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Fiscal year:	123rd term (from April 1, 2018 to March 31, 2019)
Company name (Japanese):	TDK <i>Kabushiki-Kaisha</i>
Company name (English):	TDK CORPORATION
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Place where the document to be filed is available for public inspection	Tokyo Stock Exchange, Inc. (2-1, Nihonbashi-kabutocho, Chuo-ku, Tokyo, Japan)

A. COMPANY INFORMATION

I. Overview of the Company

1. Trends in principal management benchmarks

(1) Management benchmarks (consolidated)

Term	119th term	120th term	121st term	122nd term	123rd term
Accounting period	From April 1, 2014 to March 31, 2015	From April 1, 2015 to March 31, 2016	From April 1, 2016 to March 31, 2017	From April 1, 2017 to March 31, 2018	From April 1, 2018 to March 31, 2019
Net sales (Millions of yen)	1,082,560	1,152,255	1,178,257	1,271,747	1,381,806
Income from continuing operations before income taxes (Millions of yen)	74,517	91,839	211,717	89,811	115,554
Net income attributable to TDK (Millions of yen)	49,440	64,828	145,099	63,463	82,205
Comprehensive income (loss) attributable to TDK (Millions of yen)	129,761	(34,469)	138,952	52,473	80,335
TDK stockholders' equity (Millions of yen)	738,861	675,361	793,614	824,634	877,290
Net assets (Millions of yen)	758,007	684,633	802,118	831,232	883,756
Total assets (Millions of yen)	1,404,253	1,450,564	1,664,333	1,905,209	1,992,480
TDK stockholders' equity per share (Yen)	5,864.56	5,354.79	6,288.55	6,532.01	6,946.70
Net income attributable to TDK per share (Yen)	392.78	514.23	1,150.16	502.80	651.02
Diluted net income attributable to TDK per share (Yen)	377.98	504.66	1,147.57	501.47	649.45
Stockholders' equity ratio (%)	52.6	46.6	47.7	43.3	44.0
Return on stockholders' equity (%)	7.2	9.2	19.8	7.8	9.7
Price earnings ratio (PER) (Times)	21.7	12.2	6.1	19.1	13.3
Net cash provided by operating activities (Millions of yen)	142,850	151,563	160,136	91,310	140,274
Net cash used in investing activities (Millions of yen)	(127,312)	(140,585)	(71,111)	(246,099)	(140,179)
Net cash provided by (used in) financing activities (Millions of yen)	(35,243)	29,305	(37,753)	110,088	9,435
Cash and cash equivalents at end of term (Millions of yen)	265,104	285,468	330,388	279,624	289,175
Number of employees (Person)	88,076	91,648	99,693	102,883	104,781

Notes: 1. Net sales do not include consumption taxes, etc.

2. Net assets per share, equity ratio and return on equity have been replaced with stockholders' equity per share, stockholders' equity ratio and return on stockholders' equity because TDK Corporation prepared consolidated financial statements based on U.S. GAAP.

(2) Filing company's management benchmarks (non-consolidated)

Term	119th term	120th term	121st term	122nd term	123rd term
Accounting period	From April 1, 2014 to March 31, 2015	From April 1, 2015 to March 31, 2016	From April 1, 2016 to March 31, 2017	From April 1, 2017 to March 31, 2018	From April 1, 2018 to March 31, 2019
Net sales (Millions of yen)	99,005	264,304	244,361	292,146	309,326
Current income (loss) (Millions of yen)	(8,379)	(14,376)	78,686	3,454	(15,269)
Net income (loss) (Millions of yen)	(5,045)	(26,447)	72,377	3,685	(36,063)
Capital stock (Millions of yen)	32,641	32,641	32,641	32,641	32,641
Total number of issued shares (Thousands of shares)	129,591	129,591	129,591	129,591	129,591
Net assets (Millions of yen)	331,036	284,544	342,249	327,866	273,157
Total assets (Millions of yen)	767,313	751,913	774,572	942,543	935,939
Net assets per share (Yen)	2,617.73	2,246.11	2,701.20	2,585.20	2,150.67
Cash dividends per share (Yen)	90.00	120.00	120.00	130.00	160.00
[Interim dividends per share] (Yen)	[40.00]	[60.00]	[60.00]	[60.00]	[80.00]
Net income (loss) per share (Yen)	(40.08)	(209.79)	573.72	29.20	(285.60)
Diluted net income per share (Yen)	—	—	572.43	29.13	—
Equity ratio [%]	43.0	37.7	44.0	34.6	29.0
Return on equity [ROE] [%]	(1.5)	(8.6)	23.2	1.1	(12.1)
Price earnings ratio [PER] [Times]	—	—	12.3	328.4	—
Dividend payout ratio [%]	—	—	20.9	445.2	—
Number of employees [Person]	3,763	4,542	4,644	5,055	5,330
Total shareholder return (%) (Benchmark: TOPIX index)	200.2 (130.7)	149.9 (116.5)	171.2 (133.7)	233.2 (154.9)	215.5 (147.1)
Highest(Yen)	9,260	10,450	8,470	10,860	12,940
Lowest(Yen)	4,045	5,230	5,170	6,380	7,070

Notes:

1. Net sales do not include consumption taxes, etc.
2. Diluted net income per share in the 119th and 120th terms are not presented because, although there were potentially dilutive shares, net losses per share were reported.
3. Highest and lowest share prices were those recorded on the first section of the Tokyo Stock Exchange.

2. Description of business operations

TDK Corporation prepares its consolidated financial statements according to U.S. generally accepted accounting principles (U.S. GAAP). It discloses information based on these consolidated financial statements pertaining to its subsidiaries and affiliates based on the definitions of U.S. GAAP. The same applies to “II. Review of operations” and “III. Facilities.”

As of March 31, 2019, the TDK Group (“TDK”) is comprised of TDK Corporation (the “Company”), 139 consolidated subsidiaries and 7 equity-method affiliates. Segment categories are manufacturing and sales of “Passive Components,” “Sensor Application Products,” “Magnetic Application Products,” “Energy Application Products” and “Other” (not included in the other four segments). In addition, TDK newly established Energy Application Products segment in accordance with the reorganization in the year ended March 31, 2019.

The following table presents a description of business operations and the respective placement of the Company and subsidiaries and affiliates with respect to these business operations.

Category	Main products	Major companies
Passive Components	Ceramic capacitors, Aluminum electrolytic capacitors, Film capacitors, Inductive devices (Coils/Ferrite cores/Transformers), High-frequency components, Piezoelectric materials products and Circuit protection components	The Company TDK Europe GmbH TDK Electronics AG TDK Hong Kong Co., Ltd. TDK(Shanghai)International Trading Co., Ltd. 61 other companies (Domestic: 4, Overseas:57) (Total: 66 companies)
Sensor Application Products	Temperature and Pressure Sensors, Magnetic Sensors, MEMS Sensors	The Company TDK-Micronas GmbH InvenSense, Inc. 19 other companies (Domestic: 2, Overseas: 17) (Total: 22 companies)
Magnetic Application Products	HDD Heads, HDD suspension assemblies, Magnets	The Company SAE Magnetics (H.K.) Ltd. Magnecomp Precision Technology Public Co., Ltd. Headway Technologies, Inc. Hutchinson Technology Operations (Thailand), Co., Ltd. 14 other companies (Domestic: 0, Overseas: 14) (Total: 19 companies)
Energy Application Products	Energy devices (Rechargeable batteries), Power supplies	The Company Amperex Technology Ltd. TDK-Lambda Corporation 20 other companies (Domestic:1, Overseas: 19) (Total: 23 companies)
Other	Mechatronics (production equipment), other	The Company TDK Corporation of America 19 other companies (Domestic: 8, Overseas: 11) (Total: 21 companies)

3. Status of subsidiaries and affiliates

Name	Location	Capital	Principal business	Holding rate of voting rights (%)	Business relationship
(Consolidated subsidiaries – Overseas)					
Ningde Amperex Technology Ltd. *1 , *2	Ningde, China	RMB 839,909,052	Energy Application Products	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
Amperex Technology Ltd. *1 , *3	Hong Kong, China	US\$ 277,588,100	Energy Application Products	99.5 (57.5)	Manufacturing and sales of TDK products Loans to TDK Interlocking directorate: Yes
SAE Magnetics (H.K.) Ltd. *1 , *4	Hong Kong, China	HK\$ 50,000	Magnetic Application Products	100 (100)	Manufacturing and sales of TDK products Loans to TDK Interlocking directorate: Yes
TDK Hong Kong Co., Ltd. *1	Hong Kong, China	HK\$ 25,500,000	Passive Components and Magnetic Application Products	100	Manufacturing and sales of TDK products Loans from TDK Interlocking directorate: No
Navitasys Technology Ltd. *1	Hong Kong, China	US\$ 86,160,571	Energy Application Products	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
Dongguan Amperex Technology Ltd. *1	Dongguan, China	RMB 485,509,727	Energy Application Products	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
TDK Xiamen Co., Ltd. *1	Xiamen, China	RMB 681,074,000	Passive Components	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
TDK (Zhuhai FTZ) Co., Ltd.	Zhuhai, China	RMB 29,390,675	Passive Components	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
TDK (Zhuhai) Co., Ltd.	Zhuhai, China	RMB 127,150,185	Passive Components	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
TDK (Suzhou) Co., Ltd.	Suzhou, China	RMB 93,324,615	Passive Components	100 (100)	Manufacturing of TDK products Interlocking directorate: No
TDK Dalian Corporation *1	Dalian, China	US\$ 77,816,000	Passive Components	100 (80)	Manufacturing of TDK products Interlocking directorate: No
SAE Magnetics (Dongguan) Limited *1	Dongguan, China	RMB 341,480,000	Passive Components	100 (100)	Manufacturing of TDK products Interlocking directorate: Yes
TDK (Shanghai) International Trading Co., Ltd.	Shanghai, China	RMB 1,659,160	Passive Components	100 (100)	Sales of TDK products Interlocking directorate: Yes
TDK Electronics Hong Kong Limited	Hong Kong, China	HK\$ 2,000,000	Passive Components	100 (100)	Sales of TDK products Interlocking directorate: No
TDK China Co., Ltd. *1	Shanghai, China	RMB 260,973,200	Investment in and financing to subsidiaries and affiliates and their management	100	Loans from TDK Interlocking directorate: Yes
TDK Electronics AG *1	Munich, Germany	EUR 66,682,270	Passive Components	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: Yes
TDK Hungary Components Kft.	Szombathely, Hungary	EUR 9,670,320	Passive Components	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
TDK Electronics GmbH & Co OG	Deutschlandsberg, Austria	EUR 14,500,000	Passive Components	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
TDK-Micronas GmbH	Freiburg, Germany	EUR 500,000	Sensor Application Products	100	Manufacturing and sales of TDK products Loans from TDK Interlocking directorate: No
TDK Europe GmbH *1, *5	Munich, Germany	EUR 46,545,000	Passive Components	100 (100)	Sales of TDK products Interlocking directorate: No
TDK Europe S.A. *1	Windhof, Luxembourg	EUR 20,974,825	Investment in and financing to subsidiaries and affiliates and their management	100	Loans to TDK Interlocking directorate: Yes

Name	Location	Capital	Principal business	Holding rate of voting rights (%)	Business relationship
TDK Germany GmbH	Dusseldorf, Germany	EUR 25,000	Investment in and financing to subsidiaries and affiliates and their management	100 (100)	Interlocking directorate: Yes
Headway Technologies, Inc. *1	California, U.S.A.	US\$ 163,161,945	Magnetic Application Products	100	Manufacturing and sales of TDK products Loans to TDK Interlocking directorate: Yes
InvenSense, Inc. *1	California, U.S.A.	US\$ 79,923	Sensor Application Products	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: Yes
TDK Corporation of America	Illinois, U.S.A	US\$ 3,800,000	Passive Components	100 (100)	Sales of TDK products Interlocking directorate: Yes
TDK U.S.A. Corporation *1	New York, U.S.A.	US\$ 850	Investment in and financing to subsidiaries and affiliates and their management	100	Loans from TDK Interlocking directorate: Yes
Magnecomp Precision Technology Public Co., Ltd. *1	Ayutthaya, Thailand	US\$ 96,333,296	Magnetic Application Products	99.8	Manufacturing and sales of TDK products Interlocking directorate: Yes
TDK Taiwan Corporation	Taipei, Taiwan	NT\$ 424,125,200	Passive Components	95.4 (95.4)	Manufacturing and sales of TDK products Loans from TDK Interlocking directorate: Yes
TDK India Private Limited *1	Kalyani, India	INR 1,438,870,990	Passive Components	100 (100)	Manufacturing and sales of TDK products Interlocking directorate: No
TDK Taiwan Electronics Corporation	Taipei, Taiwan	NT\$ 270,000,000	Passive Components	100 (100)	Sales of TDK products Interlocking directorate: No
TDK Singapore (Pte) Ltd.	Singapore	US\$ 126,050	Passive Components	100 (100)	Sales of TDK products Loans to TDK Interlocking directorate: No
(Consolidated subsidiaries – Domestic) TDK-Lambda Corporation	Chuo-ku, Tokyo	(Millions of yen) 2,976	Energy Application Products	100 (2)	Manufacturing and sales of TDK products Loans from TDK Interlocking directorate: No
TDK Akita Corporation	Yurihonjo City, Akita Prefecture	200	Passive Components	100 (100)	Manufacturing of TDK products Interlocking directorate: No
TDK Shonai Corporation	Tsuruoka City, Yamagata	110	Passive Components	100 (100)	Manufacturing of TDK products Interlocking directorate: Yes
TDK-EPC Corporation *1	Chuo-ku, Tokyo	100	Investment in and financing to subsidiaries and affiliates and their management	100	Loans from TDK Interlocking directorate: Yes
104 other companies					
(Equity-method affiliates) RF360 Holdings Singapore PTE. Ltd.	Singapore	US\$ 2,634,455,245	Holding company with subsidiaries of operation of High-frequency components business	49 (49)	Interlocking directorate: Yes
TODA KOGYO CORP.,	Hiroshima City, Hiroshima Prefecture	Millions of yen 7,477	Manufacturing and sales of a magnetic material	25.5	Interlocking directorate: No
Semiconductor Energy Laboratory Co., Ltd.	Atsugi City, Kanagawa Prefecture	Millions of yen 4,348	Research and development of semiconductor products	31.7	Interlocking directorate: No
4 other companies					

- Notes: 1. Descriptions in the “Principal business” column are names of business segments or other specific business activities.
2. Figures in parentheses in the “Holding rate of voting rights” column indicate indirect holding rates included in the figures outside the parentheses.
3. Descriptions of “Interlocking directorate” include corporate officers of the Company.
4. *1: Applies to specific subsidiaries.
5. *2: Net sales of Ningde Amperex Technology Ltd. exceeded 10% of net sales of TDK.

The major items of income are as follows:

- | | |
|--------------------------------|-------------------|
| i. Net sales | ¥386,361 million |
| ii. Income before income taxes | ¥109,684 million |
| iii. Net income | ¥94,824 million |
| iv. Net assets | ¥ 242,126 million |

- v. Total assets ¥411,749 million
- 6. *3: Net sales of Amperex Technology Ltd. exceeded 10% of net sales of TDK.
 The major items of income are as follows:
 - i. Net sales ¥254,675 million
 - ii. Income before income taxes ¥2,348 million
 - iii. Net income ¥1,727 million
 - iv. Net assets ¥ 63,477 million
 - v. Total assets ¥108,842 million
- 7. *4: Net sales of SAE Magnetics (H.K.) Ltd. exceeded 10% of net sales of TDK.
 The major items of income are as follows:
 - i. Net sales ¥189,125 million
 - ii. Income before income taxes ¥24,863 million
 - iii. Net Income ¥23,142 million
 - iv. Net assets ¥145,343 million
 - v. Total assets ¥172,419 million
- 8. *5: Net sales of TDK Europe GmbH exceeded 10% of net sales of TDK.
 The major items of income are as follows:
 - i. Net sales ¥144,774 million
 - ii. Income before income taxes ¥1,417 million
 - iii. Net Income ¥1,041 million
 - iv. Net assets ¥10,067 million
 - v. Total assets ¥46,397 million

4. Status of employees

(1) Status of consolidated companies

(As of March 31, 2019)

Name of business segment	Number of employees (Person)
Passive Components	32,644
Sensor Application Products	6,664
Magnetic Application Products	13,700
Energy Application Products	40,264
Other	9,281
Corporate (Common)	2,228
Total	104,781

(2) Status of filing company (the Company)

(As of March 31, 2019)

Number of employees (Person)	Average age (Years old)	Average years of service (Years)	Average annual salary (Yen)
5,330	43.8	18.9	7,944,815

Name of business segment	Number of employees (Person)
Passive Components	1,549
Sensor Application Products	96
Magnetic Application Products	582
Energy Application Products	287
Other	706
Corporate (Common)	2,110
Total	5,330

Notes: 1. The number of employees indicates the number of working employees.
2. Average annual salary includes bonuses and surplus wages.
3. The number of employees shown as Corporate (Common) is the number of employees who belong to the administrative departments.

(3) Status of labor union

The filing company and some of its subsidiaries have labor unions.

II. Review of operations

1. Management policies, Management environment and Pressing issues

The forward looking statements in this report are based on judgment current as of March 31, 2019.

① Fundamental Management Policy

TDK was established in 1935 as the world's first company to industrialize a magnetic material called ferrite. In the ensuing years, TDK has developed and commercialized passive components, sensor application products, magnetic application products and Energy application products, among other products. This drive has been based on the company's founding spirit: "Contribute to culture and industry through creativity."

To preserve its identity as a dynamic company, TDK believes that it must remain an organization that constantly creates even higher corporate value to all stakeholders, including shareholders, customers, suppliers, employees and society, by drawing on innovative thinking and a willingness to tackle new challenges.

② Medium- and Long-Term Management Strategy

TDK formulated and is implementing the three-year medium-term plan that began in the fiscal year ending March 31, 2019. Under the plan, TDK aims to achieve sustainable growth and increase corporate value by refining the materials and process technologies it has cultivated and strengthening provision of solutions that respond to market needs. TDK will pursue a zero-defect quality strategy based on advanced technological capabilities, along with working to truly globalize its operations by speed-focused management.

The business environment revolving around electronics is moving toward a period of substantial change. Reformation is taking place, with an energy transformation with the shift from fossil fuels to renewable energy and a digital transformation with the permeation of digital technologies such as IoT and AI in society. With these significant trends, the demand for electronic components will rapidly increase, and TDK will strive to increase sales by providing sought-after solutions in the market through its four main businesses: Passive Components, Sensor Application Products, Magnetic Application Products, and Energy Application Products. In addition to investing in the main businesses, TDK aims to enhance the Group's overall profitability and capital efficiency and achieve ROE 14% or more in medium-term, while effectively investing in new product development and new businesses.

Furthermore, TDK's medium-term plan positions the improvement of the TDK's social value as one of its high-priority issues, not merely stopping at increase of sales and profit. Through sustainable corporate activities, the TDK seeks to realize growth and improve its social value by contributing to the resolution of various social issues on a global scale.

③ Pressing Issues of TDK

TDK anticipates an increase in demand for electrical components in the electronics market for the medium to long term. However, the market cannot avoid the short-term impacts on macroeconomics caused by U.S.-China trade friction, the slowdown of China's economy, and political risks in Europe such as Brexit (British exit from the European Union) that are intensifying a downward trend. In this business environment, TDK will strengthen the nature of its overall profitability by implementing measures to improve earnings that will not fluctuate with economic conditions, while planning for stable growth in core businesses through expansion of its customer and applications bases. TDK will also constantly conduct capital investment, striving to strengthen the competitiveness of its core businesses with a focus on medium- to long-term growth.

As the medium-term plan positions improving the TDK's social value as one of its high-priority issues, the Company has newly established the Sustainability Promotion HQ to bolster initiatives toward this goal. TDK aims to further growth by bolstering its business initiatives using the SDGs—the international development goals listed in "The 2030 Agenda for Sustainable Development" adopted UN summit in September 2015—as a framework, and contributes to society through sustainable business activities.

In its compliance structure, TDK appointed a Chief Compliance Officer to oversee the entire Group and has worked to develop a structure with the aim of further reinforcing compliance with laws and regulations in line with the Group's globalization. TDK is also working on strengthening its governance structure with the initiatives, etc of a Corporate Governance Committee established as an advisory body to the Board of Directors.

2. Business risks

Listed below are items that, among those relating to the review of operations and accounting, etc. stated in the Annual Securities Report, may significantly influence investor decisions. The following includes forward-looking statements based on judgments current as of the filing date of the Annual Securities Report on June 27, 2019.

(1) Risks concerning changes in economic trends

The electronics industry, TDK's field of operations, is highly susceptible to social and economic trends in the U.S., Europe, Asia, particularly China and Japan, which are the main markets for end products. In addition, markets in these countries and regions are constantly exposed to various risk factors such as political issues, international issues, and economic fluctuations. Although TDK monitors such world risk trends and takes timely measures in response to them, there is no guarantee that adequate and timely measures can always be taken. And, if changes beyond our expectations occur in such business environments, such changes could significantly affect business results.

(2) Risks concerning fluctuations in currency exchange

TDK conducts business activities globally. Indeed, more than 90% of net consolidated sales are accounted for by overseas sales, and many transactions are conducted in currencies other than the yen, such as the U.S. dollar or euro. A sudden appreciation of the yen against these currencies could affect earnings such as by reducing net sales and operating income. In order to mitigate these risks, TDK is working to purchase more raw materials in foreign currencies and increase the local procurement of supplies consumed overseas. Foreign currency fluctuations also give rise to conversion differences with respect to our investments in overseas assets and liabilities, which are converted into Japanese yen in our consolidated financial statements. Measures are taken against fluctuations in foreign currency exchange rates, including procuring foreign currency-denominated funds and concluding forward foreign exchange contracts; however, sudden or significant fluctuations in exchange rates could have a significant adverse effect on TDK's financial position and business results.

(3) Risks concerning interest rate fluctuation

TDK, as necessary, has financial assets, such as cash deposits and government bonds, and financial liabilities such as loans from banks, corporate bonds, and lease obligations. Fluctuations in interest rates over such assets and debts could affect the interest income, and interest expense, and the value of financial assets and liabilities, which could have a significant effect on TDK's financial position and business results.

(4) Risks concerning natural disasters, electricity supply and pandemics

TDK has many production factories and research and development facilities in Japan and overseas. These facilities and plants have taken disaster-protection and infection-control measures and purchased their own power generation facilities to cope with electricity shortages in preparation for unexpected natural disasters and infection outbreaks. However, significant damage could be incurred at these facilities and plants due to an event beyond business continuity planning (BCP) assumptions, such as a large earthquake, tsunami, typhoon, flood or volcanic eruption; a large-scale blackout or electricity shortages caused by them; or an outbreak of an unknown infectious disease such as a new strain of influenza. In the event of interruption to manufacturing, disruption of transportation routes, damage to or disconnection of information and communications infrastructure, impairment of central functions, or significant damage to our customers themselves due to the impact of such occurrences, orders and supply could be affected for a long period of time. This situation could have a significant effect on business results.

(5) Risks in international business activities

TDK conducts operations globally, and its overseas sales accounts for more than 90% of total sales on a consolidated basis.

In many of our target markets and emerging countries that are expected to see economic development going forward, TDK may be exposed to international political risks such as war, terrorism or other events, domestic political and economic risks such as fluctuations in currency exchange, Tariff raising, Import/Export restrictions, and social risks including labor problems stemming from differences in cultures and customs, and diseases. There may be unknown risks in building relationships with trading partners due to differences in commercial and business customs. If these risks materialize, they could reduce or halt manufacturing activities, force the stagnation of sales activities and in turn have a significant adverse effect on business results.

In particular, TDK has many manufacturing bases in China and has established a system for supplying both customers and local companies that have been setting up operations in China. If problematic events occur in China due to above-mentioned political factors (such as changes in laws and regulations), economic factors (such as the continuity of high growth and status of infrastructure development such as electric power supply) or social environment, there could be a significant effect on business results.

(6) Risks concerning corporate social responsibility

TDK has, for the sustainable development of society, recognized corporate social responsibility such as care to global environment, improvement of working environment, and respect for human rights as important management issues and has been working to realize it in the business operation including supply chain management. As one of examples of care to the global environment, we have set target which is to halve CO2 emissions basic-unit in a life-cycle perspective by 2035 from the fiscal year ended March 31, 2015 for climate change strategy, and implement emissions reduction to achieve the target.

However, in case there are environmental pollution, problem related to industrial health and safety such as industrial accident, child labor, forced labor, or problem related to human right such as discrimination to foreign workers happen despite of our effort, decline of social trust in TDK, suspension of business transaction, or withdrawal of partial business may have a significant effect on our business result.

In case related laws, regulations, international initiatives' standards or customer requirements for CO2 reduction etc. are strictly tighten, expenses to adapt to such tightening situation may become unexpectedly high, or a part of business may be withdrawn. This could have a significant effect on our business result.

(7) Risks of taxation

TDK has manufacturing bases and sales entities throughout the world, and we conduct a lot of international transaction between group companies. We pay close attentions to make transaction price appropriate from the perspective of Transfer pricing taxation and customs laws in each applicable countries. However, due to the difference in opinion with tax authorities or customs authorities, we may incur additional tax burden as a result of indication that the transaction price is inappropriate. And, due to the new introduction or change of tax laws and its interpretation in various countries, we may incur an increase of tax burden.

With respect to deferred tax asset, we have periodically evaluated the feasibility according to the prospect of future taxable income and the profit plan to be realizable by tax. When the future profit plan cannot be realized, or when the evaluation of feasibility is reviewed due to new introduction or changes of tax laws or tax execution, we have to increase the valuation allowance of deferred tax assets.

When such events occur, that could have a significant effect on business results.

(8) Risks concerning technological innovation and new product development

In TDK, the launch of new products imbuing value on a timely basis helps boost our profitability. We also believe ongoing new product development is key to our survival. The Group believes that our ability to increase sales by developing appealing, innovative products has an important role to play in our growth. We are therefore engaged in new product development as an important element of our management strategies. However, it is extremely difficult to precisely predict future demand in the rapidly changing electronics industry. TDK may fail to continue to develop and supply, in a timely manner, attractive and new products with innovative technologies for this industry and our markets. Research and development divisions in TDK continuously reshape the framework based on analysis of market trends, along with conducting development management to promote the prioritization of development themes. Nevertheless, there is a risk that a loss of sales opportunities could result in the loss of future markets, as well as existing markets. This may have a significant adverse effect on business results and growth prospects.

(9) Risks concerning price competition

TDK supplies electronic components in a broad range of fields in an electronics industry where competition is intensifying. These fields include ICT represented by smartphones, the automobiles field, where use of onboard electronics is increasing, and energy related fields such as solar and wind power generation. Price is one of the main competitive factors differentiating us from other companies in the industry in which leading Japanese companies and international companies in South Korea, Taiwan and China have fueled intense price competition.

TDK is working to promote ongoing cost-cutting initiatives and increase profitability to counter this market competition. However, such price trends could have a significant effect on business results.

(10) Risks concerning raw material procurement

TDK's manufacturing system is premised on securing raw materials and other supplies in adequate quality and quantity in a timely manner from multiple external suppliers. However, for major raw materials, we may rely on a limited number of difficult-to-replace suppliers. Because of this, there may be cases where supplies of raw materials and other products to us are interrupted by a disaster, an accident or some other event at a supplier, supply is suspended due to quality or other issues, or there is a shortage of supply due to an increase in demand for finished products. Moreover, there may be cases where local procurement necessitated by increased overseas production is negatively affected by overseas circumstances. If any of these situations becomes protracted, it could have a significant, adverse effect on production and prevent us from fulfilling our responsibilities to supply products to our customers. If the supply-demand balance in the market is disrupted, it may considerably increase costs of manufacturing through run-ups in the prices we pay for raw materials and rises in fuel prices, including oil. However, when such cases occur, there could be a significant effect on business results.

(11) Risks concerning customer performance and management policy changes

TDK is developing business-to-business transactions on a global scale, whereby we supply electronic components to customers in the electronics and automotive markets.

We work to reduce risk by conducting transactions with a variety of customers and take measures such as setting transactions terms and conditions based on our evaluation of a customer's credit risk. However, our business may be significantly affected by various factors that are beyond our control, such as changes in each customer's business results and management strategies. In addition, a decline in purchasing demand due to a customer's poor business results, increase discounting pressure from customers due to changes in their purchasing policies and policies, the unexpected termination of contracts or other occurrences could result in excess inventory or a reduction in profit margins.

In the event that our customers go through reorganizations caused by mergers and acquisitions effected by enterprises of different business types or by competitors domestically or abroad, this situation could have a significant effect on TDK's business result, including a marked decline in orders or the cancellation of all business transactions.

(12) Risks concerning Compliance

TDK is subject to and required to comply with various regulations in Japan and other countries where we conduct business. These regulations are related to business and investments, the safety of electric and electronic products, national security between nations, export/import, commercial, antitrust, patents, product liability, environmental and taxation.

TDK has appointed a Chief Compliance Officer and has been promoting the establishment of organization and system for TDK Group, its corporate officers and employees to take action in line with compliance and global norm. And, we have established a Corporate Code of Ethics and have been striving to foster a sincere, fair, and transparent corporate culture. However, despite of above measures, confliction to related-regulation and wrong-doing by corporate officers or employees may not be avoidable.

In the event of such, a social credibility of TDK Group may decline, and customer may cease business with TDK. Then, a large amount of charges or damages could have a significant adverse effect on business results.

In the event that laws and regulations become more strengthened in the future, a large amount of charge to correspond to the regulation or a partial withdraw of the particular business, when adaption to the regulation is difficult, could have a significant adverse effect on business results.

(13) Risks concerning product quality

TDK conducts quality control of various products at domestic and overseas manufacturing bases in accordance with International Quality Management Standards (valid version of ISO 9001, IATF16949, and/or applicable other standards) and the strict standards required by customers in the remarkably technologically innovative electronics industry. Furthermore, TDK utilizes proprietary quality technologies and past data concerning quality issues to create a quality assurance system for building in quality from the earliest development stage so as to ensure that reliability and safety. This is achieved through design inspections, internal quality audits, supplier surveys and guidance, process management and in other ways at each product stage including planning, design, prototyping and manufacturing.

However, TDK cannot be fully certain that defects in quality (including cases where products contained restricted substances) and recalls due to those defects will not occur. Should a recall or a product liability claim against us occur, it could result in recall costs or damage claims and lower sales. Furthermore, it is assumed that a defect in quality in one of TDK's name-bearing products would have a negative impact on our reputation and brand, and endanger the continued existence of the company. In such a way, a major quality problem could have a significant effect on business results.

(14) Risks concerning intellectual property

TDK is working hard to strengthen and utilize its patent portfolio by managing and acquiring the portfolio, licenses and other intellectual property rights covering TDK's products' functions, designs and so forth (hereinafter "intellectual property rights"), as a strategic intellectual property activity that contributes to business earnings.

However, there are cases where our intellectual property rights cannot be fully protected in a particular region for reasons unique to that region. We may suffer damages resulting from the manufacture by a third party of similar products to our own with the unauthorized use of our intellectual property rights.

There may be cases where it is alleged that our products or processes infringe on the intellectual property rights of third parties that may sue for damages as a result of such alleged infringement. This would require either legal processes or settlement negotiations and expenses as a part of that activity. If our defenses against such claims are not accepted in such disputes, we may have to pay damages and royalties and suffer losses such as the loss of markets.

Such disputes over intellectual property rights could have a significant effect on business development and business results.

(15) Risks concerning information security

As part of its business operations, TDK holds confidential information and personal information relating to customers and trading partners as well as confidential information of the Group and personal information. We have constructed a

group-wide control system to prevent this information from being leaked to outside parties, falsified, otherwise manipulated, or being destroyed. Moreover, we execute measures to ensure thorough management and IT security, improved facility security and employee training. However, there are still risks that such information could be leaked, destroyed, or falsified or that information systems are shut down through hacking, internal negligence, theft or other causes.

In such an event, TDK could suffer a lowering of credibility, be liable for costs relating to the compensation payment to the parties suffering damage, and suspend its operation. That could also have an effect on business results.

(16) Risks concerning securing personnel and training personnel

TDK pursues business operations in more than 30 countries and regions around the world, and more than 90% of TDK employees are based outside of Japan. In order to continuously develop business in the fast-changing electronics industry, we believe that we must continuously promote efforts to acquire and develop various personnel who possess advanced technical skills and personnel with excellent management capabilities such as those necessary for formulating strategy and managing organizations globally. TDK therefore actively hires university graduates and employs experienced people throughout the year.

Moreover, we are working to retain and develop personnel by putting in place frameworks for increasing their motivation. This includes enhancing fair evaluation and remuneration systems based on a target-based management system. We improve and extend various training programs to develop employees that can act independently and globally, and to pass on the “DNA” of our manufacturing as well as values and knowledge of TDK Group. These trainings also include different management trainings tailored to our hierarchy levels, so we develop our future management talents as well as our existing global key personnel.

However, competition to continuously recruit the necessary employees is intense. Moreover, in Japan, the employment environment is changing rapidly because of the falling birthrate, the aging population, and the declining workforce. A similar change is occurring at our overseas bases in China and other countries. The inability to recruit and train personnel as planned could have a significant effect on business development, business results and growth from a long-term perspective.

(17) Risks concerning M&A

In the increasingly competitive electronics field, for necessary technologies and other elements which increase corporate value, we conduct M&As as necessary if it is an effective means to accelerate business growth or major synergies can be expected in terms of establishing a competitive edge in the market.

When conducting M&As, we take sufficiently into account market trends, customer needs, the business results, financial position, technological advantage and market competitiveness of the target company, TDK’s business portfolio, risk analysis associated with the M&A, and other factors.

However, even in case there are prior research or prior consideration, tumultuous changes in the market and competitive environment after M&A, the acquired business fails to develop as planned, and the investment cannot be recovered or additional expenses are incurred, TDK’s business results, growth and business development among others could be significantly affected.

(18) Risks of impairment of fixed asset and goodwill

TDK has continuously invested on capital expenses such as manufacturing facilities to improve production capacity, quality, or productivity. And, if necessary, we have implemented M&A to accelerate the growth of business. As a result of these investments, we own a large amount of assets such as “property, plant and equipment”, “intangible fixed asset with certain recognizable amortization period”, and “goodwill and other intangible asset”.

With respect to “property, plant and equipment” and “intangible fixed asset with certain recognizable amortization period”, we conduct an impairment test if there is an indication that we are not able to collect the carrying amount of the assets. With respect to “goodwill and other intangible asset”, we conduct an impairment test at least once a year or more often in case there is an indication of impairment. In the event that the impairment test judges that these assets no longer create enough cash flow in the future, there may be a necessity to recognize an impairment.

When we recognize a large amount of impairment, it could have a significant effect on business results.

3. Analysis of financial position, operating results and cash flow position by manager

(1) Overview of operating results, etc.

Overview of financial position, operating results and cash flow position of TDK for the year ended March 31, 2019 is provided below.

① Financial position and operating results

In the year ended March 31, 2019 (“fiscal 2019”), the global economy was generally solid, supported by consumption, production, and exports through the first half of the fiscal year. However, a deceleration in the Chinese economy became stronger due to the intensification of trade friction between the U.S. and China in the second half. The economies of the U.S.,

Europe, and Japan have maintained a gradual pace of recovery, but these economies will be unable to avoid impacts due to aforementioned deceleration in China and political issues in Europe. Accordingly, the outlook has become increasingly uncertain.

Looking at the electronics market, which has a large bearing on the consolidated performance of TDK, the automotive market saw a year-on-year decrease in automobile sales volume due to the impact of factors such as a pronounced downturn in sales in the Chinese market and the introduction of the Worldwide harmonized Light vehicle Test Procedure (WLTP). However, the number of components installed per vehicle has continued to increase in step with advances in the electrification of automobiles. In the Information and Communications Technology (ICT) market, production volume of smartphones slightly decreased compared to the previous fiscal year due to factors including lengthening the cycle of purchasing new smartphones. In addition, production of Hard Disk Drives (HDDs) for data center applications increased, while production of HDDs as a whole decreased year on year.

In this business environment, the TDK's consolidated financial position and operating results for fiscal 2019 were as follows.

a. Financial position

Total assets increased ¥87,271 million from ¥1,905,209 million, as of March 31, 2018, to ¥1,992,480 million, as of March 31, 2019.

Total liabilities increased ¥34,747 million from ¥1,073,977 million, as of March 31, 2018, to ¥1,108,724 million, as of March 31, 2019.

Total equity increased ¥52,524 million from ¥831,232 million, as of March 31, 2018, to ¥883,756 million, as of March 31, 2019.

b. Operating results

TDK recorded net sales of ¥1,381,806 million, up 8.7% from ¥1,271,747 million in fiscal 2018. TDK recorded operating income of ¥107,823 million, up 20.2% from ¥89,692 million in fiscal 2018. TDK also recorded income before income taxes of ¥115,554 million, up 28.7% from ¥89,811 million in fiscal 2018. Furthermore, TDK recorded net income attributable to TDK of ¥82,205 million, up 29.5% from ¥63,463 million in fiscal 2018. Basic net income attributable to TDK per common share was ¥651.02, compared with ¥502.80 in fiscal 2018.

Average exchange rates for the U.S. dollar and euro during fiscal 2019, were ¥110.94 and ¥128.48, respectively, as the yen maintained the same level against the U.S. dollar and appreciated 0.9% against the euro. This decreased net sales by approximately ¥5.0 billion and increased operating income by approximately ¥0.6 billion.

TDK's business segments are aggregated into four reportable segments, "Passive Components," "Sensor Application Products," "Magnetic Application Products" and "Energy Application Products," and businesses not belonging to either of these segments are classified under "Other." In accordance with the reorganization in fiscal 2019, TDK newly established the Energy Application Products segment. As a result of the reorganization in fiscal 2019, certain products of Other Passive Components in Passive Components were reclassified into Other, and certain products of Other were reclassified into Other Passive Components in Passive Components, and certain portion of Sensor Application Products were reclassified into Other. The prior year's figures are also reclassified to conform to the new segmentation.

The Passive Components segment recorded net sales of ¥433,406 million, up 3.7% from ¥417,757 million in fiscal 2018 and segment income of ¥58,438 million, up 16.3% from ¥50,246 million in fiscal 2018.

The Sensor Application Products segment recorded net sales of ¥76,467 million, down 1.1% from ¥77,355 million in fiscal 2018 and segment loss of ¥22,125 million, from ¥18,595 million in fiscal 2018.

The Magnetic Application Products segment recorded net sales of ¥272,807 million, down 1.7% from ¥277,548 million in fiscal 2018 and segment income of ¥17,022 million, up 5.5% from ¥16,128 million in fiscal 2018.

The Energy Application Products segment recorded net sales of ¥537,502 million, up 21.4% from ¥442,822 million in fiscal 2018 and segment income of ¥91,036 million, up 25.8% from ¥72,351 million in fiscal 2018.

The Other segment, businesses which do not belong to any of the four reportable segments recorded net sales of ¥61,624 million, up 9.5% from ¥56,265 million in fiscal 2018 and segment loss of ¥6,727 million, from ¥701 million in fiscal 2018.

② Cash flows

Cash flows from operating activities

Operating activities provided net cash of ¥140,274 million, an increase of ¥48,964 million year on year. There was an increase in net income.

Cash flows from investing activities

Investing activities used net cash of ¥140,179 million, a decrease of ¥105,920 million year on year. It mainly came from a decrease in acquisition of subsidiaries.

Cash flows from financing activities

Financing activities provided net cash of ¥9,435 million, a decrease of ¥100,653 million year on year. It mainly came from a decrease in proceeds from debt.

As a result of adding in the effects of currency fluctuations, cash and cash equivalents as of March 31, 2019 was ¥289,175 million, ¥9,551 million larger than as of March 31, 2018.

③ Results of production, orders received and sales

a. Production results

A breakdown of production results by business segment for fiscal 2019 is given below.

(Millions of yen)

Name of business segment	Production Results	YoY Increase/ Decrease (%)
Passive Components	430,631	(4.4)
Sensor Application Products	81,150	1.8
Magnetic Application Products	268,227	(20.7)
Energy Application Products	558,916	46.3
Other	60,897	11.4
Total	1,399,821	7.2

Notes: 1. Amounts are calculated by the sales price.

2. Consumption taxes, etc. are not included in the above figures.

b. Results of orders received

A breakdown of orders received by business segment for fiscal 2019 is given below.

(Millions of yen)

Name of business segment	Amount of orders received (Millions of yen)	YoY Increase/ Decrease (%)	Balance of orders received (Millions of yen)	YoY Increase/ Decrease (%)
Passive Components	438,854	(9.5)	126,082	(17.8)
Sensor Application Products	79,423	0.9	22,515	12.3
Magnetic Application Products	266,368	(18.0)	20,045	(39.3)
Energy Application Products	641,078	33.9	91,139	(4.8)
Other	52,602	51.9	7,926	33.3
Total	1,478,145	5.4	267,707	(13.1)

Note: Amounts are calculated by the sales price.

c. Sales results

A breakdown of sales results by business segment for fiscal 2019 is given below.

(Millions of yen)

Name of business segment	Sales Results	YoY Increase/ Decrease (%)
Passive Components	433,406	3.7
Sensor Application Products	76,467	(1.1)
Magnetic Application Products	272,807	(1.7)
Energy Application Products	537,502	21.4
Other	61,624	9.5
Total	1,381,806	8.7

Note: Consumption taxes, etc. are not included in the above figures.

(2) Analysis and discussion regarding operating results, etc. from a management viewpoint

Analysis and discussion regarding operating results, etc. from a management viewpoint are provided below. The forward looking statements in this report are based on judgment current as of March 31, 2019.

① Significant accounting policies and estimates

Significant accounting policies are those that require management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

The following is not intended to be a comprehensive list of all of TDK's accounting policies. TDK's significant accounting policies are more fully described in Note 1 of the Notes to Consolidated Financial Statements. In many cases, the accounting treatment of a particular transaction is specifically dictated by U.S. generally accepted accounting principles, with no need for management's judgment in their application. There are also areas in which management's judgment in selecting an available alternative would not produce a materially different result.

TDK has identified the following as critical accounting policies: impairment of long-lived assets, valuation of inventories, accounting for business combinations, goodwill and other intangible assets, pension benefit costs, and deferred tax assets.

Impairment of long-lived assets

As of March 31, 2018 and 2019, the aggregate of TDK's property, plant and equipment and amortized intangible assets was ¥614,654 million and ¥687,764 million, which accounted for 32.3% and 34.5% of total assets, respectively. TDK believes that impairment of long-lived assets is critical to TDK's financial statements because the recoverability of the amounts or lack thereof, could significantly affect its results of operations.

TDK's long-lived assets and certain identifiable intangibles with certain amortization periods are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. This review is performed using estimates of future cash flows. If the carrying amount of the asset is considered to be impaired, an impairment charge is recorded for the amount by which the carrying value of an asset exceeds its fair value. Management judges that the estimates of future cash flows and fair values are reasonable; however, changes in estimates resulting in lower future cash flows and fair value due to unforeseen changes in business assumptions could negatively affect the valuation of those long-lived assets and significantly affect TDK's financial position and results of operations. TDK makes investments with due prudence, taking sufficiently into consideration the future profitability of products and the recoverability of investments.

Valuation of inventories

Inventories are stated at the lower of cost or market. The carrying value of inventory is reduced for estimated obsolescence by the difference between its cost and the estimated market value based upon assumptions about future demand. TDK evaluates the inventory carrying value for potential excess and obsolete inventory exposures by analyzing historical and anticipated demand. In addition, known and anticipated engineering change orders are evaluated against on-hand quantities for their potential obsolescence affects. As fluctuations in estimates, which become a standard in recognizing adjustments in the carrying values of inventory for expected obsolescence, are influential to business results of TDK, we conclude it as a significant accounting policy. If actual demand were to be substantially lower than estimated, additional inventory adjustments for excess or obsolete inventory may be required, which could have a material adverse effect on TDK's business, financial condition and results of operations.

Regarding the appropriateness of estimates in the past, TDK does not use a method based on various scenarios, but a method to reconsider every quarter by comparing estimate and actual results. For example, in the operational management of product sectors with rapid development in technological innovation such as the recording devices sector, TDK revises the estimates of valuation of obsolete inventories arising from the timely response to customers' demands for high-efficiency products on a quarterly basis.

Business combination

We account for acquired businesses by using the acquisition method of accounting which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. The judgments made in determining the estimated fair value assigned to each class of assets acquired, as well as asset lives, can materially impact net income of the periods subsequent to the acquisition through depreciation and amortization, and in certain instances by impairment charges, if the asset becomes impaired in the future.

In determining the estimated fair value for intangible assets, we typically utilize the income approach, which employs discounting of the projected future net cash flow using an appropriate discount rate that reflects the risk factors associated with the cash flow streams.

Determining the useful life of an intangible asset also requires judgment as different types of intangible assets will have different useful lives and certain assets may even be considered to have indefinite useful lives. Intangible assets determined to have an indefinite useful life have been reassessed periodically based on the factors prescribed in FASB Accounting Standards Codification 350 including, but not limited to, the expected use of the asset by us, legal or contractual provisions that may affect the useful life or renewal or extension of the asset's contractual life without substantial cost, and the effects of demand, competition and other economic factors.

Goodwill and other intangible assets

Goodwill and other intangible assets that are determined to have an indefinite life are not amortized but are tested for impairment on an annual basis and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of these assets below their carrying amount. Fair value for these assets is determined using a discounted cash flow analysis, which is based on an authorized business plan. Management believes that the estimates of future cash flows and fair value are reasonable; however, changes in estimates resulting in lower future cash flows and fair value due to unforeseen changes in business assumptions could negatively affect the valuations.

Pension benefit costs

Employee pension benefit costs and obligations are dependent on assumptions used by actuaries in calculating such amounts. These assumptions include discount rates, retirement rates and mortality rates which are based upon current statistical data, as well as salary growth, long-term return on plan assets and other factors. Actual results that differ from the assumptions are accumulated and amortized over future periods and, therefore, generally affect TDK's recognized expense and recorded obligation in future periods. While TDK believes that its assumptions used are appropriate, differences in actual experience or changes in assumptions may affect TDK's benefit obligations and future expense.

In preparing its consolidated financial statements for fiscal 2019, TDK established discount rates of 0.5% and 2.2% for domestic and overseas pension plans, respectively, and expected long-term rates of return of 2.2% and 6.5% on domestic and overseas plan assets, respectively. In estimating the discount rate, TDK uses available information about rates of return on long-term corporate bonds currently available and expected to be available during the period to the maturity of the pension benefits. TDK established the expected long-term rate of return on plan assets based on management's expectations in respect of the long-term returns of the various plan asset categories in which it invests. Management developed expectations with respect to each plan asset category based on actual historical returns and its current expectations for future returns.

A decrease in the discount rate leads to an increase in actuarial pension benefit obligations that could lead to an increase in net periodic pension cost through amortization of unrecognized actuarial gain or losses.

An increase in the expected return on plan assets may decrease net periodic pension cost. However, the difference between the expected return and the actual return on those assets could negatively affect net income in future years.

Deferred tax assets

TDK has significant deferred tax assets, which are subject to realizability assessment. In assessing the realizability of deferred tax assets, TDK considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. TDK considers the planned reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, TDK believes that it is more likely than not that all of the deferred tax assets less valuation allowance, will be realized. However, in the event future projections for income are not realized or are realized in lesser amounts, or in cases where TDK revises the assessment of the potential for realization of deferred tax assets based on other factors, deferred tax assets may be determined not to be realizable, which then would require TDK to increase a valuation allowance against the deferred tax assets resulting in additional income tax expenses.

② Recognition, analysis and discussion regarding operating results, etc. in the fiscal year

Operating results and factors significantly impact to operating results

In fiscal 2019, TDK posted consolidated net sales of ¥1,381,806 million, up 8.7% from fiscal 2018. TDK recorded operating income of ¥107,823 million, an increase of 20.2% year on year. TDK recorded net income attributable to TDK of ¥82,205 million, an increase of 29.5% compared to fiscal 2018.

Looking at the electronics market, which has a large bearing on the consolidated performance of the Company, the automotive market saw a year-on-year decrease in automobile sales volume due to the impact of factors such as a pronounced downturn in sales in the Chinese market and the introduction of the Worldwide harmonized Light vehicle Test Procedure (WLTP). However, the number of components installed per vehicle has continued to increase in step with advances in the electrification of automobiles. In the Information and Communications Technology (ICT) market, production volume of smartphones slightly decreased compared to the previous fiscal year due to factors including lengthening the cycle of purchasing new smartphones. In addition, production of Hard Disk Drives (HDDs) for data center applications increased, while production of HDDs as a whole decreased year on year.

Under these conditions, the segment sales of Energy Devices (Rechargeable Batteries) increased mainly for mobile products including smartphones, tablet and laptop and non-mobile products that contributed to the Group's overall profitability.

In addition, Sales of Ceramic Capacitors for the automotive market increased and strengthened the profitability of Passive Components.

However, sales in HDD heads and HDD suspension assemblies increased despite the slump in the decrease in sales volumes compared to fiscal 2018, the increased demand for data center applications and maintained the profitability compared to fiscal 2018.

In fiscal 2019, overseas sales accounted for 91.8% of consolidated net sales, the same percentage as fiscal 2018. During fiscal 2019, the yen's value maintained the same level against the U.S. dollar and appreciated 0.9% against the euro, based on average exchange rates in markets. Overall, this decreased net sales by approximately ¥5.0 billion and increased operating income by approximately ¥0.6 billion in fiscal 2019.

Capital resources and liquidity of funds

TDK's operating funds demands are primarily manufacturing expenses such as the purchase of raw materials and parts for use in the manufacture of its products, operating expenses such as selling, general and administrative expenses and R&D expenses aimed to develop new product continuously. In addition, long term funds demands are capital investment to correspond precisely to rapid technological innovation in electronics markets and intensifying sells competition, M&A aimed for further strategic growth and so on.

TDK's fundamental policy is to keep liquidity needed for operating business and funds resources consistently and TDK has been trying to maintain its liquidity level of liquid funds, which includes cash and deposits with banks, short-term investments and marketable securities, etc., at 2.0 months or more of monthly net sales by introducing a cash management system in Japan, U.S., Europe, China and ASEAN to improve group efficiency funds, commitment line contract and so on for liquidity. The balance of liquid funds amounted to ¥329,737 million as of March 31, 2019, which was equal to approximately 2.9 months of average monthly net sales.

As procurement policy, basic for short term operating funds are own funds and short term loan from financial institution and for capital investment and long term funds are long term loan from financial institution and corporate bonds, etc. The balance of debt with interest, which includes loans from banks, corporate bonds, and lease obligations, amounted to ¥520,268 million as of March 31, 2019.

Management policy, management strategy, indicator to judge achievement status of management goal, etc.

TDK is working to strengthen our performance management framework as a part to put growth strategy conceived by TDK into practice with organically tying not only to our finance and capital strategy, but all the way to policies on the front lines. TDK has introduced TDK Value Added (TVA) as a comparison of return against capital cost (the weighted average cost of capital, or WACC, multiplied by invested capital), which was introduced in 1999. Under the logic tree tied to this TVA, we not only evaluate the profitability of each business, the efficiency of business assets, and the ability to capture cash, but also factorize and monitor KPIs tailored to specific front-line policies and business characteristics. This not only allows as to unite as a single company in promoting our growth strategy, but, we believe, will enable us to build a financial constitution capable of achieving ROE of 14% or more in mid-term by also tying that strategy to selection and consolidation of capital expenditures through stronger management of investment efficiency. ROE in fiscal 2019 was 9.7%.

Recognition, analysis and discussion regarding financial position and operation result by segment

(Passive Components Segment)

This segment is made up of (1) Capacitors, (2) Inductive Devices, and (3) Other Passive Components. Sales in the Passive Components segment were ¥433,406 million, up 3.7% year on year from ¥417,757 million. Segment profit was ¥58,438 million, up 16.3% year on year from ¥50,246 million. Segment asset was ¥651,154 million, up 1.2% year on year from ¥643,605 million.

Segment sales results by business for fiscal 2019 were as follows.

Capacitors is made up of Ceramic Capacitors, Aluminum Electrolytic Capacitors, and Energy Capacitors. Sales in the Capacitors were ¥173,331 million, up 10.4% year on year from ¥156,990 million. Sales of Ceramic Capacitors increased mainly to the automotive market. Sales of Aluminum Electrolytic Capacitors and Film Capacitors increased to the automotive and the industrial equipment markets. Sales of Inductive Devices increased by 0.7% year on year from ¥157,529 million to ¥158,639 million. Sales increased to the automotive and the ICT markets, while decreased to the industrial equipment market. Other Passive Components include High-Frequency Devices, Piezoelectric Material Products and Circuit Protection Components. Sales of Other Passive Components decreased by 1.7% year on year from ¥103,238 million to ¥101,436 million. Sales decreased mainly to the ICT market.

(Sensor Application Products Segment)

This segment is made up of Temperature and Pressure Sensors, Magnetic Sensors and MEMS Sensors. Segment sales decreased by 1.1% year on year from ¥77,355 million to ¥76,467 million. Segment loss was ¥22,125 million, year on year from ¥18,595 million. Segment asset was ¥226,520 million, down 5.2% year on year from ¥238,860 million.

Sales increased to the automotive market, while decreased to the ICT and the industrial equipment markets.

(Magnetic Application Products Segment)

This segment is made up of HDD Heads, HDD Suspension Assemblies, and Magnets. Segment sales decreased by 1.7% year on year, from ¥277,548 million to ¥272,807 million. Sales of HDD Heads and HDD Suspension Assemblies decreased to the ICT market. Sales of Magnets decreased to the industrial equipment market.

(Energy Application Products Segment)

This segment is made up of Energy Devices (Rechargeable Batteries). Segment sales increased by 21.4% from ¥442,822 million to ¥537,502 million. Segment profit was ¥91,036 million, up 25.8% year on year from ¥72,351 million. Segment asset was ¥661,595 million, up 15.9% year on year from ¥571,066 million.

Sales of Energy Devices increased significantly to the ICT market.

(Other)

The Other segment, businesses which do not belong to any of the four reportable segments, includes Mechatronics (Production Equipment) and Others. Segment sales increased by 9.5% from ¥61,624 million to ¥66,873 million. Segment loss was ¥6,727 million, year on year from ¥701 million. Segment asset was ¥71,811 million, up 4.6% year on year from ¥68,673 million.

4. Important operational contracts, etc.

No items to report

5. Research and development activities

In its R&D activities, TDK is working to continuously strengthen and expand the development of new products that respond to diversification in the electronics field. In particular, TDK is concentrating on the ICT field, the automotive field, and the industrial equipment and energy field. By product development taking full advantage of its strengths in terms of manufacturing capabilities, TDK is contributing to upgrade the functionality, drive the miniaturization, and raise the energy efficiency of electronic devices. Based on the technology strategy capturing the market change in these 3 fields, TDK sets sensors and actuators, energy units and next-generation electric components as strategic growth products, of that future demand increase is promising. TDK puts more effort into capturing business opportunities in the IoT market. For sensors and actuators, TDK is aiming to provide customers with a wide range of sensor solutions by connecting MEMS (Micro Electro Mechanical System) and software. For energy unit, TDK is focusing on the development of energy unit using TDK's batteries, power supplies and wireless power transfer, and also focusing on magnet, of that demand is increasing for motor use. For next-generation electric components, TDK promotes to develop the high-value added products that respond to diversifying market needs by the fusion of SESUB(Semiconductor Embedded SUBstrate) technology, thin-film technology and materials technology. It was one of TDK's achievements in fiscal 2019 that TDK succeeded in the world's first* real-time measurement of magnetic field distribution of the heart.

Looking at Head Office research and development functions, TDK flexibly reshapes the research and development framework to ensure that its highly specialized engineers in their respective market sectors are able to conduct research and development based on creative ideas. While honing the fundamental technologies shared by the entire Company, TDK is focused on development activities aimed at commercializing products over the medium and long terms. Guided by the slogan, "Link Technology to customers. Prepare technology for the future." TDK is pushing ahead with development activities that will benefit customers in preparation for tomorrow's society. In doing so, we aim to put our technologies at the service for customers.

In the Passive Components field, TDK is developing next-generation multilayer ceramic chip capacitors, inductors and EMC components with miniaturization and high performance. Moreover, TDK is strengthening its hand in modules, where high-frequency applications are becoming prevalent.

In the Sensor Application Product field, TDK is developing sensor elements that offer higher accuracy and package solutions with high integration and greater reliability.

In the Magnetic Application Products field, TDK is strengthening the development of high performance rare earth magnets, next-generation ferrite magnets and high recording density next-generation heads, and devices for hybrid and electric vehicles. TDK aims to develop highly efficient power supplies appropriate to the societal trend towards low energy consumption and reduce carbon dioxide emission. TDK allocates development resources to the reduction of the amount of rare earth elements and the development of magnets that do not contain rare earth elements. Through these efforts, TDK aims to avoid sales price rises caused by soaring prices of raw materials for rare earth elements.

In the Energy Application Products field, TDK is developing materials for next-generation lithium batteries.

For these R&D activities, based on a technology strategy of grasping market change, TDK is focusing on developing strategic growth products (Sensors and Actuators, Energy Units, and Next-Generation Electronic Components) in the core markets above, where future growth is promising, and also has built a four-base system for global R&D (Japan, America, Europe, Asia), and is developing products in collaboration with R&D organizations and leading companies around the world based on a first-to-market mindset.

Especially with Sensors, which are a vital device for the IoT era, TDK aims to offer innovative next generation products and platforms by sensor fusion, the combination of sensor technologies and software taking into consideration for collaboration with the companies holding technology assets necessary for the realization.

Furthermore, in its R&D activities, TDK is pushing ahead to recruit and train outstanding talent and introduce cutting-edge theoretical research. Under this policy, TDK is proactively forming industry-government-academic alliances with public

institutions, universities and research institutions around the world regarding source technologies that TDK does not possess. Notably, TDK concludes an organizational alliance agreement with the Tokyo Institute of Technology, advances joint research, etc. and cooperates with WISE Program (Doctoral Program for World-leading Innovative & Smart Education).

Under this agreement, the joint research is being advanced with the aim of achieving highly original development results. R&D expenses in fiscal 2019 increased 12.2% year on year to ¥115,155 million, 8.3% of net sales.

III. Facilities

1. Outline of capital expenditures

In fiscal 2019, TDK spent ¥173,592 million on capital expenditures to accurately respond to the rapid technological innovation and the intensified sales competition in the electronics market to which TDK belongs.

Capital expenditures in the Passive Components segment totaled ¥43,527 million. These expenditures were mainly for the purpose of increasing the production capacity and rationalization of ceramic capacitors and inductive devices.

Capital expenditures in the Sensor Application Products segment totaled ¥10,503 million. These expenditures were mainly for the purpose of increasing the production capacity of each sensor products.

Capital expenditures in the Magnetic Application Products segment totaled ¥34,562 million, mainly for the production of high-density next-generation heads for HDDs and micro actuator suspensions.

Capital expenditures in the Energy Application Products segment totaled ¥62,728 million, mainly to boost and rationalize production of lithium-ion polymer batteries.

Capital expenditures in the Other totaled ¥8,642 million.

Capital expenditures for the R&D divisions at the headquarters totaled ¥13,630 million mainly for investments in internal IT infrastructure construction and fundamental development research.

2. Main facilities

Main facilities of TDK are as follows.

(1) Passive Components

a. Filing company (the Company)

Name of facility (Location)	Description	Book value (Millions of yen)						Number of employees (Person)
		Buildings and structures	Machinery, equipment and vehicles	Land (thousand m ²)	Lease assets	Construction in progress	Total	
Honjo Plant (Nikaho City, Akita Pref.) 3 other plants in the Pref. 1 other plant in Yamanashi Pref	Manufacturing passive components	35,588	48,978	3,916 (547)	—	5,726	94,211	1,320

Note: Tools, furniture and fixtures are included in the book value of "Machinery, equipment and vehicles."

b. Domestic subsidiaries

Name of company (Location)	Description	Book value (Millions of yen)					Number of employees (Person)
		Buildings	Machinery and equipment	Land (thousand m ²)	Construction in progress	Total	
TDK Shonai Corporation (Tsuruoka City, Yamagata Pref. and other locations)	Manufacturing passive components	4,841	2,852	1,248 (94)	4	8,945	830
TDK Akita Corporation (Yurihonjo City, Akita Pref. and other locations)	Manufacturing passive components	4,546	166	996 (191)	—	5,708	2,498

c. Overseas subsidiaries

Name of company (Location)	Description	Book value (Millions of yen)					Number of employees (Person)
		Buildings	Machinery and equipment	Land (thousand m ²)	Construction in progress	Total	
TDK Xiamen Co., Ltd. (China)	Manufacturing passive components	3,980	11,454	—	2,029	17,463	6,448
TDK Electronics GmbH & Co OG (Austria)	Manufacturing passive components	5,014	10,062	562 (123)	350	15,988	854
TDK Hungary Components Kft. (Hungary)	Manufacturing passive components	3,226	6,762	337 (32)	2,181	12,506	2,232
TDK Dalian Corporation (China)	Manufacturing passive components	2,006	7,845	—	532	10,383	1,665
TDK (Zhuhai FTZ) Co., Ltd. (China)	Manufacturing passive components	1,608	6,651	—	579	8,838	3,226
TDK (Zhuhai) Co., Ltd. (China)	Manufacturing passive components	351	6,064	—	1,031	7,446	5,168

(2) Sensor Application Products

a. Overseas subsidiaries

Name of facility (Location)	Description	Book value (Millions of yen)					Number of employees (Person)
		Buildings and structures	Machinery, equipment and vehicles	Land (thousand m ²)	Construction in progress	Total	
TDK-Micronas GmbH (Germany)	Manufactureingsensor application products	2,709	8,822	1,026 (51)	964	13,521	739

(3) Magnetic Application Products

a. Filing company (the Company)

Name of facility (Location)	Description	Book value (Millions of yen)						Number of employees (Person)
		Buildings and structures	Machinery, equipment and vehicles	Land (thousand m ²)	Lease assets	Construction in progress	Total	
Narita Plant (Narita City, Chiba Pref.) 1 other plant in Shizuoka Pref.	Manufacturing magnetic application products	5,268	5,369	2,922 (235)	—	1,105	14,666	546

Note: Tools, furniture and fixtures are included in the book value of "Machinery, equipment and vehicles."

b. Overseas subsidiaries

Name of company (Location)	Description	Book value (Millions of yen)					Number of employees (Person)
		Buildings	Machinery and equipment	Land (thousand m ²)	Construction in progress	Total	
Hutchinson Technology Incorporated (U.S.A)	Manufacturing magnetic application products	3,093	10,228	218 (137)	2,963	16,502	1,019
Magnecomp Precision Technology Public Co., Ltd. (Thailand)	Manufacturing magnetic application products	1,930	9,064	590 (136)	2,522	14,106	5,337
SAE Magnetics (H.K.) Ltd. (China (Hong Kong))	Manufacturing magnetic application products	990	12,069	—	408	13,467	460

Headway Technologies, Inc (U.S.A)	Manufacturing magnetic application products	2,190	7,206	—	3,421	12,817	693
SAE Magnetics (Dongguan) Limited (China)	Manufacturing magnetic application products	315	485	—	32	832	1,750

(4) Energy Application Products

a. Domestic subsidiaries

Name of company (Location)	Description	Book value (Millions of yen)					Number of employees (Person)
		Buildings	Machinery and equipment	Land (thousand m ²)	Construction in progress	Total	
TDK-Lambda Corporation (Chuo-ku, Tokyo and other locations)	Manufacturing energy application products	1,111	800	363 (64)	22	2,296	605

b. Overseas subsidiaries

Name of company (Location)	Description	Book value (Millions of yen)					Number of employees (Person)
		Buildings	Machinery and equipment	Land (thousand m ²)	Construction in progress	Total	
Ningde Amperex Technology Ltd. (China)	Manufacturing energy application products	58,018	82,536	—	23,848	164,402	21,219
Dongguan Amperex Technology Ltd. (China)	Manufacturing energy application products	3,618	10,749	—	2,389	16,756	6,208

(5) Corporate (Common) and Other

a. Filing company (the Company)

Name of facility (Location)	Description	Book value (Millions of yen)						Number of employees (Person)
		Buildings and structures	Machinery, equipment and vehicles	Land (thousand m ²)	Lease assets	Construction in progress	Total	
Technical Center (Ichikawa City, Chiba Pref.)	Corporate (Common) and Other	14,419	2,640	1,465 (36)	201	350	19,077	622
Asama Techno Plant (Saku City, Nagano Pref.) 1 other plant in Oita Pref.	Other	1,984	6,412	968 (196)	—	775	10,141	781

Notes: 1. Tools, furniture and fixtures are included in the book value of "Machinery, equipment and vehicles."
2. Technical Center is mainly a corporate (common) facility, but it also includes business segments which are classified as Other. However, due to difficulties in drawing such distinctions, it is displayed under "Corporate (Common) and Other".

3. Plan for installation and retirement, etc. of facilities

TDK conducts a broad range of operations in Japan and overseas. As of March 31, 2019, plans of new constructions and expansions of facilities for these operations had not been decided for each individual project. For this reason, figures are disclosed by each business segment. Capital expenditure plans (new constructions and expansions) within the one year period following fiscal 2019 are ¥200,000 million and the breakdown by business segment is as follows.

Name of business segment	Projected amount at the end of fiscal 2019 (Millions of yen)	Main contents and objectives of facilities, etc.	Capital resource
Passive Components	43,000	Production capacity increase and rationalization of ceramic capacitors and inductive devices	—
Sensor Application Products	10,000	Production capacity increase of each sensor products	—
Magnetic Application Products	35,000	Developing and manufacturing facilities of high-density next-generation heads for HDD and micro actuator suspensions	—
Energy Application Products	95,000	Production capacity increase of lithium-ion polymer batteries and rationalization of facilities	—
Other	9,000	—	—
HQ/R&D divisions	8,000	Establishment of internal IT system and basic research and development	—
Total	200,000	—	Own capital and borrowing

Notes: 1. Consumption taxes, etc. are not included.

2. There are no plans for retirement or sale of important facilities except for the regular retirement or sale related to updating facilities.

IV. Filing company

1. Status of the Company's shares

(1) Total number of shares authorized, etc.

a. Total number of shares authorized

Class	Total number of shares authorized by the Company(Shares)
Common stock	480,000,000
Total	480,000,000

b. Number of shares issued

Class	Number of issued shares (As of March 31, 2019)	Number of issued shares (As of the date of filing: June 27, 2019)	Name of financial instruments exchange where the stock of the Company is traded or the name of authorized financial instruments firms association where the Company is registered	Details
Common stock	129,590,659	129,590,659	Tokyo Stock Exchange (First Section)	Share unit number 100 shares
Total	129,590,659	129,590,659	—	—

Note: The number of shares issued by exercise of stock acquisition rights between June 1, 2019 and the date of filing of this Annual Securities Report, is not included in "Number of shares issued (as of the date of filing: June 27, 2019)".

(2) Status of stock acquisition rights

Stock Acquisition Rights, Etc., Granted to the Company's Directors and Audit & Supervisory Board Members as of the End of the Fiscal Year Under Review in Consideration for the Performance of Their Duties

a. Share-Based Compensation Type Stock Acquisition Rights

Issue	Issue resolution date	Number of stock acquisition rights	Class and number of shares to be issued upon the exercise of stock acquisition rights	Amount to be paid for stock acquisition rights (issue price)	Exercise period of stock acquisition rights (both days inclusive)	Directors' and Audit & Supervisory Board Members' holdings	
						Directors	Audit & Supervisory Board Members
2005	June 29, 2005	26	2,600 shares of common stock	Free of charge	From July 1, 2005 to June 30, 2025	—	—
2008	May 28, 2008	17	1,700 shares of common stock	¥5,967 (fair value)	From July 6, 2008 to July 5, 2028	—	—
2009	May 27, 2009	125	12,500 shares of common stock	¥4,021 (fair value)	From July 5, 2009 to July 4, 2029	1 person, 3 rights	—
2010	May 26, 2010	144	14,400 shares of common stock	¥4,213 (fair value)	From July 4, 2010 to July 3, 2030	1 person, 14 rights	—
2011	May 25, 2011	225	22,500 shares of common stock	¥3,925 (fair value)	From July 3, 2011 to July 2, 2031	1 person, 18 rights	1 person 20 rights
2012	June 21, 2012	221	22,100 shares of common stock	¥2,770 (fair value)	From July 8, 2012 to July 7, 2032	1 person, 25 rights	1 person 19 rights
2013	June 19, 2013	223	22,300 shares of common stock	¥3,112 (fair value)	From July 7, 2013 to July 6, 2033	1 person, 24 rights	1 person 26 rights
2014	June 18, 2014	321	32,100 shares of common stock	¥4,136 (fair value)	From July 6, 2014 to July 5, 2034	1 person, 24 rights	1 person 26 rights
2015	July 31, 2015	545	54,500 shares of common stock	¥6,806 (fair value)	From August 23, 2015 to August 22, 2035	3 people, 103 rights	—
2016	June 17, 2016	400	40,000 shares of common stock	¥4,273 (fair value)	From July 10, 2016 to July 9, 2036	3 people, 126 rights	—
2017	June 16, 2017	244	24,400 shares of common stock	¥6,584 (fair value)	From July 9, 2017 to July 8, 2037	3 people, 58 rights	—
2018	March 23, 2018	898	89,800 shares of common stock	¥8,373 (fair value)	From April 8, 2018 to April 7, 2038	3 people, 286 rights	—
2018	June 20, 2018	24	2,400 shares of common stock	¥10,410 (fair value)	From July 8, 2018 to July 7, 2038	1 person, 24 rights	—
2019	March 26, 2019	187	18,700 shares of common stock	¥8,562 (fair value)	From April 7, 2019 to April 6, 2039	3 people, 39 rights	—
2019	June 19, 2019	32	3,200 shares of common stock	¥7,800 (fair value)	From July 7, 2019 to July 6, 2039	1 person, 32 rights	—

b. Stock Acquisition Rights

Issue	Issue resolution date	Number of stock acquisition rights	Class and number of shares to be issued upon the exercise of stock acquisition rights	Exercise price (per share)	Exercise period of stock acquisition rights (both days inclusive)	Directors' and Audit & Supervisory Board Members' holdings	
						Directors	Audit & Supervisory Board Members
12th	July 31, 2013	236	23,600 shares of common stock	¥3,836	From August 1, 2015 to July 31, 2019	—	—

- Notes: 1. The exercise price of share-based compensation type stock acquisition rights is ¥1 per share.
 2. Stock acquisition rights are issued free of charge.
 3. Stock acquisition rights have not been granted to Outside Directors and Audit & Supervisory Board Members.
 4. Stock acquisition rights held by Directors include stock acquisition rights granted when they were Corporate Officers or employees of the Company.
 5. Stock acquisition rights held by an Audit & Supervisory Board Member were granted during appointment as a Director.

(Reference) Stock acquisition rights, etc., held by Directors, Audit & Supervisory Board Members, Corporate Officers and employees, etc., of the Company and its subsidiaries as of March 31, 2019

	Number of stock acquisition rights	Class and number of shares to be issued upon the exercise of stock acquisition rights	Percentage of the number of stock acquisition rights in the total number of the issued shares
Stock-Linked Compensation Stock Acquisition Rights	3,413	341,300 shares of common stock	0.26%
Stock Acquisition Rights	236	23,600 shares of common stock	0.02%
Total	3,649	364,900 shares of common stock	0.28%

(3) Status of exercise of moving strike convertible bonds (MSCB), etc.

No items to report

(4) Details of rights plan

No items to report

(5) Trends in total number of issued shares, capital stock, etc.

Date	Fluctuation in the total number of issued shares (shares)	Balance of total number of issued shares (shares)	Fluctuation in capital stock (Millions of yen)	Balance of capital stock (Millions of yen)	Fluctuation in additional paid-in capital (Millions of yen)	Balance of additional paid-in capital (Millions of yen)
August 10, 2007 (Note)	(3,599,000)	129,590,659	—	32,641	—	59,256

Note: Decrease due to cancellation of treasury stock.

(6) Shareholder composition

(As of March 31, 2019)

Category	Shareholder composition (Number of shares consisting one unit: 100)								Shares less than one unit (Shares)
	Public sector	Financial institutions	Financial instruments business operators	Other corporations	Foreign investors		Individuals, etc.	Total	
					Companies , etc.	Individuals			
Number of shareholders (Person)	—	115	50	245	730	39	19,891	21,070	—
Number of shares held (Share units)	—	661,940	63,488	11,705	440,192	175	117,901	1,295,401	50,559
Holding rate of shares (%)	—	51.10	4.90	0.90	33.98	0.01	9.10	100.00	—

Notes: 1. In the “Other corporations” column, three share units in the name of Japan Securities Depository Center, Inc. are included.

2. 3,301,841 treasury shares of which 33,018 share units are included in “Individuals, etc.” and 41 shares are included in “Shares less than one unit.”

(7) Status of major shareholders

(As of March 31, 2019)

Name of shareholder	Address	Number of shares held (Thousands of shares)	Percentage of number of shares held in the total number of issued shares (%)
The Master Trust Bank of Japan, Ltd.(Trust account)	2-11-3, Hamamatsucho, Minato-ku, Tokyo, Japan	26,573	21.04
Japan Trustee Services Bank, Ltd.(Trust account)	1-8-11, Harumi, Chuo-ku, Tokyo, Japan	15,197	12.03
Trust & Custody Services Bank, Ltd.(Securities investment trust account)	1-8-12, Harumi, Chuo-ku, Tokyo, Japan	3,381	2.68
JPMC OPPENHEIMER JASDEC LENDING ACCOUNT	Colorado, USA (2-7-1, Marunouchi, Chiyoda-ku, Tokyo, Japan)	2,853	2.26
Japan Trustee Services Bank, Ltd.(Trust account 9)	1-8-11, Harumi, Chuo-ku, Tokyo, Japan	2,356	1.87
JP MORGAN CHASE BANK 380055	New York, USA (2-15-1, Konan, Minato-ku, Tokyo, Japan)	2,231	1.77
STATE STREET BANK WEST CLIENT - TREATY 505234	Massachusetts, USA (2-15-11, Konan, Minato-ku, Tokyo, Japan)	2,224	1.76
Japan Trustee Services Bank, Ltd.(Trust account 5)	1-8-11, Harumi, Chuo-ku, Tokyo, Japan	2,052	1.62
JP MORGAN CHASE BANK 385151	London, UK 2-15-1, Harumi, Chuo-ku, Tokyo, Japan	1,852	1.47
Nippon Life Insurance Company	1-6-6, Marunouchi, Chiyoda-ku, Tokyo, Japan	1,640	1.30
Total	-	60,359	47.79

- Notes: 1. Other than the above, the Company holds 3,302 thousand shares of treasury stock.
2. In a Change Report that was disclosed to public on April 17, 2017, the share possessions by shareholders as of April 10, 2017, detailed below were described. However, as the Company cannot confirm the numbers of such shares substantially held as of March 31, 2019, the details were not included in the above "Status of major shareholders."

Name of shareholder	Address	Number of share certificates, etc. held (Shares)	Percentage of shares certificates held (%)
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	2-7-1, Marunouchi, Chiyoda-ku, Tokyo, Japan	540,372	0.42
Mitsubishi UFJ Trust and Banking Corporation	1-4-5, Marunouchi, Chiyoda-ku, Tokyo, Japan	3,171,900	2.45
Mitsubishi UFJ Kokusai Asset Management Co., Ltd.	1-12-1, Yurakucho, Chiyoda-ku, Tokyo, Japan	3,068,400	2.37
Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.	2-5-2, Marunouchi, Chiyoda-ku, Tokyo, Japan	1,062,533	0.82
Total	-	7,843,205	6.05

3. In a Change Report that was disclosed to public on June 6, 2017, the share possessions by shareholders as of May 31, 2017, detailed below were described. However, as the Company cannot confirm the numbers of such shares substantially held as of March 31, 2019, the details were not included in the above “Status of major shareholders.”

Name of shareholder	Address	Number of share certificates, etc. held (Shares)	Percentage of shares certificates held (%)
BlackRock Japan Co., Ltd.	1-8-3, Marunouchi, Chiyoda-ku, Tokyo, Japan	2,858,000	2.21
BlackRock Investment Management LLC	New Jersey, USA	172,943	0.13
BlackRock Life Limited	London, UK	259,204	0.20
BlackRock Asset Management Ireland Limited	Dublin, Ireland	601,751	0.46
BlackRock Fund Advisors	San Francisco, USA	1,689,800	1.30
BlackRock Institutional Trust Company, N.A.	San Francisco, USA	2,004,106	1.55
BlackRock Investment Management (UK) Limited	London, UK	308,781	0.24
Total	—	7,894,585	6.09

4. In a Change Report that was disclosed to public on December 7, 2018, the share possessions by shareholders as of November 30, 2018, detailed below were described. However, as the Company cannot confirm the numbers of such shares substantially held as of the end of March 31, 2019, the details were not included in the above “Status of major shareholders.”

Name of shareholder	Address	Number of share certificates, etc. held (Shares)	Percentage of share certificates held (%)
Asset Management One Co., Ltd.	1-8-2, Marunouchi, Chiyoda-ku, Tokyo, Japan	6,782,401	5.23

5. In a Change Report that was disclosed to public on December 21, 2018, the share possessions by shareholders as of December 14, 2018, detailed below were described. However, as the Company cannot confirm the numbers of such shares substantially held as of the end of March 31, 2019, the details were not included in the above “Status of major shareholders.”

Name of shareholder	Address	Number of share certificates, etc. held (Shares)	Percentage of shares certificates held (%)
Sumitomo Mitsui Trust Holdings, Inc.	1-4-1, Marunouchi, Chiyoda-ku, Tokyo, Japan	355,000	0.27
Sumitomo Mitsui Trust Asset Management Co., Ltd.	1-1-1, Shibakoen, Minato-ku, Tokyo, Japan	3,696,400	2.85
Nikko Asset Management Co., Ltd.	9-7-1 Akasaka, Minato-ku, Tokyo, Japan	7,506,700	5.79
Total	—	11,558,100	8.92

6. In a Change Report that was disclosed to public on February 21, 2019, the share possessions by shareholders as of February 15, 2019, detailed below were described. However, as the Company cannot confirm the numbers of such shares substantially held as of the end of March 31, 2019, the details were not included in the above “Status of major shareholders.”

Name of shareholder	Address	Number of share certificates, etc. held (Shares)	Percentage of share certificates held (%)
Daiwa Asset Management Co. Ltd.	1-9-1, Marunouchi, Chiyoda-ku, Tokyo, Japan	6,322,200	4.88
Daiwa Securities Co. Ltd.	1-9-1, Marunouchi, Chiyoda-ku, Tokyo, Japan	164,400	0.13
Total	—	6,486,600	5.01

7. In a Change Report that was disclosed to public on March 6, 2019, the share possessions by shareholders as of February 27, 2019, detailed below were described. However, as the Company cannot confirm the numbers of such shares substantially held as of the end of March 31, 2019, the details were not included in the above “Status of major shareholders.”

Name of shareholder	Address	Number of share certificates, etc. held (Shares)	Percentage of share certificates held (%)
NOMURA HOLDINGS, INC.	1-9-1, Nihonbashi, Chuo-ku, Tokyo, Japan	51,713	0.04
NOMURA INTERNATIONAL PLC	London, UK	424,642	0.33
Nomura Asset Management Co., Ltd.	1-12-1, Nihonbashi, Chuo-ku, Tokyo, Japan	15,749,400	12.15
Total	—	16,225,755	12.52

(8) Status of voting rights

a. Issued shares

(As of March 31, 2019)

Classification	Number of shares (Shares)	Number of voting rights (Units)	Content
Shares without voting rights	—	—	—
Shares with restricted voting rights (Treasury stock, etc.)	—	—	—
Shares with restricted voting rights (Other)	—	—	—
Shares with full voting rights (Treasury stock, etc.)	(Treasury stock) Common stock 3,301,800 (Cross-Holding stock) Common stock 92,000	—	—
Shares with full voting rights (Other)	Common stock 126,146,300	1,261,463	—
Shares less than one unit	Common stock 50,559	—	—
Total number of issued shares	129,590,659	—	—
Total number of voting rights	—	1,261,463	—

Note: The number of “Shares with full voting rights (Other)” includes 300 shares in the name of Japan Securities Depository Center, Inc. “Number of voting rights” includes three units of voting rights related to shares with full voting rights in its name.

b. Treasury stock, etc.

(As of March 31, 2019)

Name of shareholder	Address	Number of shares held under own name (Shares)	Number of shares held under the name of others (Shares)	Total number of shares held (Shares)	Percentage of total number of shares held in the total number of issued shares (%)
(Treasury stock) TDK Corporation	2-5-1, Nihonbashi, Chuo-ku, Tokyo, Japan	3,301,800	—	3,301,800	2.55
(Cross-Holding stock) TODA KOGYO CORP.	1-23, Kyobashi-cho, Minami-ku, Hiroshima City, Hiroshim Pref. Japan	90,000	—	90,000	0.07
(Cross-Holding stock) YURIKOGYO CO.,LTD.	2-659, Numatashinmichishita , Nishimemachi, Yurihonjo City, Akita Pref. Japan	2,000	—	2,000	0.00
Total	—	3,393,800	—	3,393,800	2.62

2. Status of acquisition, etc. of treasury stock

[Class of shares] Acquisitions of common stock that fall under Article 155, item (VII) of the Companies Act

(1) Acquisition by resolution of the General Meeting of Shareholders

No items to report

(2) Acquisition by resolution of the Board of Directors

No items to report

(3) Items not based on resolution of the General Meeting of Shareholders or Board of Directors

Category	Number of shares (Shares)	Total value (Yen)
Treasury stock acquired during the fiscal year ended March 31, 2019	326	3,332,850
Treasury stock acquired during the period under review	-	-

Note: Shares acquired by the purchase of shares less than one unit between June 1, 2019 and the date of filing of this Annual Securities Report are not included in the "Treasury stock acquired during the period under review."

(4) Status of disposal and ownership of acquired treasury stock

Category	Fiscal 2019		Period under review	
	Number of shares (Shares)	Total disposal value (Yen)	Number of shares (Shares)	Total disposal value (Yen)
Treasury stock acquired, for which subscription was offered	-	-	-	-
Treasury stock acquired, which were disposed	-	-	-	-
Treasury stock acquired, which were transferred for merger, share exchange or company split	-	-	-	-
Other (Note 1)	44,065	226,319,748	1,300	6,677,268
Treasury stock held	3,301,841	-	3,300,541	-

Notes: 1. "Fiscal 2019" consist of disposals due to exercises of stock acquisition rights (number of shares: 44,000 shares; total disposal value: ¥225,985,911) and sales due to requests to sell shares less than one unit (number of shares: 65 shares; total disposal value: ¥333,837). Also, "Period under review" consists of disposals due to exercises of stock acquisition rights.

2. Shares disposed of between June 1, 2019 and the date of filing of this Annual Securities Report are not included in treasury stock disposed of during the period under review.

3. Shares acquired or disposed of between June 1, 2019 and the date of filing of this Annual Securities Report are not included in "Treasury stock held" during the period under review.

3. Dividend policy

The Company recognizes that achieving growth in corporate value over the medium-and long term ultimately translates into higher shareholder value. In line with this recognition, the Company's fundamental policy is to work to consistently increase dividends through growth in earnings per share. By actively investing for growth, mainly in the development of new products and technologies in key fields so as to respond precisely to rapid technological innovation in the electronics industry, the Company is aiming to increase medium- and long-term corporate value. Accordingly, the Company actively reinvests its profits in business activities and determines its dividends taking into consideration comprehensive factors such as return on stockholders' equity (ROE) and dividends on stockholders' equity (DOE) on a consolidated basis, as well as changes in the business environment.

The Company's basic policy is to pay dividends from surplus twice a year, at end of year and midterm, with the former determined by the Ordinary General Meeting of Shareholders and the latter by the Board of Directors.

The Articles of Incorporation of the Company prescribe "By resolution of the Board of Directors, the Company may pay interim dividends on September 30 of each year as a record date."

Dividends from surplus for the fiscal year ended March 31, 2019 term are as follows.

Resolution date	Total amount of dividends (Millions of yen)	Dividends per share (Yen)
Resolution of the Board of Directors held on October 31, 2018	10,102	80
The General Meeting of Shareholders held on June 27, 2019	10,103	80

4. Status of corporate governance, etc.

(1) Overview of corporate governance

① Basic views on corporate governance

The basic views to achieve sustainable corporate growth and increase of corporate value over mid- to long-term of the corporate group of TDK (the “TDK Group”) are as follows:

- a. Based on the founding spirit “Contribute to culture and industry through creativity” as the Corporate Motto of TDK which was established in 1935 as the world’s first company to industrialize a magnetic material called ferrite, TDK unrelentingly pursues originality and increases corporate value through supplies of products and services which have created new value.
- b. TDK builds satisfaction, trust, and support among all stakeholders (shareholders, customers, suppliers, employees and communities, among others), continues to be helpful to the society by resolving social issues, and contributes to the development of a more sustainable society.
- c. TDK clearly declares as the “TDK Charter of Corporate Behavior” that TDK will continue to respect human rights; comply with relevant laws, regulations, and international rules and the spirit thereof; and carry out its social responsibility with a strong sense of ethics, domestically and overseas. All Directors, Audit & Supervisory Board Members, Corporate Officers and employees constituting the TDK Group seek to behave in strict compliance with the “Corporate Standards of Business Conduct” prescribed by the “TDK Code of Conduct”.
- d. TDK aims to achieve its management targets and further improve corporate value through the creation of products by adhering to the Corporate Motto. At the same time, TDK strives to foster a sound corporate culture and sincerely conducts business activities, always aware of its place as a member of society.
- e. TDK will be accountable to stakeholders through comprehensive, accurate, timely, and impartial disclosure of information.

TDK has established “TDK Basic Policy on Corporate Governance” as its basic views and policy regarding corporate governance of TDK, which is posted on the website of TDK.

■ TDK Basic Policy on Corporate Governance

https://www.jp.tdk.com/ir/tdk_management_policy/governance/

② Overview of current system and reason for adoption

The Company is a company with the Audit & Supervisory Board and has implemented various measures to strengthen its corporate governance. In 2002, efforts to reform governance included the introduction of an executive officer system along with a significant reduction in the number of Directors for the purpose of clearly separating management’s monitoring and execution functions. In addition, to fortify the system for boosting shareholders’ confidence, we shortened the term of office of Directors from 2 years to 1 year and actively invited the participation of Outside Directors.

In addition, the Company has established 4 committees acting as advisory organizations to the Board of Directors (the Nomination Advisory Committee, the Compensation Advisory Committee, the Corporate Governance Committee, the Business Ethics Committee) to exact our business ethics and fulfill our social responsibilities as well as strengthen our management supervision functions and framework for fulfilling our duty of explanation to our shareholders and investors.

Further, TDK established “TDK Basic Policy on Corporate Governance” in 2016 June. The policy request to elect Independent Outside Directors which account for one-third or more of the Directors and to assign an Independent Outside Director as the chair of the Board of Directors in principle. TDK complies them.

In short, the Company has always believed it can realize a system to continuously ensure sound, compliant and transparent management through the introduction of a new framework that strengthens corporate governance based on its Audit & Supervisory Board System.

a. Organization of the Board of Directors

The Company has a small number of Directors to expedite the management decision-making process. At the same time, the Company appoints disinterested, independent Outside Directors in order to enhance the supervision of the Company’s management. In addition, the Company’s basic policy is to elect independent Outside Directors which account for one-third or more of the Directors and from the perspective of ensuring clear separation between management oversight and business execution, an independent Outside Director serves as the Chair of the Board of Directors in principle. Furthermore, the Directors’ terms of office are set at one year to give shareholders an opportunity to cast votes of confidence regarding Directors’ performance every fiscal year.

Representative Director, President	Shigenao Ishiguro
Representative Director	Tetuji Yamanishi
Director, Chairman	Makoto Sumita
Director	Seiji Osaka
Outside Director	Kazumasa Yoshida
Outside Director	Kazuhiko Ishimura
Chair of the board	Outside Director Kazunori Yagi

b. Organization of the Audit & Supervisory Board

The Company has adopted the Audit & Supervisory Board Member System pursuant to the Companies Act of Japan and has appointed independent Outside Audit & Supervisory Board Members who are disinterested in the Company to strengthen the supervision of the Company's management.

Chairperson Full-time Audit & Supervisory Board Member	Takakazu Momozuka
Full-time Audit & Supervisory Board Member	Satoru Sueki
Outside Audit & Supervisory Board Member	Jun Ishii
Outside Audit & Supervisory Board Member	Douglas K. Freeman
Outside Audit & Supervisory Board Member	Michiko Chiba

c. Overview of advisory organizations to the Board of Directors

< The Nomination Advisory Committee >

The Nomination Advisory Committee is chaired by an Outside Director of the Company and a half or more of the members are Outside Directors. The said Committee reviews the conditions expected for the post of Director, Audit & Supervisory Board Member, and Corporate Officer and makes nominations. In this way, the Nomination Advisory Committee ensures the appropriate election of Directors, Audit & Supervisory Board Members and Corporate Officers and provides transparency in the decision-making process.

Chair of the committee Outside Director	Kazunori Yagi
Outside Director	Kazumasa Yoshida
Outside Director	Kazuhiko Ishimura
Director, Chairman	Makoto Sumita
Representative Director, President	Shigenao Ishiguro

<The Compensation Advisory Committee>

The Compensation Advisory Committee is chaired by an Outside Director of the Company and a half or more of the members are Outside Directors. The said Committee examines the remuneration system and the level of remuneration pertaining to Directors and Corporate Officers, as well as presidents and qualifying officers of the Company's principal subsidiaries. It also reviews the transparency of the remuneration decision-making process and verifies whether such remuneration is reasonable in light of corporate business performance, individual performance and general industry standards.

Chair of the committee Outside Director	Kazumasa Yoshida
Outside Director	Kazuhiko Ishimura
Outside Director	Kazunori Yagi
Director, Chairman	Makoto Sumita
Director	Seiji Osaka

<The Corporate Governance Committee>

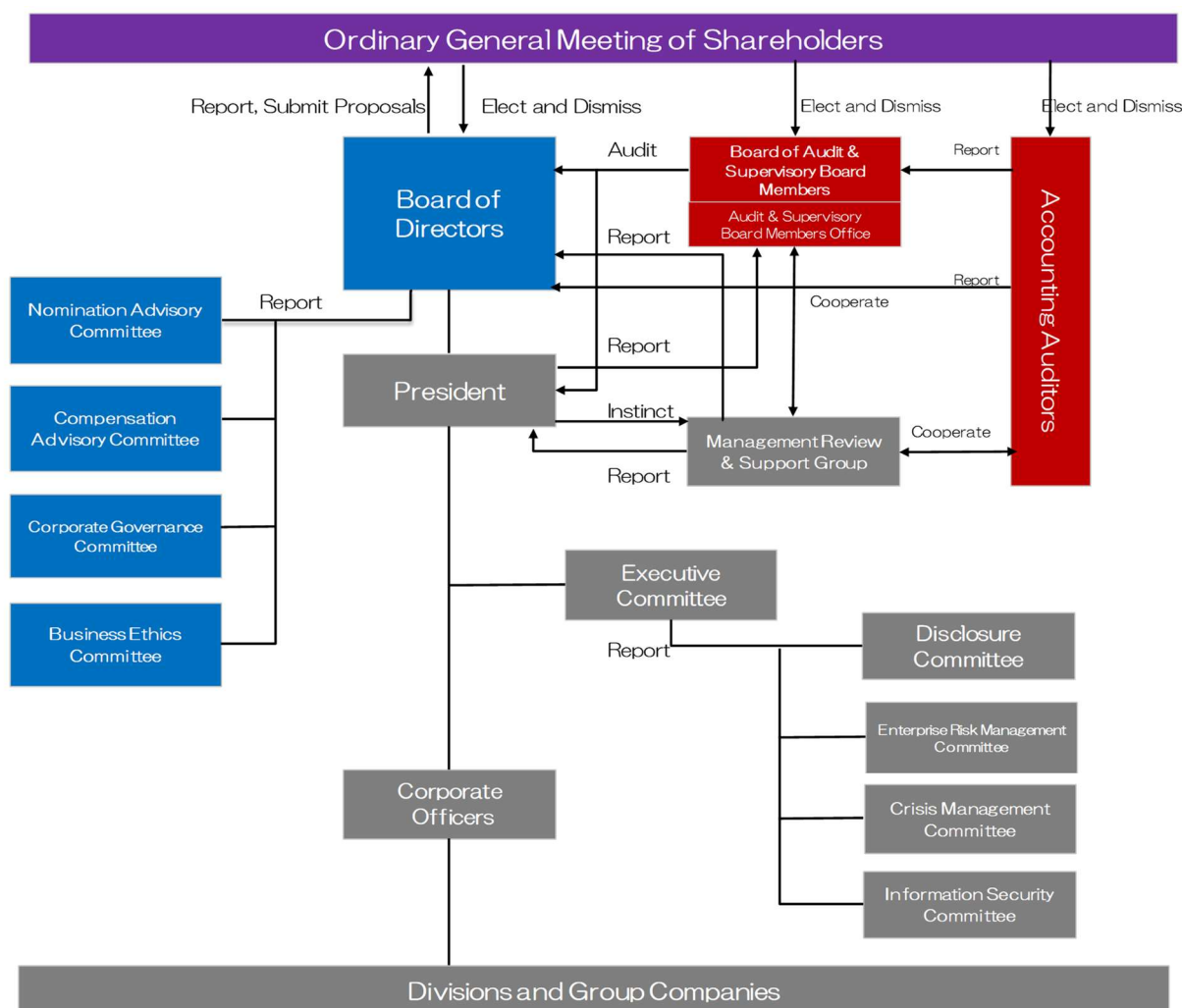
The Corporate Governance Committee conducts deliberations on matters concerning corporate governance, internal control system and its operation, etc. and continuously strives to enhance corporate governance for the Company's sustainable growth and increase of its corporate value over the mid- to long-term.

Chair of the committee Director, Chairman	Makoto Sumita
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<The Business Ethics Committee>

The aim of the Business Ethics Committee is to ensure compliance with the TDK Corporate Motto, understanding of corporate ethics and improvement of awareness of corporate social responsibility (CSR). To achieve this aim, the Directors, Audit & Supervisory Board Members, Corporate Officers and all other members of TDK are made fully aware of the "TDK Code of Conduct", which stipulates concrete standards of business conduct in compliance with the TDK's management philosophy, including the TDK Corporate Motto, Corporate Principle and social norms, including relevant laws, regulations and international rules and the spirit thereof.

d. Organization Chart



③ Other matters relating to corporate governance

Establishment of systems for ensuring the execution of duties by Directors complies with laws and regulations and the Articles of Incorporation, and other systems for ensuring the properness of operations of a stock company and operations of a corporate group consisting of such stock company and its subsidiaries

With respect to the statement above, the Board of Directors of the Company resolved as follows:

[Establishment of systems for ensuring the execution of duties by Directors complies with laws and regulations and the Articles of Incorporation, and other systems for ensuring the properness of operations of a stock company and operations of a corporate group consisting of such stock company and its subsidiaries]

(Latest revision date: November 28, 2018)

- (1) Systems for ensuring the execution of duties by Directors of the Company complies with laws and regulations and the Articles of Incorporation:
The Company was established in 1935 as the world's first company to industrialize a magnetic material called ferrite. In the ensuing years, the Company has unrelentingly pursued originality and increased corporate value through provisions of products and services which have created new value, based on the founding spirit "Contribute to culture and industry through creativity" as its Corporate Motto. In addition, TDK will continue to build satisfaction, trust, and support among all stakeholders (shareholders, customers, suppliers, employees and communities, among others), continue to be helpful by resolving social issues and contribute to the development of a more sustainable society. TDK clearly declares as "TDK Charter of Corporate Behavior" that TDK will continue to respect human rights; comply with relevant laws, regulations and international rules and the spirit thereof; and carry out its social responsibility with a strong sense of ethics, domestically and overseas. All Directors, Audit & Supervisory Board Members, Corporate Officers and employees constituting TDK seek to behave in strict compliance with the "Corporate Standards of Business Conduct" prescribed by the "TDK Code of Conduct".
In addition, the Company aims to achieve its management targets and further improve corporate value through the creation of products by adhering to the Corporate Motto. At the same time, the Company strives to foster a sound corporate culture and sincerely conduct business activities, always aware of its place as a member of society. Moreover, the Company will be accountable to stakeholders through comprehensive, accurate, timely and impartial disclosure of information.
As mentioned above, the Company sincerely and devotedly seeks to achieve its management philosophy and to establish the following effective and orderly corporate governance systems to continue to ensure soundness, compliance and transparency in its business operations.

- ① Adoption of the Audit & Supervisory Board Member System and Strengthening of the Supervisory Function:
The Company has adopted the Audit & Supervisory Board Member System pursuant to the Companies Act of Japan and has appointed independent Outside Audit & Supervisory Board Members who are disinterested in the Company to strengthen the supervision of the Company's management.
- ② Strengthening the Supervisory Function of the Board of Directors:
The Company has a small number of Directors to expedite the management decision-making process. At the same time, the Company appoints disinterested, independent Outside Directors in order to enhance the supervision of the Company's management. In addition, the Company's basic policy is to elect independent Outside Directors which account for one-third or more of the Directors and from the perspective of ensuring clear separation between management oversight and business execution, an independent Outside Director serves as the Chair of the Board of Directors in principle. Furthermore, the Directors' terms of office are set at one year to give shareholders an opportunity to cast votes of confidence regarding Directors' performance every fiscal year.
- ③ Adoption of a Corporate Officer System for Expeditious Business Execution:
The Company has adopted a Corporate Officer system that separates the management decision making and Director supervisory functions of the Board of Directors from the execution of business. This aims to accelerate decision-making by delegation of authority and to clarify the authority and responsibility of business execution. Corporate Officers are in charge of business execution and carrying out decisions made by the Board of Directors and thereby expeditiously execute business operations in accordance with management decisions.
- ④ Establishment of Advisory Bodies to the Board of Directors (Nomination Advisory Committee, Compensation Advisory Committee, Corporate Governance Committee and Business Ethics Committee):
The Nomination Advisory Committee is chaired by an Outside Director of the Company and a half or more of the members are Outside Directors. The said Committee reviews the conditions expected for the post of Director, Audit & Supervisory Board Member, and Corporate Officer and makes nominations. In this way, the Nomination Advisory Committee ensures the appropriate election of Directors, Audit & Supervisory Board Members and Corporate Officers and provides transparency in the decision-making process.
The Compensation Advisory Committee is chaired by an Outside Director of the Company and a half or more of the members are Outside Directors. The said Committee examines the remuneration system and the level of remuneration pertaining to Directors and Corporate Officers, as well as presidents and qualifying officers of the Company's principal subsidiaries. It also reviews the transparency of the remuneration decision-making process and verifies whether such remuneration is reasonable in light of corporate business performance, individual performance and general industry standards.
The Corporate Governance Committee conducts deliberations on matters concerning corporate governance, internal control system and its operation, etc. and continuously strives to enhance corporate governance for the Company's sustainable growth and increase of its corporate value over the mid- to long-term.
The aim of the Business Ethics Committee is to ensure compliance with the TDK Corporate Motto, understanding of corporate ethics and improvement of awareness of corporate social responsibility (CSR). To achieve this aim, the Directors, Audit & Supervisory Board Members, Corporate Officers and all other members of TDK are made fully aware of the "TDK Code of Conduct", which stipulates concrete standards of business conduct in compliance with the TDK's management philosophy, including the TDK Corporate Motto, Corporate Principle and social norms, including relevant laws, regulations and international rules and the spirit thereof.

Under the foregoing corporate systems, the Audit & Supervisory Board Members in charge of supervising management, ensure soundness, compliance and transparency in the Company's business operations by executing their duties pursuant to the Regulations of the Audit & Supervisory Board, the Code of Audit & Supervisory Board Members' Auditing Standards and Audit Practice Standards for Internal Control Systems and by auditing whether the Directors' performance is appropriately and reasonably in compliance with relevant laws and regulations and the Articles of Incorporation.

Similarly, Directors in charge of management decision-making and supervision of business execution ensure soundness, compliance and transparency in the Company's business operations by executing their duties pursuant to the Regulations of the Directors' Business and the Regulations of the Board of Directors established in accordance with relevant laws and regulations and the Articles of Incorporation. In addition, Corporate Officers in charge of business execution ensure soundness, compliance and transparency in the Company's business operations by executing their duties pursuant to the Regulations of the Corporate Officers' Business.

The Company establishes the Disclosure Committee as well as the following procedures and system to ensure compliance with all applicable securities and exchange laws and other similar laws and regulations of all relevant countries, as well as the rules and regulations of the stock exchange on which the Company's shares are listed (hereinafter collectively referred to as the "Securities Regulations").

- (i) Internal control and other procedures to collect, record, analyze, process, summarize and report all information required to be disclosed under the Securities Regulations and warrant timely disclosures within the deadlines stipulated by the Securities Regulations.
 - (ii) System to ensure that the Company has procedures designed to obtain reasonable assurance that all the transactions that the Company conducts are properly authorized, that the Company's assets are protected from unauthorized or improper use and that all trading activities are appropriately recorded and reported for the purpose of enabling the Company to prepare financial statements in accordance with the accounting standards applied by the Company.
 - (iii) System to ensure that the Company is in compliance with the requirements of the Securities Regulations with respect to corporate governance systems.
- (2) System under which information regarding the execution of business by Directors of the Company shall be preserved and controlled:
The President, who is responsible for the business execution of the Company, has established the Document Control Regulations, which are applicable to TDK and provide basic rules for the preservation and control of information regarding the execution of business by Directors.

- (3) Regulations and other systems for managing the risk of loss(es) of the Company and its subsidiaries:
To enhance the risk management system of TDK, the Company has established the following four committees (which is chaired by a Corporate Officer appointed by the President) under the direct control of the Executive Committee.
- (i) Disclosure Committee
The Disclosure Committee deliberates on and examines important corporate information and disclosure materials of the Company that are required for investment decisions by shareholders and investors, to ensure that the Company discloses appropriate information in a comprehensive, accurate, timely and impartial manner, in accordance with various laws and regulations regarding securities transactions and the rules and regulations of the stock exchange on which the Company's shares are listed.
 - (ii) ERM* Committee
For the purpose of the company-wide treatment of factors that obstruct the achievement of the business targets and business operations of the Company, the Company has established the ERM Committee and promotes enterprise risk management. Corporate regulations, bylaws, guidelines and departmental guidelines established in each department provide for operating rules for specific risks, including legal, financial and IT-related risks. These risks are managed by managers in charge of the particular areas of operation.
*ERM (Enterprise Risk Management)
 - (iii) Crisis Management Committee
In order to prepare for unexpected situations such as natural disasters, the Company has established the Crisis Management Committee, which developed the Business Continuity Plan (BCP). Accordingly, if such an unexpected situation arises, the Company will assess the situation immediately and respond appropriately.
 - (iv) Information Security Committee
In order to appropriately manage important information including information provided by customers, the Company has established the Basic Policy on Information Security and the Information Security Committee and appropriately takes risk-based security measures.
- The Company has ensured that a structure for receiving advice in relation to enhancing the risk management system and increasing its effectiveness (including, but not limited to, identifying, evaluating and reviewing material management risks at TDK and establishing effective countermeasures) is in place through regular confirmation and audit by the Audit & Supervisory Board Members and the internal audit department of the management operations described above. In addition, the Company will seek advice from specialists, including outside legal counsel and other experts, as needed regarding risks surrounding TDK.
- (4) System for ensuring Directors of the Company and Directors, etc. of the Company's subsidiaries execute their duties efficiently and system for reporting matters concerning the execution of duties of Directors, etc. of the Company's subsidiaries to the Company:
- The Company has a small number of Directors and has adopted the Corporate Officer system to facilitate the Directors' ability to make quick and efficient management decisions.
At the same time, policies and measures with respect to business execution, such as development, manufacturing, marketing and financing of TDK, are deliberated and decided upon by the Executive Committee, which consists of Corporate Officers and General Managers designated by the President. All Corporate Officers perform their duties expeditiously pursuant to the decisions made by the Executive Committee. As to the status of the execution of their duties, the Company ensures efficient management via regular reports to the Board of Directors and regular reports from Corporate Officers to the Executive Committee.
In addition, the Company establishes midterm management targets shared by all members of TDK and strives to inform them of such targets. The Company also establishes systems that enable it to understand the targets and implementation plans of each department as well as the progress of each department in relation to such targets. With respect to the business management of subsidiaries, the Company establishes systems that enable it to understand their business conditions through quarterly reports submitted by each subsidiary.
- (5) System for ensuring performance of duties by employees of the Company and Directors, etc. and employees of the Company's subsidiaries are in compliance with laws and regulations and the Articles of Incorporation:
- The Company strives to ensure that all members of TDK are fully familiar with TDK's management philosophy, "TDK Code of Conduct" and "TDK Charter of Corporate Behavior" in order to ensure improved soundness, compliance and transparency of management, as well as compliance with laws, regulations and the Articles of Incorporation throughout the performance of duties by all members of TDK.
Furthermore, the Company has established a corporate ethics management system under the Business Ethics Committee, to regularly monitor the Company's compliance with corporate ethics, including the Company's subsidiaries worldwide. The Consultations and Help Lines also enable employees to directly report all relevant information and opinions concerning corporate ethics, etc. within TDK.
In addition, the Company appoints a Chief Compliance Officer from among Corporate Officers upon resolution of the Board of Directors and establishes a compliance promotion department under the direct control of the President. The Chief Compliance Officer and compliance promotion department, together with Regional Chief Compliance Officers appointed in each region of the world as well as in Japan, operate in order to establish and strengthen a compliance system of TDK.
Especially as to compliance with cartel regulations in each country, the Company establishes a system of checks, monitoring, etc., achieves thorough compliance with the applicable code of conduct and ensures a strict performance of duties.
- (6) System for ensuring proper business execution by the corporate group consisting of the Company and its subsidiaries:
- Each Director, Corporate Officer and manager in charge of operations strives to achieve proper business operations by making decisions in compliance with the "TDK Code of Conduct", the Job Authority Regulations and other applicable corporate regulations for the entire TDK, in order to maintain soundness, compliance, and transparency in business operations, and to achieve the business targets of TDK.
The Audit & Supervisory Board Members audit, on a regular basis, the condition of the business operations of each department of TDK by researching the departments, examining important documents, and attending important meetings. In addition, the internal audit department audits and supports each department of TDK in order to promote consistency in relation to business operations and management policies, efficiency of management, and compliance with relevant laws and regulations.

- (7) Matters relating to employees who support the duties of Audit & Supervisory Board Members of the Company when Audit & Supervisory Board Members request such employees:
- The Audit & Supervisory Board Members Office, consisting of designated full-time employees who do not perform any business execution duties, assists duties of the Audit & Supervisory Board Members.
- (8) Matters regarding the independence of employees in the preceding item from Directors and the ensuring of the effectiveness of instructions of Audit & Supervisory Board Members of the Company to such employees:
- The authority to instruct or order the employees who serve as members of the Audit & Supervisory Board Members Office belongs exclusively to the Audit & Supervisory Board Members. In addition, the Audit & Supervisory Board Members directly evaluate the performance of such employees and any transfer or discipline of these employees is determined pursuant to the operating rules of the Company subject to the consent of the Audit & Supervisory Board Members.
- (9) System for ensuring Directors or employees of the Company report to Audit & Supervisory Board Members of the Company and system for ensuring Directors, Audit & Supervisory Board Members, employees of the Company's subsidiaries or persons who have received reports from these persons report to Audit & Supervisory Board Members of the Company:
- All members of TDK provide an appropriate report immediately, if an Audit & Supervisory Board Member requests a report regarding the execution of business. Information regarding management policies of TDK and conditions of business execution by Corporate Officers is timely provided to Audit & Supervisory Board Members who attend important meetings such as Executive Committee meetings and business plan review meetings, and minutes of such meetings are also provided to the Audit & Supervisory Board Members immediately. Furthermore, Audit & Supervisory Board Members may receive explanations directly from Corporate Officers and other personnel as necessary. Audit & Supervisory Board Members may review reports prepared by each department of the Company or company of TDK, and Audit & Supervisory Board Members may thereby confirm the conditions of the business operations of TDK.
- In addition, all members of TDK may report any fact which may cause significant damage to TDK, such as violation of law or regulation, to the Business Ethics Committee through the Consultations or Help Lines established by the said Committee and covering the whole of TDK. In cases where the Business Ethics Committee finds any fact which may cause significant damage to TDK, such as violation of law or regulation, it will immediately report such fact to Audit & Supervisory Board Members or the Audit & Supervisory Board.
- Furthermore, information regarding the activities of the ERM Committee and other committees is provided to Audit & Supervisory Board Members from time to time, enabling the Audit & Supervisory Board Members to confirm the overall status of corporate activities.
- (10) System for ensuring persons who have reported as provided in the preceding item will not be treated unfavorably on grounds of such reporting
- The Company prohibits any member of TDK who has reported to the Consultation or Help Line from being treated unfavorably on the grounds of such reporting, and stipulates to that effect in the "TDK Code of Conduct" and clearly informs all members of TDK of that fact.
- (11) Matters concerning policies for disposal of expenses and obligations associated with the execution of duties by Audit & Supervisory Board Members
- When Audit & Supervisory Board Members demand payment of expenses or obligations associated with execution of their duties from the Company pursuant to Article 388 of the Companies Act of Japan, the Company shall pay such expenses or obligations immediately after deliberation at the department in charge unless the expenses or obligations concerning such demand are proven to be unnecessary for the execution of such duties of the Audit & Supervisory Board Members.
- (12) System for ensuring Audit & Supervisory Board Members of the Company conduct audits effectively:
- The Audit & Supervisory Board Members and the Audit & Supervisory Board meet with the President on a regular basis to confirm management policies and exchange opinions on pressing issues and risks affecting TDK and other important matters from the perspective of the Audit & Supervisory Board Members' audits. These meetings also strengthen the mutual understanding between the Audit & Supervisory Board Members and the President.
- The Audit & Supervisory Board Members and the internal audit department meet regularly and receive regular audit reports from the Accounting Auditor. Audit & Supervisory Board Members conduct efficient audits by sharing information regarding initial audit plans and results. Furthermore, the Audit & Supervisory Board has entered into an advisory contract with an attorney who is independent from the business execution department and has established a system to ensure that it receives advice with respect to matters which need to be reviewed or confirmed from the perspective of the Audit & Supervisory Board Members or the Audit & Supervisory Board.

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④ Limited liability agreements with Outside Directors and Audit & Supervisory Board Members

The Company entered into contracts with each Outside Directors and Audit & Supervisory Board Members pursuant to Article 427 paragraph 1 of the Companies Act to limit the liabilities of each such Outside Director/Audit & Supervisory Board Member to the Company under Article 423 paragraph 1 of the same Act to the amount set forth in each such contract, which amount shall be equal to or greater than the amount provided for in Article 425 paragraph 1 of the same Act.

⑤ Number of Directors

The Company's Articles of Incorporation stipulate that the number of Directors of the Company shall be ten or less.

⑥ Resolution requirements for election and dismissal of Directors

The Company's Articles of Incorporation stipulate that resolutions of the General Meeting of Shareholders concerning the election or dismissal of Directors shall be adopted by an affirmative vote of a majority of the voting rights of shareholders present at the General Meeting of Shareholders, a quorum for which shall be the presence of shareholders with one-third (1/3) or more of the voting rights exercisable for such meeting.

⑦ Items for resolution by the General Meeting of Shareholders that can be approved by resolution by the Board of Directors

a. Acquisition of treasury stock

Pursuant to Article 165, paragraph 2 of the Companies Act, for the purpose of enabling the execution of flexible capital policy, the Company's Articles of Incorporation provide for the acquisition of treasury stock to be possible by resolution of the Board of Directors.

b. Interim dividend

The Company's Articles of Incorporation provide that the Company may distribute an interim dividend with the record date of September 30 each year by resolution of the Board of Directors, pursuant to the provisions of Article 454, paragraph 5 of the Companies Act, to the effect that the Company may flexibly distribute profits to shareholders.

⑧ Requirements of special resolution of the General Meeting of Shareholders

The Company's Articles of Incorporation stipulate that special resolutions of the General Meeting of Shareholders as provided for in Article 309, paragraph 2 of the Companies Act shall be adopted by an affirmative vote of two-thirds (2/3) or more of the voting rights of shareholders present at the General Meeting of Shareholders, a quorum for which shall be the presence of shareholders with one-third (1/3) or more of the voting rights exercisable for such meeting. This constitutes an easier quorum for special resolutions, which has been provided to facilitate the smooth conduct of General Meeting of Shareholders.

(2) Status of Directors and Audit & Supervisory Board Members

①List of Directors and Audit & Supervisory Board Members

Men: 11 Women: 1 (Percentage of women among directors and audit & supervisory board members: 8.3%)

Title & Post	Name	Date of birth	Summary of career	Term of office	Number of shares held (Hundreds of shares)
Representative Director President and CEO, and General Manager of Humidifier Countermeasures HQ	Shigenao Ishiguro	Oct. 30, 1957	<p>Jan. 1982: Entered the Company</p> <p>Apr. 2002: Senior Manager of Planning Group of Europe Sales Group of Recording Media & Solutions Business Group of the Company</p> <p>Jul. 2004: Leader of Planning Group of Japan Operation of HDD Head Business Division of Data Storage & Thin Film Technology Components Business Group of the Company</p> <p>Apr. 2007: Leader of Japan Operation of HDD Head Business Division of Data Storage & Thin Film Technology Components Business Group of the Company</p> <p>Apr. 2011: Deputy General Manager of Data Storage & Thin Film Technology Components Business Group of the Company</p> <p>Jun. 2012: General Manager of Data Storage & Thin Film Technology Components Business Group of the Company</p> <p>Jun. 2014: Corporate Officer of the Company</p> <p>Apr. 2015: CEO of Magnetic Heads and Sensors Business Company of the Company</p> <p>Jun. 2015: Senior Vice President of the Company</p> <p>Jun. 2016: President & Representative Director of the Company (present post)</p> <p>General Manager of Humidifier Countermeasures HQ of the Company (present post)</p> <p>General Manager of Manufacturing HQ of the Company</p>	Note: 3	31
Representative Director General Manager of Finance & Accounting HQ	Tetsuji Yamanishi	May. 29, 1960	<p>Apr. 1983: Entered the Company</p> <p>Jan. 2005: Senior Manager of Managerial Accounting Department of Finance & Accounting Department of Administration Group of the Company</p> <p>Jul. 2008: Head of Managerial Accounting Department of Finance & Accounting Department of Administration Group of the Company</p> <p>Jun. 2013: General Manager of Finance & Accounting Department of the Company</p> <p>Apr. 2015: General Manager of Finance & Accounting Group of the Company</p> <p>Jun. 2015: Corporate Officer of the Company</p> <p>Jun. 2016: Director of the Company</p> <p>Apr. 2017: General Manager of Finance & Accounting HQ of the Company (present post)</p> <p>Jun. 2017: Senior Vice President of the Company(present post)</p> <p>Jun. 2018: Representative Director of the Company(present post)</p> <p>Apr. 2019: Chief Compliance Officer of the Company (present post)</p>	Note: 3	15

Title & Post	Name	Date of birth	Summary of career	Term of office	Number of shares held (Hundreds of shares)
Director Chairman	Makoto Sumita	Jan. 6, 1954	<p>Apr. 1980: Entered Nomura Research Institute, Ltd. Jun. 1996: Director of INNOTECH CORPORATION</p> <p>Apr. 2005: Executive Vice President & Representative Director of the said company</p> <p>Jun. 2005: Director of IT Access Co., Ltd. Apr. 2007: President & CEO of INNOTECH CORPORATION</p> <p>Jun. 2011: Outside Audit & Supervisory Board Member of the Company Apr. 2013: Chairman & CEO of INNOTECH CORPORATION</p> <p>Jun. 2013: Resigned Outside Audit & Supervisory Board Member of the Company Outside Director of the Company</p> <p>Feb. 2015: Chairman & CEO of INNOTECH FRONTIER, Inc.</p> <p>Jun. 2018: Chairman & Director of INNOTECH CORPORATION (present post) Chairman & Director of the Company (present post)</p>	Note: 3	—
Director General Manager of the Corporate Strategy HQ	Seiji Osaka	Oct.28 1958	<p>Apr. 1982: Entered the Company Apr. 2003: Senior Manager if Corporate Planning Dept. of the Company</p> <p>Jun. 2009: Corporate Officer of the Company General Manager of Corporate Planning Dept. of Corporate Strategy Group of the Company</p> <p>May. 2011: General Manager of Corporate Planning Group of the Company General Manager of Corporate Planning Dept. of Corporate Planning Group of the Company</p> <p>Jun. 2012: Senior Vice President of the Company Senior Executive Vice President & COO of TDK-EPC Corporation</p> <p>Apr. 2015: General Manager of the Electronic Components Sales & Marketing Group of the Company General Manager of the ICT Group of the Electronic Components Sales & Marketing Group of the Company</p> <p>Apr. 2017: General Manager of the Corporate Strategy HQ of the Company (present post) In charge of Human Resources</p> <p>Jun. 2017: Director & Executive Vice President of the Company (present post) Outside Director of TABUCHI ELECTRIC CO.,LTD.</p>	Note: 3	20

Title & Post	Name	Date of birth	Summary of career		Term of office	Number of shares held (Hundreds of shares)
Director	Kazumasa Yoshida	Aug. 20, 1958	Oct. 1984: Oct. 1999: Mar. 2000: May. 2002: Jun. 2003: Dec. 2004: Jun. 2012: Feb. 2013: Jun. 2013: Oct. 2013: Jun. 2014: Jun. 2015: Jul. 2016:	Entered Intel Corporation Manager of Technology/OEM Alliance Business Strategy of Enterprise Service Group of the said company General Manager of Communication Product Group of Intel K.K. General Manager of Intel Architecture Business of the said Company Representative Director and President of the said company Vice President of Sales and Marketing Group of Intel Corporation Outside Director of Onkyo Corporation (present post) Outside Director of Gibson Brands, Inc. (present post) Advisor of Intel K.K. Outside Director of the Company (present post) Outside Director of Mamezou Holdings Co., LTD (present post) Outside Director of FreeBit Co., LTD (present post)	Note: 3	—
Director	Kazuhiko Ishimura	Sep. 18, 1954	Apr. 1979: Jan. 2006: Jan. 2007: Mar. 2008: Jan. 2010: Jan. 2015: Jun. 2015: Jun. 2017: Jan. 2018: Jun. 2018:	Entered Asahi Glass Co., Ltd. (currently AGC Inc.) Executive Officer of the said company Senior Executive Officer and GM of Electronics & Energy General Division of the said company President & COO & Representative Director of the said company President & CEO & Representative Director of the said company Chairman & Representative Director of the said company Outside Director of the Company (present post) Outside Director of IHI Corporation (present post) Chairman & Director of ASAHI GLASS CO.,LTD. (currently AGC Inc.) (present post) Outside Director of Nomura Holdings, Inc. (present post)	Note: 3	—
Director	Kazunori Yagi	Apr 1, 1949	Apr. 1972: Oct. 1999: Apr. 2001: Jun. 2001: Jul. 2002: Jul. 2005: Jun. 2011: Jun. 2012: Jun. 2013: Mar. 2014: Jun. 2017: Jun. 2018:	Entered Yokogawa Electric Works Ltd. (currently Yokogawa Electric Corporation) Vice President (Officer) and General Manager of Finance & Business Planning, in charge of Corporate Marketing of the said company Senior Vice President and General Manager of Finance & Business Planning of the said company Director, Senior Vice President and General Manager of Finance & Business Planning of the said company Director, Executive Vice President and General Manager of Finance & Business Planning of the said company Director, Executive Vice President and General Manager of Management Administration Headquarters of the said company Advisor to the said company Outside Company Auditor of Yokogawa Bridge Holdings Corporation (present post) Outside Director of JSR Corporation Outside Audit & Supervisory Board Member of the Company Outside Director of OYO Corporation Outside Audit & Supervisory Board Member of Sojitz Corporation (present post) Resigned as Outside Audit & Supervisory Board Member of the Company Outside Director of the Company (present post)	Note: 3	—

Title & Post	Name	Date of birth	Summary of career		Term of office	Number of shares held (Hundreds of shares)
Full-time Audit & Supervisory Board Member	Takakazu Momozuka	Nov. 3, 1958	Apr. 1982: Apr. 2005:	Entered the Company Senior Manager, Finance & Accounting Department, Administration Group of the Company	Note: 4	20
			Jun. 2008:	General Manager, Finance & Accounting Department, Administration Group of the Company		
			Jun. 2011:	Corporate Officer of the Company		
			Jun. 2013:	In charge of Finance & Accounting and BPR Project of the Company		
			Apr. 2015:	General Manager, Corporate Administration HQ of the Company In charge of Management System and BPR Project of the Company		
			Jun. 2016:	Deputy General Manager, Corporate Administration HQ of the Company General Manager, General Affairs Group, Corporate Administration HQ of the Company		
			Oct. 2016:	Chief Compliance Officer of the Company General Manager, Compliance HQ of the Company		
			Apr. 2017:	General Manager, Legal & Compliance HQ of the Company		
			Mar. 2019:	Retirement of Corporate Officer of the Company		
			Jun. 2019:	Full-time Audit & Supervisory Board Member of the Company (present post)		
Full-time Audit & Supervisory Board Member	Satoru Sueki	Jul. 1, 1958	Mar. 1984: Apr. 2005:	Entered the Company Leader, Thin Film Device Product Group, Thin Film Device Division, Data Storage & Thin Film Technology Components Business Group of the Company	Note: 4	29
			Apr. 2006:	Project Leader, Thin Film Product Project, Technology Group of the Company		
			Apr. 2009:	Deputy General Manager, Device Development Center, Technology Group of the Company		
			Jun. 2010:	General Manager, Quality Assurance Department of the Company		
			Apr. 2013:	General Manager, Quality Assurance Group, Manufacturing HQ of the Company General Manager, Humidifier Recall Office, Humidifier Countermeasures HQ of the Company		
			Jun. 2014:	Corporate Officer of the Company General Manager, Quality Assurance Group of the Company		
			Apr. 2017:	General Manager, Quality Assurance HQ of the Company		
			Mar. 2019:	Retirement of Corporate Officer of the Company		
			Jun. 2019:	Full-time Audit & Supervisory Board Member of the Company (present post)		
Audit & Supervisory Board Member	Jun Ishii	Mar. 24, 1956	Apr. 1979: Apr. 2007: Apr. 2012:	Entered Matsushita Electric Industrial Co., Ltd. (currently Panasonic Corporation) Executive Officer of the said company Managing Executive Officer of the said company	Note: 4	—
			Jun. 2014:	Managing Director of the said company		
			Apr. 2015:	In charge of Human Resources, General Affairs, Social Relations, Legal Affairs, Fair Business, Corporate Governance, Risk Management, Facility Management, Corporate Sport Promotion and Executive Support Office; and Director, Risk & Governance Management Division, Of the said company		
			Jun. 2017:	Director, Managing Executive Officer, Chief Risk Management Officer (CRO), and Chief Compliance Officer (CCO); In charge of Corporate Governance; Director, Risk & Governance Management Division; and In charge of General Affairs, Social Relations, Facility Management and Executive Support Office, Of the said company		
			Apr. 2018:	Director of the said company (Retired in Jun. 2018)		
			Jun. 2019:	Outside Audit & Supervisory Board Member of the Company (present post)		

Title & Post	Name	Date of birth	Summary of career		Term of office	Number of shares held (Hundreds of shares)
Audit & Supervisory Board Member	Douglas K. Freeman	May. 23, 1966	Apr. 1990: Apr. 1996: Jun. 1997: Sep. 2002:	Entered Goldman Sachs Japan Co., Ltd. Registered as lawyer in Japan Joined Mitsui, Yasuda, Wani & Maeda Joined Hamada Law Offices Registered as lawyer in New York, the United States of America Joined Sullivan & Cromwell LLP Principal of Law Offices of Douglas K. Freeman (present post) Outside Director of U-Shin Ltd. (present post) Apr. 2019: Jun. 2019:	Note: 4	—
Audit & Supervisory Board Member	Michiko Chiba	Jun.27, 1961	Apr. 1984 Oct. 1989 Mar. 1993 Jul. 2010 Sep. 2016 Jun. 2018 Mar. 2019 Jun. 2019	Entered Tokyo Metropolitan Government Joined Showa Ota & Co. (currently Ernst & Young ShinNihon LLC) Registered as certified public accountant in Japan Senior Partner, Ernst & Young ShinNihon LLC Principal of Chiba Certified Public Accountant Office (present post) Outside Audit & Supervisory Board Member of CASIO COMPUTER CO., LTD. (present post) Outside Audit & Supervisory Board Member of DIC Corporation (present post) Outside Director, Audit & Supervisory Committee Member of CASIO COMPUTER CO., LTD. (present post) Outside Audit & Supervisory Board Member of the Company (present post)	Note: 4	—
Total						115

- Notes:
1. Mr. Kazumasa Yoshida, Mr. Kazuhiko Ishimura and Mr. Kazunori Yagi are Outside Directors.
 2. Mr. Jun Ishii, Mr. Douglas K. Freeman and Ms. Michiko Chiba are Outside Audit & Supervisory Board Member.
 3. One year from the Ordinary General Meeting of Shareholders held on June 27, 2019.
 4. Four years from the Ordinary General Meeting of Shareholders held on June 27, 2019.
 5. The Company, aiming to boost execution of duties and improve management efficiency, has introduced a Corporate Officer System. The Company has 18 Corporate Officers.

②Status of Outside Directors and Outside Audit & Supervisory Board Members

a. Special interests between TDK and its Outside Directors and Outside Audit & Supervisory Board Members

There are no special interests between TDK and any of its current Outside Directors and Outside Audit & Supervisory Board Members (three Outside Directors and three Outside Audit & Supervisory Board Members).

b. Business relationships between TDK and companies where Outside Directors and Outside Audit & Supervisory Board Members serve as officers

Business relationships between TDK and companies where Outside Directors serve as officers are as follows.

- Although the Company has a business relationship with AGC Inc., where Outside Director Mr. Kazuhiko Ishimura serves as Director, the transacted amount is so small for both entities that such business relationship is not a significant relationship; in the fiscal year ended March 31, 2019, the ratio of sales of TDK Group ("TDK") to the AGC Group represented less than 1% of the consolidated net sales of TDK.
- Although the Company has a business relationship with IHI Corporation, where Outside Director Mr. Kazuhiko Ishimura serves as Outside Director, the transacted amount is so small for both entities that such business relationship is not a significant relationship; in the fiscal year ended March 31, 2019, the ratio of sales of the IHI Group to TDK represented less than 1% of the consolidated net sales of the IHI Group.
- Although the Company has a business relationship with Nomura Holdings, Inc., where Outside Director Mr. Kazuhiko Ishimura serves as Outside Director, the transacted amount is so small for both entities that such business relationship is not a significant relationship; in the fiscal year ended March 31, 2019, the ratio of revenue received from TDK represented less than 1% of the net revenue (following deduction of financial expenses) (equivalent to consolidated net sales) of the Nomura Holdings Group.

- Although the Company has a business relationship with Sojitz Corporation, where Outside Director Mr. Kazunori Yagi serves as Outside Audit & Supervisory Board Member, the transacted amount is so small for both entities that this business relationship is not a significant relationship; in the fiscal year ended March 31, 2019, the ratio of sales of the Sojitz Group to TDK represented less than 1% of the consolidated net sales of the Sojitz Group.
- Although the Company has a business relationship with CASIO COMPUTER CO., LTD., where Outside Audit & Supervisory Board Member Ms. Michiko Chiba serves as Outside Audit & Supervisory Board Member, the transacted amount is so small for both entities that such business relationship is not a significant relationship; in the fiscal year ended March 31, 2019, the ratio of sales of TDK to the CASIO COMPUTER Group represented less than 1% of the consolidated net sales of TDK.

c. Function and roll of Outside Directors and Outside Audit & Supervisory Board Members

The Company is actively inviting Outside Directors to participate in our organization for the purpose of strengthening management supervision functions, and building a management conscious of our various stakeholders including shareholders and an effective and disciplined corporate governance framework. As a result, the date of filing of this Annual Securities Report, three of the seven Directors are Outside Directors and three of the five Audit & Supervisory Board Members are Outside Audit & Supervisory Board Members.

The Outside Directors confirm significant issues through reports from Corporate Officers and others in the Board of Directors and express their opinions as necessary to fulfill their supervisory function. Furthermore, the Outside Audit & Supervisory Board Members confirm the effectiveness of such as the internal control system through reports from the full-time Audit & Supervisory Board Members and reports from the Accounting Auditors and discuss the details of such reports to fulfill their supervisory function.

d. Criteria for independence of Outside Directors and Outside Audit & Supervisory Board Members

In order to secure the independence of the Outside Directors and Outside Audit & Supervisory Board Members it invites, the Company has established “items to be verified regarding independence” with reference to such criteria as Rule 436-2 of the Securities Listing Regulation regarding securing independent directors/auditors and Rule III. 5. (3)-2 of Guidelines Concerning Listed Company Compliance, etc., both of which are stipulated by Tokyo Stock Exchange, Inc. The outline of these items is as follows.

“Items to be verified regarding independence”

- (1) In cases where the relevant Outside Director/ Audit & Supervisory Board Member has a business relationship with TDK
An Outside Director/ Audit & Supervisory Board Member shall be judged not to be independent if they are at present, or have been during the past five years, a party with a business relationship with TDK as described in (i) below, or a person who executes business for such party, or if (ii) below applies to them.
 - (i) Where it is recognized, objectively and reasonably, that such business relationship is necessary for, or has a substantial influence on, the continued operation of TDK or the other party to such business relationship (where there is a high degree of dependence in the relationship, where the relationship is the source of 2% or more of consolidated sales, and where the other party to the relationship receives money or other assets from TDK other than remuneration for officers)
 - (ii) Where it is recognized within TDK that the relevant Outside Director/ Audit & Supervisory Board Member is involved in the business relationship with the other party to such relationship
 - (2) In cases where the relevant Outside Director/ Audit & Supervisory Board Member is a consultant, an accounting professional or a law professional
An Outside Officer shall be judged not to be independent if any of the following cases apply to such person at present or have applied to such person during the past five years.
 - (i) Where it is recognized, objectively and reasonably, that the relevant Outside Director/ Audit & Supervisory Board Member (including candidates for such position; the same shall apply hereinafter) cannot perform duties as an Independent Outside Director/ Audit & Supervisory Board Member because they receive money or other assets from TDK other than remuneration for officers (where there is a high degree of dependence)
 - (ii) Where it is recognized, objectively and reasonably, that the relevant Outside Director/ Audit & Supervisory Board Member cannot perform duties as an Independent Outside Director/ Audit & Supervisory Board Member because the organization to which such person belongs (hereinafter the “Relevant Organization”) receives money or other assets from the TDK other than remuneration for officers (where this income is equivalent to 2% or more of total annual remuneration)
 - (iii) Where TDK has a high degree of dependence on a professional or a Relevant Organization, such as a case where services, etc. rendered by such party are essential to the corporate management of TDK or it would be difficult to find an alternative provider of the same services, etc.
 - (iv) Where it is recognized within TDK that the relevant Outside Director/ Audit & Supervisory Board Member is involved with the services, etc. provided by the Relevant Organization
 - (3) In the case of a close relative of the relevant Outside Director/ Audit & Supervisory Board Member
An Outside Director/ Audit & Supervisory Board Member shall be judged not to be independent if either of the following cases apply to their close relative at present or have applied to them during the past five years.
 - (i) A person to whom (1) or (2) above applies (except persons without material significance)
 - (ii) A person who executes business for the Company or a subsidiary of the Company (except persons without material significance)
-

The Company has in place a Nomination Advisory Committee as an advisory body to the Board of Directors which is chaired by an Outside Director and of which more than half of the members are composed of Outside Directors. In accordance with the “items to be verified regarding independence” shown above, the committee investigates and deliberates over the independence of the candidates for Outside Directors and Outside Audit & Supervisory Board Members (including cases where there is a change in an Outside Director/ Audit & Supervisory Board Member’s status of independence during their current term of office). After making a comprehensive judgment on the independence of candidates, the committee reports the results of its deliberations to the Board of Directors.

Taking into account the above, the Company has notified the Tokyo Stock Exchange of its Outside Directors, namely Mr. Kazumasa Yoshida, Mr. Kazuhiko Ishimura and Mr. Kazunori Yagi and its Outside Audit & Supervisory Board Members, namely Mr. Jun Ishii, Mr. Douglas K. Freeman and Ms. Michiko Chiba, who serve as independent

directors/auditors pursuant to Rule 436-2 of the Securities Listing Regulations of Tokyo Stock Exchange, Inc.

e. Activities during the fiscal year under review

Attendance at meetings of the Board of Directors, etc. during the fiscal year under review is as follows.

(Members who were Outside Directors and Outside Audit & Supervisory Board Members in the end of the fiscal business year)

Kazumasa Yoshida (Outside Director):	Mr. Yoshida attended 12 out of 13 meetings of the Board of Directors held during the fiscal year under review. Nomination Advisory Committee: 10 out of 10 meetings Compensation Advisory Committee: 7 out of 7 meetings
Kazuhiko Ishimura (Outside Director):	Mr. Ishimura attended all 13 meetings of the Board of Directors held during the fiscal year under review. Nomination Advisory Committee: 10 out of 10 meetings Compensation Advisory Committee: 7 out of 7 meetings
Kazunori Yagi (Outside Director): (Since appointed in June 2018)	Mr. Yagi attended all 10 meetings of Board of Directors held since his appointment in June 2018. Nomination Advisory Committee: 9 out of 9 meetings Compensation Advisory Committee: 4 out of 4 meetings
Toru Ishiguro (Outside Audit & Supervisory Board Member):	Mr. Ishiguro attended all 15 meetings of the Audit & Supervisory Board and all 13 meetings of Board of Directors held during the fiscal year under review.
Kiyoshi Fujimura (Outside Audit & Supervisory Board Member):	Mr. Fujimura attended all 15 meetings of the Audit & Supervisory Board and all 13 meetings of Board of Directors held during the fiscal year under review.

Outside Directors participate as chair of the committee and members of the Nomination Advisory Committee and Compensation Advisory Committee, which are advisory bodies to the Board of Directors, and in doing so, contribute to the transparency of the personnel and remuneration determination process and the adequacy of appointments and remunerations.

③Cooperation among supervision by Outside Directors, audit by Outside Audit & Supervisory Board Members, internal audit, audit by Audit & Supervisory Board Members and accounting audit and relations with internal control departments

The Audit & Supervisory Board Members and the Audit & Supervisory Board meet with the President on a regular basis to confirm management policies and exchange opinions on pressing issues and risks affecting TDK and other important matters from the perspective of the Audit & Supervisory Board Members' audits. These meetings also strengthen the mutual understanding between the Audit & Supervisory Board Members and the President.

The Audit & Supervisory Board Members and the internal audit department meet regularly and receive regular audit reports from the Accounting Auditor. Audit & Supervisory Board Members conduct efficient audits by sharing information regarding initial audit plans and results. Furthermore, the Audit & Supervisory Board has entered into an advisory contract with an attorney who is independent from the business execution department and has established a system to ensure that it receives advice with respect to matters which need to be reviewed or confirmed from the perspective of the Audit & Supervisory Board Members or the Audit & Supervisory Board.

(3) Status of audit

① Status of audit by Audit & Supervisory Board Members

The Audit & Supervisory Board Members timely collect information regarding management policies of TDK and conditions of business execution by Corporate Officers, etc. by regularly attending the Executive Committee meetings, business plan review meetings and other important meetings as well as the Board of Directors meetings and inspecting management reports and applications for internal decision-making. The Audit & Supervisory Board Members audited the Company's all operating departments and headquarters and the subsidiaries selected according to importance based on the audit policy setting forth the priority audit items in the fiscal year under review. The Audit & Supervisory Board Members share information regarding the identified issues and confirm the countermeasures with operating department managers and headquarters. These information are shared among all Audit & Supervisory Board Members and Directors. The Audit & Supervisory Board Members receive the internal audit report from the internal audit department and promote information sharing and collaboration with them through establishing regular meetings. In addition, the Audit & Supervisory Board Members have meetings with an attorney with whom the Audit & Supervisory Board has entered into an advisory contract regularly and from time to time and receive legal advice regarding Audit & Supervisory Board Members' operations timely, and thereby improve the effectiveness of Audit & Supervisory Board Members' operations. The Audit & Supervisory Board Members promote collaboration with the Accounting Auditor by establishing opportunities to exchange opinions between the Accounting Auditor and the Audit & Supervisory Board regarding audit plans and assertions.

The Audit & Supervisory Board confirms management conditions through information sharing at quarterly review audit reporting meetings, etc. with the Accounting Auditor and regular meetings with the Representative Director, etc., and expresses opinions and provides recommendations from time to time regarding tasks to be addressed by TDK (including matters concerning corporate governance and compliance), risks surrounding TDK, important issues in connection with the Audit & Supervisory Board Members' audit and other issues. During the fiscal year under review, the Audit & Supervisory Board meetings were held 15 times.

< Appointment of Audit & Supervisory Board Member with knowledge of finance and accounting >

Mr. Takakazu Momozuka, a full-time Audit & Supervisory Board Member, has the experience of serving for many years in the fields of finance and accounting at TDK, and, thus, possesses considerable knowledge as regards finance and accounting.

Ms. Michiko Chiba, an Outside Audit & Supervisory Board Member, is certified public accountant, and, thus, possesses considerable knowledge as regards finance and accounting.

② Status of internal audit

The Management Review & Support Group, an internal audit department of the Company, is organized by 12 members.

In this fiscal year, The Management Review & Support Group conducted hearings from the four committees under the direct control of the Executive Committee regarding their activities and verified compliance with relevant laws and regulations, internal regulations, etc. and the efficiency and effectiveness of the operation at operating departments and principal subsidiaries. Also, the Management Review & Support Group conducted the evaluation of the "effectiveness of internal controls over financial reporting" in accordance with the Financial Instruments and Exchange Act of Japan at important bases and important subsidiaries in Japan and overseas. The Management Review & Support Group regularly reports about the results thereof to the President, the Board of Directors and the Audit & Supervisory Board Members.

The Management Review & Support Group and full-time Audit & Supervisory Board Members share information. The Management Review & Support Group submits internal audit reports to full-time Audit & Supervisory Board Members, receives results of Audit & Supervisory Board Members' audit from full-time Audit & Supervisory Board Members and seeks to conduct effective internal audits.

The Management Review & Support Group regularly confirms the Accounting Auditor's audit activities through quarterly financial statements, etc. and regularly exchanges opinions with the Accounting Auditor regarding status of evaluation of the "effectiveness of internal controls over financial reporting" in accordance with the Financial Instruments and Exchange Act of Japan.

③ Status of accounting audit

a. Name of auditor

KPMG AZSA LLC

b. Certified public accountants who conducted the accounting audit

Mr. Yutaka Terasawa

Mr. Hiroto Yamane

Mr. Kohei Shingaki

- c. Constitution of assistant in conducting the accounting audit

Working to assist the above accountants in conducting the accounting audit of the Company were 9 certified public accountants, 7 assistant certified public accountants, and 8 other people.

- d. Select standard and reason of auditor

The Audit & Supervisory Board prescribes procedures and standards for Appointment, Dismissal, and Reappointment of Accounting Auditors in the Regulations of the Audit & Supervisory Board and Standards for Appointment, Dismissal, and Reappointment of Accounting Auditors and selects the Company's Accounting Auditor based on these procedures and standards. When judging selection, the Audit & Supervisory Board examines and evaluates appropriateness of quality control organization of audit firm to be accounting auditor, rationality and validity of conducting audit by audit team and judges comprehensively considering validity of audit fee as well. In addition, accounting auditor could be non-reappointed in case there is any item that doesn't meet the standard of Reappointment.

If all of the Audit & Supervisory Board Members acknowledge that the Company's Accounting Auditor falls under any of the conditions set forth in Article 340 paragraph 1 of the Companies Act of Japan and it is difficult for the Accounting Auditor to properly execute auditing, the Company shall dismiss the Accounting Auditor by a unanimous resolution of the Audit & Supervisory Board. In addition to cases falling under any of the statutory reasons for dismissal of accounting auditors, if any fact occurs that is recognized as casting doubt upon important factors relating to the Accounting Auditor's execution of duties, such as the Accounting Auditor's qualifications, independency and ethics, the Audit & Supervisory Board will, in accordance with the Regulations of the Audit & Supervisory Board and Standards for Appointment, Dismissal, and Reappointment of Accounting Auditors, decide as to whether the Accounting Auditor shall be dismissed or shall not be re-appointed, comprehensively taking the facts into account.

- e. Evaluation of auditor by the Audit & Supervisory Board Members and the Audit & Supervisory Board

The Audit & Supervisory Board evaluated the status of audit activity of accounting auditor for the previous fiscal year. The objects of evaluation are appropriateness of quality control organization of accounting auditor and rationality and validity of conducting audit by audit team, mentioned above. The Audit & Supervisory Board has decided to reappoint KPMG AZSA LLC as accounting auditor for FY2020 based on these results of evaluation for the fiscal year under review.

④ Audit fees, etc.

Transitional measure is applied to amended "Cabinet Office Ordinance regarding disclosure of corporate content, etc." precautions for recording of Form No.2 (56) d (f) i-iii which is according to "Cabinet Office Ordinance to amend a part of Cabinet Office Ordinance regarding disclosure of corporate content, etc." (Cabinet Office Ordinance 3, January 31, 2019)

- a. Details of fees to auditors

Category	Fiscal 2018		Fiscal 2019	
	Audit fees	Fees for non-attest service	Audit fees	Fees for non-attest service
Filing company	376	5	353	4
Consolidated subsidiaries	43	—	39	—
Total	419	5	392	4

- b. Details of other material fees

In fiscal 2018 and fiscal 2019, principal overseas consolidated subsidiaries of TDK Corporation pay audit fees to member firms of KPMG to which KPMG AZSA LLC, TDK Corporation's auditors, belong.

- c. Details of non-attest service rendered by auditors to the filing company

In fiscal 2018 and fiscal 2019, the Company needs to pay the fee for non-attest service to KPMG AZSA LLC. The detail of non-attest service rendered by the auditor is to supervise and to advise for U.S. GAAP.

- d. Policy of deciding audit fees

TDK Corporation carefully considers the independence of auditors and decides the audit fees by resolution of the Board of Directors.

- e. Reason of agreeing audit fees by the Audit & Supervisory Board

Audit & Supervisory Board consented to audit fees for fiscal 2019, after examining the Accounting Auditor's audit plan, the status of duties conducted in previous fiscal years, and the basis for calculation of the remuneration estimate by receiving the necessary materials and hearing reports from Directors, relevant in-house departments, and the

(4) Remuneration and other payments for Directors and Audit & Supervisory Board Members

① Policy and determination method regarding the amounts of remuneration and other payments for Directors and Audit & Supervisory Board Members of the Company and its method of calculation

a. Policy on remuneration

1) Purpose of remuneration system

The Company's remuneration system is designed for the following purpose based on the consultation and deliberation of the Compensation Advisory Committee (see "b") Remuneration determination process below for the detail), an advisory body to the Board of Directors.

By constantly pursuing the competitive remuneration system that focuses on linkage with short-term as well as mid- to long-term results and hiring various and excellent human resources, the Company promotes as much as possible behavior on the part of Directors and Audit & Supervisory Board Members geared towards enhancing corporate results and stock value to constantly increase the corporate value of the overall TDK.

2) Remuneration level

The Company aims to set remuneration at levels enabling the maintenance of competitiveness compared with other companies in the same business category or of similar scale in different business categories. The adequacy of its level is examined by the Compensation Advisory Committee based on studies, etc., on corporate management remuneration performed periodically by third parties.

3) Composition of remuneration

<Remuneration for Directors who concurrently serve as Corporate Officer>

Composed of basic remuneration, results-linked bonuses and share-based compensation type stock options

Ratio of results-linked remuneration to basic remuneration is as follows

Basic remuneration: Results-linked bonuses: Share-based compensation type stock options

1 : 0.6 : 0.7

(President and CEO/Senior Executive Vice President/Executive Vice President/Senior Vice President)

1 : 0.5 : 0.55

(Corporate Officer)

<Remuneration for Directors who do not concurrently serve as Corporate Officer>

Composed of basic remuneration and share-based compensation type stock options without performance condition

<Remuneration for Outside Directors>

Basic remuneration only

<Remuneration for Audit & Supervisory Board Members>

Basic remuneration only

4) Results linkage system

<Short-term results linkage system (results-linked bonus)>

A system whereby remuneration fluctuates within a range of 0% to 200% of the standard payment amount depending on the consolidated results for the year (operating income, ROE) and the degree of achievement of targets set for each division in charge.

The index is as same as the management target. Targets and results in the fiscal year under review are as follows.

The consolidated operating income for the year 1,016 billion yen (target), 1,078 billion yen (result)

The consolidated ROE for the year 8.2% (target), 9.7% (result)

<Mid- to long-term results linkage system (share-based compensation type stock options) >

Under this system, recipients share the same advantage of a rising stock value of the Company and the same risk of it falling as shareholders. The introduction of such a system is intended to increase the ambition and morale of eligible Directors and Corporate Officers with respect to the enhancement of results of operations and stock value. To further strengthen the link between executive remuneration and mid- to long-term results and corporate value, a performance condition is attached to some share-based compensation type stock

options. The performance condition takes the consolidated medium-term management plan (operating income, ROE) as an index, and the number of exercisable options varies between 0% and 100% of the number of options granted, depending on the degree of achievement of targets.

The Company has established Corporate Stock Ownership Guidelines. The Company makes an effort to ensure that eligible Directors and Corporate Officers hold at least a certain number of shares in the Company pursuant to their rank, including share-based compensation type stock options.

b. Remuneration determination process (establishment and operation of the Compensation Advisory Committee)

In order to achieve the purpose of the aforementioned remuneration system, the Company has in place a “Compensation Advisory Committee” acting as an advisory body to the Board of Directors which is chaired by an Outside Director and of which more than half of the members are Outside Directors.

The Committee examines the remuneration system and the level of remuneration pertaining to Directors and Corporate Officers and reports the result to the Board of Directors in order to preserve the transparency of the remuneration decision-making process and help to ensure that the individual remuneration is reasonable in light of corporate business performance, individual performance and general industry standards, among other factors

The Board of Directors is reported by the Committee and resolves and decides items pertaining to remuneration of Directors and Corporate Officers. Furthermore, the Audit & Supervisory Board receives market standards data by the Committee and resolves and decides items pertaining to remuneration of The Audit & Supervisory Board Members.

② Total amount of remuneration and other payments, total amount of remuneration and other payments by type and Number of eligible officers by officer category

Officer category	Total amount of remuneration and other payments (Millions of yen)	Total amount of remuneration and other payments by type (Millions of yen)			Number of eligible officers
		Basic remuneration (Fixed remuneration)	Results-linked bonus (Results-linked remuneration)	Share-based compensation type stock options	
Directors (Excluding Outside Directors)	314	199	97	18	5
Outside Directors	46	46			4
Audit & Supervisory Board Members (Excluding Outside Audit & Supervisory Board Members)	58	58			2
Outside Audit & Supervisory Board Members	24	24			3

1. Although there were four Directors (Excluding Outside Directors), three Outside Directors, two Audit & Supervisory Board Members and two Outside Audit & Supervisory Board Member as of March 31, 2019 in the table above, the number of eligible officers, the total amount of remuneration and other payments and the basic remuneration in the breakdown thereof include one Director who retired at the closing of the 122nd Ordinary General Meeting of Shareholders held on June 28, 2018 and one Outside Audit & Supervisory Board Member who retired upon the appointment of Outside Director at the said General Meeting, and the amount of remuneration paid to them. Furthermore, as Mr. Makoto Sumita served as an Outside Director until his appointment as Chairman & Director on June 28, 2018, his remuneration and other payments while serving as an Outside Director is included in Outside Directors and his remuneration and other payments while serving as an Chairman & Director is included in Directors (Excluding Outside Directors), respectively.

2. Resolution of the General Meeting of Shareholders regarding the amounts of remuneration and other payments for Directors and Audit & Supervisory Board Members

< Directors (Numbers as of the date of filing of this Annual Securities Report:7, numbers prescribed in the Articles of Incorporation of the Company: within 10)>

Basic remuneration: The ceiling amount of remuneration for Directors as a group was resolved as less than ¥25 million per month at the 106th Ordinary General Meeting of Shareholders held on June 27, 2002.

Results-linked bonus: The ceiling amount of results-linked bonuses was resolved as less than ¥350 million per year at the 119th Ordinary General Meeting of Shareholders held on June 26, 2015.

Share-based compensation type stock options: The ceiling amount of remuneration related to stock acquisition rights allocated as stock options was resolved as less than ¥457 million per year at the 119th Ordinary General Meeting of

Shareholders held on June 26, 2015.

< Audit & Supervisory Board Members (Numbers as of the date of filing of this Annual Securities Report:5, numbers prescribed in the Articles of Incorporation of the Company: within 5) >

Basic remuneration: The ceiling amount of remuneration for Audit & Supervisory Board Members as a group was resolved as less than ¥8 million per month at the 106th Ordinary General Meeting of Shareholders held on June 27, 2002.

3. As for the amount of results-linked bonuses and share-based compensation type stock options for Directors for the fiscal year under review, it has been recorded as an expense.

③ Total amount of remuneration and other payments for individuals receiving a total of ¥100 million or more, etc.

Name	Total amount of remuneration and other payments (Millions of yen)	Officer category	Company category	Total amount of remuneration and other payments by type (Millions of yen)		
				Basic remuneration (Fixed remuneration)	Results-linked bonus (Results-linked remuneration)	Share-based compensation type stock options
Shigeno Ishiguro	143	Representative Director, President and CEO	Filling company	63	48	32

(5) Share ownership

① Standard and policy of classification of investment stocks

TDK holds investment stock whose holding purpose is for net investment to gain profit by changes in the value of stock or dividends pertaining to stock

TDK's basic policy regarding cross-shareholdings is to consistently enhance corporate value of the TDK Group through such shareholdings and TDK holds shares of other companies for the purpose of either (1) strategic shareholding for the development of its business or (2) maintenance and improvement of business relationships.

② Investment stock whose holding purpose is other than for net investment

- a. Holding policy, how to verify the rationality of holding and the details of verification of propriety of holding individual stocks at Meetings of the Board of Directors

As to cross-shareholdings, TDK verifies the rationality of continuous holding of such shares and the number of such shares, etc. stock by stock every year at Meetings of the Board of Directors, etc. based on the purpose of such shareholding, situation of transactions, profitability relative to the cost of capital, financial condition, etc., and if the necessity to hold shares of a particular stock has decreased, TDK discusses and negotiates with the issuing company of the stock and promotes the reduction through sale, etc. of such shares.

In exercising voting rights as to its cross-shareholdings, TDK determines to approve or disapprove with full respect for the issuing company's management policies, etc. and considering whether the proposal is appropriate in light of the purpose of strategic shareholding for the development of TDK's business or maintenance and improvement of business relationships, whether the proposal can continuously increase the corporate value of TDK, the issuing company's social responsibilities, whether there is any act which may harm the trust of shareholders, etc. Also, TDK conducts a dialogue with the issuing company regarding the content of the proposal, etc. as appropriate.

- b. Number of issues and balance sheet amounts

	Number of issues (Issues)	Balance sheet amounts (Millions of yen)
Unlisted stocks	13	234
Stocks other than unlisted stocks	3	4,702

(Issues which increased in number of shares in the fiscal year under review)

	Number of issues (Issues)	Total amounts of acquisition costs pertaining to increases in number of shares (Millions of yen)	Reason of increases in number of shares
Unlisted stocks	1	50	Investment for the purpose of joint development of power device
Stocks other than unlisted stocks	-	-	-

Note: "-" shows TDK didn't hold the issue.

(Issues which decreased in number of shares in the fiscal year under review)

	Number of issues (Issues)	Total amounts of sales value pertaining to decreases in number of shares (Millions of yen)
Unlisted stocks	1	212
Stocks other than unlisted stocks	1	-

c. Information regarding number of shares, balance sheet amounts and etc. by issues of specified investment stocks and regarded as holding shares

As to specified investment stocks and regarded as holding shares shown below, it is difficult to mention quantitative holding effect. TDK verified the rationality of continuous holding of such shares and the number of such shares, etc. stock by stock at Meetings of the Board of Directors on May, 2019, etc. based on the purpose of such shareholding, situation of transactions, profitability relative to the cost of capital, financial condition, etc.,

Specified investment stocks

Issue	The fiscal year under review,	The previous fiscal year	Holding purpose, quantitative holding effect and reason of increases in shares	Whether to hold share of the company
	Number of shares (Shares)	Number of shares (Shares)		
	Balance sheet amounts (Millions of yen)	Balance sheet amounts (Millions of yen)		
Mabuchi Motor Co., Ltd.	600,000	600,000	The company does business in Magnets business, etc. and continuously holds the share for maintaining and strengthening good business to business transactions.	No
	2,310	3,144		
ALPS LOGISTICS CO., LTD.	2,804,400	2,804,400	The company does business in logistic and continuously holds the share for maintaining and strengthening good business to business transactions.	No
	2,271	2,658		
SIIX Corporation	72,000	72,000	The company does business in Passive Components business, etc. and continuously holds the share for maintaining and strengthening good business to business transactions.	No
	120	169		
Tabuchi Electric Co., Ltd.	-	8,000,000	The company did business in Power Supplies business, etc. and held the share for strengthening business to business transactions.	No
	-	2,200		

Note: “-” shows TDK didn’t hold the issue.

Regarded as holding shares

Issue	The fiscal year under review,	The previous fiscal year	Holding purpose, quantitative holding effect and reason of increases in shares	Whether to hold share of the company
	Number of shares (Shares)	Number of shares (Shares)		
	Balance sheet amounts (Millions of yen)	Balance sheet amounts (Millions of yen)		
Fukuda Denshi Co., Ltd.	269,100	269,100	The company does business in Passive Components business, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	2,023	2,104		
KYOCERA Corporation	210,000	210,000	The company does business in Passive Components business, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	1,365	1,260		
Shinko Shoji Co., Ltd.	349,000	349,000	The company does business in Passive Components business, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	655	615		
TODA KOGYO CORP.	199,400	199,400	It is an affiliate of the company and the company contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	443	759		
NIKKO COMPANY	2,500,000	2,500,000	The company contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	No
	337	365		
Mitsubishi UFJ Financial Group, Inc.	260,000	260,000	The company does financial business such as borrowing, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	143	181		
Ricoh Company, Ltd.	108,000	108,000	The company does business in Passive Components business, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	124	113		
DENKYOSHA CO., LTD.	55,500	55,500	The company contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	68	88		
Sumitomo Mitsui Trust Holdings, Inc.	10,300	10,300	The company does financial business such as borrowing, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	40	44		
Resona Holdings, Inc.	61,300	61,300	The company does financial business such as borrowing, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	29	34		
Tokio Marine Holdings, Inc.	-	129,500	The company does business such as insurance, etc. and contributes on retirement benefit trust currently. As to exercising voting rights, the company holds the authority to give instructions.	Yes
	-	613		

Note: “-” shows TDK didn’t hold the issue.

- ③Investment stock whose holding purpose is for net investment
Not available

V. Consolidated Financial Statements and Notes to Consolidated Financial Statements

Consolidated statements of income

For the years ended March 31, 2018 and 2019

	Yen (Millions)	U.S. Dollars (Thousands) (Note 2)
	2018	2019
Net sales	¥ 1,271,747	¥ 1,381,806
Cost of sales	928,525	985,321
Gross profit	343,222	396,485
Selling, general and administrative expenses	257,630	287,561
Other operating expense (income) (Note 25)	(4,100)	1,101
Operating income	89,692	107,823
Other income (deductions):		
Interest and dividend income	6,369	7,746
Interest expense	(4,461)	(4,155)
Gain (loss) on securities, net (Note 3)	(248)	463
Equity in earnings of affiliates (Note 4)	2,989	1,795
Gain on sale of investments in affiliates	—	9,379
Foreign exchange gain (loss)	(786)	(4,412)
Other - net	(3,744)	(3,085)
Income before income taxes	89,811	115,554
Income taxes (Note 7)		
Current	27,188	27,546
Deferred	(1,354)	5,458
Net income	25,834	33,004
Less: Net income attributable to noncontrolling interests	63,977	82,550
Net income attributable to TDK	514	345
	¥ 63,463	¥ 82,205

Amounts per share:

	Yen	U.S. Dollars (Note 2)
Net income attributable to TDK (Note 20):		
Basic	¥ 502.80	¥ 651.02
Diluted	501.47	649.45
Cash dividends paid during the year (Note 9)	¥ 120.00	¥ 150.00

Consolidated statements of comprehensive income

For the years ended March 31, 2017 and 2018

	Yen (Millions)	U.S. Dollars (Thousands) (Note 2)
	2018	2019
Net income	¥ 63,977	¥ 82,550
Other comprehensive income (loss), net of taxes:		
Foreign currencies translation adjustments	(12,682)	4,457
Pension liability adjustments	2,134	(6,357)
Net unrealized gains (losses) on securities	(387)	(55)
Total other comprehensive income (loss) (Note 12)	(10,935)	(1,955)
Comprehensive income	53,042	80,595
Comprehensive income attributable to noncontrolling interests	569	260
Comprehensive income attributable to TDK	¥ 52,473	¥ 80,335

See accompanying notes to consolidated financial statements.

Consolidated balance sheets

As of March 31, 2018 and 2019

	Yen (Millions)		U.S. Dollars (Thousands) (Note 2)
ASSETS	2018	2019	2019
Current assets:			
Cash and cash equivalents	¥ 279,624	¥ 289,175	\$ 2,605,180
Short-term investments	43,613	40,505	364,910
Marketable securities (Note 3)	54	57	514
Trade receivables:			
Notes	55,162	56,690	510,721
Accounts	250,568	252,654	2,276,162
Allowance for doubtful receivables	(1,714)	(1,190)	(10,721)
Net trade receivables	304,016	308,154	2,776,162
Inventories (Note 5)	207,532	226,892	2,044,072
Income taxes receivables	6,068	6,775	61,036
Prepaid expenses			
and other current assets	59,029	50,927	458,802
Total current assets	899,936	922,485	8,310,676
Investments in affiliates (Notes 3 and 4)	143,589	139,522	1,256,955
Other investments in securities (Note 3)	11,651	15,784	142,198
Property, plant and equipment, at cost (Note 18):			
Land	23,337	23,146	208,523
Buildings	318,899	344,888	3,107,099
Machinery and equipment	834,484	921,639	8,303,054
Construction in progress	82,015	71,592	644,972
	1,258,735	1,361,265	12,263,648
Less accumulated depreciation	(713,094)	(758,155)	(6,830,225)
Net property, plant and equipment	545,641	603,110	5,433,423
Goodwill (Note 19)	157,858	164,794	1,484,631
Intangible assets (Note 19)	85,531	88,693	799,036
Deferred income taxes (Note 7)	31,131	35,238	317,459
Other assets (Note 21)	29,872	22,854	205,892
Total assets	¥ 1,905,209	¥ 1,992,480	\$ 17,950,270

See accompanying notes to consolidated financial statements.

	Yen (Millions)	U.S. Dollars (Thousands) (Note 2)	
LIABILITIES AND EQUITY	2018	2019	2019
Current liabilities:			
Short-term debt (Note 6)	¥ 124,573	¥ 221,310	\$ 1,993,784
Current installments of long-term debt (Note 6)	64,566	91,276	822,306
Trade payables:			
Notes	122,849	92,583	834,081
Accounts	103,942	97,309	876,658
Accrued salaries and wages	69,576	75,956	684,288
Accrued expenses (Note 8)	90,042	116,844	1,052,649
Income taxes payables (Note 7)	10,989	3,781	34,063
Other current liabilities	16,500	15,261	137,486
Total current liabilities	603,037	714,320	6,435,315
Long-term debt, excluding current installments (Note 6)	293,880	207,682	1,871,009
Retirement and severance benefits (Note 8)	125,137	129,050	1,162,613
Deferred income taxes (Note 7)	35,432	38,588	347,640
Other noncurrent liabilities (Note 7)	16,491	19,084	171,928
Total noncurrent liabilities	470,940	394,404	3,553,190
Total liabilities	1,073,977	1,108,724	9,988,505
TDK stockholders' equity:			
Common stock			
Authorized 480,000,000 shares;			
issued 129,590,659 shares in 2018 and 2019;			
outstanding 126,245,079 shares in 2018			
and 126,288,818 shares in 2019	32,641	32,641	294,063
Additional paid-in capital (Note 11)	8,738	5,958	53,676
Legal reserve (Note 9)	45,366	44,436	400,324
Retained earnings (Note 9)	874,563	935,649	8,429,271
Accumulated other comprehensive income (loss) (Note 12)	(119,492)	(124,435)	(1,121,036)
Treasury stock at cost; 3,345,580 shares in 2018			
and 3,301,841 shares in 2019	(17,182)	(16,959)	(152,784)
Total TDK stockholders' equity	824,634	877,290	7,903,514
Noncontrolling interests	6,598	6,466	58,251
Total equity	831,232	883,756	7,961,765
Total liabilities and equity	¥ 1,905,209	¥ 1,992,480	\$ 17,950,270

Consolidated statements of equity

For the years ended March 31, 2018 and 2019

Yen (Millions)

	Common stock	Additional paid-in capital	Legal reserve	Retained earnings	Accumulated other comprehensive income (loss)	Treasury stock	Total TDK stockholders' equity	Noncontrolling interests	Total equity
Notes		Note 11	Note 9	Note 9	Note 12			Note 11	
Balance at March 31, 2017	¥ 32,641	¥ 15,349	¥ 37,727	¥ 833,884	¥ (108,575)	¥ (17,412)	¥ 793,614	¥ 8,504	¥ 802,118
Equity transaction of consolidated subsidiaries and other		(6,893)			73		(6,820)	(1,977)	(8,797)
Cash dividends				(15,145)			(15,145)	(498)	(15,643)
Transferred to legal reserve			8,735	(8,735)			-	-	-
Transferred to retained earnings			(1,096)	1,096			-	-	-
Comprehensive income									
Net income				63,463			63,463	514	63,977
Other comprehensive income (loss)					(10,990)		(10,990)	55	(10,935)
Total comprehensive income (loss)							52,473	569	53,042
Acquisition of treasury stock						(7)	(7)		(7)
Sale of treasury stock						1	1		1
Compensation expenses related to stock options		370					370		370
Exercise of stock options		(88)				236	148		148
Balance at March 31, 2018	¥ 32,641	¥ 8,738	¥ 45,366	¥ 874,563	¥ (119,492)	¥ (17,182)	¥ 824,634	¥ 6,598	¥ 831,232
Cumulative effect of adoption of ASU2014-09 (Note 1)				181			181		181
Cumulative effect of adoption of ASU2016-01 (Note 1)				3,083	(3,083)		-		-
Cumulative effect of adoption of ASU2016-16 (Note 1)				(6,374)			(6,374)		(6,374)
Equity transaction of consolidated subsidiaries and other		(2,811)			10		(2,801)	(371)	(3,172)
Cash dividends				(18,939)			(18,939)	(21)	(18,960)
Transferred to legal reserve			1,367	(1,367)			-	-	-
Transferred to retained earnings			(2,297)	2,297			-	-	-
Comprehensive income									
Net income				82,205			82,205	345	82,550
Other comprehensive income (loss)					(1,870)		(1,870)	(85)	(1,955)
Total comprehensive income (loss)							80,335	260	80,595
Acquisition of treasury stock						(2)	(2)		(2)
Sale of treasury stock						0	0		0
Compensation expenses related to stock options		172					172		172
Exercise of stock options		(141)				225	84		84
Balance at March 31, 2019	¥ 32,641	¥ 5,958	¥ 44,436	¥ 935,649	¥ (124,435)	¥ (16,959)	¥ 877,290	¥ 6,466	¥ 883,756

See accompanying notes to consolidated financial statements.

U.S.Dollars (Thousands)

(Note 2)

	Common stock	Additional paid-in capital	Legal reserve	Retained earnings	Accumulated other comprehensive income (loss)	Treasury stock	Total TDK stockholders' equity	Noncontrolling interests	Total equity
Notes		Note 11	Note 9	Note 9	Note 12			Note 11	
Balance at March 31, 2018	\$ 294,063	\$ 78,721	\$ 408,703	\$ 7,878,946	\$ (1,076,505)	\$ (154,793)	\$ 7,429,135	\$ 59,441	\$ 7,488,576
Cumulative effect of adoption of ASU2014-09		0		1,631	0		1,631		1,631
Cumulative effect of adoption of ASU2016-01				27,774	(27,774)		-		-
Cumulative effect of adoption of ASU2016-16				(57,423)			(57,423)		(57,423)
Equity transaction of consolidated subsidiaries and other		(25,325)			90		(25,235)	(3,342)	(28,577)
Cash dividends				(170,622)			(170,622)	(189)	(170,811)
Transferred to legal reserve			12,315	(12,315)			-	-	-
Transferred to retained earnings			(20,694)	20,694			-	-	-
Comprehensive income							-		-
Net income				740,586			740,586	3,108	743,694
Other comprehensive income (loss)					(16,847)		(16,847)	(766)	(17,613)
Total comprehensive income (loss)							723,739	2,342	726,081
Acquisition of treasury stock						(18)	(18)		(18)
Sale of treasury stock							-		-
Compensation expenses related to stock options		1,550					1,550		1,550
Exercise of stock options		(1,270)				2,027	757		757
Balance at March 31, 2019	\$ 294,063	\$ 53,676	\$ 400,324	\$ 8,429,271	\$ (1,121,036)	\$ (152,784)	\$ 7,903,514	\$ 58,252	\$ 7,961,766

See accompanying notes to consolidated financial statements.

Consolidated statements of cash flows

For the years ended March 31, 2018 and 2019

	Yen (Millions)	U.S. Dollars (Thousands) (Note 2)	
	2018	2019	2019
Cash flows from operating activities:			
Net income	¥ 63,977	¥ 82,550	\$ 743,694
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	92,171	106,631	960,640
Deferred income taxes	(1,354)	5,458	49,171
Loss (gain) on sale or disposal of property, plant and equipment	704	2,249	20,261
Impairment loss on long-lived assets	1,282	5,112	46,054
Gain on sale of business	(5,427)	(4,011)	(36,135)
Loss (gain) on securities, net	248	(463)	(4,171)
Equity in earnings of affiliates, net of dividends received	(2,924)	(1,768)	(15,928)
Gain on sale of investments in affiliates	—	(9,379)	(84,495)
Changes in assets and liabilities:			
Decrease (increase) in trade receivables	(51,961)	(3,388)	(30,523)
Decrease (increase) in inventories	(49,731)	(22,952)	(206,775)
Decrease (increase) in other current assets	(14,817)	506	4,559
Increase (decrease) in trade payables	53,761	(12,241)	(110,280)
Increase (decrease) in accrued expenses	8,410	8,541	76,946
Increase (decrease) in income taxes payables, net	(6,280)	(7,153)	(64,441)
Increase (decrease) in other current liabilities	4,380	(5,987)	(53,937)
Increase (decrease) in retirement and severance benefits, net	(1,560)	(2,770)	(24,955)
Other - net	431	(661)	(5,956)
Net cash provided by operating activities	91,310	140,274	1,263,730
Cash flows from investing activities:			
Capital expenditures	(178,612)	(173,592)	(1,563,892)
Proceeds from sales of tangible and intangible assets	9,083	3,921	35,324
Proceeds from sale and maturity of short-term investments	168,256	92,197	830,604
Payment for purchase of short-term investments	(156,621)	(87,581)	(789,018)
Proceeds from sale and maturity of securities	24,933	435	3,919
Payment for purchase of securities	(1,208)	(803)	(7,234)
Proceeds from sale of business, net of cash transferred	30,365	11,462	103,261
Acquisition of subsidiaries, net of cash acquired	(141,499)	(2,548)	(22,955)
Proceeds from sale of investments in affiliates	—	22,064	198,775
Acquisition of investments in affiliates	(128)	(4,890)	(44,054)
Other - net	(668)	(844)	(7,605)
Net cash used in investing activities	(246,099)	(140,179)	(1,262,874)
Cash flows from financing activities:			
Proceeds from debt with maturities longer than three months	151,096	5,166	46,541
Repayment of debt with maturities longer than three months	(64,863)	(68,930)	(620,991)
Net increase (decrease) in debt with maturities of three months	48,067	95,824	863,279
Dividends paid	(15,138)	(18,948)	(170,703)
Acquisition of noncontrolling interests	(8,796)	(3,590)	(32,342)
Other - net	(278)	(87)	(784)
Net cash provided by (used in) financing activities	110,088	9,435	85,000
Effect of exchange rate changes on cash and cash equivalents	(6,063)	21	189
Net increase (decrease) in cash and cash equivalents	(50,764)	9,551	86,045
Cash and cash equivalents, beginning of year	330,388	279,624	2,519,135
Cash and cash equivalents, end of year	¥ 279,624	¥ 289,175	\$ 2,605,180

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

1. Nature of Operations and Summary of Significant Accounting Policies

(1) Nature of Operations

TDK Corporation, a Tokyo-based company founded in 1935 to accomplish the world's first industrialization of a magnetic material called ferrite, and its subsidiaries (collectively "TDK") have always been a multinational developer, manufacturer and distributor of unique and diverse products, including ferrite cores, inductive devices, ceramic capacitors, magnetic heads, magnets and other items created by pursuing core technologies.

TDK's four basic reportable segments, Passive Components, Sensor Application Products, Magnetic Application Products and Energy Application Products, and the "Other", which is unrelated to the aforementioned four segments, accounted for 31.4 percent, 5.5 percent, 19.7 percent, 38.9 percent, and 4.5 percent of net sales, respectively, for the year ended March 31, 2019.

These four segments and the Other consist of the following businesses:

(i) Passive Components:

Ceramic Capacitors, Aluminum Electrolytic Capacitors, Film Capacitors, Inductive Devices (Coils / Ferrite Cores / Transformers), High-Frequency Devices, Piezoelectric Materials Products, Circuit Protection Components

(ii) Sensor Application Products:

Temperature and Pressure Sensors, Magnetic Sensors, MEMS Sensors

(iii) Magnetic Application Products:

HDD Heads, HDD Suspension Assemblies, Magnets

(iv) Energy Application Products:

Energy Devices (Rechargeable Batteries), Power Supplies

(v) Other:

Mechatronics (Production Equipment), Others

(2) Basis of Presentation

TDK Corporation and its domestic subsidiaries maintain their books of account in conformity with the generally accepted accounting principles in Japan, and its foreign subsidiaries mainly maintain their books of account in conformity with those of the countries of their domicile.

The consolidated financial statements presented herein reflect certain adjustments, not recorded in the primary books of TDK Corporation and its subsidiaries, to present the financial position, results of operations and cash flows in conformity with U.S. generally accepted accounting principles ("U.S. GAAP").

(3) Consolidation Policy

The consolidated financial statements include the accounts of TDK Corporation, its subsidiaries and those variable interest entities where TDK is the primary beneficiary as defined under U.S. GAAP. All significant intercompany balances and transactions have been eliminated in consolidation.

The investments in affiliates where TDK exercises significant influence over their operating and financial policies are accounted for by the equity method of accounting. All significant intercompany profits from these affiliates have been eliminated.

(4) Cash Equivalents and Short-term Investments

Cash equivalents include all highly liquid investments with an original maturity of three months or less. All other highly liquid investments not considered to be cash equivalents are classified as short-term investments. TDK determines the appropriate classification of its investments at the time of purchase.

(5) Allowance for Doubtful Receivables

The allowance for doubtful receivables is TDK's best estimate of the amount of probable credit losses in TDK's existing trade receivables. An additional reserve for individual receivables is recorded when TDK becomes aware of a customer's inability to meet its financial obligations, such as in the case of bankruptcy filings or deterioration in a customer's operating results or financial position. If customer circumstances change, estimates of the recoverability of receivables would be further adjusted.

(6) Marketable Securities and Other Investments in Securities

TDK classifies marketable securities and other investments in securities into debt and equity securities, and further classifies debt securities into one of the three categories: trading, available-for-sale, or held-to-maturity. Trading securities are acquired and held principally for the purpose of selling them in the near future. Held-to-maturity securities are those securities in which TDK has the ability and intent to hold the security until maturity. All securities not included in trading or held-to-maturity are classified as available-for-sale.

Trading and available-for-sale securities are recorded at fair value. Held-to-maturity securities are recorded at amortized cost, adjusted for the amortization or accretion of premiums or discounts. Unrealized holding gains and losses on equity securities (excluding investments in subsidiaries and affiliates) are included in earnings. Unrealized holding gains and losses, net of the related tax effect, on debt securities are excluded from earnings and are reported as a separate component of accumulated other comprehensive income (loss) until realized. As of March 31, 2018 and 2019, TDK did not hold any trading or held-to-maturity securities. Available-for-sale securities, which mature or are expected to be sold in less than one year, are classified as marketable securities.

If a decline in the fair value below amortized cost basis of a debt security not expected to be sold is deemed to be other-than-temporary and represents a credit loss, and if a decline in the fair value of an available-for-sale security expected to be sold before recovery of its amortized cost basis exists, an impairment loss is recognized in earnings and the fair value becomes the new cost basis of the security. To determine whether an impairment is other-than-temporary, TDK periodically reviews the fair value of available-for-sale securities for possible impairment by taking into consideration the financial and operating conditions of the issuer, general market conditions in the issuer's industry, degree and period of the decline in fair value and other relevant factors.

TDK measures certain nonmarketable equity securities without a readily determinable fair value by estimating the fair value at its cost minus impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. TDK periodically evaluates whether an event or change in circumstances may have a significant adverse effect on the fair value of the investment. Factors considered in assessing whether an indication of impairment exists include the financial and operating conditions of the issuer, general market conditions in the issuer's industry and other relevant factors. If an indication of impairment is present, TDK estimates the fair value of those nonmarketable equity securities. If the fair value is less than cost, the nonmarketable equity security is written down to its impaired value through a charge to earnings.

The gross realized gains and losses on the sale of debt securities classified as available-for-sale securities are determined on an average cost basis and are reflected in earnings.

(7) Inventories

Inventories are stated at the lower of cost or market. Cost is determined principally by the average cost method.

The cost elements for finished goods and work in process include direct costs for materials such as primary materials and purchased semi-finished products, direct labor costs such as basic salaries, bonuses, and legal welfare expenses, direct costs such as expenses paid to subcontractors, and indirect manufacturing costs comprising material costs, labor costs and other overhead costs.

(8) Property, Plant and Equipment

Depreciation of property, plant and equipment is principally calculated using the straight-line method over the following estimated useful lives:

Buildings	2 to 60 years
Machinery and equipment	2 to 25 years

(9) Income Taxes

Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period that includes the enactment date. TDK uses a specific identification method to release the residual tax effects associated with components of other comprehensive income (loss) resulting from a change in tax law or rate.

The financial statement impact of tax positions are recognized when it is more likely than not that the tax positions will be sustained upon examination by the tax authorities. Benefits from tax positions are measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon settlement with the tax authorities.

(10) Stock Option Plan

TDK measures the expenses of employee services received in exchange for equity awards based on the grant date fair value of the awards and use the straight-line attribution method to recognize compensation expenses related to stock options over the requisite service period. TDK will continue to use the simplified method to estimate expected remaining term until TDK has the historical data necessary to provide reasonable estimates of the expected term.

(11) Research and Development Expenses

Research and development expenses are expensed as incurred.

(12) Advertising Costs

Advertising costs are expensed as incurred.

(13) Shipping and Handling Fees and Costs

Shipping and handling fees and costs amounted to ¥16,932 million and ¥16,585 million (\$149,414 thousand) for the years ended March 31, 2018 and 2019, respectively, and are included in selling, general and administrative expenses in the consolidated statements of income..

(14) Foreign Currency Translation

Foreign currency financial statements have been translated in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 830, “Foreign Currency Matters”. Under FASB ASC 830, the assets and liabilities of TDK’s subsidiaries located outside Japan are translated into Japanese yen at the rates of exchange in effect at the balance sheet date. Revenue and expense items are translated at the average exchange rates prevailing during the year. Gains and losses resulting from foreign currency transactions are included in other income (deductions), and those resulting from translation of financial statements of foreign subsidiaries are excluded from the statements of income and are accumulated in TDK stockholders’ equity as a component of accumulated other comprehensive income (loss).

(15) Use of Estimates

Management of TDK has made a number of estimates and assumptions relating to the reporting of assets, liabilities, revenue and expenses and the disclosure of contingencies to prepare these consolidated financial statements in conformity with U.S. GAAP. Significant items subject to such estimates and assumptions include the valuation of goodwill and other intangible assets, long-lived assets, trade receivables, inventories, investments in securities, deferred tax assets, and assumptions related to the estimation of actuarial determined employee benefit obligations. Actual results could differ from those estimates.

(16) Accounting for the Impairment of Long-Lived Assets

Property, plant and equipment and certain identifiable intangible assets with finite useful lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows (undiscounted and without interest charges) expected to be generated by the asset. If such assets are considered to be impaired, an impairment loss to be recognized is measured by the amount by which the carrying amount of the assets exceed the fair value of the assets. Assets to be disposed of by sale are reported at the lower of the carrying amount or fair value less costs to sell.

(17) Goodwill and Other Intangible Assets

Goodwill is not amortized, but instead is tested for impairment at least annually, except for a case in which it is not more likely than not that the fair value of a reporting unit is less than its carrying amount. The test is conducted more frequently if certain indicators arise.

Intangible assets with finite useful lives are amortized over their respective estimated useful lives. Intangible assets determined to have indefinite useful lives are not amortized, but instead are tested for impairment annually or more frequently if certain indicators arise until the useful life is determined to no longer be indefinite except TDK determines that it is not more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount.

(18) Derivative Financial Instruments

TDK applies ASC 815 (“Derivatives and Hedging”), and all derivatives held by TDK are recognized on the consolidated balance sheets at fair value. The accounting treatment of subsequent changes in the fair value depends on their use, and whether they qualify as effective “hedges” for accounting purposes. Derivatives that are not hedges must be adjusted to fair value through the consolidated statement of income. If a derivative is a hedge, then depending on its nature, changes in its fair value will be either offset against changes in the fair value of hedged assets or liabilities through the consolidated statement of income, or recorded in other comprehensive income (loss).

If a derivative is used as a hedge of a net investment in a foreign operation, changes in its fair value, to the extent effective as a hedge, are recognized in the foreign currency translation adjustments section of other comprehensive income (loss).

The required disclosures in accordance with FASB ASC 815 “Derivatives and Hedging” are presented in Note 15 of the Notes to Consolidated Financial Statements.

(19) Net Income attributable to TDK per Share

Basic net income attributable to TDK per share has been computed by dividing net income attributable to TDK available to common stockholders by the weighted average number of common shares outstanding for each year. Diluted net income attributable to TDK per share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock of TDK.

(20) Revenue Recognition

TDK applies ASC606 “Revenue from Contracts with Customers”, and recognizes revenue based on the following 5 steps.

Step 1 : Identify the contracts with a customer

Step 2 : Identify the performance obligations in the contract

Step 3 : Determine the transaction price

Step 4 : Allocate the transaction price to the performance obligations in the contract

Step 5 : Recognize revenue when (or as) the entity satisfies a performance obligation

Further detail is presented in Note 24 of Notes to Consolidated Financial Statements.

(21) Receipt of Contingent Consideration

Contingent consideration is recognized when the amount of the contingent consideration becomes realized or realizable.

(22) Adoption of New Accounting Standards

Revenue from Contracts with Customers

In May 2014, FASB issued Accounting Standards Update (“ASU”) 2014-09 “Revenue from Contracts with Customers”. This ASU requires an entity to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. TDK adopted this ASU from April 1, 2018 by applying the modified retrospective method to all contracts and recognized the cumulative-effect as an adjustment to the opening retained earnings. Due to recognizing revenue from contracts with customers based on this standard, the timing of revenue recognition has been changed for certain transactions compared to the revenue recognized based on the previous revenue recognition standard. As a result, compared to the results based on the previous revenue recognition standard, net sales, cost of sales, and income taxes increased by ¥344 million (\$3,099 thousand), ¥23 million (\$207 thousand), and ¥43 million (\$387 thousand), respectively, for the year ended March 31, 2019. Furthermore, net trade receivables and deferred tax assets increased by ¥1,959 million (\$17,649 thousand) and ¥49 million (\$441 thousand), respectively in the balance sheets at March 31, 2019. On the other hand, inventories and other current assets decreased by ¥1,378 million (\$12,414 thousand) and ¥119 million (\$1,072 thousand), respectively.

The cumulative-effects of the adoption of this ASU did not have a material impact on the opening retained earnings as of April 1, 2018, TDK’s results of operations and financial position. Further details are presented in Note 24.

Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, FASB issued ASU 2016-01 “Recognition and Measurement of Financial Assets and Financial Liabilities”. This ASU requires equity securities that do not result in consolidation and are not accounted for under the equity method to be measured at fair value by recognizing its change in fair value in net income(loss). TDK adopted this ASU from April 1, 2018 with the modified retrospective method to recognize a cumulative-effect adjustment in the opening retained earnings.

With the adoption of this ASU, TDK recognized a cumulative-effect adjustment to retained earnings of ¥3,083 (\$27,775 thousand) million at April 1, 2018 as the after-tax unrealized gains of equity securities formerly classified as available-for-sale securities which has been previously recognized in accumulated other comprehensive income.

Intra-Entity Transfers of Assets Other than Inventory

In October 2016, FASB issued ASU 2016-16 “Intra-Entity Transfers of Assets Other than Inventory”. This ASU eliminates the exception to defer the income tax consequence of intra-entity transfers of assets other than inventory until the assets are ultimately sold to an outside party of the group and requires the recognition of tax consequence when those transfers occur. TDK adopted this ASU from April 1, 2018 by the modified retrospective method to recognize a cumulative-effect adjustment to retained earnings.

With the adoption of this ASU, TDK recognized a cumulative-effect adjustment to retained earnings of ¥6,374 million (\$57,423 thousand) as a reduction at April 1, 2018.

Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost

In March 2017, FASB issued ASU 2017-07 “Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost”. This ASU requires an entity to disaggregate the service cost component from the other components of net benefit cost and report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component, such as in other income (deductions). The amendments also allow only the service cost component to be eligible for capitalization (for example, as a cost of internally manufactured inventory). The amendments in this guidance should be applied retrospectively for the presentation of the service cost component and the other components of net benefit cost, and prospectively for the capitalization of the service cost component of net benefit cost. TDK adopted this ASU from April 1, 2018.

With the adoption of this ASU, which requires disaggregation of the service cost component from net benefit cost, ¥1,991 million (\$17,937 thousand) from cost of sales, ¥2,068 million (\$18,631 thousand) from selling, general and administrative expenses and ¥816 million (\$7,351 thousand) from research and development expenses included in selling, general and administrative expenses were reclassified to other income (deductions) for the year ended March 31, 2018. The adoption of this ASU which allows only the service cost component to be eligible for capitalization did not have a material impact on TDK’s results of operations and financial position.

(23) Subsequent Events

TDK has evaluated the subsequent events through July 19, 2019, the date on which the consolidated financial statements are available to be issued.

(24) Reclassifications

Certain reclassifications have been made to the prior years’ consolidated financial statements to conform to the presentation used for the year ended March 31, 2019.

2. Financial Statement Translation

The consolidated financial statements are expressed in Japanese yen, the functional currency of TDK Corporation. As a supplement, the Japanese yen amounts as of and for the year ended March 31, 2019, have also been translated into U.S. dollar amounts, solely for the convenience of the reader, at the rate of ¥111=U.S.\$1, the approximate exchange rate on the Tokyo Foreign Exchange Market on March 31, 2019. This translation should not be construed as a representation that the amounts shown could be converted into U.S. dollars at such rate.

3. Marketable Securities and Other Investments in Securities

Marketable securities and other investments in securities as of March 31, 2018 and 2019 are as follows:

	Yen (Millions)	U.S. Dollars (Thousands)
	2018	2019
Marketable securities		
Debt securities	¥ 54	¥ 57
Total Marketable securities	54	57
Investments in affiliates (Note 4)	¥ 143,589	¥ 139,522
Other investments in securities:		
Debt securities	109	103
Equity securities with readily determinable fair values	9,581	6,409
Equity securities without readily determinable fair values	1,961	9,272
Total other investments in securities	11,651	15,784
Total	¥ 155,294	¥ 155,363

Debt securities include available-for-sale securities. Information with respect to such securities as of March 31, 2018 and 2019 is as follows:

2018

Yen (Millions):	Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
Marketable securities (Debt securities):				
Government bonds	¥ 54	¥-	¥ 0	¥ 54
Investments (Debt securities):				
Commercial papers	7	102	-	109
Public utility bonds	0	-	-	0
Total	¥ 61	¥ 102	¥ 0	¥ 163

2019

Yen (Millions):	Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
Marketable securities (Debt securities):				
Government bonds	¥ 57	¥ -	¥ 0	¥ 57
Investments (Debt securities):				
Commercial papers	2	101	-	103
Public utility bonds	0	-	-	0
Total	¥ 59	¥ 101	¥ 0	¥ 160

2019

	Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Fair Value
U.S. Dollars (Thousands):				
Marketable securities (Debt securities):				
Government bonds	\$ 514	\$ -	\$ 0	\$ 514
Investments (Debt securities):				
Commercial papers	18	910	-	928
Public utility bonds	0	-	-	0
Total	\$ 532	\$ 910	\$ 0	\$ 1,442

The proceeds from sale and maturity of debt securities classified as available-for-sale securities were ¥22,909 million and ¥7 million (\$63 thousand) for the year ended March 31, 2018 and 2019, respectively. The gross realized gains and losses on the sale of debt securities classified as available-for-sale securities are determined on an average cost basis and are reflected in earnings.

As of March 31, 2019, all of the debt securities classified as available-for-sale securities with unrealized losses were in a continuous unrealized loss position for less than 12 months.

TDK measures certain nonmarketable equity securities without a readily determinable fair value by estimating the fair value at its cost minus impairment, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investments of the same issuer from April 1, 2018. The book value of such investments amounted to ¥556 million (\$5,009 thousand) as of March 31, 2019. TDK recorded an impairment loss of ¥175 million (\$1,577 thousand) for the year ended March 31, 2019.

Net gains and losses and unrealized gains and losses recognized during the period on equity securities for the year ended March 31, 2019 are as follows:

	Yen (Millions)	U.S. Dollars (Thousands)
	2019	2019
Unrealized gains and losses recognized during the period on equity securities held as of March 31, 2019	¥ 2,559	\$ 23,054
Net gains and losses recognized on equity securities sold during the period	(2,096)	(18,883)
Net gains and losses recognized during the period on equity securities	¥ 463	\$ 4,171

4. Investments in Affiliates

As of March 31, 2019, investments in affiliates accounted for under the equity method consist of holdings of 49.0 percent of the common stock of RF360 Holdings Singapore PTE. Ltd. (“RF360”), a holding company with subsidiaries that run high-frequency components operations, 31.7 percent of the common stock of Semiconductor Energy Laboratory Co., Ltd., a research and development company, 25.5 percent of the common stock of TODA KOGYO CORP., a magnetic material manufacturing company, and four other affiliated companies. Since TDK holds an option to sell TDK’s interest in RF360 for \$1.15 billion 30 months after the closing date of February 3, 2017 and does not have the right to receive any profit sharing such as dividends, TDK concluded that it is not material to disclose summarized financial information of RF360 and omitted to disclose it. The effect of investments in affiliates accounted for under the equity method, which includes this investment in RF360, to our financial statements, collectively, is not material, as of March 31, 2018 and 2019. As of March 31, 2018 and 2019, the difference between TDK’s carrying value of investments in affiliates and its share of the underlying net equity in such affiliates substantially consists of unamortized amounts of equity method goodwill of ¥47,719 million and ¥45,585 million (\$410,676 thousand), respectively. The details of the sale of business related to RF360 is presented in Note 23 of the Notes to Consolidated Financial Statements.

TODA KOGYO CORP. is listed on the Tokyo Stock Exchange and TDK’s investment in this company have a carrying value and fair value of ¥4,062 million and ¥2,802 million, respectively, as of March 31, 2019.

5. Inventories

Inventories as of March 31, 2018 and 2019 are summarized as follows:

		Yen (Millions)	U.S. Dollars (Thousands)
		2018	2019
Finished goods		¥ 77,486	¥ 86,507
Work in process		51,159	52,688
Raw materials		78,887	87,697
Total		¥ 207,532	¥ 226,892

6. Short-Term and Long-Term Debt

Short-term debt and weighted average interest rates as of March 31, 2018 and 2019 are as follows:

	2018		2019		2019
	Yen (Millions)	Weighted average interest rate	Yen (Millions)	Weighted average interest rate	U.S. Dollars (Thousands)
Short-term bank loans - unsecured	¥ 124,573	0.38%	¥ 221,310	0.32%	\$ 1,993,784

Long-term debt as of March 31, 2018 and 2019 are as follows:

	2018	2019	2019
	Yen (Millions)	Yen (Millions)	U.S. Dollars (Thousands)
Loans from banks, unsecured (weighted average: 2018-0.68%, 2019-0.80%)	¥ 339,351	¥ 293,274	\$ 2,642,108
Unsecured Bonds due 2019 - 2.038% (issuance by TDK Corporation)	13,000	-	-
Unsecured Bonds due 2019 - 1.75% (issuance by subsidiary)	392	-	-
Bond issuance cost	(7)	-	-
Lease obligation (weighted average: 2018 - 11.35%, 2019 - 11.66%)	5,710	5,684	51,207
	358,446	298,958	2,693,315
Less current portion	64,566	91,276	822,306
Total	¥ 293,880	¥ 207,682	\$ 1,871,009

The aggregate annual maturities of long-term debt outstanding as of March 31, 2019 are as follows:

	Yen (Millions)	U.S. Dollars (Thousands)
Year ending March 31,		
2020	¥ 90,790	\$ 817,928
2021	67,751	610,369
2022	134,192	1,208,937
2023	329	2,964
2024	76	685
2025 and thereafter	136	1,225
Total	¥ 293,274	\$ 2,642,108

The aggregate annual maturities of long-term debt outstanding as of March 31, 2019 do not include lease obligation. A schedule by years of future minimum lease payments is presented in Note 13 of the Notes to Consolidated Financial Statements.

Short-term and long-term debt from banks were made under general agreements in which security and guarantees for present and future indebtedness will be given upon request of the banks, and that the banks shall have the rights, as the obligations become due, or in the event of default, to offset cash deposits against such obligations due to the banks.

As of March 31, 2018 and 2019, property, plant and equipment having a net book value of ¥233 million and ¥145 million (\$1,306 thousand), respectively, were pledged as collateral for lease obligation.

There were no debt covenants or cross-default provisions under TDK's financing arrangements. Furthermore, there were no subsidiary level dividend restrictions under the financing arrangements.

7. Income Taxes

TDK Corporation and its domestic subsidiaries are subject to a national corporate tax of 24.43 percent, an inhabitants tax of between 3.0 percent and 3.8 percent and a deductible enterprise tax of between 4.8 percent and 5.2 percent, which in the aggregate resulted in statutory rate of approximately 31.3 percent for the year ended March 31, 2018, and a national corporate tax of 24.22 percent, an inhabitants tax of between 3.0 percent and 3.8 percent and a deductible enterprise tax of between 4.8 percent and 5.2 percent, which in the aggregate resulted in statutory rate of approximately 31.1 percent for the year ended March 31, 2019.

The effective tax rates of TDK for the years ended March 31, 2018 and 2019 are reconciled with the Japanese statutory tax rate in the following table:

	2018	2019
Japanese statutory tax rate for income from continuing operations, before income taxes	31.3%	31.1%
Difference in statutory tax rates of foreign subsidiaries	(9.7)	(17.9)
Expenses not deductible for tax purposes	14.5	9.5
Nontaxable income	(5.9)	(2.1)
Change in valuation allowance	14.4	(6.0)
Investment tax credit	(2.5)	(5.1)
Research and development tax credit	(1.5)	(0.7)
Prior-year tax adjustments	(0.1)	1.2
Undistributed earnings of subsidiaries and affiliates	1.4	5.0
Unrealized gains (losses) on subsidiaries' and affiliates' securities	1.4	0.0
Effect of enacted changes in U.S. tax laws	3.9	0.4
Tax effect of investments in subsidiaries' and affiliates' securities	(16.0)	12.5
Other	(2.4)	0.7
Effective tax rate of continuing operations	28.8%	28.6%

Total income taxes for the years ended March 31, 2018 and 2019 are allocated as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Net income attributable to TDK	¥ 25,834	¥ 33,004	\$ 297,333
Other comprehensive income (loss):			
Foreign currency translation adjustments	3,567	(2,877)	(25,919)
Pension liability adjustments	1,656	(1,582)	(14,252)
Net unrealized gains (losses) on securities	(188)	-	-
Total income taxes	¥ 30,869	¥ 28,545	\$ 257,612

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of March 31, 2018 and 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Deferred tax assets:			
Inventories	¥ 1,908	¥ 2,537	\$ 22,854
Accrued expenses	11,988	13,150	118,467
Retirement and severance benefits	35,129	35,386	318,796
Net operating loss carryforwards	82,692	85,798	772,952
Tax credit carryforwards	9,769	10,783	97,143
Property, plant and equipment, and Intangible assets	11,026	11,272	101,551
Tax effect of investments in subsidiaries' and affiliates' securities	14,401	-	-
Other	2,865	1,445	13,018
Total gross deferred tax assets	169,778	160,371	1,444,781
Less valuation allowance	(129,919)	(118,036)	(1,063,384)
Net deferred tax assets	¥ 39,859	¥ 42,335	\$ 381,397
Deferred tax liabilities:			
Marketable securities and investments adjustments	¥ (1,898)	¥ (2,020)	\$ (18,202)
Undistributed earnings of foreign subsidiaries and affiliated companies	(31,794)	(36,819)	(331,702)
Fixed assets acquired through business combination	(7,369)	(6,061)	(54,601)
Other	(3,099)	(785)	(7,072)
Total gross deferred tax liabilities	(44,160)	(45,685)	(411,577)
Net deferred tax assets	¥ (4,301)	¥ (3,350)	\$ (30,180)

The United States of America enacted new tax legislation in December 2017, and reduction of federal corporate tax rates and other rates came into effect from January 1, 2018. The impact of this reform is recognized in earnings in the period that includes the date of enactment of the tax legislation.

The main impact from the tax reform results from the revaluation of deferred tax assets and deferred tax liabilities due to the reduction of federal corporate tax rates. As a result, income taxes increased by ¥3,513 million (\$33,142 thousand) for the year ended March 31, 2018.

The net changes in total valuation allowance were an increase of ¥25,921 million for the year ended March 31, 2018 and a decrease of ¥ 11,883 million (\$107,054 thousand) for the year ended March 31, 2019. The valuation allowance primarily relates to deferred tax assets associated with net operating loss carryforwards.

In assessing the realizability of deferred tax assets, TDK considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible and tax loss carryforwards are utilized. TDK considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods which these deductible differences and tax loss carryforwards are deductible or usable, TDK believes it is more likely than not that TDK will realize the benefits of these deferred tax assets, net of the existing valuation allowance as of March 31, 2019.

As of March 31, 2019, TDK Corporation and its subsidiaries have net operating loss carryforwards for income tax purposes of ¥301,660 million (\$2,717,658 thousand) which are available to offset future taxable income, if any.

Periods available to offset future taxable income vary in each tax jurisdiction and range from one year to an indefinite period as follows:

	Yen (Millions)	U.S. Dollars (Thousands)
Within 1 year	¥ 2,349	\$ 21,162
1 to 5 years	30,319	273,144
5 to 20 years	114,796	1,034,198
Indefinite periods	154,196	1,389,154
	<u>¥ 301,660</u>	<u>\$ 2,717,658</u>

As of March 31, 2019, TDK Corporation and its subsidiaries have tax credit carryforwards for income tax purposes of ¥10,783 million (\$97,144 thousand) which are available to reduce future income taxes, if any. Approximately ¥4,910 million (\$44,234 thousand) of the tax credit carryforwards will expire through 2038, while the remainder has an indefinite carryforward period.

As of March 31, 2018 and 2019, TDK did not recognize deferred tax liabilities of approximately ¥5,025million and ¥5,524 million (\$49,766 thousand), respectively, for certain portions of undistributed earnings of foreign subsidiaries because TDK currently does not expect those unremitted earnings to reverse and become taxable to TDK in the foreseeable future.

A deferred tax liability will be recognized when TDK expects that it will recover those undistributed earnings in a taxable manner, such as through receipt of dividends or sale of the investments. As of March 31, 2018 and 2019, the undistributed earnings of these subsidiaries are approximately ¥72,459 million and ¥74,593million (\$672,009 thousand), respectively.

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits for the years ended March 31, 2018 and 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Balance at beginning of year	¥ 7,206	¥ 9,142	\$ 82,360
Additions for tax positions of the current year	1,965	1,532	13,802
Additions for tax positions of prior years	1,609	3,536	31,856
Reductions for tax positions of prior years	(370)	(315)	(2,838)
Settlements with tax authorities during the period	(1,255)	(2,442)	(22,000)
Other	(13)	(364)	(3,279)
Balance at end of year	¥ 9,142	¥ 11,089	\$ 99,901

The total amount of unrecognized tax benefits that, if recognized, would reduce the effective tax rate as of March 31, 2018 and 2019 are ¥4,888 million and ¥5,313 million (\$47,865 thousand), respectively.

Although TDK believes its estimates and assumptions used to identify unrecognized tax benefits are reasonable, there is an uncertainty about the final determination of tax audit settlements and any related litigation which could affect the effective tax rate in the future periods. As of March 31, 2019, TDK is not aware of any significant changes in its unrecognized tax benefits over the next 12 months.

TDK classifies interest and penalties related to unrecognized tax benefits as interest expense and other-net in other income (deductions), respectively, in the consolidated statements of income. Interest and penalties accrued which are recorded in other current liabilities as of March 31, 2019 as well as interest and penalties recorded in interest expense and other-net in other income (deductions) for the year then ended are not material.

TDK files income tax returns in Japan and various foreign tax jurisdictions. In Japan, TDK is no longer subject to regular income tax examinations by the tax authority for years ended on or before March 31, 2018. While there has been no specific indication by the tax authority that TDK will be subject to a transfer pricing examination in the near future, the tax authority could conduct a transfer pricing examination for years ended on or after March 31, 2009. In other major foreign tax jurisdictions, including the U.S. and Hong Kong, TDK is no longer subject to income tax examinations by tax authorities for years ended on or before March 31, 2012 with few exceptions. The tax authorities are currently conducting income tax examinations of TDK's income tax returns for certain years ended on or after March 31, 2013 in major foreign tax jurisdictions.

8. Retirement and Severance Benefits

1. Defined Benefit Pension Plans

TDK sponsors contributory and noncontributory retirement and severance plans that provide for pension or lump-sum benefit payments, based on length of service, employee salary and certain other factors, to substantially all employees who retire or terminate their employment for reasons other than dismissal for cause. These pension plans are recognized in accordance with FASB ASC 715 “Compensation—Retirement Benefits”.

Reconciliations of beginning and ending balances of the benefit obligations and the fair value of the plan assets are as follows:

	Yen (Millions)			
	2018		2019	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Change in benefit obligations:				
Benefit obligations at beginning of period	¥ 219,250	¥ 86,949	¥ 225,072	¥ 89,486
Service cost	5,929	2,278	6,000	2,186
Interest cost	1,678	2,072	1,286	2,161
Actuarial (gain) loss	5,870	(2,114)	2,645	6,943
Benefits paid	(7,741)	(3,318)	(8,981)	(3,491)
Plan amendments	86	(39)	-	222
Curtailement/settlement	-	(47)	-	(178)
Translation adjustment	-	3,705	-	(2,038)
Benefit obligations at end of period	225,072	89,486	226,022	95,291
Change in plan assets:				
Fair value of plan assets at beginning of period	156,615	20,837	163,448	22,186
Actual return on plan assets	5,779	1,568	666	895
Employer contributions	6,754	3,279	8,834	2,842
Benefits paid	(5,700)	(2,364)	(8,151)	(2,250)
Curtailement/settlement	-	(104)	-	(80)
Translation adjustment	-	(1,030)	-	613
Fair value of plan assets at end of period	163,448	22,186	164,797	24,206
Funded status	¥ (61,624)	¥ (67,300)	¥ (61,225)	¥ (71,085)

	U.S. Dollars (Thousands)	
	2019	
	Japanese plans	Foreign plans
Change in benefit obligations:		
Benefit obligations at beginning of period	\$ 2,027,676	\$ 806,180
Service cost	54,054	19,694
Interest cost	11,586	19,468
Actuarial loss	23,829	62,550
Benefits paid	(80,910)	(31,450)
Plan amendments	-	2,000
Curtailment/settlement	-	(1,604)
Translation adjustment	-	(18,360)
Benefit obligations at end of period	2,036,235	858,478
Change in plan assets:		
Fair value of plan assets at beginning of period	1,472,505	199,874
Actual return on plan assets	6,000	8,063
Employer contributions	79,586	25,604
Benefits paid	(73,432)	(20,270)
Curtailment/settlement	-	(721)
Translation adjustment	-	5,523
Fair value of plan assets at end of period	1,484,659	218,073
Funded status	\$ (551,576)	\$ (640,405)

Amounts recognized in the consolidated balance sheets as of March 31, 2018 and 2019 consist of:

	Yen (Millions)			
	2018		2019	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Other assets	¥ 17	¥ 332	¥ 78	¥ 319
Accrued expenses	(2,453)	(2,722)	(1,925)	(2,800)
Retirement and severance benefits	(59,188)	(64,910)	(59,378)	(68,604)
Total	¥ (61,624)	¥ (67,300)	¥ (61,225)	¥ (71,085)

	U.S. Dollars (Thousands)	
	2019	
	Japanese plans	Foreign plans
Other assets	\$ 703	\$ 2,874
Accrued expenses	(17,342)	(25,225)
Retirement and severance benefits	(534,937)	(618,054)
Total	\$ (551,576)	\$ (640,405)

Amounts recognized in accumulated other comprehensive income as of March 31, 2018 and 2019 consist of:

Yen (Millions)				
2018		2019		
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Net actuarial loss	¥ 68,427	¥ 18,827	¥ 69,861	¥ 24,790
Prior service cost (benefit)	2,340	(1,321)	2,665	(1,074)
Total	¥ 70,767	¥ 17,506	¥ 72,526	¥ 23,716

U.S. Dollars (Thousands)		
2019		
	Japanese plans	Foreign plans
Net actuarial loss	\$ 629,378	223,333
Prior service cost (benefit)	24,009	(9,676)
Total	\$ 653,387	\$ 213,657

Accumulated benefit obligations for all defined benefit plans are as follows:

Yen (Millions)				
2018		2019		
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Accumulated benefit obligations	¥ 217,313	¥ 84,424	¥ 218,153	¥ 89,785

U.S. Dollars (Thousands)		
2019		
	Japanese plans	Foreign plans
Accumulated benefit obligations	\$ 1,965,342	\$ 808,874

The projected benefit obligations and the fair value of plan assets for the pension plans with projected benefit obligations in excess of plan assets, and the accumulated benefit obligations and the fair value of plan assets for the pension plans with accumulated benefit obligations in excess of plan assets are as follows:

Yen (Millions)				
2018		2019		
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Plans with projected benefit obligations in excess of plan assets:				
Projected benefit obligations	¥ 221,909	¥ 89,486	¥ 222,844	¥ 95,291
Fair value of plan assets	160,268	22,186	161,542	24,206
Plans with accumulated benefit obligations in excess of plan assets:				
Accumulated benefit obligations	¥ 214,195	¥ 84,424	¥ 215,020	¥ 89,785
Fair value of plan assets	160,268	22,186	161,542	24,206

	U.S. Dollars (Thousands)	
	2019	
	Japanese plans	Foreign plans
Plans with projected benefit obligations in excess of plan assets:		
Projected benefit obligations	\$ 2,007,604	\$ 858,478
Fair value of plan assets	1,455,333	218,073
Plans with accumulated benefit obligations in excess of plan assets:		
Accumulated benefit obligations	\$ 1,937,117	\$ 808,874
Fair value of plan assets	1,455,333	218,073

Net periodic benefit cost (including discontinued operations) for TDK's employee retirement and severance defined benefit plans for the years ended March 31, 2018 and 2019 consist of the following components. Prior service cost (benefit) is amortized by a straight-line method over the average remaining service period of current employees.

	Yen (Millions)			
	2018		2019	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Service cost-benefits earned during the year	¥ 5,929	¥ 2,278	¥ 6,000	¥ 2,186
Interest cost on projected benefit obligation	1,678	2,072	1,286	2,161
Expected return on plan assets	(2,733)	(1,386)	(3,267)	(1,409)
Amortization of actuarial loss	3,881	1,855	3,777	1,429
Amortization of prior service cost (benefit)	(1,308)	(77)	(290)	(25)
Curtailment/settlement loss	-	77	-	(33)
Net periodic benefit cost	¥ 7,447	¥ 4,819	¥ 7,506	¥ 4,309

	U.S. Dollars (Thousands)	
	2019	
	Japanese plans	Foreign plans
Service cost-benefits earned during the year	\$ 54,054	\$ 19,694
Interest cost on projected benefit obligation	11,586	19,468
Expected return on plan assets	(29,432)	(12,694)
Amortization of actuarial loss	34,027	12,874
Amortization of prior service cost (benefit)	(2,613)	(225)
Curtailment/settlement loss	-	(297)
Net periodic benefit cost	\$ 67,622	\$ 38,820

In net periodic benefit cost for TDK's employee retirement and severance defined benefit plans, service cost is included in cost of sales and sales and general administrative expense of the consolidated statements of income. Other elements except service cost are included in other - net of other income (deductions).

Amounts recognized in pension liability adjustment that is a part of other comprehensive income mainly as changes in plan assets and benefit obligations for the years ended March 31, 2018 and 2019 are summarized as follows:

	Yen (Millions)			
	2018		2019	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Net actuarial loss (gain)	¥ 2,824	¥ (2,296)	5,246	¥ 7,457
Plan amendments	86	(39)	-	222
Amortization of actuarial loss	(3,881)	(1,855)	(3,777)	(1,429)
Amortization of prior service (cost) benefit	1,308	77	290	25
Curtailment/settlement loss (gain)	-	(20)	-	(65)
Amount recognized in other comprehensive income	337	(4,133)	1,759	6,210
Total of net periodic benefit cost and amount recognized in other comprehensive income	¥ 7,784	¥ 686	¥ 9,265	¥ 10,519

	U.S. Dollars (Thousands)	
	2019	
	Japanese plans	Foreign plans
Net actuarial loss (gain)	\$ 47,261	\$ 67,180
Plan amendments	-	2,000
Amortization of actuarial loss	(34,027)	(12,874)
Amortization of prior service (cost) benefit	2,613	225
Curtailment/settlement loss (gain)	-	(586)
Amount recognized in other comprehensive income	15,847	55,945
Total of net periodic benefit cost and amount recognized in other comprehensive income	\$ 83,469	\$ 94,765

The estimated net actuarial loss and prior service cost (benefit) for the defined benefit pension plans that will be amortized from accumulated other comprehensive income into net periodic benefit cost over the next year are summarized as follows:

	Yen (Millions)		U.S. Dollars (Thousands)	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Amortization of actuarial loss	¥ 3,741	¥ 2,013	\$ 33,703	\$ 18,135
Amortization of prior service cost (benefit)	(290)	(13)	(2,613)	(117)

Assumptions

Weighted average assumptions used to determine benefit obligations as of March 31:

	2018		2019	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Discount rate	0.6%	2.5%	0.5%	2.2%
Assumed rate of increase in future compensation levels	2.9%	2.7%	2.8%	2.8%

Weighted average assumptions used to determine net periodic benefit cost for the years ended March 31:

	2018		2019	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Discount rate	0.8%	2.5%	0.6%	2.5%
Assumed rate of increase in future compensation levels	3.0%	2.7%	2.9%	2.7%
Expected long-term rate of return on plan assets	1.9%	6.0%	2.2%	6.5%

TDK determines the expected long-term rate of return based on the expected long-term return of the various asset categories in which it invests. TDK considers the current expectations for future returns and the actual historical returns of each plan asset category.

Plan assets

TDK's investment policies are designed to ensure adequate plan assets are available to provide future payments of pension benefits to eligible participants. Taking into account the expected long-term rate of return on plan assets, TDK formulates a "model" portfolio comprised of the optimal combination of equity securities and debt securities. Plan assets are invested in individual equity and debt securities using the guidelines of the "model" portfolio in order to produce a total return that will match the expected return on a mid-term to long-term basis. TDK evaluates the gap between expected return and actual return of invested plan assets on an annual basis to determine if such differences necessitate a revision in the formulation of the "model" portfolio. TDK revises the "model" portfolio when and to the extent considered necessary to achieve the expected long-term rate of return on plan assets.

As of March 31, 2019, the asset portfolio of TDK's Japanese plans is divided into three main asset categories with approximately 25 percent consisting of equity securities, approximately 33 percent of debt securities and approximately 42 percent of other assets such as cash and cash equivalents. The asset portfolio of TDK's foreign plans is also divided into three main asset categories with approximately 48 percent consisting of equity securities, approximately 39 percent of debt securities and approximately 13 percent of other assets such as cash and cash equivalents. As of March 31, 2019, there is no significant deviation between the target allocations and actual results.

Shares in Japanese companies included in equity securities mainly consist of shares listed on stock exchanges and over-the-counter markets. They are selected after a thorough examination and analysis of the operations of investment target companies and are appropriately diversified with respect to business categories and issues. Bonds of Japanese companies among debt securities mainly consist of corporate bonds, government bonds and public bonds. They are selected after a thorough examination and analysis of issuance conditions such as bond ratings, coupons, maturity dates and are appropriately diversified with respect to issuers and remaining periods. Regarding investments in foreign issues, target countries and currencies are selected after a thorough examination of political and economic stability, market characteristics such as clearing systems and taxation systems. For other assets, which include a life insurance company general account, pooled funds and real estate investment trusts, among others, diversified investment is carried out after a thorough examination and analysis of general economic conditions and investment target assets. A life insurance company general account is a product of life insurance companies in which individual insurance funds, corporate plan assets and other funds are jointly managed.

The fair value of TDK's plan assets as of March 31, 2018 and 2019 by asset type are as follows:

Yen (Millions)								
2018								
Japanese plans				Foreign plans				
Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total	
Plan assets:								
Assets measured at other than net asset value per share								
Cash and cash equivalents:								
Cash and cash equivalents	¥ 6,031	¥ -	¥ -	¥ 6,031	¥ 1,850	¥ -	¥ -	¥ 1,850
Equity securities:								
Listed shares	6,248	-	-	6,248	566	-	-	566
Mutual funds	-	34,839	-	34,839	8,222	1,268	-	9,490
Debt securities:								
Government bonds, public bonds, corporate bonds								
	7,794	-	-	7,794	3,706	3,004	-	6,710
Mutual funds	-	19,723	-	19,723	1,326	606	-	1,932
Other assets:								
Life insurance company general account								
	-	15,934	-	15,934	-	181	-	181
Mutual funds	-	17,268	-	17,268	-	-	-	-
Others	-	225	7,497	7,722	-	1,063	-	1,063
Assets measured at net asset value per share								
Equity securities:								
Pooled funds	-	-	-	6,814	-	-	-	196
Debt securities:								
Pooled funds	-	-	-	34,095	-	-	-	198
Other assets:								
Pooled funds	-	-	-	6,980	-	-	-	-
Total plan assets	¥ 20,073	¥ 87,989	¥ 7,497	¥ 163,448	¥ 15,670	¥ 6,122	¥ -	¥ 22,186

Plan assets that are measured at fair value using the net asset value are not classified in the fair value hierarchy.

Yen (Millions)								
2019								
	Japanese plans				Foreign plans			
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Plan assets:								
Assets measured at other than net asset value per share								
Cash and cash equivalents:								
Cash and cash equivalents	¥ 13,008	¥ -	¥ -	¥ 13,008	¥ 1,893	¥ -	¥ -	¥ 1,893
Equity securities:								
Listed shares	5,291	-	-	5,291	751	-	-	751
Mutual funds	-	29,764	-	29,764	9,053	1,511	-	10,564
Debt securities:								
Government bonds, public bonds, corporate bonds	7,574	-	-	7,574	3,978	3,170	-	7,148
Mutual funds	-	19,832	-	19,832	1,317	646	-	1,963
Other assets:								
Life insurance company general account	-	16,056	-	16,056	-	178	-	178
Mutual funds	-	14,481	-	14,481	-	-	-	-
Others	-	221	8,805	9,026	-	1,290	-	1,290
Assets measured at net asset value per share								
Equity securities:								
Pooled funds	-	-	-	5,406	-	-	-	202
Debt securities:								
Pooled funds	-	-	-	27,255	-	-	-	217
Other assets:								
Pooled funds	-	-	-	17,104	-	-	-	-
Total plan assets	¥ 25,873	¥ 80,354	¥ 8,805	¥ 164,797	¥ 16,992	¥ 6,795	¥ -	¥ 24,206

Plan assets that are measured at fair value using the net asset value are not classified in the fair value hierarchy.

U.S. Dollars (Thousands)								
2019								
Japanese plans				Foreign plans				
Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total	
Plan assets:								
Assets measured at other than net asset value per share								
Cash and cash equivalents:								
Cash and cash equivalents	\$ 117,189	\$ -	\$ -	\$ 117,189	\$ 17,054	\$ -	\$ -	17,054
Equity securities:								
Listed shares	47,667	-	-	47,667	6,766	-	-	6,766
Mutual funds	-	268,144	-	268,144	81,558	13,613	-	95,171
Debt securities:								
Government bonds, public bonds, corporate bonds								
	68,234	-	-	68,234	35,838	28,558	-	64,396
Mutual funds	-	178,667	-	178,667	11,865	5,820	-	17,685
Other assets:								
Life insurance company general account								
	-	144,649	-	144,649	-	1,604	-	1,604
Mutual funds	-	130,459	-	130,459	-	-	-	-
Others	-	1,991	79,324	81,315	-	11,622	-	11,622
Assets measured at net asset value per share								
Equity securities:								
Pooled funds	-	-	-	48,703	-	-	-	1,820
Debt securities:								
Pooled funds	-	-	-	245,541	-	-	-	1,955
Other assets:								
Pooled funds	-	-	-	154,091	-	-	-	-
Total plan assets	\$ 233,090	\$ 723,910	\$ 79,324	\$ 1,484,659	\$ 153,081	\$ 61,217	\$ -	\$ 218,073

Plan assets that are measured at fair value using the net asset value are not classified in the fair value hierarchy.

Level 1 assets are mainly equity securities and debt securities that are valued using unadjusted quoted prices in active markets in which transactions occur with sufficient frequency and volume. Level 2 assets include mainly mutual funds that invest in equity securities and debt securities. They are valued based on quoted prices obtained from asset management agencies and are verified using observable market inputs. Level 3 assets are insurance products that are valued based on unobservable inputs regarding the assets and the relevant liabilities. Plan assets that are measured at fair value using the net asset value are pooled funds, which are measured at net asset value calculated by the trust operator.

Change in TDK's plan assets that are classified as Level 3 assets for the years ended March 31, 2018 and 2019 are as follows:

	Yen (Millions)	
	2018	2019
	Insurance products	
Balance at beginning of year	¥ 8,827	¥ 7,497
Net change due to purchase, sale, etc.	-	2,000
Gain (loss) on assets held at end of year	(1,330)	(692)
Balance at end of year	¥ 7,497	¥ 8,805

	U.S. Dollars (Thousands)	
	2019	
	Insurance products	
Balance at beginning of year	\$ 67,540	
Net change due to purchase, sale, etc.	18,018	
Gain (loss) on assets held at end of year	(6,234)	
Balance at end of year	\$ 79,324	

Contributions

TDK expects to contribute ¥6,699 million (\$60,351 thousand) to its Japanese defined benefit plans and ¥2,253 million (\$20,297 thousand) to its foreign defined benefit plans for the year ending March 31, 2020.

Estimated future benefit payments

The benefits are expected to be paid from the pension plans in each year 2020 through 2029 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Year ending March 31,				
2020	¥ 8,589	¥ 3,931	\$ 77,378	\$ 35,414
2021	8,872	3,892	79,928	35,063
2022	8,995	3,960	81,036	35,676
2023	9,916	4,228	89,333	38,090
2024	10,395	4,308	93,649	38,811
2025 - 2029 total	48,472	24,695	436,685	222,477

2. Deferred Compensation Plans

Certain subsidiaries of TDK Corporation have deferred compensation plans under which employees place a portion of their compensation in a pension fund and contributions can be received with interest at the time of retirement. Estimated future benefit payments to retirees are determined by actuarial calculation. Liabilities relating to these plans are recorded as either the market value of plan assets or the present value of estimated future benefit payments, whichever is greater. As of March 31, 2018 and 2019, the amount of ¥1,039 million and ¥1,068 million (\$9,622 thousand) are recorded as retirement and severance benefits, respectively.

Amount recognized in pension liability adjustment that is a part of other comprehensive income (loss) mainly as changes in plan assets and benefit obligations for the years ended March 31, 2018 and 2019 are summarized as follows:

	Yen (Millions)			
	2018		2019	
	Japanese plans	Foreign plans	Japanese plans	Foreign plans
Net actuarial loss (gain)	¥ -	¥ 22	¥ -	¥ (27)
Amortization of actuarial loss	-	(18)	-	(18)
Amortization of prior service (cost) benefit	-	7	-	6
Amount recognized in other comprehensive income (loss)	¥ -	¥ 11	¥ -	¥ (39)

	U.S. Dollars (Thousands)	
	2019	
	Japanese plans	Foreign plans
Net actuarial loss (gain)	\$ -	\$ (243)
Amortization of actuarial loss	-	(162)
Amortization of prior service (cost) benefit	-	54
Amount recognized in other comprehensive income (loss)	\$ -	\$ (351)

3. Defined Contribution Pension Plans

Expenses for defined contribution pension plan recognized by TDK Corporation and certain subsidiaries for the years ended March 31, 2018 and 2019 were ¥2,193 million and ¥2,223 million (\$20,027 thousand), respectively.

9. Legal Reserve and Dividends

The Japanese Companies Act provides that an amount equal to 10 percent of cash dividends and other distributions from retained earnings paid by TDK Corporation and its domestic subsidiaries be appropriated as a legal reserve. No further appropriations are required when the total amount of the additional paid-in capital and the legal reserve equals 25 percent of their respective stated capital. The Japanese Companies Act also provides that additional paid-in capital and the legal reserve are available for appropriations by the resolution of the shareholders. Certain foreign subsidiaries are also required to appropriate their earnings to legal reserves under the laws of the respective countries. Cash dividends and appropriations to the legal reserve charged to retained earnings in accordance with Japanese Companies Act for the years ended March 31, 2018 and 2019 represent dividends paid out during those years and the related appropriations to the legal reserve. The accompanying consolidated financial statements do not include any provision for the dividend taken up at the Ordinary General Meeting of Shareholders of ¥80 (\$0.72) per share aggregating ¥10,103 million (\$91,018 thousand) in respect of the year ended March 31, 2019.

Cash dividends per common share are computed based on dividends paid for the year.

10. Stock Option Plan

Compensation expenses related to stock options that TDK Corporation and one of its subsidiaries recognized for the years ended March 31, 2018 and 2019 were ¥370 million and ¥172 million (\$1,550 thousand), respectively.

The tax benefits related to these compensation expenses for the years ended March 31, 2018 and 2019 were ¥114 million and ¥53 million (\$477 thousand), respectively. The tax benefits realized from stock options exercised for the years ended March 31, 2018 and 2019 were ¥9 million and ¥25 million (\$225 thousand), respectively.

1. TDK Corporation Stock Option Plans

TDK Corporation has two types of stock option plans, the Ordinary-Type Stock Options and the Share-based Compensation Type Stock Options. Under the Ordinary-Type Stock Options, stock options, each representing a right to purchase 100 shares of common stock of TDK Corporation, are granted to the senior executives of TDK Corporation and to the directors and senior executives of its subsidiaries. The stock options are vested based on 2 years of continuous service after the grant date and have the exercise period of 4 years. The exercise price of the stock options is equal to or greater than the fair market value of TDK Corporation's common stock on the grant date.

There are two types of the Share-based Compensation Type Stock Options as described below and the second type contains a certain performance condition.

- 1) Stock options, each representing a right to purchase 100 shares of common stock of TDK Corporation, are granted to the directors and corporate officers of TDK Corporation. The stock options are fully vested on the grant date and have the exercise period of 20 years. The amount to be paid by qualified persons upon the exercise of the stock options is set at ¥1 (\$0.01) per share of common stock.
- 2) Stock options, each representing a right to purchase 100 shares of common stock of TDK Corporation, are granted to the directors and corporate officers of TDK Corporation. The stock options are vested depending on the degree of achievement of the medium-term management plan and have the exercise period of 20 years. The amount to be paid by qualified persons upon the exercise of the stock options is set at ¥1 (\$0.01) per share of common stock.

A summary of the status of TDK Corporation's stock options as of March 31, 2018 and 2019, and of the activity for the years ended on those dates, is as follows:

	Number of shares	Weighted average exercise price	Weighted average remaining contractual term	Aggregate intrinsic value (1)
		Yen	Years	Yen (Millions)
2018				
Outstanding at beginning of year	417,100	¥ 1,123		
Granted	27,100	1		
Exercised	46,000	3,217		
Forfeited or Expired	18,800	4,176		
Outstanding at end of year	<u>379,400</u>	638	13.5	3,397
Exercisable at end of year	288,400	838	12.3	2,524
Expected to vest after end of year	91,000	1	17.5	873
2019				
Outstanding at beginning of year	379,400	¥ 638		
Granted	92,200	1		
Exercised	44,000	1,916		
Forfeited or Expired	62,700	1,065		
Outstanding at end of year	<u>364,900</u>	249	15.0	3,073
Exercisable at end of year	289,900	313	14.0	2,423
Expected to vest after end of year	75,000	1	19.0	650

(1) The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the closing stock price of ¥9,590 on March 31, 2018 and ¥8,670 (\$78.11) on March 31, 2019.

	Number of shares	Weighted average exercise price	Weighted average remaining contractual term	Aggregate intrinsic value
		U.S. Dollars	Years	U.S. Dollars (Thousands)
2019				
Outstanding at beginning of year	379,400	\$ 5.75		
Granted	92,200	0.01		
Exercised	44,000	17.26		
Forfeited or Expired	62,700	9.59		
Outstanding at end of year	364,900	2.24	15.0	27,685
Exercisable at end of year	289,900	2.82	14.0	21,829
Expected to vest after end of year	75,000	0.01	19.0	5,856

As of March 31, 2019, all outstanding stock options were vested or expected to be vested. The total intrinsic value of stock options exercised for the years ended March 31, 2018 and 2019 was ¥229 million and ¥354 million (\$3,189 thousand), respectively. Cash received from stock options exercised for the years ended March 31, 2018 and 2019 was ¥148 million and ¥84 million (\$757 thousand).

Information about stock options outstanding as of March 31, 2019 is as follows:

Options Outstanding				
Range of exercise prices	Number outstanding at March 31, 2019	Weighted average remaining contractual term	Weighted average exercise price	
Yen		(years)	Yen	U.S. Dollars
1	341,300	16.1	¥ 1	\$ 0.01
3,836	23,600	0.3	3,836	34.56
1 to 3,836	364,900	15.0	249	2.24

A summary of the status of TDK Corporation's nonvested stock options as of March 31, 2018 and 2019, and of the activity for the years ended on those dates, is as follows:

	2018		2019		
	Number of shares	Weighted average grant-date fair value Yen	Number of shares	Weighted average grant-date fair value Yen	U.S. Dollars
Nonvested at beginning of year	89,400	¥ 6,404	91,000	¥ 6,401	\$ 57.67
Granted	27,100	6,584	92,200	8,426	75.91
Vested	24,500	6,595	64,200	6,964	62.74
Forfeited	1,000	6,806	44,000	6,463	58.23
Nonvested at end of year	91,000	6,401	75,000	8,373	75.43

As of March 31, 2019, TDK Corporation had ¥421 million (\$3,793 thousand) of total unrecognized compensation expenses related to stock options that will be recognized over the weighted average period of 2.0 years. The total fair value of stock options vested for the years ended March 31, 2018 and 2019 was ¥162 million and ¥447 million (\$4,027 thousand), respectively.

The fair value of these stock options was estimated on the grant date using the Black-Scholes option pricing model with the following assumptions:

Share-based Compensation-Type Stock Options – the exercise price is less than the market price of the stock on the grant date

	2018	2019	
		April	July
Grant-date fair value	¥ 6,584	¥ 8,373 (\$ 75.43)	¥ 10,410 (\$ 93.78)
Expected term	8.1 years	8.0 years	6.5 years
Risk-free interest rate	0.052%	(0.032)%	(0.08175)%
Expected volatility	34.13%	32.96%	32.38%
Expected dividend yield	1.60%	1.29%	1.16%

11. Equity

Net income attributable to TDK and transfers (to) from noncontrolling interest for the years ended March 31, 2018 and 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Net income attributable to TDK	¥ 63,463	¥ 82,205	\$ 740,586
Decrease in TDK's additional paid-in capital for purchase of Ampere Technology Ltd.'s common shares from third parties	(6,893)	(2,787)	(25,108)
Increase in TDK's additional paid-in capital for purchase of Tronics Microsystems SA's common shares from third parties	0	-	-
Decrease in TDK's additional paid-in capital for purchase of Guangdong TDK Rising Rare Earth High Technology Material Co., Ltd.'s common shares from third parties	-	(27)	(244)
Increase in TDK's additional paid-in capital for purchase of SolidGear Corporation's common shares from third parties	-	3	27
Net transfers (to) from noncontrolling interest	(6,893)	(2,811)	(25,325)
Change from net income attributable to TDK and transfers (to) from noncontrolling interest	¥ 56,570	¥ 79,394	\$ 715,261

12. Other Comprehensive Income (Loss)

Change in accumulated other comprehensive income (loss) for the years ended March 31, 2018 and 2019 are as follows:

2018	Yen (Millions)			
	Foreign currency translation adjustments	Pension liability adjustments	Net unrealized gains (losses) on securities	Total
March 31, 2017	¥ (40,789)	¥ (71,421)	¥ 3,635	¥ (108,575)
Equity transaction of consolidated subsidiaries and other	73	-	-	73
Other comprehensive income (loss) before reclassifications	(12,670)	(1,093)	(373)	(14,136)
Amounts reclassified from accumulated other comprehensive income (loss)	(12)	3,227	(14)	3,201
Other comprehensive income (loss)	(12,682)	2,134	(387)	(10,935)
Other comprehensive income (loss) attributable to noncontrolling interests	50	5	-	55
March 31, 2018	¥ (53,448)	¥ (69,292)	¥ 3,248	¥ (119,492)
2019	Yen (Millions)			
	Foreign currency translation adjustments	Pension liability adjustments	Net unrealized gains (losses) on securities	Total
March 31, 2018	¥ (53,448)	¥ (69,292)	¥ 3,248	¥ (119,492)
Cumulative-effect from adoption of ASU 2016-01	-	-	(3,083)	(3,083)
Equity transaction of consolidated subsidiaries and other	10	-	-	10
Other comprehensive income (loss) before reclassifications	5,210	(10,901)	(55)	(5,746)
Amounts reclassified from accumulated other comprehensive income (loss)	(753)	4,544	-	3,791
Other comprehensive income (loss)	4,457	(6,357)	(55)	(1,955)
Other comprehensive income (loss) attributable to noncontrolling interests	(76)	(9)	-	(85)
March 31, 2019	¥ (48,905)	¥ (75,640)	¥ 110	¥ (124,435)

2019

	U.S. Dollars (Thousands)			
	Foreign currency translation adjustments	Pension liability adjustments	Net unrealized gains (losses) on securities	Total
March 31, 2018	\$ (481,514)	\$ (624,252)	\$ 29,261	\$ (1,076,505)
Cumulative-effect from adoption of ASU 2016-01	-	-	(27,774)	(27,774)
Equity transaction of consolidated subsidiaries and other	90	-	-	90
Other comprehensive income (loss) before reclassifications	46,937	(98,207)	(496)	(51,766)
Amounts reclassified from accumulated other comprehensive income (loss)	(6,784)	40,937	-	34,153
Other comprehensive income (loss)	40,153	(57,270)	(496)	(17,613)
Other comprehensive income (loss) attributable to noncontrolling interests	(685)	(81)	-	(766)
March 31, 2019	\$ (440,586)	\$ (681,441)	\$ 991	\$ (1,121,036)

The reclassifications out of accumulated other comprehensive income (loss) for the year ended March 31, 2018 and 2019 are as follows:

	Amount reclassified from accumulated other comprehensive income (loss) *1			Affected line items in consolidated statements of income
	2018	2019	2019	
	Yen	(Millions)	U.S. Dollars (Thousands)	
Foreign currency translation adjustments:				
	¥ 12	¥ 27	\$ 243	Selling, general and administrative expenses
	-	717	6,460	Other - net of other income (deductions)
	-	9	81	Tax (expense) or benefit
	12	753	6,784	Net of tax
Pension liability adjustments:				
	(4,382)	(4,968)	(44,757)	Other - net of other income (deductions)*2
	1,155	424	3,820	Tax (expense) or benefit
	(3,227)	(4,544)	(40,937)	Net of tax
Net unrealized gains (losses) on securities:				
	14	-	-	Other - net of other income (deductions)
	(0)	-	-	Tax (expense) or benefit
	14	-	-	Net of tax
Total amount reclassified, net of tax	¥ (3,201)	¥ (3,791)	\$ (34,153)	

*1 Amounts in parentheses indicate losses in consolidated statements of income.

*2 This accumulated other comprehensive income (loss) component is included in the computation of net periodic benefit cost that is presented in Note 8 of the Notes to Consolidated Financial Statements.

Tax effects allocated to each component of other comprehensive income (loss) and reclassification adjustments for the years ended March 31, 2018 and 2019, are as follows:

	Yen (Millions)		
	Before tax Amount	Tax (expense) or benefit	Net-of-tax amount
2018			
Foreign currency translation adjustments:			
Amount arising during the year from investments in foreign entities	¥ (9,103)	¥ (3,567)	¥ (12,670)
Reclassification adjustments for the portion of gains and losses realized upon sale or liquidation of investments in foreign entities	(12)	-	(12)
Net foreign currency translation adjustments	(9,115)	(3,567)	(12,682)
Pension liability adjustments:			
Amount arising during the year	(592)	(501)	(1,093)
Reclassification adjustments for amortization and curtailment/settlement	4,382	(1,155)	3,227
Net pension liability adjustments	3,790	(1,656)	2,134
Unrealized gains (losses) on securities:			
Unrealized holding gains (losses) arising during the year	(561)	188	(373)
Reclassification adjustments for (gains) losses realized in net income	(14)	0	(14)
Net unrealized gains (losses)	(575)	188	(387)
Other comprehensive income (loss)	¥ (5,900)	¥ (5,035)	¥(10,935)
	Yen (Millions)		
	Before tax Amount	Tax (expense) or benefit	Net-of-tax amount
2019			
Foreign currency translation adjustments:			
Amount arising during the year from investments in foreign entities	¥ 2,324	¥ 2,886	¥ 5,210
Reclassification adjustments for the portion of gains and losses realized upon sale or liquidation of investments in foreign entities	(744)	(9)	(753)
Net foreign currency translation adjustments	1,580	2,877	4,457
Pension liability adjustments:			
Amount arising during the year	(12,907)	2,006	(10,901)
Reclassification adjustments for amortization and curtailment/settlement	4,968	(424)	4,544
Net pension liability adjustments	(7,939)	1,582	(6,357)
Unrealized gains (losses) on securities:			
Unrealized holding gains (losses) arising during the year	(55)	-	(55)
Reclassification adjustments for (gains) losses realized in net income	-	-	-
Net unrealized gains (losses)	(55)	-	(55)
Other comprehensive income (loss)	¥ (6,414)	¥ 4,459	¥ (1,955)

	U.S. Dollars (Thousands)		
	Before tax amount	Tax (expense) or benefit	Net-of-tax Amount
2019			
Foreign currency translation adjustments:			
Amount arising during the year from investments in foreign entities	\$ 20,937	\$ 26,000	\$ 46,937
Reclassification adjustments for the portion of gains and losses realized upon sale or liquidation of investments in foreign entities	(6,703)	(81)	(6,784)
Net foreign currency translation adjustments	14,234	25,919	40,153
Pension liability adjustments:			
Amount arising during the year	(116,279)	18,072	(98,207)
Reclassification adjustments for amortization and curtailment/settlement	44,757	(3,820)	40,937
Net pension liability adjustments	(71,522)	14,252	(57,270)
Unrealized gains (losses) on securities:			
Unrealized holding gains (losses) arising during the year	(496)	-	(496)
Reclassification adjustments for (gains) losses realized in net income	-	-	-
Net unrealized gains (losses)	(496)	-	(496)
Other comprehensive income (loss)	\$ (57,784)	\$ 40,171	\$ (17,613)

13. Leases

TDK occupies buildings and leases machineries under various lease agreements expiring after 2020.

The amount of assets under capital leases and the related accumulated depreciation included in property, plant and equipment on the consolidated balance sheets as of March 31, 2018 and 2019 are as follows:

	Yen (Millions)	U.S. Dollars (Thousands)
	2018	2019
Buildings	¥ 4,345	¥ 4,147
Machinery and equipment	3,821	3,308
Accumulated depreciation	(3,734)	(3,664)
Net leased assets	¥ 4,432	¥ 3,791

The depreciation expense for assets under capital leases is included in cost of sales and selling, general and administrative expenses of the consolidated statements of income.

Operating lease expenses are ¥8,696 million and ¥9,699 million (\$87,378 thousand) for the year ended March 31, 2018 and 2019, respectively.

The following is a schedule by year of future minimum lease payments required under capital leases and operating leases that have initial or remaining noncancellable lease terms in excess of one year as of March 31, 2019:

	Yen (Millions)		U.S. Dollars (Thousands)	
	Capital leases	Operating leases	Capital leases	Operating leases
Year ending March 31,				
2020	¥ 1,064	¥ 8,221	\$ 9,586	\$ 74,063
2021	965	6,484	8,694	58,414
2022	912	5,446	8,216	49,063
2023	791	4,644	7,126	41,838
2024	694	4,454	6,252	40,126
Later years	9,247	15,186	83,306	136,811
Total minimum lease payments	¥ 13,673	¥ 44,435	\$ 123,180	\$ 400,315
Amounts representing interest	7,989		71,973	
Present value of net minimum lease payments	5,684		51,207	
Current portion	485		4,369	
Long-term lease obligations (Excluding current portion)	¥ 5,199		\$ 46,838	

14. Commitments and Contingent Liabilities

Commitments outstanding for the purchase of property, plant and equipment as of March 31, 2018 and 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Commitments outstanding for the purchase of property, plant and equipment	¥ 52,514	¥ 59,474	\$ 535,802

Certain overseas subsidiaries entered into minimum purchase agreements with suppliers for raw materials and electricity that are necessary for production activities. As of March 31, 2018 and 2019, the minimum purchase obligations based on these agreements are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Commitments outstanding for the purchase of raw material and electricity	¥22,574	¥ 21,549	\$ 194,135

TDK provides guarantees to third parties on bank loans of its employees. The guarantees on behalf of the employees are made for their housing loans. For each guarantee issued, in the event the employee defaults on payment, TDK would be required to make payments under its guarantee.

The maximum amount of undiscounted payments TDK would have to make in the event of default as of March 31, 2018 and 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Guarantees to third parties on bank loans of employees	¥769	¥ 610	\$ 5,495

As of March 31, 2019, the liability recognized for the estimated fair value of TDK's obligation under the guarantee arrangements is not material.

Several claims against TDK are pending. In the opinion of TDK management, based on discussions with legal counsel, any additional liability not currently provided for will not materially affect the consolidated financial position or result of operations of TDK.

15. Derivative Financial Instruments and Hedging Activities

TDK operates internationally and is exposed to the risk of changes in foreign exchange rates and interest rates as well as changes in raw material prices. TDK assesses these risks by continuously monitoring changes in the exchange rates, interest rates and raw material prices and by evaluating hedging opportunities. Derivative financial instruments are utilized to reduce these risks. TDK does not hold or issue derivative financial instruments for trading purposes. TDK is exposed to credit related losses in the event of nonperformance by the counterparties to those derivative financial instruments, but does not expect any counterparties to fail to meet their obligations given their high credit ratings. The credit exposure of those financial instruments is represented by the fair values of contracts. The fair values of the contracts are calculated based on the quotes presented by financial institutions. TDK does not hold any derivative instruments which consisted credit-risk-related contingent features.

(1) Hedges of net investment in foreign operations

TDK uses forward foreign exchange contracts and borrowings denominated in the subsidiary's local currency to hedge the foreign currency exposure of the net investment in overseas subsidiaries. The gains and losses of these hedging instruments are recorded in foreign currency translation adjustments, which is a part of other comprehensive income (loss). There are no gains (losses) reclassified from other comprehensive income (loss) to earnings. Also, there is no ineffective portion and amount excluded from effectiveness testing.

(2) Derivatives not designated as hedging instruments

TDK uses forward foreign exchange contracts, nondeliverable forward contracts (NDF), currency swap contracts and currency option contracts in order to offset foreign exchange gain (loss) mainly arising from foreign-currency denominated assets and liabilities and forecasted transactions. TDK uses interest rate swap contracts in order to control the fluctuation risks of interest rates. Also, TDK uses commodity forward contracts in order to control the fluctuation risk of raw material prices. Although these contracts are not designated as hedges, which is required to apply hedge accountings, TDK considers that these are effective as hedges from an economic viewpoint. The fair values of these undesignated contracts are recognized as income or expenses as earned or incurred.

The effect of derivative financial instruments on the consolidated statements of income and consolidated statements of comprehensive income (loss) for the years ended March 31, 2018 and 2019 are as follows:

(1) Hedges of net investment in foreign operations and other hedging instruments

	Gains (losses) recognized in other comprehensive income on derivative (effective portion)		
	Yen (Millions)	2019	U.S. Dollars (Thousands)
	2018	2019	2019
Forward foreign exchange contracts	¥ 1,639	¥ (3,911)	\$ (35,234)
Borrowings in local currency	4,314	(2,850)	(25,676)
Total	¥ 5,953	¥ (6,761)	\$ (60,910)

(2) Derivatives not designated as hedging instruments

		Yen (Millions)		U.S. Dollars (Thousands)
	Account	2018	2019	2019
Forward foreign exchange contracts	Foreign exchange gain (loss)	¥ 6,726	¥ (5,495)	\$ (49,504)
Nondeliverable forward contracts (NDF)	Foreign exchange gain (loss)	(655)	-	-
Currency swap contracts	Foreign exchange gain (loss)	(732)	681	6,135
Interest rate swap contracts	Other income (deductions): Other-net	293	(169)	(1,523)
Currency option contracts	Foreign exchange gain (loss)	59	(198)	(1,784)
Commodity forward contracts	Cost of sales	34	306	2,757
Total		¥ 5,725	¥ (4,875)	\$ (43,919)

Notional amounts and fair value of derivative financial instruments and other as of March 31, 2018 and 2019 are as follows:

Yen (Millions)					
2018					
Derivatives designated as hedging instruments:					
	Notional amounts	Asset derivatives		Liability derivatives	
		Fair value	Consolidated balance sheets location	Fair value	Consolidated balance sheets location
Forward foreign exchange contracts	¥ 135,530	¥ 173	Prepaid expenses and other current assets	¥ 1,183	Other current liabilities
Borrowings in local currency	¥ 63,744	-	-	-	-
Derivatives not designated as hedging instruments:					
	Notional amounts	Asset derivatives		Liability derivatives	
		Fair value	Consolidated balance sheets location	Fair value	Consolidated balance sheets location
Forward foreign exchange contracts	¥ 82,896	¥ 273	Prepaid expenses and other current assets	¥ 248	Other current liabilities
Currency swap contracts	20,866	18	Prepaid expenses and other current assets	90	Other current liabilities
		678	Other assets	32	Other noncurrent liabilities
Interest rate swap contracts	31,872	293	Other assets	-	-
Commodity forward contracts	157	-	-	3	Other current liabilities

Yen (Millions)

2019			
Derivatives designated as hedging instruments and other:			
	Notional amounts	Asset derivatives	Liability derivatives
		Fair value Consolidated balance sheets location	Fair value Consolidated balance sheets location
Forward foreign exchange contracts	¥ 135,102	¥ 977 Prepaid expenses and other current assets	¥ 522 Other current liabilities
Borrowings in local currency	66,594	- -	- -
Derivatives not designated as hedging instruments:			
	Notional amounts	Asset derivatives	Liability derivatives
		Fair value Consolidated balance sheets location	Fair value Consolidated balance sheets location
Forward foreign exchange contracts	¥ 57,800	¥ 225 Prepaid expenses and other current assets	¥ 698 Other current liabilities
Currency swap contracts		30 Prepaid expenses and other current assets	29 Other current liabilities
	19,701	1,322 Other assets	-
Interest rate swap contracts	33,297	124 Prepaid expenses and other current assets	- -
Commodity forward contracts	252	150 Prepaid expenses and other current assets	-

U.S. Dollars (Thousands)			
2019			
Derivatives designated as hedging instruments:			
	Notional amounts	Asset derivatives	Liability derivatives
		Fair value Consolidated balance sheets location	Fair value Consolidated balance sheets location
Forward foreign exchange contracts	\$ 1,217,135	\$ 8,802 Prepaid expenses and other current assets	\$ 4,703 Other current liabilities
Borrowings in local currency	599,946	- -	- -
Derivatives not designated as hedging instruments:			
	Notional amounts	Asset derivatives	Liability derivatives
		Fair value Consolidated balance sheets location	Fair value Consolidated balance sheets location
Forward foreign exchange contracts	\$ 520,721	\$ 2,027 Prepaid expenses and other current assets	\$ 6,288 Other current liabilities
Currency swap contracts		270 Prepaid expenses and other current assets	261 Other current liabilities
	177,486	11,910 Other assets	-
Interest rate swap contracts	299,973	1,117 Prepaid expenses and other current assets	- -
Commodity forward contracts	2,270	1,351 Prepaid expenses and other current assets	-

16. Fair Value of Financial Instruments

The following methods and assumptions were used to estimate the fair value of financial instruments in cases for which it is practicable:

(a) Cash and cash equivalents, Short-term investments, Trade receivables, Income tax receivables, Prepaid expenses and other current assets, Short-term debt, Trade payables, Accrued salaries and wages, Accrued expenses, Income taxes payable and Other current liabilities

Except for derivative financial instruments, the carrying amount approximates fair value because of the short maturity of these instruments.

(b) Marketable securities, Investments in securities and Other assets

The fair values of marketable securities and investments in securities are primarily estimated based on quoted market prices for these instruments. The fair value of TDK's long-term loans included in other assets are estimated based on the amount of future cash flows associated with the instrument discounted using borrower's current borrowing rate for similar borrowing of comparable maturity, or based on the quoted market prices for the same or similar issues. The long-term loans are classified as Level 2, one of the three levels of fair value hierarchy that is discussed in Note 17 of the Notes to Consolidated Financial Statements.

(c) Long-term debt

The fair value of TDK's long-term debt is estimated based on the amount of future cash flows associated with the instrument discounted using TDK's current borrowing rate for similar debt of comparable maturity, or based on the quoted market prices for the same or similar issues. The long-term debt is classified as Level 2, one of the three levels of fair value hierarchy that is discussed in Note 17 of the Notes to Consolidated Financial Statements.

The carrying amounts and estimated fair values of TDK's financial instruments as of March 31, 2018 and 2019 are summarized as follows:

<u>2018</u>	Yen (Millions)	
	Carrying amount	Estimated fair value
Assets:		
Marketable securities	¥ 54	¥ 54
Other investments in securities and other assets	25,132	25,132
Liabilities:		
Long-term debt, including current portion (Excluding lease obligation)	(352,736)	(350,950)
<u>2019</u>	Yen (Millions)	
	Carrying amount	Estimated fair value
Assets:		
Marketable securities	¥ 57	¥ 57
Other investments in securities and other assets	31,051	31,051
Liabilities:		
Long-term debt, including current portion (Excluding lease obligation)	(293,274)	(293,017)
<u>2019</u>	U.S. Dollars (Thousands)	
	Carrying amount	Estimated fair value
Assets:		
Marketable securities	\$ 514	\$ 514
Other investments in securities and other assets	279,739	279,739
Liabilities:		
Long-term debt, including current portion (Excluding lease obligation)	(2,642,108)	(2,639,793)

Derivative financial instruments are presented in Note 15 of the Notes to Consolidated Financial Statements.

Limitations

Fair value estimates are made at a specific point in time, based on relevant market information and information about the financial instruments. These estimates are subjective in nature and involve uncertainties and matters of significant judgment and therefore cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

17. Fair Value Measurements

FASB ASC 820 “Fair Value Measurements and Disclosures” defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or most advantageous market for the asset or liability. ASC 820 establishes a three-level fair value hierarchy for material inputs used in measuring fair value as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that TDK has the ability to access at the measurement date

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly

Level 3: Unobservable inputs for the asset or liability

Assets and liabilities that are measured at fair value on a recurring basis

Assets and liabilities that are measured at fair value on a recurring basis as of March 31, 2018 and 2019 are as follows:

2018	Yen (Millions)			
	Level 1	Level 2	Level 3	Total
Assets:				
Marketable securities (Debt securities):				
Government bonds	¥ 54	¥ -	¥ -	¥ 54
Derivative contracts:				
Forward foreign exchange contracts	-	446	-	446
Currency swap contracts	-	696	-	696
Interest rate swap contracts	-	293	-	293
Investments (Debt securities):				
Commercial papers	-	109	-	109
Public utility bonds	0	-	-	0
Investments (Equity securities):				
Manufacturing companies	5,731	-	-	5,731
Other	2,659	-	-	2,659
Investments (Mutual funds)	1,191	-	-	1,191
Rabbi trust investments	5,920	-	-	5,920
Total	¥ 15,555	¥ 1,544	¥ -	¥ 17,099
Liabilities:				
Derivative contracts:				
Forward foreign exchange contracts	¥ -	¥ 1,431	¥ -	¥ 1,431
Currency swap contracts	-	122	-	122
Commodity forward contracts	-	3	-	3
Total	¥ -	¥ 1,556	¥ -	¥ 1,556

2019	Yen (Millions)			
	Level 1	Level 2	Level 3	Total
Assets:				
Marketable securities (Debt securities):				
Government bonds	¥ 57	¥ -	¥ -	¥ 57
Derivative contracts:				
Forward foreign exchange contracts	-	1,202	-	1,202
Currency swap contracts	-	1,352	-	1,352
Interest rate swap contracts	-	124	-	124
Commodity forward contracts	-	150	-	150
Investments (Debt securities):				
Commercial papers	-	103	-	103
Public utility bonds	0	-	-	0
Investments (Equity securities):				
Manufacturing companies	2,991	-	8,716	11,707
Other	2,272	-	-	2,272
Investments (Mutual funds)	1,146	-	-	1,146
Rabbi trust investments	6,192	-	-	6,192
Total	¥ 12,658	¥ 2,931	¥ 8,716	¥ 24,305
Liabilities:				
Derivative contracts:				
Forward foreign exchange contracts	¥ -	¥ 1,220	¥ -	¥ 1,220
Currency swap contracts	-	29	-	29
Total	¥ -	¥ 1,249	¥ -	¥ 1,249

2019	U.S. Dollars (Thousands)			
	Level 1	Level 2	Level 3	Total
Assets:				
Marketable securities (Debt securities):				
Government bonds	\$ 514	\$ -	\$ -	\$ 514
Derivative contracts:				
Forward foreign exchange contracts	-	10,829	-	10,829
Currency swap contracts	-	12,180	-	12,180
Interest rate swap contracts	-	1,117	-	1,117
Commodity forward contracts	-	1,351	-	1,351
Investments (Debt securities):				
Commercial papers	-	928	-	928
Public utility bonds	0	-	-	0
Investments (Equity securities):				
Manufacturing companies	26,946	-	78,523	105,469
Other	20,468	-	-	20,468
Investments (Mutual funds)	10,324	-	-	10,324
Rabbi trust investments	55,784	-	-	55,784
Total	\$ 114,036	\$ 26,405	\$ 78,523	\$ 218,964
Liabilities:				
Derivative contracts:				
Forward foreign exchange contracts	\$ -	\$ 10,991	\$ -	\$ 10,991
Currency swap contracts	-	261	-	261
Total	\$ -	\$ 11,252	\$ -	\$ 11,252

Level 1 marketable securities and investments are valued using unadjusted quoted prices in active markets in which transactions occur with sufficient frequency and volume. Rabbi trusts investments included in other assets in which a part of the employees' salary is deposited and valued using unadjusted quoted prices in active markets.

Level 2 derivative contracts include forward foreign exchange contracts, currency swap contracts, interest rate swap contracts and commodity forward contracts that are valued based on quotes obtained from counterparties and are verified using observable market inputs, such as foreign currency exchange rates and raw material prices. Investments consist of commercial papers and the fair values thereof are based on third-party assessments using observable market data.

Fair values of Level 3 investments are based on discounted cash flow method.

The changes in the carrying amount of assets measured at fair value on a recurring basis that was classified as Level 3 for the year ended March 31, 2019 are as follows:

	Yen (Millions)
	Year ended March 31, 2019
Opening Balance	¥ -
Reclassification*	4,471
Net income	
(Realized or unrealized):	4,245
Included in Earnings	4,137
Included in Other Comprehensive Income(loss)	108
Ending Balance	¥ 8,716

	U.S. Dollars (Thousands)
	Year ended March 31, 2019
Opening Balance	\$ -
Reclassification*	40,280
Net income	
(Realized or unrealized):	38,243
Included in Earnings	37,270
Included in Other Comprehensive Income(loss)	973
Ending Balance	\$ 78,523

*As a result of the adoption of ASU2016-01, certain equity securities without readily determinable fair values are measured at fair value on a recurring basis and are classified as Level 3. Also, due to the decrease in share ratio resulted from partial sale of shares held, investment in affiliates was reclassified to equity security without readily determinable fair value and was classified as Level 3 which is measured at fair value on a recurring basis.

Assets and liabilities that are measured at fair value on a nonrecurring basis

Assets and liabilities that are measured at fair value on a nonrecurring basis for the year ended March 31, 2018 and 2019 are as follows.

	Yen (Millions)			
<u>2018</u>	Total gains (losses) for 2018	Level 1	Level 2	Level 3
Assets:				
Investments (Equity securities)	123	-	-	1,186
Long-lived assets (Property, plant and equipment)	(1,282)	-	-	455
	Yen (Millions)			
<u>2019</u>	Total gains (losses) for 2019	Level 1	Level 2	Level 3
Assets:				
Investments (Equity securities)	(175)	-	-	42
Long-lived assets (Property, plant and equipment)	(5,103)	-	-	220
Long-lived assets (Intangible assets)	(9)	-	-	-
	U.S. Dollars (Thousands)			
<u>2019</u>	Total gains (losses) for 2019	Level 1	Level 2	Level 3
Assets:				
Investments (Equity securities)	(1,577)	-	-	378
Long-lived assets (Property, plant and equipment)	(45,973)	-	-	1,982
Long-lived assets (Intangible assets)	(81)	-	-	-

For the year ended March 31, 2018, loan was converted to investment (equity securities) and the book value of ¥1,063 million was measured at fair value of ¥1,186 million and valuation gain of ¥123 million was recognized. The book value of long-lived assets (property, plant and equipment) of ¥1,737 million was written down to its fair value of ¥455 million. The fair value of these long-lived assets was determined mainly based on the discounted future cash flows expected from the use of each of the assets. These fair values are classified as Level 3 because they were determined using unobservable inputs.

As a result of the above, impairment loss of ¥1,282 million caused by other-than-temporary declines in fair values during the year ended March 31, 2018 was included in the consolidated statements of income.

For the year ended March 31, 2019, the book value of certain equity security without a readily determinable fair value of ¥217 million (\$1,955 thousand) was written down to its fair value of ¥42 million (\$378 thousand). This equity security is classified as Level 3 because it is determined using unobservable inputs. The book value of long-lived assets (property, plant and equipment) of ¥5,323 million (\$47,955 thousand) was written down to its fair value of ¥220 million (\$1,982 thousand), and the book value of long-lived assets (intangible assets) of ¥9 million (\$81 thousand) was fully written down due to impairment. The fair value of these long-lived assets was determined mainly based on the discounted future cash flows expected from the use of each of the assets. These fair values are classified as Level 3 because they were determined using unobservable inputs.

As a result of the above, impairment loss of ¥5,287 million (\$47,631 thousand) caused by other-than-temporary declines in fair values during the year ended March 31, 2019 was included in the consolidated statements of income.

18. Impairment of Long-Lived Assets

For the years ended March 31, 2018 and 2019, impairment losses of ¥1,282 million and ¥5,112 million (\$46,054 thousand), respectively, were recorded. These are the result of a reduction of the carrying value of the long-lived assets to the fair value because of a reduction in profitability derived from lower demand.

The impairment losses are mainly included in other operating expense (income) in the consolidated statements of income.

For the year ended March 31, 2018, the impairment loss includes ¥142 million for the Passive Components segment, ¥11 million for the Sensor Application Products segment, ¥195 million for the Magnetic Application Products segment, ¥748 million for the Energy Application Products segment, ¥20 million for the Other segment and ¥166 million for the Corporate and Eliminations.

For the year ended March 31, 2019, the impairment loss includes ¥346 million (\$3,117 thousand) for the Passive Components segment, ¥59 million (\$532 thousand) for the Sensor Application Products segment and ¥4,707 million (\$42,405 thousand) for the Magnetic Application Products segment.

19. Goodwill and Other Intangible Assets

The components of acquired intangible assets excluding goodwill as of March 31, 2018 and 2019 are as follows:

	Yen (Millions)		
	2018		
	Gross Carrying Amount	Accumulated Amortization	Net Amount
Amortizable intangible assets:			
Patent	¥ 24,185	¥ 9,216	¥ 14,969
Customer relationships	24,328	19,112	5,216
Software	36,727	16,065	20,662
Unpatented technologies	41,789	21,919	19,870
Other	11,267	2,971	8,296
Total	¥ 138,296	¥ 69,283	¥ 69,013
Nonamortizable intangible assets			
Trademark	¥ 3,452		¥ 3,452
In process research and development	12,834		12,834
Other	232		232
Total	¥ 16,518		¥ 16,518
	Yen (Millions)		
	2019		
	Gross Carrying Amount	Accumulated Amortization	Net Amount
Amortizable intangible assets:			
Patent	¥ 26,578	¥ 9,088	¥ 17,490
Customer relationships	24,243	19,852	4,391
Software	41,391	17,893	23,498
Unpatented technologies	56,642	26,024	30,618
Other	12,198	3,541	8,657
Total	¥ 161,052	¥ 76,398	¥ 84,654
Nonamortizable intangible assets			
Trademark	¥ 3,452		¥ 3,452
In process research and development	355		355
Other	232		232
Total	¥ 4,039		¥ 4,039

U.S. Dollars (Thousands)			
2019			
	Gross Carrying Amount	Accumulated Amortization	Net Amount
Amortizable intangible assets:			
Patent	\$ 239,441	\$ 81,874	\$ 157,567
Customer relationships	218,406	178,847	39,559
Software	372,892	161,198	211,694
Unpatented technologies	510,288	234,450	275,838
Other	109,892	31,901	77,991
Total	\$ 1,450,919	\$ 688,270	\$ 762,649
Nonamortizable intangible assets			
Trademark	\$ 31,099		\$ 31,099
In process research and development	3,198		3,198
Other	2,090		2,090
Total	\$ 36,387		\$ 36,387

Intangible assets subject to amortization are amortized using the straight-line method over their estimated useful lives to their estimated residual value of zero. The useful lives are 3 to 19 years for Patent, 4 to 17 years for Customer relationships, 2 to 10 years for Internal use Software, 3 to 20 years for unpatented technologies and 2 to 7 years for other intangible assets.

Aggregate amortization expenses for the years ended March 31, 2018 and 2019 were ¥11,313 million and ¥12,128 million (\$109,261 thousand), respectively. Estimated amortization expense for the next five years is: ¥14,154 million in 2020, ¥13,497 million in 2021, ¥12,792 million in 2022, ¥11,216 million in 2023 and ¥9,662 million in 2024.

In connection with the completion of the purchase price allocation of Chirp Microsystems Inc., which was acquired in February 2018, in the year ended March 31, 2019, the amount of goodwill related to the Sensor Application Products segment was ¥2,297 million and the amounts for in-process research and development of nonamortizable intangible was ¥770 million.

The detail of the acquisitions is presented in Note 22 of the Notes to Consolidated Financial Statements.

The changes in the carrying amount of goodwill by segment for the years ended March 31, 2018 and 2019 are as follows:

Yen (Millions)						
	Passive Components	Sensor Application Products	Magnetic Application Products	Energy Application Products	Other	Total
March 31 , 2017						
Goodwill	¥ 15,653	¥ 7,413	¥ 26,736	¥ 16,259	¥ 2,766	¥ 68,827
Accumulated impairment losses	(2,997)	-	(1,831)	(2,247)	(721)	(7,796)
	12,656	7,413	24,905	14,012	2,045	61,031
Acquisitions	-	103,407	-	-	-	103,407
Impairments	-	-	-	-	-	-
Others	-	(255)	-	-	(555)	(810)
Translation adjustment	1,054	(5,116)	(1,335)	(437)	64	(5,770)
March 31 , 2018						
Goodwill	16,976	105,449	25,304	15,822	2,230	165,781
Accumulated impairment losses	(3,266)	-	(1,734)	(2,247)	(676)	(7,923)
	13,710	105,449	23,570	13,575	1,544	157,858
Acquisitions	1,750	-	-	1,120	-	2,870
Impairments	-	-	-	-	-	-
Others	-	(770)	-	-	-	(770)
Translation adjustment	(584)	4,022	1,066	367	(35)	4,836
March 31 , 2019						
Goodwill	17,993	108,701	26,447	17,309	2,225	172,675
Accumulated impairment losses	(3,117)	-	(1,811)	(2,247)	(706)	(7,881)
	¥ 14,876	¥ 108,701	¥ 24,636	¥ 15,062	¥ 1,519	¥ 164,794
U.S. Dollars (Thousands)						
	Passive Components	Sensor Application Products	Magnetic Application Products	Energy Application Products	Other	Total
March 31 , 2018						
Goodwill	\$ 152,936	\$ 949,991	\$ 227,964	\$ 142,541	\$ 20,090	\$ 1,493,522
Accumulated impairment losses	(29,423)	-	(15,622)	(20,243)	(6,090)	(71,378)
	123,513	949,991	212,342	122,298	14,000	1,422,144
Acquisitions	15,766	-	-	10,090	-	25,856
Impairments	-	-	-	-	-	-
Others	-	(6,937)	-	-	-	(6,937)
Translation adjustment	(5,261)	36,234	9,604	3,306	(315)	43,568
March 31 , 2019						
Goodwill	162,099	979,288	238,261	155,937	20,046	1,555,631
Accumulated impairment losses	(28,081)	-	(16,315)	(20,243)	(6,361)	(71,000)
	\$ 134,018	\$ 979,288	\$ 221,946	\$ 135,694	\$ 13,685	\$ 1,484,631

Goodwill acquired for the year ended March 31, 2018 represents the excess of purchase price over the fair value of identifiable assets acquired and liabilities assumed in connection with the acquisition of InvenSense, Inc. and its subsidiaries which operate wide-ranging sensors business for, such as IoT, automotive and ICT, a part of Sensor Application Products segment and the acquisition of Chirp Microsystems Inc. which mainly operates ultrasonic 3D-sensing business, a part of Sensor Application Products segment.

In accordance with the reorganization in the year ended March 31, 2019, TDK newly established the Energy Application Products segment. Certain goodwill of the Magnetic Application Products segment and goodwill of the Film Application Products segment were reclassified into the Energy Application Products. In addition, certain goodwill of the Passive Components segment was reclassified into Others.

The prior year's figures are also restated to conform to the new segmentation. The details are presented in Note 25 of the Notes to Consolidated Financial Statements.

20. Net Income attributable to TDK per Share

A reconciliation of the numerators and denominators of the basic and diluted net income attributable to TDK per share computations is as follows:

	Yen (Millions)			
	2018		2019	
	Basic	Diluted	Basic	Diluted
Net income attributable to TDK	¥ 63,463	¥ 63,463	¥ 82,205	¥ 82,205
Number of shares (Thousands)				
Weighted average common shares outstanding	126,220	126,220	126,271	126,271
Incremental shares arising from the exercise of stock option	-	334	-	305
Weighted average common shares outstanding – Total	126,220	126,554	126,271	126,576
Yen				
Per common share :				
Net income attributable to TDK	502.80	501.47	651.02	649.45
U.S. Dollars (Thousands)				
2019				
	Basic	Diluted		
Net income attributable to TDK	\$ 740,586	\$ 740,586		
Number of shares (Thousands)				
Weighted average common shares outstanding	126,271	126,271		
Incremental shares arising from the exercise of stock option	-	305		
Weighted average common shares outstanding - Total	126,271	126,576		
U.S. Dollars				
Per common share :				
Net income attributable to TDK	5.87	5.85		

For the years ended March 31, 2017 and 2018, certain stock options issued by TDK Corporation were excluded from the diluted per share calculation of income from net income attributable to TDK as the effect would have been antidilutive.

21. Related Party Transaction

Receivables and payables include the following balances with affiliated companies as of March 31, 2018 and 2019:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Due from	¥ 1,671	¥ 1,559	\$ 14,045
Due to	321	1,015	9,144

Receivables as of March 31, 2018 and 2019 include long-term loans of ¥410 million and ¥421 million (\$3,793 thousand), respectively.

Purchases, research and development expenses, patent fee, advertising costs, interest expense, other income, other expense, and sales transactions with affiliated companies for the years ended March 31, 2018 and 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Gross purchase	¥ 9,320	¥ 6,273	\$ 56,514
Less raw materials sold with no mark-up	(17)	(39)	(351)
Net purchases	9,303	6,234	56,163
Research and development expenses and patent fee	235	—	—
Advertising costs	90	129	1,162
Other income	617	132	1,189
Other expense	143	9	81
Sales	7,398	6,000	54,054

22. Acquisition

(1) InvenSense, Inc. (“InvenSense”)

On May 18, 2017 (“acquisition date”), TDK acquired 96,253 thousand shares (100% of equity interest) of InvenSense at a cost of ¥142,758 million (\$1,286,108 thousand), which was paid in cash, in accordance with an acquisition agreement dated December 21, 2016. As a result, InvenSense and its subsidiaries became consolidated subsidiaries of TDK Corporation. The acquisition-related costs of ¥1,263 million (\$11,378 thousand) were recognized as part of selling, general and administrative expenses.

InvenSense is headquartered in California, U.S.A., and its primary businesses are Development, fabless-manufacture and sales of inertial sensors, acceleration sensors, angular velocity sensors, magnetic compasses, voice sensors etc. and control software.

Through the acquisition of InvenSense, TDK will be able to strengthen its product line-ups and technologies, which is expected to enable TDK to become a stronger player in broad based sensor solutions for IoT, automotive and ICT by accelerating the sensor product roadmap to offer innovative next generation products and platforms. In addition, sensor fusion, the combination of various sensor technologies and software creates products with enhanced value for customers across multiple fields.

The following table summarizes the fair values of the assets acquired and liabilities at the acquisition date. As of the date on which the consolidated financial statements were issued, the purchase price allocation had been completed.

	Fair values	
	Yen (millions)	U.S. Dollars (Thousands)
Current assets	38,048	342,775
Net property, plant and equipment	4,154	37,423
Intangible assets	30,170	271,802
Investments in securities and Other assets	654	5,892
Total assets	73,026	657,892
Current liabilities	27,679	249,360
Noncurrent liabilities	2,929	26,388
Total liabilities	30,608	275,748
Net assets acquired	42,418	382,144
Goodwill	100,340	903,964
Total	142,758	1,286,108

Other intangible assets acquired mainly include technologies of ¥15,775 million (\$142,117 thousand) subject to amortization and in process research and development of ¥12,915 million (\$116,351 thousand) subject to nonamortization. TDK had estimated the amortization period for technologies to be 8 years. Goodwill recognized of ¥100,340 million (\$903,964 thousand) was attributable primarily to expected synergies from combining operations of InvenSense and TDK. The goodwill is not deductible for tax purpose.

Although TDK included the results of operations of InvenSense subsequent to the acquisition date in its consolidated financial statements, the results were not material. The effect of the acquisition to net sales and net income attributable to TDK for the year ended March 31, 2018 as though the acquisition had occurred at the beginning of the year ended March 31, 2018 were not material either.

(2) Chirp Microsystems Inc. (“Chirp”)

On February 28, 2018 (“acquisition date”), TDK acquired 29,368 thousand shares (100 percent of equity interest) of Chirp at a cost of ¥3,015 million (\$27,162 thousand), which was paid in cash in accordance with a share acquisition agreement. Chirp became a consolidated subsidiary of TDK Corporation. The acquisition-related costs of ¥103 million (\$928 thousand) were recognized as a part of selling, general and administrative expenses.

Chirp is headquartered in California, U.S.A., and its primary businesses are development, design and supply of high-performance ultrasonic 3D-sensing solutions. Through the acquisition of Chirp, TDK plans to further accelerate TDK’s sensor and actuator business.

The following table summarizes the fair values of the assets acquired and liabilities at the acquisition date. As of the date on which the consolidated financial statements were issued, the purchase price allocation had been completed.

		Fair values	
		Yen (millions)	U.S. Dollars (Thousands)
Current assets		200	1,801
Net property, plant and equipment		774	6,973
Other assets		218	1,964
	Total assets	1,192	10,738
Current liabilities		258	2,324
Noncurrent liabilities		216	1,946
	Total liabilities	474	4,270
	Net assets acquired	718	6,468
Goodwill		2,297	20,694
	Total	3,015	27,162

Other intangible assets acquired mainly include in process research and development of ¥770 million (\$6,937 thousand) subject to nonamortization. Goodwill recognized of ¥2,297 million (\$20,694 thousand) was attributable primarily to expected synergies from combining operations of Chirp and TDK. The goodwill is not deductible for tax purpose.

Although TDK included the results of operations of Chirp subsequent to the acquisition date in its consolidated financial statements, the results were not material. The effect of the acquisition to net sales and net income attributable to TDK for the year ended March 31, 2018 as though the acquisition had occurred at the beginning of the year ended March 31, 2018 were not material either.

23. Sale of Business

On February 3, 2017, TDK transferred its high-frequency devices business to RF360 Holdings Singapore PTE. Ltd. (“RF360”) and its subsidiaries, and subsequently sold 51 percent of the common shares of RF360 held by TDK Electronics AG, a wholly owned subsidiary of TDK, to Qualcomm Global Trading PTE. Ltd. (“QGT”), which is a 100 percent indirect subsidiary of Qualcomm Incorporated (“Qualcomm”) based on the business alliance agreement involving establishment of a joint venture concluded with Qualcomm on January 13, 2016. An option to put and call the remaining common shares (49 percent) of RF360 after 30 months after the closing date is held by TDK and QGT, respectively. Contingent consideration to be recognized over several years is included in the total consideration amount. The remaining common shares (49 percent) of RF360 Holdings is measured at fair value and recognized in consolidated balance sheet as investments in affiliates.

24. Revenue

TDK disaggregates revenue by industry segment, product and geographic segment based on contracts with customers. The following table presents disaggregation of revenue. Detailed information of geographic segment is presented in Note 26. TDK adopted ASU 2014-09 “Revenue from Contracts with Customers” by applying the modified retrospective method to recognize a cumulative-effect adjustment to the opening retained earnings for all contracts. Therefore, the figures for the year ended March 31, 2018 are not restated.

Yen (millions)						
Year ended March 31, 2018						
	Japan	Americas	Europe	China	Asia and others	Total
Capacitors	¥ 15,156	¥ 26,395	¥ 42,467	¥ 48,591	¥ 24,381	¥ 156,990
Inductive Devices	20,468	18,627	45,701	53,677	19,056	157,529
Other Passive Components	11,476	5,867	27,899	45,086	12,910	103,238
Passive Components	47,100	50,889	116,067	147,354	56,347	417,757
Sensor Application Products	12,851	6,480	21,328	31,408	5,288	77,355
Magnetic Application Products	24,021	13,926	13,884	115,609	110,108	277,548
Energy Application Products	19,742	29,500	12,491	353,415	27,674	442,822
Other	10,029	12,134	2,422	24,136	7,544	56,265
Net Sales Total	¥ 113,743	¥ 112,929	¥ 166,192	¥ 671,922	¥ 206,961	¥ 1,271,747
Year ended March 31, 2019						
	Japan	Americas	Europe	China	Asia and others	Total
Capacitors	¥ 17,027	¥ 29,367	¥ 44,677	¥ 55,194	¥ 27,066	¥ 173,331
Inductive Devices	20,055	18,925	45,637	54,635	19,387	158,639
Other Passive Components	10,817	6,485	29,020	42,323	12,791	101,436
Passive Components	47,899	54,777	119,334	152,152	59,244	433,406
Sensor Application Products	14,387	8,184	21,846	25,273	6,777	76,467
Magnetic Application Products	18,742	9,411	9,033	85,036	150,585	272,807
Energy Application Products	21,094	31,219	14,166	432,519	38,504	537,502
Other	11,247	6,578	2,906	37,475	3,418	61,624
Net Sales Total	¥ 113,369	¥ 110,169	¥ 167,285	¥ 732,455	¥ 258,528	¥ 1,381,806

U.S. Dollars (Thousands)						
Year ended March 31, 2019						
	Japan	Americas	Europe	China	Asia and others	Total
Capacitors	\$ 153,396	\$ 264,568	\$ 402,496	\$ 497,243	\$ 243,838	\$ 1,561,541
Inductive Devices	180,676	170,495	411,144	492,207	174,658	1,429,180
Other Passive Components	97,451	58,423	261,442	381,288	115,234	913,838
Passive Components	431,523	493,486	1,075,082	1,370,738	533,730	3,904,559
Sensor Application Products	129,612	73,730	196,811	227,685	61,054	688,892
Magnetic Application Products	168,847	84,784	81,378	766,090	1,356,622	2,457,721
Energy Application Products	190,036	281,252	127,622	3,896,567	346,883	4,842,360
Other	101,324	59,261	26,180	337,613	30,793	555,171
Net Sales Total	\$1,021,342	\$992,513	\$ 1,507,073	\$ 6,598,693	\$2,329,082	\$ 12,448,703

TDK sells passive components, sensor application products, magnetic application products and energy application products to global ICT related companies, manufacturers of automobile and automotive components, manufacturers of home electrical appliances and industrial equipment. For those product sales, TDK recognizes revenue when products are transferred to the customers as the customers gain control over the products and performance obligation is satisfied accordingly.

Transaction price that TDK receives in exchange for products transferred may include variable consideration such as sales discounts, customer privileges, and rebates based on sales volume. Variable consideration is included in the transaction price when uncertainty over the variable consideration is resolved to the extent that a significant reversal in the amount of revenue is not expected. Variable consideration is estimated based on past trend or other elements which are already known as of the transaction date, and is updated on a regular basis.

For a certain contract, TDK recognized the consideration received from customers for which the performance obligation to transfer goods or services has not been satisfied as advance received. Balance of advance received as of March 31, 2018 and March 31, 2019 were ¥1,307 million and ¥910 million (\$8,198 thousand), respectively, and are included in other current liabilities in the consolidated balance sheets. Out of the advance received as of March 31, 2018, ¥1,035 million (\$9,324 thousand) was recognized as revenue in the consolidated statements of income for the year ended March 31, 2019. The amounts of revenue recognized from performance obligations for the year ended March 31, 2019 that had been satisfied in previous periods were not material.

There are no unsatisfied or partially unsatisfied performance obligations as of March 31, 2019. Furthermore, there is no balance of contract assets as of March 31, 2019.

25. Supplementary Information

Amounts recognized in Research and development, Rent, Maintenance and repairs and Advertising costs for the year ended March 31, 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
(a) Statements of Income			
Research and development	¥ 102,641	¥ 115,155	\$ 1,037,432
Rent	10,879	10,544	94,991
Maintenance and repairs	29,942	32,317	291,144
Advertising costs	4,125	3,212	28,937

Other operating expense (income) for the year ended March 31, 2018 and 2019 consist of the following components:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
(b) Statements of Income			
Gain on sale of business (Note 23)	¥ (5,277)	¥ (4,011)	\$ (36,135)
Impairment of long-lived assets (Note 18)	1,282	5,112	46,054
Other	(105)	-	
Total	¥ (4,100)	¥ 1,101	\$ 9,919

Cash paid during the year for interest and income taxes for the year ended March 31, 2019 are as follows:

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
(c) Statements of Cash Flows			
Cash paid during year for:			
Interest	¥ 4,417	¥ 4,088	\$ 36,829
Income taxes	31,366	33,952	305,874

Noncash activities

For the years ended March 31, 2018 and 2019, there were no material noncash investing and financing activities

26. Segment Information

Business Segment Information

Operating segments are components of TDK for which discrete financial information is available and whose operating results are regularly reviewed by management to make decisions about resources to be allocated to the segment and assess its performance.

Multiple operating segments that have similarities, including type and nature of products, production process, market and so on, are aggregated into the Passive Components segment, the Sensor Application Products segment, the Magnetic Application Products segment and the Energy Application Products segment. Operating segments which are not reportable segments are included in Other.

In addition, TDK newly established the Energy Solution Business Company on April 1, 2018, and established the Energy Application Products segment from the year ended March 31, 2019 in accordance with the change in the management category of certain businesses. Energy Devices (Rechargeable Batteries) of the Film Application Products segment, Power Supplies of the Magnetic Application Products segment and certain products in Other segment were reclassified into the Energy Application Products segment from the year ended March 31, 2019.

Furthermore, in accordance with the reorganization for the year ended March 31, 2019, certain products of the Passive Components segment were reclassified into Other segment, certain products of Other segment were reclassified into the Passive Components segment and certain products of the Sensor Application Products were reclassified into Other segment.

In accordance with the above, the figures for the year ended March 31, 2018 were restated to conform to the new segmentation.

Principal businesses of each segment are as follows:

Segment	Principal businesses
Passive Components	Ceramic capacitors, Aluminum Electrolytic Capacitors, Film Capacitors, Inductive Devices (Coils, Ferrite Cores and Transformers), High-Frequency Devices, Piezoelectric Materials Products, Circuit Protection Components
Sensor Application Products	Temperature and Pressure Sensors, Magnetic Sensors, MEMS Sensors
Magnetic Application Products	HDD Heads, HDD Suspension Assemblies, Magnets
Energy Application Products	Energy Devices (Rechargeable Batteries), Power Supplies
Other	Mechatronics (Production Equipments), Others

Intersegment transactions in operating segments are based on arm's-length prices.

The business segment information for the years ended March 31, 2018 and 2019 are as follows.

Net sales

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Passive Components:			
External customers	¥ 417,757	¥ 433,406	\$ 3,904,559
Intersegment	4,017	3,617	32,586
Total	421,774	437,023	3,937,145
Sensor Application Products:			
External customers	77,355	76,467	688,892
Intersegment	158	126	1,135
Total	77,513	76,593	690,027
Magnetic Application Products:			
External customers	277,548	272,807	2,457,721
Intersegment	168	1,838	16,559
Total	277,716	274,645	2,474,280
Energy Application Products:			
External customers	442,822	537,502	4,842,360
Intersegment	2	10	90
Total	442,824	537,512	4,842,450
Other:			
External customers	56,265	61,624	555,171
Intersegment	32,395	28,435	256,171
Total	88,660	90,059	811,342
Intersegment eliminations	(36,740)	(34,026)	(306,541)
Total	¥ 1,271,747	¥ 1,381,806	\$ 12,448,703

Segment profit

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Passive Components	¥ 50,246	¥ 58,438	\$ 526,468
Sensor Application Products	(18,595)	(22,125)	(199,324)
Magnetic Application Products	16,128	17,022	153,351
Energy Application Products	72,351	91,036	820,144
Other	(701)	(6,727)	(60,603)
Sub total	119,429	137,644	1,240,036
Corporate and Eliminations	(29,737)	(29,821)	(268,658)
Operating income	89,692	107,823	971,378
Other income, net	119	7,731	69,649
Income before income taxes	¥ 89,811	¥ 115,554	\$ 1,041,027

Segment profit (loss) consists of net sales less cost of sales and selling, general and administrative expenses and other operating expense (income) except for those attribute to Corporate.

Corporate mainly includes expenses associated with head office functions that are not allocated to operating segments.

Assets

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Passive Components	¥ 643,605	¥ 651,154	\$ 5,866,252
Sensor Application Products	238,860	226,520	2,040,721
Magnetic Application Products	351,435	373,085	3,361,126
Energy Application Products	571,066	661,595	5,960,315
Other	68,673	71,811	646,946
Corporate and Eliminations	31,570	8,315	74,910
Total	¥ 1,905,209	¥ 1,992,480	\$ 17,950,270

Corporate mainly includes cash and cash equivalents and property, plant and equipment that are for general corporate use, deferred tax assets that are not allocated to operating segments, investments.

Depreciation and amortization (including Intangible assets other than Goodwill)

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Passive Components	¥ 28,452	¥ 31,552	\$ 284,252
Sensor Application Products	8,901	10,083	90,838
Magnetic Application Products	15,708	16,810	151,441
Energy Application Products	30,883	38,915	350,586
Other	2,852	3,269	29,450
Corporate and Eliminations	5,375	6,002	54,073
Total	¥ 92,171	¥ 106,631	\$ 960,640

Capital expenditure

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Passive Components	¥ 44,110	¥ 43,527	\$ 392,135
Sensor Application Products	9,438	10,503	94,622
Magnetic Application Products	30,619	34,562	311,369
Energy Application Products	70,382	62,728	565,117
Other	7,704	8,642	77,856
Corporate and Eliminations	16,359	13,630	122,793
Total	¥ 178,612	¥ 173,592	\$ 1,563,892

Geographic Segment Information

The geographic segment information for the years ended March 31, 2018 and 2019 are as follows.

Net sales

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Japan	¥ 113,743	¥ 113,369	\$ 1,021,342
Americas	112,929	110,169	992,514
Europe	166,192	167,285	1,507,072
China	671,922	732,455	6,598,694
Asia and others	206,961	258,528	2,329,081
Total	¥ 1,271,747	¥ 1,381,806	\$ 12,448,703

Net sales are based on the location of the customers.

Major countries in each geographic area :

- (1) Americas United States of America
- (2) Europe Germany
- (3) Asia and others Thailand, Philippines, India, Korea

Property, plant and equipment

	Yen (Millions)		U.S. Dollars (Thousands)
	2018	2019	2019
Japan	¥ 161,283	¥ 179,421	\$ 1,616,405
Americas	28,900	38,967	351,054
Europe	71,022	70,961	639,288
China	241,062	259,496	2,337,802
Asia and others	43,284	54,265	488,874
Total	¥ 545,641	¥ 603,110	\$ 5,433,423

Major countries in each geographic area :

- (1) Americas United States of America
- (2) Europe Germany, Austria, Hungary
- (3) Asia and others Thailand, Taiwan

Sales to major customers

There were two customer groups that accounted for more than 10 percent of net sales for the year ended March 31, 2018. The sales to one customer group were approximately ¥158.4 billion. The other customer group were approximately ¥149.1 billion.

There were also two customer groups that accounted for more than 10 percent of net sales for the year ended March 31, 2019. The sales to one customer group were approximately ¥149.0 billion (\$1,342.6 million). The other customer group were approximately ¥149.0 billion (\$1,342.1 million).

These customer groups were included mainly in the Magnetic Application Products segment and the Energy Application Products segment for the year ended March 31, 2018 and 2019.

VI. Outline of filing company's business concerning shares

Business year	From April 1 to March 31
Ordinary General Meeting of Shareholders	June
Record date	March 31
Record dates for dividends from surplus	September 30 March 31
Number of shares consisting one unit	100 shares
Purchase demands or additional purchase requests of shares less than one unit:	
Office for handling business	(Special Account) Stock Transfer Agency Business Planning Dept., Sumitomo Mitsui Trust Bank, Limited. 1-4-1 Marunouchi, Chiyoda-ku, Tokyo, Japan
Administrator of shareholder registry	(Special Account) Sumitomo Mitsui Trust Bank, Limited. 1-4-1 Marunouchi, Chiyoda-ku, Tokyo, Japan
Forwarding office	—
Handling charge for purchase	Free of charge
Method of public notice	Electronic public notice will be made. However, if TDK is unable to make an electronic public notice due to an incident or any other compelling reason, it will make an alternative public notice in “The Nikkei” newspaper. The electronic public notice will be notified on TDK’s website (http://www.tdk.co.jp).
Special benefits for shareholders	None

Note: 1. Pursuant to the provisions of TDK Corporation’s Articles of Incorporation, the rights of holders of shares less than one unit are limited to the following: (i) rights listed in the items of Article 189, paragraph 2 of the Companies Act, (ii) rights to request to TDK Corporation in accordance with the provisions of Article 166, paragraph 1 of the same Act, (iii) rights to receive the allotment of the shares for subscription and the stock acquisition rights for subscription in accordance with the number of shares they hold, and (iv) rights to request to TDK Corporation to sell shares less than one unit.

2. TDK’s website has been changed to the following new website from April, 22, 2019.
(<https://www.jp.tdk.com/>).

VII. Reference information on filing company

1. Information on filing company's parent company

TDK Corporation does not have a parent company.

B. INFORMATION ON GUARANTEE COMPANIES, ETC. OF FILING COMPANY

No items to report



Independent Auditor's Report

The Board of Directors of TDK Corporation:

We have audited the accompanying consolidated financial statements of TDK Corporation and its consolidated subsidiaries which comprise the consolidated balance sheets as at March 31, 2019 and 2018, and the consolidated statements of income, the consolidated statements of comprehensive income, the consolidated statements of equity and the consolidated statements of cash flows for the fiscal years then ended, and notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of TDK Corporation and its consolidated subsidiaries as at March 31, 2019 and 2018, and their financial performance and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.



Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2019 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 2 to the consolidated financial statements.

KPMU AZSA LLC

July 19, 2019
Tokyo, Japan



Management's Annual Report on Internal Control over Financial Reporting

1. Matters relating to the basic framework for internal control over financial reporting

President & Representative Director Shigenao Ishiguro, and Chief Financial Officer and Senior Vice President and Representative Director Tetsuji Yamanishi of TDK Corporation are responsible for designing and operating effective internal control over financial reporting of TDK and have designed and operated internal control over financial reporting in accordance with the basic framework for internal control set forth in “On the Revision of the Standards and Practice Standards for Management Assessment and Audit concerning Internal Control Over Financial Reporting (Council Opinions)” released by the Business Accounting Council.

The internal control is designed to achieve its objectives to the extent reasonable through the effective function and combination of its basic elements. Therefore, there is a possibility that misstatements may not be completely prevented or detected by internal control over financial reporting.

2. Matters relating to the scope of assessment, the basis date of assessment and the assessment procedures

The assessment of internal control over financial reporting was performed as of March 31, 2019, which is the end of the current fiscal year. The assessment was performed in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

In conducting this assessment, we evaluated internal controls which may have a material effect on our entire financial reporting on a consolidation basis (“company-level controls”) and based on the results of this evaluation, we selected business processes to be tested. In assessing the business processes, we analyzed these selected business processes, identified key controls that may have a material impact on the reliability of TDK’s financial reporting, and assessed the design and operation of these key controls. These procedures have allowed us to evaluate the effectiveness of the internal controls of TDK.

We determined the scope of assessment of internal control over financial reporting, covering TDK Corporation, consolidated subsidiaries and equity-method affiliates and deemed necessary from the perspective of the materiality that may affect the reliability of their financial reporting. The materiality that may affect the reliability of the financial reporting is determined taking into account the materiality of quantitative and qualitative impacts on financial reporting. In light of the results of assessment of company-level controls covering all locations and business units except for consolidated subsidiaries and equity-method affiliates whose materiality of such impacts were deemed immaterial, we reasonably determined the scope of assessment of internal controls over business processes.

Regarding the scope of assessment of internal control over business processes, we selected locations and/or business units to be tested in descending order of sales for the previous

fiscal year, and the locations and/or business units whose combined sales volume reaches approximately two thirds of consolidated sales amount were selected as “significant locations and/or business units.” We included in the scope of assessment, at the selected significant locations and/or business units, business processes leading to sales, accounts receivable and inventories as significant accounts that may have a material impact on the business objectives of TDK. Further, in addition to selected significant locations and/or business units, we also selected for testing, as business processes having greater materiality, business processes relating to (i) greater likelihood of material misstatements and/or (ii) significant accounts involving estimates and the management’s judgment and/or (iii) a business or operation dealing with high-risk transactions, taking into account their impact on the financial reporting.

3. Matters relating to the results of the assessment

As a result of the assessment described above, as of the end of the current fiscal year, we concluded that TDK’s internal control over financial reporting was effectively maintained.

4. Additional notes

Not applicable.

5. Special notes

Not applicable.