# **Data Section**

Data Section

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# Trends of Key Data and Analysis

# **10-Year Financial Highlights**



As a result of sales growth in core products for overseas customers in the U.S., South Korea, and Taiwan, the overseas sales ratio held steady at around 75%. Although TOK recorded its first operating loss since going public in the fiscal year ended March 31, 2009, soon after the collapse of Lehman Brothers, the Company has maintained a certain level of profits since the fiscal year ended March 31, 2011. In the fiscal year ended March 31, 2015, TOK achieved record-high operating income as a result of making large-scale strategic investments, concentrating on growth in cutting-edge materials for semiconductors, strengthening its strategy of building close relationships with customers overseas, and reshaping its business portfolio under the "TOK Medium-Term Plan 2015" that started in the fiscal year ended March 31, 2013. Under the "TOK Medium-Term Plan 2018" that started in the fiscal year ended March 31, 2017, net sales expanded in tandem with growth in the semiconductor market, but profit growth stalled due in part to an increase in depreciation and amortization that reflected heavy investments. Under the "TOK Medium-Term Plan 2021" that started in the fiscal year ending December 31, 2019, TOK is keen to record a new record high in profits by concentrating on strengthening business portfolio reforms and returning to a growth trajectory.

\* 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.

#### Profit attributable to owners of the parent\*/ROE



Under the "TOK Medium-Term Plan 2018," we have set a numerical target for ROE and are working to increase it by capturing high-quality profits through business portfolio reforms, attaining top-line expansion and a higher total asset turnover ratio, as well as considering review of the D/E ratio. As a result, ROE has stayed on an uptrend. Under the "TOK Medium-Term Plan 2021," the Company targets ROE of 8% or higher with profit growth continuing to be a driver, while enhancing its responsiveness to changes in the increasingly challenging business, investment, and financial environments.

\* 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

#### Total assets/Equity ratio/Debt-to-equity



As a long-run R&D-driven company that continues to target niche top markets, TOK's basic policy is to maintain sufficient cash reserves to compete in development with larger rivals and facilitate agile investments. The equity ratio has stayed at around 85%, but should gradually start to decline as a consequence of long-term debt financing, better shareholder returns, and one of the largest share buybacks the Company has undertaken, under balance sheet management that began during the "TOK Medium-Term Plan 2018."

#### **Operating income\*/Operating margin**

# Data Section

Dividends applicable to the year per share/Payout ratio/DOE



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 changed to a policy that targets a sustained dividend at a consolidated payout ratio of at least 40% while taking current levels into account. TOK has introduced a new dividend policy that targets DOE of 3.5%, beginning with year-end dividends in the fiscal year ended December 31, 2018 (see pages 52–55 "Message from the CFO").

R&D costs\*1/Ratio of R&D costs to net sales



TOK's spending on R&D is equivalent to roughly 8% of net sales, much higher than the averages of 2.7%<sup>\*2</sup> for the chemical and petroleum industry and 4.0%<sup>\*2</sup> for the electrical equipment and precision machinery industry. The Company intends to increase development efficiency, even while R&D costs are on the rise for the development of high value-added materials and production technologies, and increase in the supply of samples for cutting-edge semiconductor fields (see pages 42–43 "Message from the Director in Charge of Research and Development").

\*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.

\*2 Average of totals for FY2014/3 through FY2016/3. Source: Nikkei Smart Work Survey on April 20, 2018

#### Exchange rate

¥111 (Yen/U.S. dollars, As of March 31)





As the global economy enters a major turning point, the Company intends to advance global cash management, including adjusting the balance of cash positions among overseas sites, as a part of balance sheet management. We are thus enhancing financial risk controls for fluctuations in exchange rates and market liquidity.

Investment in plant and equipment/Depreciation and amortization



Depreciation and amortization increased as a result of large-scale investments during the "TOK Medium-Term Plan 2015" and the "TOK Medium-Term Plan 2018," but under the "TOK Medium-Term Plan 2021," the Company plans to invest in production equipment with long depreciation periods, so depreciation and amortization should increase at a more moderate pace.

\* 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.

**Domestic energy consumption\*** 

### **10-Year Non-Financial Highlights**

#### **14,527**kL crude oil equivalent 85 Base unit index Domestic energy consumption (kL crude oil equivalent) Base unit index (Comparison with 2009) 100 92 87 84 84 84 85 16.216 15,318 15,139 14,894 15.205 14,934 14,384 14,838 14 527 14.117 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018/12

By 2019, TOK targets a reduction of 10 points in energy consumption compared with the base unit indexed to 2009. Thanks to smooth progress on various fronts, the Company achieved a reduction of 15 points in 2018, compared with the base unit indexed to 2009. The Company will carry on with efforts to reduce its environmental impact by improving production processes, increasing work efficiency, and reviewing equipment and their operational methods.

\* Due to a change in fiscal year-end, totals for 2009, the reference year for mediumterm targets, and 2013 onward are from January to December. Totals for 2010 to 2012 are from April to March.

#### Number of patents



Our number of patent registrations in the cutting-edge semiconductor fields has been increasing at a slower rate alongside greater complexity in development, but patent registrations have been rising steadily for new businesses and new materials. Going forward, we will design our strategic patent portfolio for new and promising technologies to enable the stable pursuit of business development as well as to build barriers to entry.

\* Due to a change in fiscal year-end, results for the fiscal year ended December 31, 2017 are for nine months only.

#### Volume of industrial waste\*1



TOK has achieved zero emissions<sup>\*2</sup> for five consecutive years, as the volume of its industrial waste headed to landfill disposal via intermediate treatment has remained below 1% of the total. TOK targets a reduction of 5 points in total industrial waste by 2020 compared with the base unit indexed to 2015. The Company continues various activities to refine and reuse process effluents, as well as internally process and recover effluents while turning them into items of value.

- \*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.

#### Number of employees/Number of foreign employees/ Graduate turnover within 3 years of joining the Company



At TOK, the number of foreign employees has been increasing as a result of an increase in the number of overseas development/production sites and emphasis on merit-based hiring of new graduates regardless of their nationality. Based on the 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 for a majority of years. In February 2019, TOK was recognized in the Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500) for a second consecutive year.



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

Number of female employees\*

148

41.7%

#### Ratio of outside officers in the Board of Directors



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%.

#### Severity rate of workplace accidents





In the fiscal year ended December 31, 2018, the severity rate of workplace accidents increased due to two injuries resulting in lost workdays. We will continue to make concerted, companywide efforts to prevent workplace accidents and achieve our goals of "zero accidents" as well as "zero accident risks," through ongoing training and drills for our employees via the Safety and Health Committee, the establishment of Safety and Health Liaison Unit, and updates to manuals for how to respond during emergencies.



Ratio of outside auditors among corporate auditors

### **Changes in Medium-term Plans and 10-Year Key Data**

#### Urgent business profitability and structural reforms

Measures to cope with new business environment:

- Cost reduction
- Establishment of low-cost structure

**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

_					
Fiscal years ended March 31 and fiscal years ended December 31	2010/3	2011/3	2012/3	2013/3	
Results of operation:					
Net sales	70,645	80,016	80,037	72,919	
Material Business	65,091	71,482	66,645	67,697	
Equipment Business	5,632	8,622	13,500	5,302	
Operating income	364	6,123	6,102	7,872	
Income before income taxes	114	6,427	6,577	8,031	
Profit attributable to owners of the parent	254	3,649	3,818	5,443	
Free cash flow	6,504	12,435	(6,641)	12,363	
Investment in plant and equipment	1,320	1,699	3,162	5,332	
Depreciation and amortization	5,418	4,393	4,038	3,758	
R&D costs	6,949	6,360	6,157	6,211	
Per share data (Yen/U.S. dollars):					
Basic profit	5.66	81.08	84.86	121.69	
Cash dividends applicable to the year	30.00	33.00	38.00	44.00	
Net assets	2,578.30	2,597.72	2,641.28	2,796.37	
At the year-end:					
Total assets	138,122	147,085	138,767	145,664	
Total long-term liabilities	2,350	2,105	2,613	2,811	
Interest-bearing debt	57	0	610	488	
Net assets	117,658	118,567	119,590	127,838	
Key performance indicators (%):					
Operating margin	0.5	7.7	7.6	10.8	
ROE	0.2	3.1	3.3	4.5	
Ratio of R&D costs to net sales	9.8	7.9	7.7	8.5	
Equity ratio	84.0	79.5	85.1	85.9	
Debt-to-equity (Times)	0.00	0.00	0.01	0.00	
Payout ratio	530.0	40.7	44.8	36.2	
DOE	1.2	1.3	1.5	1.6	
Industry trend					
Worldwide semiconductor market					
(Millions of U.S. dollars)*1, (Year)	298,315	299,521	291,562	305,584	
Worldwide photoresists sales				0	
(Thousands of U.S. dollars)*2	1,129,893	1,220,078	1,279,706	1,152,306	
Exchange rate (¥/\$)*4	93	83	82	94	

\*1 Source: World Semiconductor Trade Statistics \*2 Source: SEMI (Total sales of ArF and KrF excimer laser and g- and i-Line photoresists)

\*3 Forecast-based amount for 2019 \*4 As of the end of each fiscal year

#### TOK Medium-Term Plan 2015

#### **Objectives:**

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

Shifted our focus to new business growth

→ Achieved record-high operating income

#### Strategies:

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

#### TOK Medium-Term Plan 2018

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

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

#### Strategies:

Material Business: Segment net sales achieved

Reform business portfolios

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

	nded March 31, 2015	a record high	aomoroa			
					Millions of yen	Thousands of U.S. dollars
2014/3	2015/3	2016/3	2017/3	2017/12	2018/12	2018/12
75,269	88,086	89,969	88,764	92,411	105,277	948,443
72,866	84,611	87,280	86,558	90,532	102,626	924,566
2,484	3,581	2,748	2,252	1,921	2,697	24,298
10,025	13,253	12,438	9,954	9,194	10,505	94,645
11,666	14,301	11,777	9,220	9,492	9,814	88,414
7,549	8,818	7,716	6,343	6,007	6,875	61,945
(2,610)	3,380	7,517	(926)	4,169	6,298	56,739
14,577	7,276	5,919	9,378	6,731	5,636	50,775
2,672	4,276	5,631	6,118	6,035	7,063	63,638
6,389	6,903	7,015	8,207	6,921	8,526	76,814
160 F4	106 61	177.00	146 10	100.01	164.00	1 40
168.54 52.00	196.61 60.00	177.30 64.00	146.18 64.00	138.31 64.00	164.92 96.00	1.48 0.86
3,044.24	3,285.81	3,298.00	3,384.14	3,490.97		31.17
3,044.24	3,203.01	3,296.00	3,304.14	3,490.97	3,459.37	31.17
155,859	174,863	167,300	174,492	178,681	184,683	1,663,812
1,518	3,569	2,899	2,024	3,421	12,250	110,366
366	814	534	135	_	10,000	90,090
139,962	151,999	147,270	152,931	153,517	150,857	1,359,078
10.0	15.0	10.0	11.0	0.0	10.0	
13.3	15.0	13.8	11.2	9.9	10.0	Equity ratio: The equity ratio has stayed at
5.8	6.2	5.3	4.4	4.1	4.7	around 85% for a long time, but
8.5	7.8	7.8	9.2	7.5	8.1	the Company is continuing to
87.5	84.3	85.1	84.6	82.2	78.0	pursue the optimal balance, which may be decreasing as a
0.00	0.00	0.00	0.00	0.00	0.07	result of stronger balance sheet
30.9	30.5	36.1	43.8	46.3	58.2	management. (See pages 52–55 "Message from the CFO.")
 1.8	1.9	1.9	1.9	1.9	2.8	message from the of 0. /
335,843	335,168	338,931	412,221	468,778	412,086* <sup>3</sup>	
1,288,713	1,230,022	1,358,009	1,504,224	1,631,851		
103	120	112	112	113	111	

### FY2018/12 Market Trends, Results of Operations, Financial Position, and FY2019/12 Performance Outlook

#### Change in Fiscal Year-End

TOK changed its fiscal year-end from March 31 to December 31. The fiscal year-end was also changed to December for its subsidiaries with a fiscal year-end in March. 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, 2018, the global economy continued to improve, but the outlook has grown increasingly uncertain due to the rise of protectionist economic policies accompanied by trade friction. The Japanese economy maintained a moderate recovery trend overall, with a turnaround in consumer spending amid ongoing improvement in employment and income conditions backed by strong corporate earnings.

On foreign exchange markets, the yen continued to appreciate from January through March, owing in part to rougher trade friction between the U.S. and China, but then the yen depreciated from April as the dollar strengthened on hikes in the U.S. policy interest rate. On average for the year, the yen was about ¥2 stronger compared with the same period in the previous year.

#### **Net Sales and Operating Income**

In the fiscal year ended December 31, 2018, consolidated net sales increased 44,854 million, or 4.8%, from the same period in the previous year to 4105,277 million. Net sales in the first half increased 2,684 million, or 5.6%, to 50,748 million. Net sales in the second half increased 2,170 million, or 4.1%, to 54,529 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 ¥5,217 million, or 7.8%, from the same period in the previous year to ¥71,896 million, reflecting increases in depreciation and amortization and costs for consumables. The cost of sales ratio climbed 1.9 percentage points to 68.3%. As a result, gross profit decreased ¥362 million, or 1.1%, to ¥33,380 million.

Selling, general and administrative (SG&A) expenses decreased ¥989 million, or 4.1%, from the same period in the previous year to ¥22,875 million, mainly due to decreases in provision of allowance for doubtful accounts, depreciation and amortization and patent royalties.

Operating income increased by  $\pm 627$  million, or 6.4%, from the same period in the previous year to  $\pm 10,505$  million, mainly due to a decrease in SG&A expenses.

#### Performance by Segment\*

#### Material Business Segment

Sales in the Material Business increased by ¥4,376 million, or 4.5%, from the same period in the previous year to ¥102,626 million. Operating income increased ¥207 million, or 1.4%, to ¥15,075 million, reflecting growth in sales of high value-added products, despite rising raw material prices including higher crude oil prices.

#### Electronic Functional Materials Division

In the electronic functional materials division, sales increased ¥1,845 million, or 3.2%, from the same period in the previous year to ¥58,793 million.

Sales of semiconductor photoresists expanded with brisk sales of excimer laser photoresists as major customers ramped up mass production of cutting-edge memory, in addition to sustained growth in the 3D memory market. Furthermore, in high-density integration materials, sales of photoresists

\* Intersegment sales or transfers have not been eliminated.

#### Net Sales by Segment Year-on-Year Comparison (Millions of yen)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd.



#### **Exchange Rate in 2018** (Yen/U.S. dollars, Monthly average)

for semiconductor packaging grew on the back of higher production volumes at major customers thanks to the robust semiconductor market. Photoresists for displays, however, saw sales decline as domestic demand shrank on deterioration in conditions in the small- and medium-sized display market.

#### High-Purity Chemicals Division

Sales in the high-purity chemicals division increased  $\pm$ 2,567 million, or 6.2%, to  $\pm$ 43,733 million.

Sales increased for photoresists-related chemicals used to manufacture semiconductors, with new products being adopted for next-generation semiconductor manufacturing processes in North America, in addition to robust sales of products used in cutting-edge semiconductor manufacturing processes in Asia. However, sales of photoresists-related chemicals used to manufacture displays decreased as sales weakened in contracting markets for small- and medium-sized displays in Japan and Asia.

#### **Equipment Business Segment**

Process Equipment Division

Zero Newton is our wafer handling system used in the through-silicon-via process, which is vital for creating highfunctional, high-performance semiconductors. Zero Newton struggled to grow because customers continued to refrain from increasing investments in production capacity amid weak growth momentum in the 3D packaging market, even though the system has steadily built up a track record in the market. Meanwhile, sales and orders both increased for semiconductor manufacturing equipment, benefitting from expansion of facilities at customers.

As a result, sales in the Equipment Business increased ¥459 million, or 20.5%, from the same period in the previous year to ¥2,697 million. Operating loss decreased by ¥189 million from the same period in the previous year to a loss of ¥883 million.

Orders in the period under review reached  $\pm$ 3,507 million. Of this, orders in the first half totaled  $\pm$ 1,976 million and in the second half  $\pm$ 1,530 million. The year-end order backlog was  $\pm$ 2,472 million.

#### **Financial Condition**

Total assets as of December 31, 2018 increased by ¥6,001 million from the previous fiscal year-end to ¥184,683 million.

Total current assets increased ¥13,870 million from the previous fiscal year-end to ¥101,589 million. This mainly reflects increases of ¥1,351 million in inventories and ¥11,911 million in cash and deposits partly offset by a decrease of ¥15 million in trade notes and accounts.

Non-current assets decreased ¥7,868 million from the previous fiscal year-end to ¥83,093 million. This mainly reflects a decrease of ¥3,345 million in property, plant and equipment as a result of depreciation, and decreases of ¥4,733 million in investment securities and ¥286 million in net defined benefit asset under investments and other assets.

Total liabilities as of December 31, 2018 increased ¥8,661 million from the previous fiscal year-end to ¥33,825 million. This primarily reflects an increase of ¥10,000 million in long-term loans payable, despite decreases of ¥1,037 million in deferred tax liabilities and ¥1,187 million in other payable.

Total equity as of December 31, 2018 decreased ¥2,659 million from the previous fiscal year-end to ¥150,857 million. The decrease mainly reflects cash dividends paid of ¥2,846 million, purchase of treasury stock of ¥2,194 million and a decrease in accumulated other comprehensive income of ¥4,662 million, despite recording profit attributable to owners of the parent of ¥6,875 million.

As a result, the equity ratio stood at 78.0% at the end of the fiscal year.



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

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



#### **Cash Flows**

Net cash provided by operating activities during the fiscal year under review came to ¥14,311 million, an increase of ¥4,149 million from the end of the previous fiscal year. The increase reflected a decrease in trade notes and accounts receivable of ¥1,866 million, and an increase in depreciation and amortization of ¥1.028 million.

Net cash used in investing activities was ¥8,013 million, an increase of ¥2,020 million from the previous fiscal year. The increase reflected increases of ¥1,764 million in deposit for time deposits-net and ¥607 million in purchases of property, plant and equipment.

Net cash provided by financing activities was ¥4,333 million. This mainly reflected an increase of ¥10,000 million in proceeds of long-term loans payable compared with the previous fiscal year, and a decrease of ¥5,610 million in purchases of treasury stock

As a result, cash and cash equivalents on December 31, 2018 increased ¥9,889 million to ¥39,851 million from ¥29,961 million at the previous fiscal year-end.

#### **Cash Flows Comparison** (Millions of yen)



#### Cash Flows from Financing Activities

#### FY2019/12 Performance Outlook\*

Net sales in the fiscal year ending December 31, 2019 are forecast to increase 6.0% year on year to ¥111,600 million on the expectation that growth in the Material Business will resume in the second half after hitting bottom in the first half.

Although net sales growth is expected, operating income is forecast to decrease 0.1% to ¥10,500 million, owing to higher costs in the Material Business, while assuming a ¥105/\$ exchange rate. TOK forecasts profit attributable to owners of the parent to expand 4.7% to ¥7,200 million, as there will no longer be the impact of the special factor related to tax effect accounting.

\* Figures announced on February 14, 2019.

#### Investment in Plant and Equipment/ Depreciation and Amortization/R&D Costs (Five-Year Summary) (Millions of yen)



Investment in Plant and Equipment R&D Costs

#### Earnings Forecasts\*

(Millions of ye								
	51/0010/10	FY2019/12 Forecast						
	FY2018/12		Change	%				
Net sales	105,277	111,600	+6,322	+6.0				
Operating income	10,505	10,500	-5	-0.1				
Profit attributable to owners of the parent	6,875	7,200	+324	+4.7				

\* Figures announced on February 14, 2019

### **Risk Information**

The TOK Group conducts business activities in every region of the world in a diverse range of fields. When carrying out these business activities, it encounters a variety of risk factors that may have a detrimental impact on its financial conditions and management performance. The risks described below are solely those that the Group judged to be most significant as of December 31, 2018 and do not constitute all of its risk factors.

#### 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.

# Jur Focus

#### 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 substance 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 out 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 Financial Statements

# **Consolidated Balance Sheets**

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries December 31, 2018 and 2017

	Millions	s of yen	Thousands of U.S. dollars
ASSETS	2018	2017	2018
CURRENT ASSETS:			
Cash and deposits	¥ 37,851	¥ 27,961	\$ 341,006
Time deposits	18,241	16,219	164,341
Receivables:			
Trade notes and accounts	22,539	22,554	203,060
Securities	2,000	2,000	18,018
Other	493	422	4,449
Allowance for doubtful accounts	(48)	(157)	(438)
Inventories	17,245	15,893	155,364
Deferred tax assets	1,687	1,574	15,204
Prepaid expenses and other current assets	1,577	1,249	14,213
Total current assets	101,589	87,719	915,219
PROPERTY, PLANT AND EQUIPMENT:	0.000	0 1 2 0	01.052
Land	8,996	9,120	81,052
Buildings and structures	63,330	62,902	570,545
Machinery and equipment	57,203	56,406	515,344
Furniture and fixtures	20,712	20,684	186,602
Construction in progress	3,393	4,077	30,568
Total	153,636	153,192	1,384,114
Accumulated depreciation	(105,277)	(101,488)	(948,449)
Net property, plant and equipment	48,358	51,703	435,665
INVESTMENTS AND OTHER ASSETS:			
Investment securities	12,910	16,486	116,312
Investments in and advanced to an unconsolidated subsidiary and			
associated companies	7	1,164	67
Investment in capital	220		1,981
Net defined benefit asset	2,065	2,352	18,611
Long-term time deposits	18,000	18,000	162,162
Deferred tax assets	438	145	3,954
Other assets	1,091	1,108	9,837
Total investments and other assets	34,734	39,258	312,927
	¥ 184,683	¥ 178,681	\$1,663,812

	Millions	Thousands of U.S. dollars	
LIABILITIES AND EQUITY	2018	2017	2018
CURRENT LIABILITIES:			
Payables:			
Trade notes and accounts	¥ 11,381	¥ 10,444	\$ 102,538
Construction and other	3,834	4,966	34,541
Income taxes payable	1,130	962	10,184
Accrued expenses	3,983	3,652	35,888
Advances from customers	88	236	796
Deferred tax liabilities	198	329	1,791
Other current liabilities	957	1,151	8,626
Total current liabilities	21,574	21,742	194,367
LONG-TERM LIABILITIES:			
Long-term loans payable	10,000		90,090
Deferred tax liabilities	1,625	2,533	14,646
Net defined benefit liability	306	262	2,757
Other long-term liabilities	318	625	2,872
Total long-term liabilities	12,250	3,421	110,366
EQUITY:			
Common stock—authorized, 197,000,000 shares in 2018 authorized, 197,000,000 shares in 2017			
issued, 45,100,000 shares in 2018			
issued, 45,100,000 shares in 2017	14,640	14,640	131,895
Capital surplus	15,207	15,207	137,008
Retained earnings	120,885	116,904	1,089,054
Treasury stock—at cost, 3,436,262 shares in 2018 and 3,021,037 shares in 2017	(13,816)	(11,732)	(124,470)
Accumulated other comprehensive income:			
Unrealized gain on available-for-sale securities	4,315	6,893	38,875
Foreign currency translation adjustments	3,137	4,646	28,268
Remeasurements of defined benefit plans	(239)	335	(2,159)
Total	144,130	146,896	1,298,471
Stock acquisition rights	310	247	2,797
Non-controlling interests	6,416	6,373	57,808
Total equity	150,857	153,517	1,359,078
TOTAL	¥184,683	¥178,681	\$1,663,812

## **Consolidated Statements of Income**

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries Years Ended December 31, 2018 and 2017

	Millions	s of yen	Thousands of U.S. dollars
	2018	2017	2018
NET SALES	¥105,277	¥92,411	\$948,443
COST OF SALES	71,896	63,805	647,714
Gross profit	33,380	28,606	300,729
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES	22,875	19,411	206,083
Operating income	10,505	9,194	94,645
OTHER INCOME (EXPENSES):			
Interest and dividend income	392	309	3,531
Foreign exchange (loss) gain—net	(580)	726	(5,226)
Gain (loss) on valuation of derivatives	306	(789)	2,757
Loss on impairment of long-lived assets	(860)	(242)	(7,750)
Other—net	50	294	457
Other (expenses) income—net	(691)	298	(6,230)
INCOME BEFORE INCOMETAXES AND NON-CONTROLLING INTERESTS	9,814	9,492	88,414
INCOME TAXES:			
Current	2,141	2,140	19,291
Deferred	(187)	348	(1,692)
Total income taxes	1,953	2,489	17,598
NET INCOME BEFORE NON-CONTROLLING INTERESTS	7,860	7,003	70,815
NON-CONTROLLING INTERESTS IN NET INCOME	984	996	8,870
PROFIT ATTRIBUTABLE TO OWNERS OF THE PARENT	¥ 6,875	¥ 6,007	\$ 61,945

	Ye	U.S. dollars	
PER SHARE OF COMMON STOCK:	2018	2017	2018
Basic profit	¥164.92	¥138.31	\$1.48
Diluted profit	164.44	137.91	1.48
Cash dividends applicable to the year	96.00	64.00	0.86

### **Consolidated Statements of Comprehensive Income**

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries Years Ended December 31, 2018 and 2017

	Millions	Thousands of U.S. dollars	
	2018	2017	2018
NET INCOME BEFORE NON-CONTROLLING INTERESTS	¥ 7,860	¥ 7,003	\$ 70,815
OTHER COMPREHENSIVE INCOME:			
Unrealized (loss) gain on available-for-sale securities	(2,578)	2,199	(23,229)
Foreign currency translation adjustments	(1,751)	1,457	(15,781)
Remeasurements of defined benefit plans	(575)	475	(5,184)
Share of other comprehensive income in an associate	(113)	(19)	(1,018)
Total other comprehensive income	(5,018)	4,112	(45,214)
COMPREHENSIVE INCOME	¥ 2,841	¥11,115	\$ 25,601
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:			
Owners of the parent	¥ 2,213	¥ 9,794	\$ 19,939
Non-controlling interests	628	1,321	5,661

# **Consolidated Statements of Changes in Equity**

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries Years Ended December 31, 2018 and 2017

	Thousands					٩	Aillions of ye	n				
							cumulated of nensive incor					
	Number of shares of common stock outstanding	Common stock	Capital surplus	Retained earnings	Treasury stock	Unrealized (loss) gain on available- for-sale	Foreign currency translation adjustments	Remea- surements of defined benefit plans	Total	Subscription rights to shares	Non- controlling interests	Total equity
BALANCE, APRIL 1, 2017	43,603	¥14,640	¥15,207	¥113,708	¥ (4,086)	¥ 4,694	¥ 3,533	¥(139)	¥147,559	¥221	¥5,150	¥152,931
Profit attributable to owners of the parent	_	_	_	6,007	_	_	_	_	6,007	_	_	6,007
Cash dividends paid: Final for prior year, ¥32.0 per share	_	_	_	(1,396)	_	_	_	_	(1,396)	_	_	(1,396)
Interim for current year, ¥32.0 per share	_	_	_	(1,397)	_	_	_	_	(1,397)	_	_	(1,397)
Purchase of treasury stock	(1,593)	_	_	_	(7,809)	_	_	_	(7,809)	_	_	(7,809)
Disposal of treasury stock	69	_	_	(18)	163	_	_	_	144	(26)	_	118
Net change in the year	-	-	-	—	-	2,199	1,112	475	3,787	52	1,222	5,062
BALANCE, DECEMBER 31, 2017	42,078	14,640	15,207	116,904	(11,732)	6,893	4,646	335	146,896	247	6,373	153,517
Profit attributable to owners of the parent Cash dividends paid:	-	-	-	6,875	-	-	-	-	6,875	-	-	6,875
Final for prior year, ¥32.0 per share	_	_	_	(1,346)	_	_	_	_	(1,346)	_	_	(1,346)
Interim for current year, ¥36.0 per share	_	_	_	(1,499)	_	_	_	_	(1,499)	_	_	(1,499)
Purchase of treasury stock	(442)	_	_	_	(2,194)	-	-	_	(2,194)	_	_	(2,194)
Disposal of treasury stock	27	_	_	(49)	110	_	_	_	61	(17)	_	43
Net change in the year	-	-	_	_	-	(2,578)	(1,508)	(575)	(4,662)	80	43	(4,538)
BALANCE, DECEMBER 31, 2018	41,663	¥14,640	¥15,207	¥120,885	¥(13,816)	¥ 4,315	¥ 3,137	¥(239)	¥144,130	¥310	¥6,416	¥150,857

					Thous	ands of U.S.	dollars				
		Accumulated other comprehensive income (loss)									
	Common stock	Capital surplus	Retained earnings	Treasury stock	Unrealized (loss) gain on available- for-sale securities	Foreign currency translation adjustments	Remea- surements of defined benefit plans	Total	Subscription rights to shares	Non- controlling interests	Total equity
BALANCE, DECEMBER 31, 2017	\$131,895	\$137,008	\$1,053,192	\$(105,694)	\$ 62,105	\$ 41,859	\$ 3,025	\$1,323,391	\$2,231	\$57,415	\$1,383,038
Profit attributable to owners of the parent	_	_	61,945	_	_	_	_	61,945	_	_	61,945
Cash dividends paid:											
Final for prior year, \$0.28 per share	-	-	(12,130)	-	-	-	-	(12,130)	-	-	(12,130)
Interim for current year, \$0.32 per share	_	_	(13,510)	_	_	_	_	(13,510)	_	_	(13,510)
Purchase of treasury stock	-	-	-	(19,772)	-	-	-	(19,772)	-	-	(19,772)
Disposal of treasury stock	-	-	(441)	996	-	-	-	554	(158)	-	396
Net change in the year	-	-	-	-	(23,229)	(13,591)	(5,184)	(42,006)	725	392	(40,888)
BALANCE, DECEMBER 31, 2018	\$131,895	\$137,008	\$1,089,054	\$(124,470)	\$ 38,875	\$ 28,268	\$(2,159)	\$1,298,471	\$2,797	\$57,808	\$1,359,078

## **Consolidated Statements of Cash Flows**

TOKYO OHKA KOGYO CO., LTD. and Consolidated Subsidiaries Years Ended December 31, 2018 and 2017

	Millions	Thousands of U.S. dollars	
	2018	2017	2018
OPERATING ACTIVITIES:			
Income before income taxes and non-controlling interests	¥ 9,814	¥ 9,492	\$ 88,414
Adjustments for:			
Income taxes paid	(2,221)	(2,286)	(20,013)
Depreciation and amortization	7,063	6,035	63,638
Provision for doubtful accounts	(244)	(130)	(2,201)
Foreign exchange loss (gain)—net	983	(1,131)	8,856
Loss on impairment of long-lived assets	860	242	7,750
(Gain) loss on valuation of derivatives	(306)	789	(2,757)
Increase in net defined benefit asset	(455)	(151)	(4,100)
Decrease in net defined benefit liability	(37)	(18)	(342)
Increase in trade notes and accounts receivable	(420)	(2,286)	(3,788)
Increase in inventories	(1,770)	(1,929)	(15,953)
Increase in trade notes and accounts payable	1,092	755	9,844
(Increase) decrease in consumption taxes refund receivable	(268)	295	(2,419)
Other—net	223	485	2,009
Net cash provided by operating activities	14,311	10,162	128,936
INVESTING ACTIVITIES:			
Deposit for time deposits—net	(2,150)	(386)	(19,372)
Purchases of property, plant and equipment	(6,491)	(5,884)	(58,485)
Purchases of intangible assets	(234)	(155)	(2,111)
Payments into long-term time deposits	(14,000)	(3,000)	(126,126)
Withdrawal of long-term time deposits	14,000	3,000	126,126
Purchases of investment securities	(210)	_	(1,893)
Proceeds from sales of investment securities	1,081	0	9,739
Other—net	(8)	432	(74)
Net cash used in investing activities	(8,013)	(5,993)	(72,197)
FINANCING ACTIVITIES:			
Proceeds of long-term loans payable	10,000		90,090
Repayments of long-term loans payable		(138)	
Dividends paid	(2,841)	(136)	(25,602)
Dividends paid for non-controlling interests	(2,641)	(2,783)	(5,269)
Purchases of treasury stock	(2,212)	(7,823)	(19,934)
Other—net	(2,212)	173	(13,334)
Net cash provided by (used in) financing activities	4,333	(10,673)	39,036
FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS	(741)	557	(6,677)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	9,889	(5,945)	
			89,098 269,925
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	29,961	35,907 X 20.061	269,925 \$ 259,024
CASH AND CASH EQUIVALENTS, END OFYEAR	¥ 39,851	¥ 29,961	\$ 359,024

# Shareholder Value

#### **10-year Trends of Shareholder Composition**

#### Changes in number and composition (shareholding ratio) of shareholders



(Note) Treasury stock is included in "Japanese Individuals and Others."

#### **Major Shareholders**

(As	of December	31, 2018)
Name	Number of shares held (Thousands)	Ratio of hareholding (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	3,101	7.44
The MasterTrust Bank of Japan, Ltd. (Trust Account)	2,759	6.62
Meiji Yasuda Life Insurance Company	1,826	4.38
MLPFS CUSTODY ACCOUNT	1,469	3.53
MUFG Bank, Ltd.	1,207	2.90
Hitachi Chemical Company, Ltd.	1,069	2.57
The Bank of Yokohama, Ltd.	1,026	2.46
Tokyo Ohka Foundation for The Promotion of		
Science and Technology	984	2.36
Mitsubishi UFJ Trust and Banking Corporation	953	2.29
Mitsubishi UFJ Capital Co., Ltd.	860	2.06
Notes: 1. The Company owns 3,436 thousand shares of treasu	ury stock which	are

excluded from the above major shareholders.

2. The ratio of shareholding is calculated based on the number of shares

(41.663.738 shares) obtained by subtracting the number of shares of treasury stock from the total number of shares issued.

#### **Stock Information**

Stock listing	First Section of Tokyo Stock Exchange, Inc.
Category of industry	Chemicals
Securities code	4186
Share unit number	100
Accounting period	January 1 to December 31*
Dividend record date (Year-end)	December 31
Dividend record date (Interim)	June 30
Total number of shares authorized	197,000,000 shares (As of December 31, 2018)
Number of shares issued	45,100,000 shares (As of December 31, 2018)

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

#### **10-year Trends of TOK's TSR**

Relative comparison with April 2009 being 1 (monthly, closing price basis)



# Global Network

#### TOKYO OHKA KOGYO CO., LTD.

- 1 Headquarters
- 2 Shanghai Representative Office
- 3 Singapore Office



#### Established: April 1989

Business: Manufacture and sales of photoresists, and development, manufacture and sales of photoresists-related chemicals

- 4 Headquarters/Oregon Plant
- 5 Sales Office (California)



#### Established: January 1998

Business: Manufacture and sales of photoresists, and development, manufacture and sales of photoresists-related chemicals

6 Headquarters (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 Headquarters/Changshu Plant (China)

#### Tokyo Ohka Kogyo Europe B.V.

#### Established: December 2005

Business: Sales of photoresists and related chemicals

8 Headquarters (The Netherlands)



#### TOK Advanced Materials Co., Ltd.

#### Established: August 2012

Business: Development, manufacture, and sales of photoresists and related chemicals

9 Headquarters/Incheon Plant (South Korea)



# Third-Party Verification Report



#### Integrated Report 2018 Third-Party Verification Report

July 18, 2019

To: Noriaki Taneichi President & Chief Executive Officer TOKYO OHKA KOGYO CO., LTD.

#### Purpose of Verification

The purpose of this verification is to express the opinions of chemical industry experts with respect to the following matters, covering "Integrated Report 2018" prepared by "TOKYO OHKA KOGYO CO., LTD." (hereinafter the "Report" and the "Company" respectively). The scope of verification excludes financial information.

- Rationality of the methods for calculating and compiling performance indicators (numerical figures) and the accuracy of these numerical figures
- 2) Accuracy of non-numerical information in the Report
- 3) Responsible Care® and CSR activities
- 4) Distinctive characteristics of the Report
- Verification Procedure
- At the Sagami Operation Center (hereinafter the "Sagami"), we inspected the rationality of the methods
  used for compiling the numerical data reported from each site (office, plant) and checked the accuracy of
  non-numerical information. The inspection at the Sagami was performed by asking questions about the
  Report to people responsible for relevant operations and people responsible for preparing the Report, as
  well as receiving materials and explanations
- At the Aso Plant (hereinafter the "Aso"), we inspected the rationality of the methods used to calculate the figures reported to the Sagami, as well as the accuracy of non-numerical information. The inspection at the Aso was performed by asking questions to people responsible for relevant operations and people responsible for preparing the Report, receiving materials and explanations, and cross-checking them against evidences.
- · We applied the sampling method for investigating numerical figures and stated information.

Opinions

- Rationality of the methods for calculating and compiling performance indicators (numerical figures) and the accuracy of these numerical figures
- Both the Sagami and the Aso use improved, reasonable methods to calculate and compile numerical figures, and for the scope of our investigation the performance figures were checked by multiple people and were calculated and tabulated correctly.
- · We expect progress in the automation of some of the data transcription that still remains.
- 2) Accuracy of non-numerical information in the Report
- We confirmed that the data included in the Report are accurate. We pointed out a few issues regarding
  appropriateness of expressions and readability in the draft stage, but all of these issues are edited in the
  current Report.
- 3) Responsible Care and CSR activities
- · We commend initiatives for material issues as a guideline for continuing contribution to society.
- We commend that results have been achieved in the reduction of industrial waste, preservation of air, water and soil environment and preservation of biodiversity while appropriately addressing laws and regulations.
- Risk assessments are conducted at all sites, including Group subsidiaries. We commend that a list of
  company-wide risk items and the risk status of each plant and affiliate is kept and that the list is timely
  updated and revised.
- We commend recycling of organic solvent waste created during the manufacturing process at the Aso, strengthening of plastic trash separation and its effective use as a resource in raw materials and the strengthening of risk assessments of highly corrosive chemical substances.
- 4) Distinctive characteristics of the Report
- This Report combines financial and non-financial information, which had previously been disclosed separately, to make a single disclosure that is easier for readers to read and understand.
- The message from the president states concisely that the Company will continue to create value and provide solutions to the issues faced by customers and society while new innovations are being developed throughout the world.

Shigelei hagamater

Shigeki Nagamatsu Chief Director, Responsible Care Verification Center Japan Chemical Industry Association

# Corporate Information/External Evaluation

#### Corporate Information (As of December 31, 2018)

**Corporate Name** Established Headquarters

TOKYO OHKA KOGYO CO., LTD. October 25, 1940 150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012, JAPAN

**Paid-In Capital** Website Stock Listing Investor Relations Contact

Number of Employees 1,673 (Consolidated) ¥14,640,448,000 https://www.tok.co.jp/eng Tokvo **Public Relations Division** 150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012, JAPAN TEL. +81-44-435-3000 FAX. +81-44-435-3020



**Evaluations and commendations** 

for various activities

### **External Evaluation**

#### Selected or recognized for ESG-related indices, etc.

SNAM Sustainability Index Intel Corporation (A constituent stock in 2019) Preferred Quality Supplier (PQS) Award (2018, 2016) Texas Instruments Inc. Supplier Excellence Award (2018) Member of SNAM Sustainability Index 2019 2018 Certified Health & Productivity Management Outstanding Organizations **Recognition Program** Taiwan Semiconductor Manufacturing Company Limited 2017 Excellent Performance in Lithography Material (2017) (White 500) (2019, 2018) IMOR Award (2016) 健康経営優良法人 Nikkei Annual Report Awards Award for Excellence ホワイト500 (2018, 2016) MSCI Japan Empowering Women Index (2019, 2017)MSCI Japan Empowering MSCI ( Women Index (WIN) Nikkei Science Advertising Awards Grand Prize (2016) First Prize (2015) MSCI Japan ESG Select Leaders Index (2019) MSCI Japan ESG **MSCI** Select Leaders Index (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 (2014)MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES. S&P/JPX Carbon Efficient Index (As of March 18, 2019)

**Our Value Creation** 





Global Niche Top Companies Selection 100 (Ministry of Economy, Trade and Industry)

