</td>
<td>8,493</td>
<td>6,504</td>
<td>12,435</td>
<td>(6,641)</td>
</tr>
<tr>
<td>Investment in plant and equipment</td>
<td>3,270</td>
<td>1,320</td>
<td>1,699</td>
<td>3,162</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>7,297</td>
<td>5,418</td>
<td>4,393</td>
<td>4,038</td>
</tr>
<tr>
<td>R&amp;D costs</td>
<td>8,542</td>
<td>6,949</td>
<td>6,360</td>
<td>6,157</td>
</tr>
</tbody>
</table>

### Per share data (Yen/U.S. Dollars):

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic profit (loss)</td>
<td>(102.00)</td>
<td>5.66</td>
<td>81.08</td>
<td>84.86</td>
</tr>
<tr>
<td>Cash dividends applicable to the year</td>
<td>35.00</td>
<td>30.00</td>
<td>33.00</td>
<td>38.00</td>
</tr>
<tr>
<td>Net assets</td>
<td>2,591.43</td>
<td>2,578.30</td>
<td>2,597.72</td>
<td>2,641.28</td>
</tr>
</tbody>
</table>

### At the year-end:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>139,338</td>
<td>138,122</td>
<td>147,085</td>
<td>138,767</td>
</tr>
<tr>
<td>Total long-term liabilities</td>
<td>2,205</td>
<td>2,350</td>
<td>2,105</td>
<td>2,613</td>
</tr>
<tr>
<td>Interest-bearing debt</td>
<td>458</td>
<td>57</td>
<td>0</td>
<td>610</td>
</tr>
<tr>
<td>Net assets</td>
<td>118,377</td>
<td>117,658</td>
<td>118,567</td>
<td>119,590</td>
</tr>
</tbody>
</table>

### Key performance indicators (%):

<table>
<thead>
<tr>
<th></th>
<th>(1.6)</th>
<th>0.5</th>
<th>7.7</th>
<th>7.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating margin</td>
<td>(3.8)</td>
<td>0.2</td>
<td>3.1</td>
<td>3.3</td>
</tr>
<tr>
<td>ROE</td>
<td>10.2</td>
<td>9.8</td>
<td>7.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Ratio of R&amp;D costs to net sales</td>
<td>83.7</td>
<td>84.0</td>
<td>79.5</td>
<td>85.1</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Debt-to-equity (Times)</td>
<td>—</td>
<td>530.0</td>
<td>40.7</td>
<td>44.8</td>
</tr>
</tbody>
</table>

### Industry trend:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Worldwide semiconductor market ( Millions of U.S. dollars)</td>
<td>226,313</td>
<td>298,315</td>
<td>299,521</td>
<td>291,562</td>
</tr>
<tr>
<td>Worldwide photoresists sales (Thousands of U.S. dollars)</td>
<td>897,827</td>
<td>1,129,893</td>
<td>1,220,078</td>
<td>1,279,706</td>
</tr>
</tbody>
</table>

### Urgent business profitability and structural reforms

- **Measures to cope with new business environment:**
  - Cost reduction
  - Establishment of low-cost structure

  Lehman Shock (September 2008)

### Rebirth of TOK

- **Direction:**
  - Enhance marketing capabilities on a global basis
  - Further speed up technology development
  - Launch new business promptly
  - Accelerate global strategy and expand worldwide market share

- **Recorded first operating loss since going public:**
  - Brought operating income back into the black one year later

### Notes:

*1 Source: World Semiconductor Trade Statistics  
*2 Source: SEMI (Total sales of ArF and KrF excimer laser and g- and i-Line photoresists)  
*4 Forecast-based amount for 2018  
*4 As of the end of each fiscal year
### Shifted our focus to new business growth:

**Achieved record-high operating income in the fiscal year ended March 31, 2015**

<table>
<thead>
<tr>
<th>Period</th>
<th>Millions of yen</th>
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<tbody>
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<td>2015/3</td>
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<td>1,177,007</td>
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**Material Business:**

Segment net sales achieved a record high

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</tr>
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<td>80,532</td>
</tr>
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<td>2017/12</td>
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<td>81,364</td>
</tr>
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</table>

**Long-term management vision for fiscal 2020:**

Aim to be a globally trusted corporate group by inspiring customers with high value-added products

**Strategies:**

- Reform business portfolios
- Evolve strategy of building close relationships with customers
- Develop global personnel
- Strengthen management foundation

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—FY2017/12 Market Trends, Results of Operations, Financial Position, and FY2018/12 Performance Outlook—

Change in Fiscal Year-End
At the 87th Ordinary General Meeting of Shareholders held on June 28, 2017, the Company’s proposal of partial amendments to the Articles of Incorporation was approved. From the fiscal year ended December 31, 2017, the end of the fiscal year has changed from March 31 to December 31, and subsidiaries that ended their fiscal years in March have also changed their fiscal years to December. Accordingly, the transition period of the fiscal year ended December 31, 2017 is an irregular nine-month period (from April 1, 2017 to December 31, 2017) for TOK and its subsidiaries that closed their books in March, and a regular 12-month period (from January 1, 2017 to December 31, 2017) for subsidiaries that closed their books in December. To facilitate year-on-year comparisons, the results of the previous fiscal year have been adjusted to align with the current fiscal year.

Business Environment
In the fiscal year ended December 31, 2017, the global economy overall continued to make a recovery. The Chinese economy began to strengthen again, while economic recovery continued in Europe and the U.S. The Japanese economy maintained a moderate recovery trend overall, with a turnaround in consumer spending amid ongoing improvement in employment and income conditions while corporate earnings rebounded.

On foreign exchange markets, the yen averaged ¥110.1 against the U.S. dollar with some fluctuation seen from April to September, and then stabilizing around a yen depreciation trend from October. As a result, the average exchange rate for the full year was about ¥5 weaker than the same period in the previous year.

Net Sales and Operating Income
In the fiscal year ended December 31, 2017, consolidated net sales increased ¥11,650 million, or 14.4%, from the same period in the previous year to ¥92,411 million. Net sales in the first half increased ¥6,154 million, or 14.3%, to ¥49,051 million. Net sales in the second half increased ¥5,496 million, or 14.5%, to ¥43,360 million.

In the electronics industry, the main source of demand for the Company’s products, demand decreased for PCs and tablet devices, but sales of smartphones remained at a high level, and growth of the data server market drove expansion in the semiconductor market for favorable conditions overall.

Cost of sales increased ¥9,927 million, or 18.4%, from the same period in the previous year to ¥63,805 million, reflecting higher material costs due to rising raw material prices, even though rent expenses declined. The cost of sales ratio rose 2.3 percentage points to 69.0%. As a result, gross profit increased ¥1,722 million, or 6.4%, to ¥28,842 million.

Selling, general and administrative (SG&A) expenses increased ¥1,839 million, or 10.5%, from the same period in the previous year to ¥19,411 million, mainly due to increases in depreciation and amortization and one-time costs associated with a change in the fiscal year-end, despite decreases in provision of allowance for doubtful accounts and costs for consumables.

Operating income declined by ¥116 million, or 1.3%, from the same period in the previous year to ¥9,194 million, mainly due to an increase in SG&A expenses, despite an increase in gross profit.

Performance by Segment*

Material Business Segment
Sales in the Material Business increased by ¥11,690 million, or 14.8%, from the same period in the previous year to ¥90,532 million. Operating income grew ¥367 million, or 3.0%, to ¥12,816 million, owing to stronger sales of high value-added products and gains from foreign exchange fluctuation, despite increases in expenses such as manufacturing expenses and SG&A expenses, as well as declines from discounted selling prices.

Electronic Functional Materials Division
In the electronic functional materials division, sales increased ¥3,911 million, or 8.3%, from the same period in the previous year to ¥49,051 million.

* Intersegment sales or transfers have not been eliminated.

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Sales of semiconductor photoresists were solid and increased. Sales expanded on stronger demand for excimer laser photoresists for 3D memory and full-scale mass production for semiconductors on cutting-edge processes at major customers. Furthermore, sales of high-density integration materials grew thanks to successful sales and R&D activities that precisely reflect user needs, and higher sales of photoresists for semiconductor packages and photoresists for MEMS (micro-electromechanical systems). Sales of photoresists for displays also increased, thanks to the adoption of products for high-resolution displays.

**High-Purity Chemicals Division**
Sales in the high-purity chemicals division increased ¥7,649 million, or 24.7%, to ¥38,676 million.
Sales of photoresist chemicals used to manufacture semiconductors increased due to significant growth in sales from customers in Asia that launched production lines on cutting-edge processes. Sales also increased for photoresist-related chemicals used to manufacture displays, reflecting stronger demand from customers mainly in Asia.

**Equipment Business Segment**

**Process Equipment Division**
In the 3D packaging market, the Zero Newton TSV process system is driving higher functionality and higher performance of semiconductors. While this system has built up a track record of use in new semiconductor manufacturing applications for data servers, its spread in the PC and smartphone markets has been weak. As a result, investments by users to upgrade production capacity have been restrained, leading to declines in sales.

As a result, sales in the Equipment Business decreased ¥21 million, or 1.1%, from the same period in the previous year to ¥1,921 million. Operating loss expanded by ¥330 million from the same period in the previous year to a loss of ¥664 million.

Orders in the period under review reached ¥1,758 million. Of this, orders in the first half totaled ¥1,090 million and in the second half ¥667 million. The year-end order backlog was ¥1,190 million.

**Financial Condition**
Total assets as of December 31, 2017 increased by ¥4,188 million from the previous fiscal year-end to ¥178,681 million.

Total current assets decreased ¥928 million from the previous fiscal year-end to ¥87,719 million. This mainly reflects a decrease of ¥5,481 million in cash and deposits and time deposits partly offset by increases of ¥2,660 million in trade notes and accounts and ¥2,280 million in inventories.

Non-current assets increased ¥5,117 million from the previous fiscal year-end to ¥90,962 million. This was mainly attributable to increases of ¥3,325 million in investment securities due to rise in stock price and ¥2,037 million in property, plant and equipment reflecting investment in plant and equipment.

Total liabilities as of December 31, 2017 increased ¥3,602 million from the previous fiscal year-end to ¥25,163 million. This primarily reflects increases of ¥1,325 million in deferred tax liabilities, ¥904 million in other payable and ¥837 million in trade notes and accounts despite a decrease of ¥428 million in income taxes payable.

Total equity as of December 31, 2017 increased ¥585 million from the previous fiscal year-end to ¥153,517 million. The increase mainly reflects profit attributable to owners of the parent of ¥6,007 million, an increase of ¥3,787 million in accumulated other comprehensive income from higher unrealized gains on investment securities held, and an increase of ¥1,222 million in non-controlling interests, which were partly offset by ¥7,809 million in purchases of treasury stock and ¥2,793 million in cash dividends paid.

As a result, the equity ratio stood at 82.2% at the end of the fiscal year.

---

**Breakdown of Change in Material Business Segment Operating Income**

<table>
<thead>
<tr>
<th>Impact of sales increase (+¥3,700 million)</th>
<th>Costs associated with a change in the fiscal year-end (−¥800 million)</th>
<th>Expenses decrease (−¥2,500 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>¥12,400 million</td>
<td></td>
<td>¥12,800 million</td>
</tr>
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</table>

**Total Assets Year-on-Year Comparison (Millions of yen)**

<table>
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<th>Non-Current Assets</th>
</tr>
</thead>
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<td>¥95,844</td>
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1. Industrial and economic change-related risk

The Group conducts its business within the electronics industry and a characteristic of this industry’s market is its major cyclical changes in demand. In particular, materials and devices for semiconductors and displays are extremely affected by such demand trends. Also, due to the rapid speed of technological innovation in this industry and the complexity and diversity of user needs, market conditions often change, as do prices in response to these changes. These factors may have an impact on the Group’s business results.
2. Exchange rate fluctuation-related risk
The Group is focusing its energies into developing its businesses in the markets of North America, Europe, and Asia, which are expected to expand in the future, and has production and sales bases in these regions. Some of the Group’s overseas transactions are yen-denominated, while for others it carries out risk hedging through forward exchange contracts. However, if exchange rate fluctuations are greater than forecast, this may have an impact on the Group’s business results.

3. Research and development-related risk
In order for the Group to maintain its competitiveness in the electronics industry, where technological innovation occurs at a rapid pace, it carries out R&D to provide products that precisely reflect user needs. However, realizing technological innovation and anticipating changes to user needs are not easy tasks and regardless of how much management resources it invests into R&D, due to unforeseeable reasons it may not produce the hoped-for results. This may have an impact on the Group’s business results.

4. Intellectual property-related risk
In carrying out its business activities, the Group has acquired a diverse portfolio of intellectual property, to which it grants licenses to third parties. Also, when it deems it necessary or useful to do so, it acquires licenses from third parties in order to use their intellectual property. If the Group is unable to safeguard and maintain its own intellectual property rights or acquire third party rights as anticipated, it may become a party in a dispute or lawsuit relating to these rights. The costs incurred due to these events may have an impact on the Group’s business results.

5. Raw material procurement-related risk
The Group uses various raw materials in its production activities and it aims to stably procure these materials by maintaining a network of multiple suppliers. However, its production activities may be affected by a delay or suspension in the supply of raw materials due to problems at the manufacturers of these materials. This may have an impact on the Group’s business results. In addition, an increase in the price of raw materials may have an impact on its business results.

6. Product liability-related risk
Within the process in which the Group supplies its products to customers who then use them, problems may occur that originate in a product defect. The Group has insurance to cover product liability compensation payments, but insurance may not be able to cover the entire amount that has to be paid. Therefore, if such a problem occurs it may have an impact on the Group’s business results.

7. Natural disaster and accident-related risk
The Group has established manufacturing plants both within Japan and overseas. In the event of a natural disaster, such as an earthquake, or an unforeseen accident, such as a fire or an explosion, it may have to suspend its production activities and delay product shipments. The Group may also have to pay repair or replacement costs at the damaged plant. These events may have an impact on the Group’s business results.

8. Environment-related risk
The Group uses various types of chemical substances within its production activities and has strict rules to ensure they are handled safely. However, in the event of an accident involving the leakage of chemical substances, the Group’s reputation within society may be affected, it may have to pay costs as compensation or in order to carry out counter measures, and it may have to suspend production activities. These factors may have an impact on the Group’s business results.

In addition, the Group always observes the various environment-related laws and regulations in each country where it conducts its business activities. However, in the future these laws and regulations may be made stricter, the Group may be forced to pay additional costs or limit its business activities. These factors may have an impact on the Group’s business results.

9. Legal risk
When conducting its business activities throughout the world, the Group must acquire approval for business and investment activities and observe each government’s regulations relating to restrictions on imports and exports. In addition, it must observe laws and regulations relating to trade, monopolies, international taxation, the environment, and recycling. If there are major revisions to any of these laws and regulations, or if the Group fails to precisely understand their requirements, or if for any reason it is unable to observe them, then this may have an impact on the Group’s business results.

10. Overseas business activity-related risk
The Group carries on production and sales activities in North America and Asia and sales activities in Europe. However, in its overseas business activities it constantly faces the following types of risk; unexpected revisions to laws and regulations; a weakening of the industrial base; difficulties in securing the required personnel; and the possibility of terrorist attacks, conflicts, and natural disasters. If any of these risks occur, it may obstruct the Group’s overseas business activities and have an impact on its business results.

11. Information leakage risk
The Group possesses confidential business information and also information relating to various other companies and individuals. It implements thorough measures to ensure the security of all the information it handles, but if due to some unforeseeable event information leaks outside of the Group, this may damage its reputation within society and it may have to pay liability payments for the damage caused to a company or individual whose information was leaked. These factors may have an impact on the Group’s business results.
## Consolidated Balance Sheets

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries  
December 31, 2017 and March 31, 2017

### ASSETS

<table>
<thead>
<tr>
<th></th>
<th>2017/12</th>
<th>2017/3</th>
<th>2017/12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURRENT ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and deposits</td>
<td>¥27,961</td>
<td>¥33,907</td>
<td>$247,449</td>
</tr>
<tr>
<td>Time deposits</td>
<td>16,219</td>
<td>15,756</td>
<td>143,539</td>
</tr>
<tr>
<td>Receivables:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade notes and accounts</td>
<td>22,554</td>
<td>19,893</td>
<td>199,599</td>
</tr>
<tr>
<td>Securities</td>
<td>2,000</td>
<td>2,000</td>
<td>17,699</td>
</tr>
<tr>
<td>Other</td>
<td>422</td>
<td>581</td>
<td>3,736</td>
</tr>
<tr>
<td>Allowance for doubtful accounts</td>
<td>(157)</td>
<td>(242)</td>
<td>(1,392)</td>
</tr>
<tr>
<td>Inventories</td>
<td>15,893</td>
<td>13,613</td>
<td>140,653</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>1,574</td>
<td>1,421</td>
<td>13,935</td>
</tr>
<tr>
<td>Prepaid expenses and other current assets</td>
<td>1,249</td>
<td>1,716</td>
<td>11,055</td>
</tr>
<tr>
<td>Total current assets</td>
<td>87,719</td>
<td>88,647</td>
<td>776,276</td>
</tr>
<tr>
<td><strong>PROPERTY, PLANT AND EQUIPMENT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>9,120</td>
<td>8,976</td>
<td>80,715</td>
</tr>
<tr>
<td>Buildings and structures</td>
<td>62,902</td>
<td>60,088</td>
<td>556,663</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>56,406</td>
<td>57,828</td>
<td>499,168</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>20,684</td>
<td>19,844</td>
<td>183,050</td>
</tr>
<tr>
<td>Construction in progress</td>
<td>4,077</td>
<td>3,214</td>
<td>36,085</td>
</tr>
<tr>
<td>Total</td>
<td>153,192</td>
<td>149,952</td>
<td>1,355,682</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(101,488)</td>
<td>(100,286)</td>
<td>(898,126)</td>
</tr>
<tr>
<td>Net property, plant and equipment</td>
<td>51,703</td>
<td>49,666</td>
<td>457,556</td>
</tr>
<tr>
<td><strong>INVESTMENTS AND OTHER ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment securities</td>
<td>16,486</td>
<td>13,389</td>
<td>145,900</td>
</tr>
<tr>
<td>Investments in and advances to an unconsolidated subsidiary and associated companies</td>
<td>1,164</td>
<td>936</td>
<td>10,307</td>
</tr>
<tr>
<td>Long-term loans receivable</td>
<td>8</td>
<td>572</td>
<td>78</td>
</tr>
<tr>
<td>Net defined benefit asset</td>
<td>2,352</td>
<td>1,462</td>
<td>20,818</td>
</tr>
<tr>
<td>Long-term time deposits</td>
<td>18,000</td>
<td>18,000</td>
<td>159,292</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>145</td>
<td>457</td>
<td>1,289</td>
</tr>
<tr>
<td>Other assets</td>
<td>1,099</td>
<td>1,360</td>
<td>9,730</td>
</tr>
<tr>
<td>Total investments and other assets</td>
<td>39,258</td>
<td>36,178</td>
<td>347,417</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>¥178,681</td>
<td>¥174,492</td>
<td>$1,581,250</td>
</tr>
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## LIABILITIES AND EQUITY

### CURRENT LIABILITIES

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</thead>
<tbody>
<tr>
<td>Trade notes and accounts</td>
<td>¥10,444</td>
<td>$92,426</td>
</tr>
<tr>
<td>Construction and other</td>
<td>4,966</td>
<td>43,952</td>
</tr>
<tr>
<td>Income taxes payable</td>
<td>962</td>
<td>8,513</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>3,652</td>
<td>32,323</td>
</tr>
<tr>
<td>Advances from customers</td>
<td>236</td>
<td>2,091</td>
</tr>
<tr>
<td>Deferred tax liabilities</td>
<td>329</td>
<td>2,912</td>
</tr>
<tr>
<td>Other current liabilities</td>
<td>1,151</td>
<td>10,189</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td><strong>21,742</strong></td>
<td><strong>192,410</strong></td>
</tr>
</tbody>
</table>

### LONG-TERM LIABILITIES

| Deferred tax liabilities          | 2,533           | 22,416                    |
| Net defined benefit liability     | 262             | 2,323                     |
| Other long-term liabilities       | 625             | 5,539                     |
| **Total long-term liabilities**   | **3,421**       | **30,279**                |

### EQUITY

| Common stock—authorized, 197,000,000 shares in 2017/12 authorized, 197,000,000 shares in 2017/3 isssued, 45,100,000 shares in 2017/12 isssued, 45,100,000 shares in 2017/3 | 14,640 | 14,640 | 129,561 |
| Capital surplus                    | 15,204          | 15,204                    | 134,583 |
| Retained earnings                  | 116,904         | 113,708                   | 1,034,551 |
| Treasury stock—at cost, 3,021,037 shares in 2017/12 and 1,496,738 shares in 2017/3 | (11,732) | (4,086) | (103,824) |
| Accumulated other comprehensive income: |                     |                           |           |
| Unrealized gain on available-for-sale securities | 6,893 | 4,694 | 61,006 |
| Foreign currency translation adjustments | 4,646 | 3,533 | 41,118 |
| Remeasurements of defined benefit plans | 335 | (139) | 2,971 |
| **Total**                          | **146,896**     | **147,559**               | **1,299,968** |
| Stock acquisition rights           | 247             | 221                       | 2,191    |
| Non-controlling interests          | 6,373           | 5,150                     | 56,399   |
| **Total equity**                   | **153,517**     | **152,931**               | **1,358,559** |
| **TOTAL**                          | ¥178,681        | ¥174,492                  | $1,581,250 |
### Consolidated Statements of Income

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries  
Fiscal Period Ended December 31, 2017 and Fiscal Year Ended March 31, 2017

<table>
<thead>
<tr>
<th>Description</th>
<th>2017/12</th>
<th>2017/3</th>
<th>2017/12 (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET SALES</strong></td>
<td>¥92,411</td>
<td>¥88,764</td>
<td>$817,801</td>
</tr>
<tr>
<td><strong>COST OF SALES</strong></td>
<td>63,805</td>
<td>56,786</td>
<td>564,650</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>28,606</td>
<td>31,978</td>
<td>253,150</td>
</tr>
<tr>
<td><strong>SELLING, GENERAL AND ADMINISTRATIVE EXPENSES</strong></td>
<td>19,411</td>
<td>22,023</td>
<td>171,785</td>
</tr>
<tr>
<td><strong>Operating income</strong></td>
<td>9,194</td>
<td>9,954</td>
<td>81,364</td>
</tr>
<tr>
<td><strong>OTHER INCOME (EXPENSES):</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest and dividend income</td>
<td>309</td>
<td>277</td>
<td>2,739</td>
</tr>
<tr>
<td>Foreign exchange gain (loss)—net</td>
<td>726</td>
<td>(445)</td>
<td>6,426</td>
</tr>
<tr>
<td>Loss on valuation of derivatives</td>
<td>(789)</td>
<td>(439)</td>
<td>(6,987)</td>
</tr>
<tr>
<td>Gain on changes in equity of affiliates</td>
<td>196</td>
<td>—</td>
<td>1,735</td>
</tr>
<tr>
<td>Loss on impairment of long-lived assets</td>
<td>(242)</td>
<td>(678)</td>
<td>(2,146)</td>
</tr>
<tr>
<td>Loss on disaster</td>
<td>—</td>
<td>(91)</td>
<td>—</td>
</tr>
<tr>
<td>Other—net</td>
<td>98</td>
<td>643</td>
<td>874</td>
</tr>
<tr>
<td><strong>OTHER (expenses) income—net</strong></td>
<td>298</td>
<td>(734)</td>
<td>2,641</td>
</tr>
<tr>
<td><strong>INCOME BEFORE INCOME TAXES AND NON-CONTROLLING INTERESTS</strong></td>
<td>9,492</td>
<td>9,220</td>
<td>84,005</td>
</tr>
<tr>
<td><strong>INCOME TAXES:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>2,140</td>
<td>2,635</td>
<td>18,944</td>
</tr>
<tr>
<td>Prior years</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deferred</td>
<td>348</td>
<td>(454)</td>
<td>3,084</td>
</tr>
<tr>
<td><strong>Total income taxes</strong></td>
<td>2,489</td>
<td>2,181</td>
<td>22,028</td>
</tr>
<tr>
<td><strong>NET INCOME BEFORE NON-CONTROLLING INTERESTS</strong></td>
<td>7,003</td>
<td>7,039</td>
<td>61,976</td>
</tr>
<tr>
<td><strong>NON-CONTROLLING INTERESTS IN NET INCOME</strong></td>
<td>996</td>
<td>695</td>
<td>8,814</td>
</tr>
<tr>
<td><strong>PROFIT ATTRIBUTABLE TO OWNERS OF THE PARENT</strong></td>
<td>¥6,007</td>
<td>¥6,343</td>
<td>$53,162</td>
</tr>
</tbody>
</table>

**PER SHARE OF COMMON STOCK**

<table>
<thead>
<tr>
<th>Description</th>
<th>2017/12</th>
<th>2017/3</th>
<th>2017/12 (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic profit</td>
<td>¥138,31</td>
<td>¥146,18</td>
<td>$1.22</td>
</tr>
<tr>
<td>Diluted profit</td>
<td>137,91</td>
<td>145,53</td>
<td>1.22</td>
</tr>
<tr>
<td>Cash dividends applicable to the year</td>
<td>64.00</td>
<td>64.00</td>
<td>0.57</td>
</tr>
</tbody>
</table>

### Consolidated Statements of Comprehensive Income

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries  
Fiscal Period Ended December 31, 2017 and Fiscal Year Ended March 31, 2017

<table>
<thead>
<tr>
<th>Description</th>
<th>2017/12</th>
<th>2017/3</th>
<th>2017/12 (U.S. dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET INCOME BEFORE NON-CONTROLLING INTERESTS</strong></td>
<td>¥7,003</td>
<td>¥7,039</td>
<td>$61,976</td>
</tr>
<tr>
<td><strong>OTHER COMPREHENSIVE INCOME:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrealized (loss) gain on available-for-sale securities</td>
<td>2,199</td>
<td>1,860</td>
<td>19,462</td>
</tr>
<tr>
<td>Foreign currency translation adjustments</td>
<td>1,457</td>
<td>(1,369)</td>
<td>12,900</td>
</tr>
<tr>
<td>Remeasurements of defined benefit plans</td>
<td>475</td>
<td>114</td>
<td>4,205</td>
</tr>
<tr>
<td>Share of other comprehensive income in an associate</td>
<td>(19)</td>
<td>(56)</td>
<td>(174)</td>
</tr>
<tr>
<td><strong>Total other comprehensive income</strong></td>
<td>4,112</td>
<td>549</td>
<td>36,393</td>
</tr>
<tr>
<td><strong>COMPREHENSIVE INCOME</strong></td>
<td>¥11,115</td>
<td>¥7,589</td>
<td>$98,370</td>
</tr>
<tr>
<td><strong>TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners of the parent</td>
<td>¥9,794</td>
<td>¥7,028</td>
<td>$86,677</td>
</tr>
<tr>
<td>Non-controlling interests</td>
<td>1,321</td>
<td>560</td>
<td>11,692</td>
</tr>
</tbody>
</table>
# Consolidated Statements of Changes in Equity

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries
Fiscal Period Ended December 31, 2017 and Fiscal Year Ended March 31, 2017

## Thousands of yen

<table>
<thead>
<tr>
<th>Number of shares of common stock outstanding</th>
<th>Accumulated other comprehensive income (loss)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock</td>
<td>Unrealized gain on available-for-sale securities</td>
<td>Foreign currency translation adjustments</td>
</tr>
<tr>
<td>Capital surplus</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>Subscriptions to shares</td>
<td>Non-controlling interests</td>
</tr>
<tr>
<td>Treasury stock</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### BALANCE, APRIL 1, 2016

| Profit attributable to owners of the parent | 6,343 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Cash dividends paid:                       | 6,343 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Final for prior year, ¥22.0 per share     | (1,384) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Interim for current year, ¥22.0 per share | (1,384) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Purchase of treasury stock                 | (2) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disposal of treasury stock                 | (2) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Net change in the year                     | 6,343 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### BALANCE, MARCH 31, 2017

| Profit attributable to owners of the parent | 6,007 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Cash dividends paid:                       | 6,007 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Final for prior year, ¥22.0 per share     | (1,396) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Interim for current year, ¥22.0 per share | (1,396) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Purchase of treasury stock                 | (2) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disposal of treasury stock                 | (2) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Net change in the year                     | 6,007 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### BALANCE, DECEMBER 31, 2017

| Profit attributable to owners of the parent | 53,162 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Cash dividends paid:                       | 53,162 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Final for prior year, $0.28 per share      | (53,162) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Interim for current year, $0.28 per share | (53,162) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Purchase of treasury stock                 | (144) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disposal of treasury stock                 | (118) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Net change in the year                     | 118 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## Thousands of U.S. dollars

<table>
<thead>
<tr>
<th>Accumulated other comprehensive income (loss)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common stock</td>
<td>$129,561</td>
</tr>
<tr>
<td>Capital surplus</td>
<td>$129,561</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>$129,561</td>
</tr>
<tr>
<td>Treasury stock</td>
<td>$129,561</td>
</tr>
<tr>
<td>Foreign currency translation adjustments</td>
<td>$129,561</td>
</tr>
<tr>
<td>Remeasurements of defined benefit plans</td>
<td>$129,561</td>
</tr>
</tbody>
</table>
## Consolidated Statements of Cash Flows

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries  
Fiscal Period Ended December 31, 2017 and Fiscal Year Ended March 31, 2017

<table>
<thead>
<tr>
<th>OPERATING ACTIVITIES:</th>
<th>Millions of yen</th>
<th>Thousands of U.S. dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income before income taxes and non-controlling interests</td>
<td>¥ 9,492</td>
<td>$ 84,005</td>
</tr>
<tr>
<td>Adjustments for:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income taxes paid</td>
<td>(2,286)</td>
<td>(20,236)</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>6,035</td>
<td>53,411</td>
</tr>
<tr>
<td>Provision for doubtful accounts</td>
<td>130</td>
<td>(1,152)</td>
</tr>
<tr>
<td>Foreign exchange (gain) loss—net</td>
<td>(1,131)</td>
<td>(10,012)</td>
</tr>
<tr>
<td>Gain on sales of investment securities</td>
<td>(0)</td>
<td>(0)</td>
</tr>
<tr>
<td>Loss on impairment of long-lived assets</td>
<td>242</td>
<td>2,146</td>
</tr>
<tr>
<td>Loss on valuation of derivatives</td>
<td>789</td>
<td>6,987</td>
</tr>
<tr>
<td>Increase in net defined benefit asset</td>
<td>(151)</td>
<td>(1,338)</td>
</tr>
<tr>
<td>Decrease in net defined benefit liability</td>
<td>(18)</td>
<td>(167)</td>
</tr>
<tr>
<td>Increase in trade notes and accounts receivable</td>
<td>(2,286)</td>
<td>(20,235)</td>
</tr>
<tr>
<td>Increase in inventories</td>
<td>1,929</td>
<td>(1,703)</td>
</tr>
<tr>
<td>Increase in trade notes and accounts payable</td>
<td>755</td>
<td>6,685</td>
</tr>
<tr>
<td>Increase (decrease) in advances from customers</td>
<td>100</td>
<td>(891)</td>
</tr>
<tr>
<td>(Increase) decrease in consumption taxes refund receivable</td>
<td>295</td>
<td>2,619</td>
</tr>
<tr>
<td>Other—net</td>
<td>586</td>
<td>5,189</td>
</tr>
<tr>
<td>Net cash provided by operating activities</td>
<td>10,162</td>
<td>89,937</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INVESTING ACTIVITIES:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposit for time deposits—net</td>
<td>(386)</td>
<td>(3,418)</td>
</tr>
<tr>
<td>Purchases of property, plant and equipment</td>
<td>(5,884)</td>
<td>52,070</td>
</tr>
<tr>
<td>Payments into long-term time deposits</td>
<td>(3,000)</td>
<td>(26,548)</td>
</tr>
<tr>
<td>Withdrawal of long-term time deposits</td>
<td>3,000</td>
<td>26,548</td>
</tr>
<tr>
<td>Purchases of investment securities</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Proceeds from sales of investment securities</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Collection of loans receivable</td>
<td>563</td>
<td>4,990</td>
</tr>
<tr>
<td>Payments of loans receivable</td>
<td>(0)</td>
<td>(6)</td>
</tr>
<tr>
<td>Other—net</td>
<td>(286)</td>
<td>(2,534)</td>
</tr>
<tr>
<td>Net cash used in investing activities</td>
<td>(5,993)</td>
<td>(53,040)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FINANCING ACTIVITIES:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Repayments of long-term loans payable</td>
<td>(138)</td>
<td>(1,224)</td>
</tr>
<tr>
<td>Dividends paid</td>
<td>(2,785)</td>
<td>24,651</td>
</tr>
<tr>
<td>Dividends paid for non-controlling interests</td>
<td>(98)</td>
<td>(873)</td>
</tr>
<tr>
<td>Disposal of treasury stock</td>
<td>173</td>
<td>1,534</td>
</tr>
<tr>
<td>Purchases of treasury stock</td>
<td>(7,823)</td>
<td>(69,236)</td>
</tr>
<tr>
<td>Other—net</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Net cash used in financing activities</td>
<td>(10,673)</td>
<td>(94,451)</td>
</tr>
</tbody>
</table>

| FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS | 557 | 4,935 |
| NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS | (5,945) | (52,618) |
| CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR | ¥35,907 | $317,766 |
| CASH AND CASH EQUIVALENTS, END OF YEAR | ¥29,961 | $265,148 |
Corporate Information / External Evaluation

Corporate Information (As of December 31, 2017)

Corporate Name: TOKYO OHKA KOGYO CO., LTD.
Established: October 25, 1940
Head Office: 150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012, JAPAN
Number of Employees: 1,611 (Consolidated)
Paid-In Capital: ¥14,640,448,000
Web Site: https://www.tok.co.jp/eng
Stock Listing: Tokyo
Investor Relations Contact: Public Relations Division
Head Office: 150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012, JAPAN
TEL. +81-44-435-3000
FAX. +81-44-435-3020

External Evaluation

Selected or recognized for ESG-related indices, etc.

- SNAM Sustainability Index (A constituent stock in 2018)
- MSCI Japan Empowering Women Index (2017)

(Evaluations and commendations for various activities)

- Intel Corporation Preferred Quality Supplier (PQS) Award (2018, 2016)
- Nikkei Annual Report Awards Award for Excellence (2018, 2016)
- 45th Nikkei Science Advertising Awards Grand Prize (2016)
- Global Niche Top Companies Selection 100 (Ministry of Economy, Trade and Industry) (2014)

(Note) THE INCLUSION OF TOKYO OHKA KOGYO CO., LTD. IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF TOKYO OHKA KOGYO CO., LTD. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.
TOKYO OHKA KOGYO CO., LTD.
1. Head Office
2. Shanghai Representative Office
3. Singapore Office

TOKYO OHKA KOGYO AMERICA, INC.
Established: April 1989
Business: Manufacture and sales of photoresists, and development, manufacture and sales of photoresists-related chemicals
4. Head Office/Oregon Plant
5. Sales Office (California)

TOK TAIWAN CO., LTD.
Established: January 1998
Business: Manufacture and sales of photoresists, and development, manufacture and sales of photoresists-related chemicals
6. Head Office (Hsinchu City)
   Miaoli Plant (Miaoli City)
   Tongluo Plant (Miaoli County)

CHANG CHUN TOK (CHANGSHU) CO., LTD.
Established: October 2004
Business: Manufacture and sales of photoresists-related chemicals
7. Head Office/Changshu Plant (China)

Tokyo Ohka Kogyo Europe B.V.
Established: December 2005
Business: Sales of photoresists and related chemicals
8. Head Office (The Netherlands)

TOK Advanced Materials Co., Ltd.
Established: August 2012
Business: Development, manufacture, and sales of photoresists and related chemicals
9. Head Office/Incheon Plant (South Korea)
TOKYO OHKA KOGYO CO., LTD.

150 Nakamaruko, Nakahara-ku, Kawasaki-shi,
Kanagawa 211-0012, JAPAN

https://www.tok.co.jp/eng