

CANON INC
Form 20-F
March 28, 2019
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Date of event requiring this shell company report _____

Commission file number 001-15122

CANON KABUSHIKI KAISHA

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(Exact name of Registrant in Japanese as specified in its charter)

CANON INC.

(Exact name of Registrant in English as specified in its charter)

JAPAN

(Jurisdiction of incorporation or organization)

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501, Japan

(Address of principal executive offices)

Sachiho Tanino, +81-3-3758-2111, +81-3-5482-9680, 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501, Japan

(Name, Telephone, Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
(1) Common Stock (the shares)	New York Stock Exchange*
(2) American Depositary Shares (ADSs), each of which represents one share	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

(Title of Class)

* Not for trading, but only for technical purposes in connection with the registration of ADSs.

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

As of December 31, 2018, 1,079,749,823 shares of common stock, including 16,460,829 ADSs, were outstanding.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

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Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of large accelerated filer, accelerated filer, and emerging growth company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company
If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

The term new or revised financial accounting standard refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued

Other

by the International Accounting Standards Board

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

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CERTAIN DEFINED TERMS, CONVENTIONS AND PRESENTATION OF FINANCIAL INFORMATION

All information contained in this Annual Report is as of December 31, 2018 unless otherwise specified.

References in this discussion to the Company are to Canon Inc. and, unless otherwise indicated, references to the financial condition or operating results of Canon refer to Canon Inc. and its consolidated subsidiaries.

On March 8, 2019, the noon buying rate for yen in New York City as reported by the Federal Reserve Bank of New York was ¥111.11= U.S.\$1.

The Company's fiscal year end is December 31. In this Annual Report 2018 refers to the Company's fiscal year ended December 31, 2018, and other fiscal years of the Company are referred to in a corresponding manner.

FORWARD-LOOKING INFORMATION

This Annual Report contains forward-looking statements and information relating to Canon that are based on beliefs of its management as well as assumptions made by and information currently available to Canon Inc. When used in this Annual Report, the words anticipate, believe, estimate, expect, intend, may, plan, project, should expressions, as they relate to Canon or its management, are intended to identify forward-looking statements. Such statements, which include, but are not limited to, statements contained in Item 3. Key Information-Risk Factors, Item 4. Information on the Company, Item 5. Operating and Financial Review and Prospects and Item 11. Quantitative and Qualitative Disclosures about Market Risk reflect the current views and assumptions of the Company with respect to future events and are subject to risks and uncertainties. Many factors could cause the actual results, performance or achievements of Canon to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, among others, changes in general economic and business conditions, changes in currency exchange rates and interest rates, introduction of competing products by other companies, lack of acceptance of new products or services by Canon's targeted customers, inability to meet efficiency and cost reduction objectives, changes in business strategy and various other factors, both referenced and not referenced in this Annual Report. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated, expected, intended, planned or projected. Canon Inc. does not intend or assume any obligation to update these forward-looking statements.

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Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information**A. Selected financial data**

The following information should be read in conjunction with and qualified in its entirety by reference to the Consolidated Financial Statements of Canon Inc. and subsidiaries, including the notes thereto, included in this Annual Report.

Selected financial data *1*3:	2018	2017	2016	2015	2014
	(Millions of yen, except average number of shares and per share data)				
Net sales	¥ 3,951,937	¥ 4,080,015	¥ 3,401,487	¥ 3,800,271	¥ 3,727,252
Operating profit	342,952	321,605	216,425	343,858	345,750
Income before income taxes	362,892	353,884	244,651	347,438	383,239
Net income attributable to Canon Inc.	252,755	241,923	150,650	220,209	254,797
Advertising expenses	58,729	61,207	58,707	80,907	79,765
Research and development expenses	315,842	333,371	306,537	332,678	311,896
Depreciation of property, plant and equipment	175,771	189,712	199,133	223,759	213,739
Increase in property, plant and equipment	159,316	147,542	171,597	195,120	182,343
Long-term debt, excluding current installments	361,962	493,238	611,289	881	1,148
Common stock	174,762	174,762	174,762	174,762	174,762
Canon Inc. shareholders equity	2,827,602	2,870,630	2,783,129	2,966,415	2,978,184
Total assets	4,899,465	5,198,291	5,138,529	4,427,773	4,460,618
Average number of common shares in thousands	1,079,753	1,085,439	1,092,071	1,092,018	1,112,510
Per share data:					
Net income attributable to Canon Inc. shareholders per share:					
Basic	¥ 234.09	¥ 222.88	¥ 137.95	¥ 201.65	¥ 229.03
Diluted	234.08	222.88	137.95	201.65	229.03
Cash dividends declared	160.00	160.00	150.00	150.00	150.00
Cash dividends declared (U.S.\$)*2	\$ 1.440	\$ 1.483	\$ 1.393	\$ 1.290	\$ 1.326

Notes:

1. The above financial data is prepared in accordance with U.S. generally accepted accounting principles. Canon acquired Toshiba Medical Systems Corporation on December 19, 2016, which was subsequently renamed as Canon Medical Systems Corporation (CMSC) on January 4, 2018. CMSC 's consolidated balance sheet and operating result since the acquisition date are reflected in Canon 's consolidated financial statements. For further information, please refer to Note 7 of the Notes to Consolidated Financial Statements.
2. Annual cash dividends declared (U.S.\$) are translated from yen based on a weighted average of the noon buying rates for yen in New York City as reported by the Federal Reserve Bank of New York in effect on the date of each semiannual dividend payment or on the latest practicable date.

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3. Canon adopted ASU No. 2017-07 from the quarter beginning January 1, 2018. The adoption of the new presentation requirement of the service cost component and the other components of net benefit cost resulted in reclassification from cost of sales, and selling, general and administrative expenses, and research and development expenses into other income (deductions) for the years ended December 31, 2017, 2016, 2015, and 2014 respectively.

B. Capitalization and indebtedness

Not applicable.

C. Reasons for the offer and use of proceeds

Not applicable.

D. Risk factors

Canon is one of the world's leading manufacturers of office multifunction devices (MFDs), plain paper copying machines, laser printers, cameras, inkjet printers, diagnostic equipment and lithography equipment.

Primarily because of the nature of the business and geographic areas in which Canon operates and the highly competitive nature of the industries to which it belongs, Canon is subject to a variety of risks and uncertainties, including, but not limited to, the following:

Risks Related to Economic Environment

Economic trends in Canon's major markets may adversely affect its operating results.

Canon's business activities are deployed globally in Japan, the United States, Europe, Asia, and in other regions. Declines in consumption and restrained investment due to economic downturn in these major markets may affect Canon's operating results. The operating results for products such as office, diagnostic equipment and industrial equipment are affected by the financial results of its corporate customers or medical institutions, and deterioration of their financial results has caused and may continue to cause customers to limit capital investments. Demand for Canon's consumer products, such as cameras and inkjet printers, is discretionary. Rapid price declines owing to intensifying competition and declines in levels of consumer spending and corporate investment could adversely affect Canon's operating results and financial position.

Canon's operating and financing activities expose it to foreign currency exchange and interest rate risks that may adversely affect its revenues and profitability.

Canon derives a significant portion of its revenue from its international operations. As a result, Canon's operating results and financial position have been and may continue to be significantly affected by changes in the value of the yen versus foreign currencies. Sales of Canon's products denominated in foreign currencies have been and may continue to be adversely affected by the strength of the yen against foreign currencies. Conversely, a strengthening of foreign currencies against the yen will generally be favorable to Canon's foreign currency sales. Canon's consolidated financial statements are presented in yen. As such, the yen value of Canon's assets and liabilities arising from foreign currency transactions have fluctuated and may continue to fluctuate. Unpredictable fluctuations may have certain effects on Canon's consolidated financial statements. Although Canon strives to mitigate the effects of foreign currency fluctuations arising from its international business activities, Canon's consolidated financial statements have been and may continue to be affected by currency translations from the financial statements of Canon's foreign

subsidiaries and affiliates, which are denominated in various foreign currencies. Canon is also exposed to the risk of interest rate fluctuations, which may affect the value of Canon's financial assets and liabilities.

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Canon may be adversely affected by fluctuations in the stock and bond markets.

Canon's assets include investments in publicly traded securities. As a result, Canon's operating results and general financial position may be affected by price fluctuations in the stock and bond markets. Volatility in financial markets and overall economic uncertainty create the risk that the actual amounts realized in the future on Canon's investments could differ significantly from the fair values currently assigned to them.

High prices of raw materials could negatively impact Canon's profitability.

Increases in prices for raw materials that Canon uses in manufacturing such as steel, non-ferrous metals and petrochemical products may lead to higher production costs and Canon may not be able to pass these increased production costs onto the sales prices of its products. Such increases in prices for raw materials could adversely affect Canon's operating results.

Risks Related to Canon's Industries and Business Operations

A substantial portion of Canon's business activity is conducted outside Japan, exposing Canon to the risks in international markets.

A substantial portion of Canon's business activity is conducted outside Japan. There are a number of risks inherent in doing business in international markets, including the following:

- unfavorable political, diplomatic or economic conditions;
- sharp fluctuations in foreign currency exchange rates;
- unexpected political, legal or regulatory changes;
- inadequate systems of intellectual property protection;
- difficulties in recruiting and retaining qualified personnel; and
- less developed production infrastructure.

Any inability to manage the risks inherent in Canon's international activities could adversely affect its business and operating results.

Canon has invested and will continue to invest actively in next-generation technologies. If the markets for these technologies do not develop as Canon expects, or if its competitors produce these or competing technologies in a more timely or effective manner, Canon's operating results may be materially adversely affected.

Canon has made and will continue to make investments in next-generation technology research and development initiatives. Canon's competitors may achieve research and development breakthroughs in these technologies more quickly than Canon, or may achieve advances in competing technologies that render products under development by Canon uncompetitive. For several years, Canon has continued its investments in development and manufacturing in order to keep pace with technological evolution. If Canon's business strategies diverge from market demands, Canon may not recover some or all of its investments, or may lose business opportunities, or both, which may have a material adverse effect on Canon's operating results.

In addition, Canon has sought to develop production technology and equipment to accelerate the automation of its manufacturing processes and in-house production of key devices. If Canon cannot effectively implement these techniques, it may fail to realize cost advantages or product differentiation, which may adversely affect Canon's

operating results. While differentiation in technology and product development is an important part of Canon's strategy, Canon must also accurately assess the demand for and commercial acceptance of new technologies and products that it develops. If Canon pursues technologies or develops products that are not well received by the market, its operating results could be adversely affected.

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Entering new business areas through the development of next-generation technologies is a focal point of Canon's corporate strategy. To the extent that Canon enters into such new business areas, Canon may not be able to establish a successful business model or may face severe competition with new competitors. If such events occur, Canon's operating results may be adversely affected.

If Canon does not effectively manage transitions in its products and services, its operating results may decline.

Many of the business areas in which Canon competes are characterized by rapid technological advances in hardware performance, software functionality and product features; frequent introduction of new products; short product life cycles; and continued qualitative improvements to current products at stable price levels. Canon has sought to invest substantial resources into introducing appealing, innovative and cost-competitive new products. There are several risks inherent in introduction of new products and services, such as delays in development or manufacturing, unsuitable product quality during the introductory period, variations in manufacturing costs, negative impact on sales of current products, uncertainty in predicting customer demand and difficulty in effectively managing inventory levels. Moreover, if Canon is unable to respond quickly to technological innovations with respect to information systems and networks, Canon's revenue may be significantly affected as a result of delays associated with the incorporation into its products of such new information technologies.

Canon's revenues and gross margins also may suffer adverse effects because of the timing of product or service introductions by its competitors. This risk is exacerbated when a competitor introduces a new product immediately prior to Canon's introduction of a similar product. If any of these risks materialize, future demand for Canon's products and services could be reduced, and its operating results could decline.

Changes in the print environment may affect Canon's business.

In the business machines market for such products as office MFDs, copying machines and printers, customers are increasingly looking for ways to cut costs while protecting the environment. From this perspective, Managed Print Services (MPS), which aim to optimize printing efficiencies in the office, have become popular in recent years. This trend could lead to a decrease in business machine print volumes.

In addition, the digitalization of workflow in office could also lead to a decrease in customer print opportunities. If Canon is unable to supply products and services that respond to these types of market trends, its operating results may be adversely affected.

Canon's digital camera business operates in a highly competitive environment.

The smartphone market has been growing on a global scale. Smartphones allow users not only to take photos, but also share them instantly on SNSs and it has changed people's behavior towards photography. If Canon's digital cameras cannot clearly state their advantages over smartphone cameras, which is improving its performance, Canon could suffer from an erosion of the digital camera market, with a resulting adverse effect on operating results.

Canon may not be able to adequately anticipate developments related to its medical device business, including changes to the market environment and developments related to medical device approvals, certifications and health insurance coverage.

Regarding the market for Canon's medical equipment sold to medical institutions, mainly in the area of diagnostic imaging, it takes a long time to design, research, develop and commercialize products, because it is necessary to prove the clinical effectiveness of new technologies and new products, and obtain regulatory approvals and certifications

prior to sale in individual countries. The global market for medical devices is expanding due to developing medical infrastructure in emerging countries, but in developed countries issues such as aging populations, rising health insurance costs and pressure to cut medical device costs may adversely affect Canon's medical device business.

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Canon invests in research and development of new medical device technologies based on detailed analysis of the potential technical and business prospects for such technologies. However, despite these investments, Canon may become less competitive if it cannot anticipate whether new technologies will have the expected clinical effects or developments in the market or regulatory environment for such technologies. Canon may need to significantly modify its business plans in response to these challenges and it may not be able to generate the expected returns on its investments in research and development of medical devices.

Because the semiconductor lithography equipment and flat-panel-display (FPD) industry is highly cyclical, Canon may be adversely affected by any downturn in demand for semiconductor devices and FPD panels.

The semiconductor lithography equipment and FPD lithography equipment industry is characterized by fluctuating business cycles, the timing, length and volatility of which are difficult to predict. Recurring periods of oversupply of semiconductor devices and panels have at times led to significantly reduced demand for capital equipment, including the semiconductor lithography equipment and FPD lithography equipment that Canon produces. Despite this cyclicity, Canon must maintain significant levels of research and development expenditures to remain competitive. A future cyclical downturn in the lithography equipment industry and related fluctuations in the demand for capital equipment could cause cash flow from sales to fall below the level necessary to offset Canon's expenditures, including those arising from research and development, and could consequently have a material adverse effect on Canon's operating results and financial condition.

Canon's business is subject to changes in the sales environment.

Disruptions of relationships with large Canon distributors or acquisitions of those distributors by competitors could adversely affect Canon's ability to meet its sales targets. In addition, the rapid proliferation of Internet-based businesses may render conventional distribution channels obsolete. These, and other changes in Canon's sales environment, could adversely affect Canon's operating results.

In addition, Canon depends on HP Inc. for a significant part of its business. As a result, Canon's business and operating results may be affected by the policies, business and operating results of HP Inc. Any decision by HP Inc. management to limit or reduce the scope of its relationship with Canon would adversely affect Canon's business and operating results.

Canon depends on specific outside suppliers for certain key components.

Canon relies on specific outside suppliers that meet Canon's strict criteria for quality, efficiency and environmental friendliness for critical components and special materials used in its products. In some cases, Canon may be forced to discontinue production of some or all of its products if the specific outside suppliers that supply key components and special materials across Canon's product lines experience unforeseen difficulties, or if such parts and special materials suffer from quality problems or are in short supply. Further, the prices of components and special materials purchased from specific outside suppliers may rise, triggered by the imbalance of supply and demand along with other factors. If such events occur as an outcome of the dependency on outside vendors, Canon's operating results may be adversely affected.

Canon may be subject to antitrust-related lawsuits, investigations or proceedings, which may adversely affect its operating results or reputation.

A portion of Canon's net sales consists of sales of supplies and the provision of services after the initial equipment placement. As these supplies and services have become more commoditized, the number of competitors in these

markets has increased. Canon's success in maintaining these post-placement sales will depend on its ability to compete successfully with these competitors, some of which may offer lower-priced products or services. Despite the increase in competitors, Canon currently maintains a high market share in the

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market for supplies. Accordingly, Canon may be subject to lawsuits, investigations or proceedings under relevant antitrust laws and regulations. Any such lawsuits, investigations or proceedings may lead to substantial costs and have an adverse effect on Canon's operating results or reputation.

Cyclical patterns in sales of Canon's products make planning and inventory management difficult and future financial results less predictable.

Canon generally experiences seasonal trends in the sales of its consumer-oriented products. Canon has little control over the various factors that produce these seasonal trends. Accordingly, it is difficult to predict short-term demand, placing pressure on Canon's inventory management and logistics systems. If product supply from Canon exceeds actual demand, excess inventory will put downward pressure on selling prices and raise inefficiency in cash management, potentially reducing Canon's revenue. Alternatively, if actual demand exceeds the supply of products, Canon's ability to fulfill orders may be limited, which could adversely affect market share and net sales and increase the risk of unanticipated variations in its operating results.

Canon's cooperation and alliances with, strategic investments in, and acquisitions of, third parties may not produce the anticipated improvements to its financial results.

Canon makes strategic acquisitions of other companies for the purpose of business expansion and Canon is also engaged in alliances, joint ventures, and strategic investments with other companies. These activities can help Canon to grow its business. However, weak business trends or disappointing performance by partners or acquired companies may adversely affect the success of such activities. The success of such activities may be adversely affected by the inability of Canon and its partners or acquired companies to successfully define and reach common objectives. Even if Canon and its partners or acquired companies succeed in designing a structure that allows for the definition and achievement of common objectives, synergies may not be created between the businesses of Canon and its partners or acquired companies. In addition, integration of operations may take more time than expected. In connection with its acquisitions, Canon recognizes goodwill and other intangible fixed assets on its consolidated balance sheet, and the amounts recognized may be impaired if there is a decline of future cash flow. An unexpected cancellation of a major business alliance may disrupt Canon's overall business plans and may also result in a delayed return on, or reduced recoverability of, the investment, adversely affecting Canon's operating results and financial position.

Canon depends on efficient logistics services to distribute its products worldwide.

Canon depends on efficient logistics services to distribute its products worldwide. Problems with Canon's computerized logistics systems, an outbreak of war or strife within Canon's operating regions or regional labor disputes, such as a dockworkers' strike, could lead to a disruption of Canon's operations and result not only in increased logistical costs, but also in the loss of sales opportunities owing to delays in delivery. Moreover, because demand for Canon's consumer products may fluctuate throughout the year, transportation means, such as cargo vessels or air freight, and warehouse space must be appropriately managed to take such fluctuations into account. Failure to do so could result in either a loss of sales opportunities or the incurrence of unnecessary costs.

In addition, the increasing levels of precision required of semiconductor lithography equipment and FPD lithography equipment and the resulting increase in the value and size of such equipment in recent years have resulted in a concurrent increase in the need for sensitive handling and transportation of these products. Because of their precise nature, even a minor shock during the handling and transportation process can potentially cause irreparable damage to such products. If unforeseen accidents during the handling and transportation process render a significant portion of Canon's high-end precision products unmarketable, costs will increase, and Canon may lose sales opportunities and customer confidence.

Substantially higher crude oil prices and the supply-and-demand balance of transportation means could lead to increases in the cost of freight, which could adversely affect Canon's operating results.

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Other Risks

Canon's facilities, information systems and information security systems are subject to damage as a result of disasters, outages or similar events.

Canon's headquarters functions, information systems and research and development centers are located in or near Tokyo, Japan, where the possibility of damage from earthquakes is generally higher than in other parts of the world. In addition, Canon's facilities or offices, including those for research and development, materials procurement, manufacturing, logistics, sales and services are located throughout the world and subject to the possibility of outage or similar disruption as a result of a variety of events, including natural disasters such as earthquake, flood, terrorist and cyber attacks. Although Canon continues to establish appropriate backup structures for its facilities and information systems, there can be no assurance that Canon will be able to prevent or mitigate the effect of disruptive events or developments such as the leakage of harmful substances and shutdowns of information systems. Although Canon has implemented backup plans to permit the manufacture of its products at multiple production facilities, such plans do not cover all product models. In addition, such backup arrangements may not be adequate to maintain production quantity at sufficient levels. Such factors may adversely affect Canon's operating activities, generate expenses relating to physical or personal damage, or hurt Canon's brand image, and its operating results may consequently be adversely affected.

Canon's success depends in part on the value of its brand name, and if the value of the brand is diminished, Canon's operating results and prospects will be adversely affected.

Canon's success depends in part on maintenance and development of the value of its brand name. The main factors which could damage its brand value are defective product quality, circulation of counterfeit and failures of its compliance regime. Although Canon works to minimize risks that may arise from product quality and liability issues, such as those triggered by the individual functionality and also from the combination of hardware and software that make up Canon's products, there can be no assurance that Canon will be able to eliminate or limit these issues and the resulting damages. If such factors adversely affect Canon's operating activities, generate additional expenses such as those related to product recalls, service and compensation, or otherwise hurt its brand image, Canon's operating results or reputation for quality may be adversely affected. Canon has been implementing measures to halt the spread of counterfeit products. However, the continued manufacture and sale of such products could adversely affect Canon's brand image as well as its operating results.

If Canon fails to maintain its overall compliance regime, especially legal and regulatory compliance, this also could result in damage to Canon's credibility and brand value.

Canon's business is subject to environmental laws and regulations.

Canon is subject to certain Japanese and foreign environmental laws and regulations in areas such as mitigation of climate change, resource conservation including product recycling, reduction of hazardous substances, clean air, clean water and waste disposal. Due to the laws and regulations, Canon may face liability for additional costs and alleged damages. Such costs and damages could adversely affect Canon's business and operating results.

Canon is subject to potential liability for the investigation and cleanup of environmental contamination at each of the properties that it owns or operates and at certain properties Canon formerly owned or operated. If Canon is held responsible for such costs in any future litigation or proceedings, such costs may not be covered by insurance and may be material.

Canon is subject to risks relating to legal proceedings.

Canon is involved in various claims and legal actions arising in the ordinary course of its business. Results of actual and potential litigation are inherently uncertain. An unfavorable result in a legal proceeding could adversely affect Canon's reputation, financial condition and operating results.

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Canon may be subject to intellectual property litigation and infringement claims, which could cause it to incur significant expenses or prevent it from selling its products.

Because of the emphasis on product innovation in the markets for Canon's products, many of which are subject to frequent technological innovations, patents and other intellectual property are an important competitive factor. Canon relies primarily on internally developed technology, and seeks to protect such technology through a combination of patents, trademarks and other intellectual property rights.

In relation to protection of its technologies, Canon faces risks that: competitors will be able to develop similar technology independently; Canon's pending patent applications may not be issued; the steps Canon takes to prevent misappropriation or infringement of its intellectual property may be unsuccessful; and intellectual property laws may not adequately protect Canon's intellectual property, particularly in certain emerging markets.

In relation to third party intellectual property rights, if any third party is adjudicated to have a valid infringement claim against Canon, Canon could be required to: refrain from selling the relevant product in certain markets; pay monetary damages; pursue development of non-infringing technologies, or attempt to acquire licenses to the infringed technology and to make royalty payments, which may not be available on commercially reasonable terms, if at all.

Canon may need to litigate in order to enforce its intellectual property rights or in order to defend against claims of infringement, which can be expensive and time-consuming.

Canon also licenses its patents to third parties in exchange for payment or licensing. The terms and conditions of such licensing or changes in the renewal conditions of such licenses could affect Canon's business.

With respect to employee inventions, Canon maintains company rules and an evaluation system and has been making adequate payments to employees for the invention rights based on these rules. However, there can be no assurance that disputes will not arise with respect to the amount of these payments to employees.

Canon's businesses, brand image and operating results could be adversely affected by any of these developments.

Canon must attract and retain highly qualified professionals.

Canon's future operating results depend in significant part upon the continued contributions of its employees. In addition, Canon's future operating results depend in part on its ability to attract, train and retain qualified personnel in development, production, sales and management. The competition for human resources in the high-tech industries in which Canon operates has intensified in recent years. Moreover, owing to the accelerating pace of technological change, the importance of training new personnel in a timely manner to meet product research and development requirements will increase. Failure by Canon to recruit and train qualified personnel or the loss of key employees could delay development or slow production and could increase the risks of outflow of technologies and know-how. These factors may adversely affect Canon's business and operating results.

Maintaining a high level of expertise in Canon's manufacturing technology is critical to Canon's business. However, it is difficult to secure the requisite expertise for specialized skill areas, such as lens processing, in a short time period. While Canon engages in advance planning to obtain the expertise needed for each skill area, Canon cannot guarantee that such expertise will be acquired in a timely manner and retained, and failure to do so may adversely affect Canon's business and operating results.

Canon is subject to risks arising from dependency on electronic data.

Canon possesses confidential electronic data relating to manufacturing, research and development, procurement, and production, as well as sensitive information obtained from its customers relating to the

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customers and to other individuals and parties. This electronic data is used by Canon and third party managed systems and networks. Electronic data is also used for the information service functions in various products.

There are some risks inherent in the use of the electronic data, including vulnerability to hacking and computer viruses, service failures and leakage of personal information due to infrastructure issues and issues arising from damage caused by natural disasters. Although Canon continues to make administrative and managerial improvements in order to alleviate these risks, such events may occur despite Canon's best efforts.

The materialization of such risks could result in interruptions to essential work, leaks of confidential data and damage to the information service functions in products. The occurrence of any of these events has the potential to cause Canon to be subject to claims from affected individuals and parties and to negatively influence Canon's brand image, the social trust it has developed, and its operations and financial conditions.

Canon's financial results may be adversely affected if its deferred tax assets are not recoverable or if it is subject to international double taxation.

Canon currently has deferred tax assets, which are subject to periodic recoverability assessments based on projected future taxable income. The changes of future profitability due to future market conditions and tax reforms including changes in tax rates may require possible recognition of significant valuation allowances to reduce the net carrying value of deferred tax asset balances. When Canon determines that certain deferred tax assets may not be recoverable, the amounts which may not be realized are charged to income tax expense and will adversely affect net income.

In addition, recently, international corporate tax avoidance has developed into a political issue with a focus on aggressive tax planning strategies of certain multinational corporations. The OECD established the BEPS (Base Erosion and Profit Shifting) project for the purpose of increasing cooperation among countries and implementing harmonization of taxation. The BEPS action plan was published in July 2013; the OECD then conducted further study based on that plan and published its final report in October 2015. Each country has been revising or amending its domestic taxation system and tax treaties based on the final report.

Canon believes that liability of taxation is a basic and significant responsibility as a corporate citizen and that the revision or amendment will not significantly affect Canon. It is, however, possible that there will be differences in opinion between Canon and tax authorities based on new transfer pricing documentation requirements.

Canon's retirement and severance benefit obligations are subject to certain accounting assumptions.

Canon has significant employee retirement and severance benefit obligations that are recognized based on actuarial valuations. Inherent in these valuations are key assumptions, including discount rates, expected return on plan assets, assumed rate of increase in compensation level and mortality rate. Actual results that differ from the assumptions are accumulated and amortized over future periods and, therefore any such differences would be expected to be linked to increases in actual costs, which may adversely affect net income.

Item 4. Information on the Company

A. History and development of the Company

Canon Inc. is a joint stock corporation (*kabushiki kaisha*) formed under the Corporation Law of Japan. Its principal place of business is at 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501, Japan. The telephone number is +81-3-3758-2111.

The Company was incorporated under the laws of Japan on August 10, 1937 to produce and sell Japan's first focal plane shutter 35mm still camera, which was developed by its predecessor company, Precision Optical Research Laboratories, which was organized in 1933.

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In the late 1950s, Canon entered the business machines field utilizing technology obtained through the development of photographic and optical products. With the successful introduction of electronic calculators in 1964, Canon continued to expand its operations to include plain paper copying machines, faxes, laser printers, bubble jet printers, computers, video camcorders and digital cameras. In 2016, Canon acquired Toshiba Medical Systems Corporation (CMSC) as of January 4, 2018) and has expanded its medical business.

In 2018, 2017, and 2016, Canon's increases in property, plant and equipment were ¥159,316 million, ¥147,542 million and ¥171,597 million, respectively. In 2018, the increases in property, plant and equipment were mainly used to expand production capabilities in both domestic and overseas regions, and to bolster Canon's production-technology-related infrastructure. In addition, Canon has been continually investing in tools and dies for business machines, in which the amount invested is generally the same each year.

For 2019, Canon projects to invest in property, plant and equipment of approximately ¥175,000 million. This amount is expected to be spent for investments in new production plants and new facilities of Canon. Canon anticipates that the funds needed for this increase will be generated internally through operations.

B. Business overview

Canon is one of the world's leading manufacturers of office MFDs, plain paper copying machines, laser printers, cameras, inkjet printers, diagnostic equipment and lithography equipment.

Canon sells its products principally under the Canon brand name and through sales subsidiaries. Each of these subsidiaries is responsible for marketing and distribution to retail dealers in an assigned territory. In 2018, 78.0% of consolidated net sales were generated outside Japan, with approximately 27.2%, 25.7% and 25.1% generated in the Americas, Europe and Asia and Oceania, respectively.

Canon's strategy is to develop innovative, high value-added products incorporating advanced technologies.

Canon's research and development activities range from basic research to product-oriented research directed at maintaining and increasing Canon's technological leadership in the marketplace.

Canon will work to realize the optimized global allocation of its production assets based on changes in local conditions in each country. Canon has manufacturing subsidiaries in a variety of countries, including the United States, Germany, France, the Netherlands, Taiwan, China, Malaysia, Thailand, Vietnam and the Philippines, other than Japan.

As a concerned member of the world community, Canon emphasizes recycling and has increased its use of clean energy sources and cleaner manufacturing processes. Canon has also launched programs to collect and recycle used Canon cartridges and to refurbish used Canon copying machines. In addition, Canon has removed virtually all environmentally unfriendly chemicals from its manufacturing processes.

Products

Canon operates its business in four segments: the Office Business Unit, the Imaging System Business Unit, the Medical System Business Unit, and the Industry and Others Business Unit.

- *Office Business Unit* -

Canon manufactures, markets and services a full range of office MFDs, printers, copying machines for personal and office use and production print products for print professionals. Canon also delivers added value to customers through software, services and solutions. Canon's offerings cater to a broad market from Small Office Home Office (SOHO), and Small and Midsize Business (SMB) to large enterprises and professional graphic arts companies.

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In the industry, customer preference has been shifting from monochrome to color products and from hardware to services and solutions. Especially in the professional print market, customers are increasingly turning to short-run, print-on-demand and variable data printing. The importance of connectivity, security, mobility, integration, workflow and cloud-based web services is growing, and such added value is increasingly delivered together with hardware. Canon seeks to maintain its position as a market leader in these fast-changing markets.

In 2018, Canon expanded our hardware offerings by introducing image RUNNER ADVANCE Gen3 2nd Edition. We also introduced the new software named uniFLOW Online which enabled the new image RUNNER ADVANCE Gen 3 2nd Edition to connect to cloud services. We expanded our Multi-Function Printer (MFP) capability by using the new software solution technology.

To maintain and enhance its competitive edge and to meet increasingly sophisticated customer demands, Canon is committed to the continued reinforcement of Canon's hardware and software offerings and solutions capability.

As for laser printers, Canon has focused on expanding sales of high value-added products from mid to high-end class, especially for MFP, resulted in increasing sales quantity and market share in the said products category successfully. Canon, however, is experiencing fierce competition with aggressive competitors in the laser printer market and an eventual decline in sales prices of printers and consumable cartridges is becoming a major threat, in addition to concerns over lagging growth of the entire market affected by decrease in demand for printing, which is caused by change in users' printing behavior under prevalence of smartphone, cloud computing, etc. In response, Canon is going to accelerate current momentum to increase sales quantity and market share by enhancing competitiveness in contractual business market with making the most of technical innovation and so forth. Furthermore, Canon aims to maximize business efficiency through continuous efforts for cost reductions and optimization of its supply chain.

- Imaging System Business Unit -

Canon manufactures and markets digital cameras and digital camcorders, as well as lenses and various related accessories.

In 2018, Canon strengthened and expanded its product lineup, including mirrorless cameras, a growing market, by launching four new digital interchangeable-lens cameras, such as the full-frame mirrorless camera, EOS R, adopting a newly designed mount system for improving optical performance, and the EOS M50 which realizes both high performance and user-friendly operation. These new models as well as the current models pushed sales and Canon maintained number one market share in the field of digital interchangeable-lens cameras in volume terms in 2018 in the major regions, such as the United States, Europe, China and Japan. Canon aims to expand the imaging domains of EOS, and believes there remains considerable room for future growth through development of new products based on state-of-the-art technology such as higher picture quality, small and lightweight body and versatile movie/network functions.

Canon has announced 4 new EF lenses, 1 new EF-M lens, and 4 new RF lenses along with 4 mount adapters for the new R system. The large diameter mount and short back focus has allowed for a great increase in freedom of lens design, resulting in huge leaps in optical performance.

Canon aims to meet customer expectations through continuous introduction of high-quality and high-performance lenses developed with superior optical technology and new elemental technology.

As for compact digital cameras, while the overall market has been shrinking, the premium segment with relatively large sensors has been performing steadily. In these circumstances, Canon launched two new models, and plans to

maintain its full-line up strategy to meet a wide range of customer needs. In addition, Canon aims to further strengthen its premium lineup, and improve its profitability.

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In the compact photo printer market, Canon has performed well along with the increasing demand for photo printing from smart devices. With its advantages, such as easy operation, portability, and lab-quality photo print, SELPHY has gained a strong market position in each region. The SELPHY CP1300 with advanced usability launched in the second half of 2017, and IVY Mini Photo Printer (Zoemini), which empowers users to share their story through print launched in 2018 has shown high sales performance. Canon plans to tap new customer demand and to maintain its lead in this market.

In the market for digital camcorders, Canon aims to expand sales in this market with a product lineup with higher value added based on Canon's distinctive high-definition, high-resolution technologies. In the field of professional camcorders, Canon introduced the new model EOS C700 FF; a digital cinema camera which has newly developed full-frame sensor, and XF705; a professional camcorder which is capable of shooting 4K/60P/4:2:2/10 bit/HDR video to on-board SD cards. Canon aims to solidify its top position in the motion picture production market by introducing new products that suit a wide variety of market requirements.

Canon experienced robust growth in the field of projectors for business applications, and in particular brighter, installation type projectors. In this market, Canon offers a range of products with its advanced optical technologies. In 2018, Canon launched totally 8 models, such as two 4K laser projectors, 4K6020Z and 4K5020Z. Moreover, in the 4K category, a high-brightness model with 35,000lm is lined up. Canon plans to expand the projector business based on customer's demands.

In the broadcast HDTV lens market, demand remains stable from sports broadcasting in developed countries and from switchover to HD in developing countries, and Canon continues to maintain a large share of the TV lens market with high value-added products. Demand for 2/3" format 4K lenses is increasing especially in Europe and Asia, like we introduced in September, UJ122x8,2B, which has the world largest optical zoom ratio* as 4K broadcast lens in 2/3" format, Canon continues to expand the product lineup to meet this demand. In the Cinema lens market, Canon launched CN-E20mm, which reinforces the 6 prime lens set. Thanks to the 7th prime lens model, the value of the prime set itself once more has been raised and well appreciated in the market.

* Among field zoom lenses for 4K broadcast cameras employing 2/3-inch sensors. As of December, 2018, based on a Canon survey.

Inkjet printer technology has been evolving, driving expansion of application from home use to office and commercial use such as poster printing and photo printing that require high-quality.

Canon offers a wide variety of products to meet such needs based on its core technology Full-photolithography Inkjet Nozzle Engineering (FINE), which enables realization of high-speed printing and high image quality at the same time.

For home use, Canon offers such printer solutions as Canon PRINT Inkjet to tighten the connection with cloud computing, smartphones and tablet PCs. Canon also offers more compact body, premium design, convenient front & rear dual paper feeder, a larger and easy to read liquid crystal touchscreen panel. Canon hopes such enhancement of function and service will increase user-friendliness and satisfaction of users.

In the second half of 2018, Canon launched the WG7000 series which is the first generation of Inkjet MFP with the line head technology targeting the growing Small-Medium Business segment. The WG7000 series makes user maintenance easy by adopting with a simple print process in the body. The newly developed line head and the pigment ink make both high productivity and high quality print. At the same time of launching of WG7000 series, Canon is introducing a fixed charge business model as a new contractual business starting in Japan. No initial

investment for a printer and reducing management load by automatic consumable delivery respond to various office needs.

In 2016, Canon launched Refillable Ink Tank Printers that achieved high productivity and cost saving by featuring built-in ink tanks, for business use in emerging market.

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As large-format inkjet printers must meet the advanced photo and graphic printing needs of professionals, in 2017 Canon completed a lineup of graphic products that cater to all customers, starting with the imagePROGRAF PRO-1000, which supports A2-size paper, to the 60-inch flagship model. The color reproduction and expressiveness of dark areas of these products are improved by using 12-color LUCIA Pro ink, which features new pigment ink and Chroma Optimizer, and the new L-COA PRO image processing engine.

To meet companies' growing demand for low-cost in-house production of large formats such as CAD and posters, Canon newly developed the five-color pigment ink LUCIA TD that realizes high-quality image printing on normal paper and does not require special paper. The imagePROGRAF TX series that delivers high-speed printing and the entry version imagePROGRAF TM series with printing noise significantly reduced by up to 60% were newly added to the lineup.

In 2012, Canon started to ship the DreamLabo 5000, the first inkjet production photo printer featuring new FINE high-density print head technology.

Canon's lineup also includes CanoScan LiDE, the flatbed scanners which use Contact Image Sensor (CIS), and a scanner with Charge-Coupled Devices (CCD) for high resolution. Canon has maintained high share in the scanner market by achieving stable sales results.

- Medical System Business Unit -

Canon markets diagnostic imaging systems, including Computed tomography (CT), Magnetic resonance imaging (MRI), ultrasound, and X-ray systems, as well as clinical laboratory systems and healthcare ICT solutions, and provides them to customers in more than 150 countries and regions around the world, offering technology that enables early detection and fast diagnosis. Continuing its long tradition of contributing to improvements in healthcare, Canon is making positive contributions toward hospital management and provides a range of patient-friendly healthcare systems and services.

The medical equipment market continues to gradually expand supported by overseas growth in such markets as the United States and emerging markets. In Japan, we saw a temporary slowdown in demand as investment decisions were being postponed, particularly for high-priced diagnostic imaging equipment. Against this background, Canon's CT systems business, which is the mainstay of medical system business units, remains the top share of the Japanese market. And new products that we launched so far continued to raise our presence, such as a premium 1.5T MRI system, named Vantage Orian utilizing migrated high end 3T technology.

Canon pursues high-resolution imaging that enables more accurate diagnosis. Japan Medical Research and Development Awards program was established in 2017 which aims for research and development in the medical field and we are truly honored to have received the first award presented by the Minister of Health, Labor and Welfare for the pioneering development of Aquilion ONE. We were also recognized during the Seventh Monozukuri Nippon Grand Awards where our CT technology were recognized for its contribution to diagnostic imaging and global healthcare with development of Aquilion systems. Aplio i-series diagnostic ultrasound systems technology, in recognition of CMSC's proprietary technology of Different Tissue Harmonic Imaging, was acknowledged at the 2018 Ceremony of National Commendation for Invention, where it received the Invention Achievement Award. We also launched standard priced diagnostic imaging equipment such as premium 1.5T MRI system Vantage Orian, high image quality with full portability ultrasound systems named Viamo series, and Aquilion Lightning 80 detector row Ultra Helical CT.

By incorporating various strengths (such as precision mechanical design, processing technology, sensor technology, and image processing technology) and advancing synergy with Canon's group technology during the development, manufacture, and servicing of Canon's medical equipment products, Canon will continue to work hard to provide products with high added value that further contribute to improvements in healthcare.

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In the component business market, both the expanding demand in emerging markets and the demand to transition from Computed Radiography (CR) to Digital Radiography (DR) continue to drive steady market growth for X-ray equipment. On the other hand, technological competition with component manufacturers in Europe and the USA has been increasing for high-end products, and price competition with manufacturers in China and South Korea has been increasing for the low-end product segment where products are becoming commoditized. Under these market circumstances, Canon released our new flat panel detectors (CXDI-710C Wireless series) in 2017, featuring weight-saving and waterproof performance, and this has contributed to increased sales quantity in the DR product market. In the dynamic X-ray equipment market, where high growth is expected, Canon is continuing its strong efforts to promote sales of fluoroscopy and angiography systems. With regard to our X-ray tube units, X-ray imaging devices, etc., Canon has developed competitive products for this business based on our highly reliable core technologies (high-voltage vacuum technology, hydrodynamic liquid metal bearing technology, cesium iodide deposition technology, etc.), which have contributed to strong sales.

Regarding ophthalmic equipment, Canon responded to stiffer market competition in the growing Optical Coherence Tomography (OCT) market by upgrading a OCT Angiography software series which enables depiction of retinal blood vessels without using fluorescein, a substance that potentially causes strong allergic reactions.

- Industry and Others Business Unit -

In the market for semiconductor lithography equipment, investments for memory devices has remained positive due to the demand expansion for 3D-NAND flash memory semiconductors used in data centers. In the market for i-line steppers, investments for diversified IoT devices and automotive semiconductors has remained stable. In the market for back-end lithography systems, chip makers have required higher density integration and thinner chip production which resulted in the investment growth for large-capacity memories such as Through-Silicon Via (TSV).

Responding to diversified semiconductor applications, Canon has been developing a design-in business style, which enables customer needs to be reflected in the early stage of our product development process, and Canon has made steady progress in developing products with high added value. Canon has a wide variety of product line-ups for such as IoT devices and automotive semiconductors, which are rapidly becoming more widespread. Canon is ready to expand the market share further by KrF scanner FPA-6300ES6a which realized high productivity and the highest level of overlay for memory production, and by continuous upgrades of i-line stepper FPA-5550iZ2. For back-end lithography systems, Canon is going to meet the variety of market needs with releasing high-resolution optional function of FPA-5520iV which can be adapted to FOWLP (Fan Out Wafer Level Package) process and responds to the latest packaging. Canon is also preparing for the mass production of Nanoimprint semiconductor lithography equipment.

In the market for FPD lithography equipment, investments of high-definition organic light-emitting diode (OLED) panels for mobile applications has settled down after an uptrend, but there is an ongoing momentum of application expansion such as automotive panels. The TV market performed stable due to the continuous investments for large-sized TVs mostly in China's market. The TV market has seen flat-screen TVs spread, and is expected to experience a transition to high-quality TVs represented by large-sized, high-definition panels and OLED displays. In order to meet this needs, Canon launched MPAsp-H1003T which enables one shot exposure of high quality 65-inch panel on a G8 glass substrate. Canon is aiming to expand the market share further with strengthening competitiveness and improving throughput of MPAsp-E813H to meet the diversification of OLED products.

Regarding the network cameras, in addition to crime prevention and disaster monitoring, development is also progressing for various applications to support video analysis based marketing and productivity improvement and others. As a result, the demand is increasing for high-grade cameras supporting high resolution and improving

performance under low light, as well as for video analysis software. Thus, the market is on an expansion trend.

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In the first half of 2018, Canon launched the ultra-high sensitivity network camera ME20F-SHN to demonstrate its power for monitoring, especially at night, important facilities, rivers, borders, disaster areas, and dark places. Moreover, Canon released the Moving Object Mask, an embedded application for Milestone Systems video management software XProtect which can silhouette display a moving body in a video for consideration of privacy. In the second half of 2018, Canon welcomed BriefCam, a company advancing with video analytics software differentiated by unique Video Synopsis technology, into the Group. In addition to business growth, their arrival in the Group strengthened the foundation as a solution provider integrating network cameras, video management software, and video analysis software, etc.

Now and in the future, Canon will strive to become the global leader of network video solution with strengthening the collaboration within the Canon Group, accelerating the integration of technology, and offering the optimized solution.

NET SALES BY SEGMENT

The following table presents our net sales by segment for each of the periods shown.

	Years ended December 31				
	2018	change	2017	change	2016
	(Millions of yen, except percentage data)				
Office	1,807,301	0.1%	1,804,782	3.4%	1,745,996
Imaging System	1,008,165	-11.3	1,136,188	3.7	1,095,289
Medical System	437,578	0.3	436,187		
Industry and Others	805,211	1.6	792,850	22.6	646,483
Eliminations	(106,318)		(89,992)		(86,281)
Total	3,951,937	-3.1%	4,080,015	19.9%	3,401,487

Note: Canon newly established Medical System Business Unit effective at the beginning of the second quarter of 2017, and certain businesses included in Industry and Others Business Unit have been reclassified. Net sales for the year ended December 31, 2016 were not restated since they were not material.

From the beginning of the third quarter of 2018, Canon has reclassified certain businesses from Office Business Unit to Industry and Others Business Unit. Sales amounts for the years ended 2017 and 2016 also have been restated.

NET SALES BY GEOGRAPHIC AREA

The following table presents our net sales by geographic area for each of the periods shown.

	Years ended December 31				
	2018	change	2017	change	2016
	(Millions of yen, except percentage data)				
Japan	869,577	-1.7%	884,828	25.2%	706,979
Americas	1,076,402	-2.8	1,107,515	14.9	963,544

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Europe	1,015,428	-1.3	1,028,415	12.6	913,523
Asia and Oceania	990,530	-6.5	1,059,257	29.6	817,441
Total	3,951,937	-3.1%	4,080,015	19.9%	3,401,487

Seasonality

Canon's sales for the fourth quarter are typically higher than for the other three quarters, mainly due to strong demand for consumer products, such as cameras and inkjet printers, during the year-end holiday season.

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In Japan, corporate demand for office products peaks in the first quarter, as many Japanese companies end their fiscal years in March. Sales also tend to increase at the start of the new school year in each region.

Sources of supply

Canon purchases materials such as glass, aluminum, plastic, steel and chemicals for use in various product components and in the manufacturing process. Canon procures raw materials from all over the world and selects suppliers based on a number of criteria, including environmental friendliness, quality, cost, supply stability and financial condition.

Prices of some raw materials fluctuate according to market trends. Although Canon is currently focusing on globalizing supplies and improving raw material resource management strategies, and believes that it will be able to continue procuring sufficient quantities of raw materials to meet its needs, there can be no assurance that supply shortages will not occur or that raw materials, such as crude oil, will be available at competitive prices, or at all, in the future.

Marketing and distribution

Canon sells its products primarily through subsidiaries organized under regional marketing subsidiaries: Canon Marketing Japan Inc. in Japan; Canon U.S.A., Inc. in North and South America; Canon Europe Ltd. and Canon Europa N.V. in Europe, Russia, Africa and the Middle East; Canon (China) Co., Ltd. in Asia outside Japan; and Canon Australia Pty. Ltd. in Oceania. Each subsidiary is responsible for its own market research and for determining its sales channels, advertising and promotional activities. Each subsidiary provides tailor-made solutions to a diverse range of unique customers and aims to advance Canon's reputation as a highly trusted brand.

In Japan, Canon sells its products primarily through Canon Marketing Japan Inc., mainly to dealers and retail outlets.

In the Americas, Canon sells its products primarily through Canon U.S.A., Inc. and Canon Canada Inc., mainly to dealers and retail outlets.

In Europe, Canon sells its products primarily through Canon Europa N.V., which sells mainly through subsidiaries or independent distributors to dealers and retail outlets in each locality. In addition, copying machines are sold directly to end-users by several subsidiaries such as Canon (UK) Ltd. in the United Kingdom and Canon France S.A.S. in France.

In Southeast Asia and Oceania, Canon sells its products through subsidiaries located in those areas. In addition, copying machines are sold directly to end-users in Australia by Canon Australia Pty. Ltd.

For medical business, CMSC sells its products directly or through regional marketing subsidiaries and distributors.

Canon also sells laser printers on an OEM basis to HP Inc.. HP Inc. resells these printers under the HP LaserJet Printers name. During 2018 and 2017, OEM sales to HP Inc. constituted 13.6% and 13.1%, respectively, of Canon's consolidated net sales.

Canon continues to enhance its distribution system by promoting the continuing education of its sales personnel and by optimizing inventory levels and business planning through weekly analysis of sales data.

Service

In Japan and overseas, product service is provided in part by independent retail outlets and designated service centers that receive technical training assistance from Canon. Canon also services its products directly.

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Most of Canon's business machines carry warranties of varying terms, depending upon the model and country of sale. Cameras and camera accessories carry warranties that vary depending upon the model and country of sale.

Canon services its copying machines, office MFDs, printers, and supplies replacement drums, parts, toner and paper. Most customers enter into a contract under which Canon offers consumables and parts as well as break fix activities in return mainly for a stated amount of the contract plus a per copy charge. Copying machines not covered by a service contract may be serviced from time to time by Canon or local dealers for a fee.

For diagnostic imaging systems, including CT, MRI, ultrasound, and X-ray systems, Canon provides comprehensive repairs, service, and maintenance to ensure that customers are able to use these products to their full potential at all times. Canon maintains support contracts with customers and has technical call centers. In addition, to help ensure customer satisfaction, Canon offers service training programs for engineers working in overseas medical institutions. For the service contract of medical system products, customers pay stated fixed fees for the stand ready maintenance service.

Patents and licenses

Canon holds a large number of patents, design rights and trademarks in Japan and abroad to protect proprietary technologies stemming from its research and development activities. Canon utilizes these intellectual property rights as important strategic management tools. For example, Canon leverages its intellectual property rights to expand its product lines and business operations and to form alliances and exchange technologies with other companies.

Canon has granted licenses with respect to its patents to various Japanese and foreign companies, most often with respect to electrophotography, laser printers, multifunction printers, facsimile machines and cameras.

Companies to which Canon has granted licenses include:

Ricoh Company, Ltd.	Electrophotography
HP Inc.	Laser printers, multifunction printers and facsimile machines
Kyocera Document Solutions Inc.	Electrophotography
Oki Electric Industry Co., Ltd.	LED printers, multifunction printers and facsimile machines
Sharp Corporation	Electrophotography
Brother Industries, Ltd.	Electrophotography and facsimile machines

Canon has also entered into cross-licensing agreements with other major industry participants.

Companies with which Canon has entered into cross-licensing agreements include:

HP Inc.	Bubble jet printers
Ricoh Company, Ltd.	Electrophotography products, facsimile machines and word processors
Xerox Corporation	Business machines
International Business Machines Corporation	Information handling systems
Eastman Kodak Company	Electrophotography and image processing technology
Seiko Epson Corporation	Information-related instruments

Canon has placed a high priority on the management of its intellectual property. Some products that are material to Canon's operating results incorporate patented technology. Patented technology is critical to the continued success of Canon's products, which typically incorporate technology from dozens of different patents. However, Canon does not believe that its business, as a whole, is dependent on, or that its profitability would be materially affected by the revocation, termination, expiration or infringement upon, any particular patent, copyright, license or intellectual property rights or group thereof.

Table of Contents**Competition**

Canon encounters intense global competition in all areas of its business. Canon's competitors range from some of the world's major multinational corporations to smaller, highly specialized companies. Canon competes in a number of different business areas, whereas many of its competitors focus on one or more individual areas. Consequently, Canon may face significant competition from entities that apply greater financial, technological, sales and marketing or other resources than Canon to their activities in a particular market segment.

The principal elements of competition that Canon faces in each of its markets are technology, quality, reliability, performance, price and customer service and support. Canon believes that its ability to compete effectively depends in large part on conducting successful research and development activities that enable it to create new or improved products and release them on a timely basis and at commercially attractive prices. The competitive environments in which each product group operates are described below:

- Office Business Unit -

The markets for this segment are highly competitive. Canon's primary competitors are Xerox Corporation/Fuji Xerox Co., Ltd.; Ricoh Company, Ltd.; Konica Minolta Inc.; HP Inc.; Samsung Electronics Co., Ltd.; and Lexmark International, Inc. Canon believes that it is one of the leading global manufacturers of office MFDs, copying machines and laser printers. In addition to the general elements of competition described above, Canon's ability to compete successfully in these markets also depends significantly on whether it can provide effective, broad-based business solutions to its customers and respond to interrelated customer needs. In particular, the ability to provide equipment and software that connect effectively to networks (ranging in scope from local area networks to the Internet and the cloud) is often a key to Canon's competitive strength. In the United States, Europe and Japan, Canon is one of the market leaders in all areas of the business machine market. In emerging markets, for example in China, the current market leaders for business machines are Fuji Xerox Co., Ltd., Konica Minolta Inc. and Toshiba TEC Corporation. Canon hopes to join this group by introducing products tailored to the Chinese market and by strengthening sales and service channels.

- Imaging System Business Unit -

Canon has continued to invest aggressively in competitive new products and intends to maintain its position in this market.

Canon's primary competitors in the interchangeable-lens digital camera market are Nikon Corporation and Sony Corporation.

Average prices for compact digital cameras in the industry increased in 2018 from the previous year. Market contraction is having a major impact, resulting in severe conditions in the digital camera market. Despite these difficulties, Canon will seek to take advantage of its status as the major brand in the industry, along with its economies of scale, in order to maintain profitability.

Canon's primary competitors in the compact digital camera market are Sony Corporation and Nikon Corporation. Canon's primary competitors in the digital video camcorder market are Sony Corporation; Panasonic Corporation; and JVC Kenwood Corporation. Canon's primary competitors in the inkjet printer market are HP Inc., Seiko Epson Corporation and Brother Industries, Ltd.

- Medical System Business Unit -

Canon's primary competitors in the diagnostic medical imaging market are General Electric Company, Siemens AG, Koninklijke Philips N.V., Hitachi, Ltd., and Fujifilm Corporation. Canon has also new competitors such as United Imaging Healthcare Co. Ltd., Chinese vendor.

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The markets for this segment are highly competitive. Canon has been consistently involved in the medical care business, from development to manufacturing, sales, and service. Canon believes that it provides high-resolution images that enable more accurate diagnosis. For example, we have developed several world's-first technologies, such as an ultrahigh-resolution CT scanner with twice the spatial resolution in both the in-plane direction and the axial direction compared to a conventional CT scanner, and ultrasound technology that can perform imaging of very fine, slow-flowing bloodstreams that previously could not be visualized. We will continue to bring the latest diagnostic imaging systems to the market.

- Industry and Others Business Unit -

Very stiff competition continues in the markets for lithography equipment used in the production of semiconductor devices and FPD. In order to produce lithography equipment that can provide ultra-fine processing, an integration of advanced optical, control and system technologies is required, along with continuous investment in technology development. The main competitors in these markets are Nikon Corporation, in the markets for semiconductor and FPD lithography equipment, and ASML Holding N.V., in the market for semiconductor lithography equipment only.

Canon believes that it has helped its customers improve their productivity by continuously improving the cost performance of semiconductor lithography equipment using the i-line and KrF laser light sources. In particular, equipment using i-line has captured a large share of the global market, satisfying the needs by quickly providing products which correspond to the diversification of devices associated with the trend of IoT.

Canon believes its FPD lithography equipment with a common platform offers excellent productivity and reliability that has helped it capture market share of the industry-leading South Korean market. Canon's sales and service support systems have also received high accolades from the customers in these markets. In the trend of demand expansion for 4K displays and OLED panels, Canon believes it has also been meeting the needs of panel makers by continuously offering new products with high productivity and high resolution.

As for network cameras, the market is competitive in higher functional requirement and price pressure from customers. Canon's primary competitors are Hikvision Digital Technology Co., Ltd. and Panasonic Corporation. Canon is developing the innovative technology to continue to be a global market leader in this industry.

Environmental regulations

Canon is subject to a wide variety of laws, regulations and industry standards relating to energy and resource conservation, recycling, global warming, pollution prevention, pollution remediation and environmental health and safety. Some of the environmental laws that affect Canon's businesses are summarized below.

1. UN Frameworks to Address Global Issues, which are related to the Environment including Climate Changes

The United Nations adopted the 2030 Agenda for Sustainable Development Goals (SDGs) on September 25, 2015, under the UN Sustainable Development Summit. SDGs cover global issues to be addressed for transforming the world toward sustainable development over the next 12 years, which are composed of 17 goals and 169 targets. The goals and targets cover a wide-range global issues, including the environmental areas such as climate change, sustainable energy, efficient use of natural resources and reduction of waste. Based upon the SDGs, member states will introduce national policies and initiatives to tackle such global environmental issues, and Canon may need to implement further actions to respond to potential national initiatives.

The Paris Agreement on climate change adopted in 2015 and entered into force in 2016. The Agreement relates to a common future framework beyond 2020 to address climate change. In the Agreement, all member states of UNFCCC agreed to take countermeasures to hold Global temperature rise to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature rise to 1.5 degrees Celsius.

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Upon the Agreement, Canon is further striving to reduce CO2 emissions toward the low-carbon society. Canon has established 2018-2020 Mid-Term Environmental Goals and monitors its progress on a yearly basis. Canon is implementing initiatives to achieve these goals, which focus on Lifecycle CO2 emissions improvement index per product by average 3% improvement, Raw materials and usage CO2 emissions improvement index per product by average 3% improvement, and Improve energy consumption basic unit at operational sites by 1.2% (compared to the previous year). Canon has successfully reduced its Life Cycle CO2 emission per product, that was an average improvement of 5.2% (2008-2017) and cumulative 35.9% as compared with 2008. Also, total lifecycle CO2 emissions in 2017 were 7.559 million tons, which were verified by a third party in April 2018.

Canon continues to pursue CO2 emission reductions both locally and globally through energy-efficient product design and improvement of logistics and factory operations.

2. *European Union Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (the RoHS Directive)*

Under RoHS Directive, from July 1, 2006, companies have been required to ensure that electrical and electronic equipment (EEE) sold in the European Union does not contain lead, cadmium, hexavalent chromium, mercury, polybrominated biphenyls or polybrominated diphenyl ethers. The scope of products covered was expanded to include medical and measurement equipment starting in July 2014. New subsidiary directive of RoHS Directive restricting an additional four substances, Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP), was published in June 2015, and these substances will be restricted starting in 2019. In 2018, study for more additional restricted substances was started, and the preparatory study for the next recast of RoHS will start from 2019. In parallel with these developments, all the RoHS exempted applications for which the restricted substances can be used are now under review. If these exemptions expire and/or additional substances are restricted in the future, additional design changes may be required for Canon products, and cost of changing designs may increase total compliance costs.

3. *European Framework for the Management of Chemical Substances (REACH Regulation)*

The REACH Regulation was implemented in 2007. This regulation covers almost all chemicals (products in gaseous, liquid, paste or powder form) and articles (products in solid state) manufactured in or imported into the European Union. All chemicals manufactured in or imported into the European Union that exceed specific content thresholds must be registered. If certain substances of very high concern are contained in an article, the substances must be communicated to the recipient or consumer of the article. Furthermore, additional restrictions on the use of certain substances can be proposed at any time by the ECHA (European Chemical Agency) or member states, and, some of them have been already adopted and others are now under discussion, manufacturers such as Canon must take steps to address such new restrictions.

Canon keeps meeting these existing and newly-added requirements under the REACH Regulation, and their implementation could increase Canon's management costs and have adverse effects on its operating results and financial condition.

4. *The European Framework for the Setting of Requirements for Energy-Related Products (ErP Directive)*

The ErP Directive applies in Europe to all energy-using products, and implementing measures with respect to off-mode and standby mode and external power supplies were adopted in and have been applied since 2010. This measure was expanded in 2013 to include requirements for energy modes with networked standby . The requirements for networked standby were applied from 2015. For imaging equipment, the industry made a public commitment to attain certain targets on environmentally conscious designs from 2012 by an industrial voluntary agreement (VA) and began implementation in 2011. Currently the VA is under review, and

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commitments may become tighter than ever because the European authorities and NGOs are expected to require a stricter VA including resource efficiency-related criteria. In addition, many new or revised implementing measures (expanded both in scope and requirements) are now considered, and some of them will cover Canon's products. Canon is continuing to comply with requirement under the ErP Directive. However, the requirements are expected to be challenging, and achieving compliance will likely increase Canon's costs, especially by required design changes..

5. *State Legislation in the United States Concerning Recycling of Waste Electric and Electronic Products*

E-waste recycling laws have been enacted or proposed in more than twenty American states. Although most such laws cover only displays or television sets, printers and other products are covered by some states, such as Illinois, Michigan and Hawaii, among others. These laws require manufacturers to bear the costs of collecting and recycling electrical and electronic equipment based on sales volume or market share by brand of covered products. Canon expects that compliance with such state requirements might increase its costs, such as recycling fees and product guarantees.

6. *Chinese Administrative Measures on the Control of Pollution Caused by Electrical and Electronic Products*

The Chinese Ministry of Information Industry revised Administrative Measures on the Control of Pollution Caused by Electrical and Electronic Products in January 2016, and regulates the same six substances covered by the EU RoHS in electrical and electronic products. The measures establish two stages of implementation. Stage 1 is in effect and covers all Canon products. To comply with Stage 1 requirements, a China-specific label must be placed on any covered product if any of the six regulated substances are contained therein, and use of the six regulated substances must be disclosed in each product manual. Stage 2 requires that the contents of six regulated substances in specific (as specified by the Chinese Government in the Compliance catalog) be restricted by limitations similar to the EU RoHS Directive. The Compliance catalog including printers, copying machines and facsimile machines was published on March 12, 2018. Standards to implement these measures are under discussion by the Chinese government.

The requirements may increase Canon's costs and have an adverse effect on its operating results and financial condition.

7. *Chinese Regulation for the Management of the Recycling and Disposal of Waste Electrical and Electronic Products*

The Regulation for the Management of the Recycling and Disposal of Waste Electrical and Electronic Products was issued by the Chinese government in 2009 and implemented on January 1, 2011. Producers and importers are required to pay a fee to a government fund. The list of products falling under the waste electrical and electronic products catalogue issued on February 9, 2015 includes printers, copying machines and facsimile machines. Those payment fees are under discussion by the Chinese government.

These requirements will likely increase Canon's costs and could adversely affect its operating results and financial condition.

8. *Soil Pollution Prevention Law of Japan*

A 2010 amendment to the Soil Pollution Prevention Law of Japan tightens certain requirements to survey soil to measure certain pollution levels. If soil pollution exceeds specified limits, a prefecture governor may designate the land as a Measure required area if effects to human health due to soil pollution are foreseen, and the prefecture governor may order removal of pollutants. The substances designated as pollutants consist of twenty-six chemical groups, including lead, arsenic and trichloroethylene. If an investigation shows that soil contamination may affect human health, the prefecture governor may issue an order to the landowner to take

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designated remedial actions and may restrict the changes of the land character. Canon has commenced a detailed survey and measurement of soil and groundwater to check for pollution at all of Canon's operational sites in Japan, and necessary procedures are being carrying out. Additional costs may arise if these investigations reveal that additional remedial measures are necessary. These factors could adversely affect Canon's operating results and financial condition.

9. Other Environmental Regulations

In addition to the laws described above, various environmental laws and regulations may have been promulgated or enacted by European Union member states, states of the United States, emerging markets such as China, India, Russia, Vietnam, and other countries. Compliance with any such additional regulations may increase Canon's costs and may adversely affect Canon's operating results and financial condition.

Other regulations

Disclosure under Section 13(r) of the Securities Exchange Act of 1934

Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (ITRA) added Section 13(r) to the Securities Exchange Act of 1934, as amended (the Exchange Act). Section 13(r) requires an issuer to disclose in its annual or quarterly reports, as applicable, whether, during the reporting period, it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with designated natural persons or entities involved in terrorism or the proliferation of weapons of mass destruction. Disclosure is required even where the activities, transactions or dealings are conducted outside the U.S. by non-U.S. affiliates in compliance with applicable law, and whether or not the activities are sanctionable under U.S. law.

During the year ended December 31, 2018, the following Canon affiliates engaged in the transactions described below that are required to be disclosed pursuant to Section 13(r) of the Exchange Act. These transactions were conducted in compliance with applicable law in the respective countries.

CMSC, a wholly-owned Japanese subsidiary of Canon Inc., had indirect sales transactions through independent distributors in Sharjah, United Arab Emirates and Tehran, Iran for computed tomography, diagnostic ultrasound systems and service parts for those products with hospitals in Iran. It is our understanding that Iranian hospitals are owned or controlled by the Government of Iran (central or local government) and that their purchases are controlled through an agency of the Iranian Ministry of Health and Medical Education. Total gross sales under these contracts during the year 2018 were approximately ¥86,738 thousand. The net profit was substantially less than that.

Canon Europa N.V. (CENV), a wholly-owned Dutch subsidiary of Canon Finance Netherlands B.V., which is wholly-owned by Canon Inc., had indirect sales transactions through independent distributors in Dubai, United Arab Emirates and Algete, Spain for medical products such as digital radiography systems with hospitals in Iran. It is our understanding that Iranian hospitals are owned or controlled by the Government of Iran (central or local government) and that their purchases are controlled through an agency of the Iranian Ministry of Health and Medical Education. Total gross sales under these contracts during the year 2018 were in foreign currency of approximately ¥11,914 thousand. The net profit was substantially less than that.

Canon India Pvt. Ltd., a wholly-owned Indian subsidiary of Canon Singapore Pte. Ltd. (CSPL), a wholly-owned Singapore subsidiary of Canon Inc., has a service contract for a copier machine with the Iranian embassy in New

Delhi. Total gross sales under this contract and activity above during the year 2018 was in foreign currency of approximately ¥5 thousand. The net profit was substantially less than that. As of the date of this report, Canon is not aware of any other activity, transaction or dealing by us or any of our affiliates during the year ended December 31, 2018 that requires disclosure in this report under Section 13(r)

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of the Exchange Act. Canon maintains policies and procedures designed to ensure that transactions, including transactions with Iranian counterparties, are conducted in accordance with applicable economic sanction laws and regulations.

C. Organizational structure

Canon Inc. and its subsidiaries and affiliates form a group of which Canon Inc. is the parent company. As of December 31, 2018, Canon Inc. had 379 consolidated subsidiaries and 8 affiliated companies accounted for by the equity method.

The following table lists the significant subsidiaries owned by Canon, all of which are consolidated as of December 31, 2018.

Name of company	Head office location	Proportion of ownership interest owned	Proportion of voting power held
Canon Marketing Japan Inc.	Tokyo, Japan	50.1%	58.5%
Canon U.S.A., Inc.	New York, U.S.A.	100.0%	100.0%
Canon Europa N.V.	Amstelveen, The Netherlands	100.0%	100.0%
Canon Medical Systems Corporation	Tochigi, Japan	100.0%	100.0%

D. Property, plants and equipment

Canon's manufacturing is conducted primarily at 30 plants in Japan and 18 plants in other countries. Canon owns all of the buildings and the land on which its plants are located, with the exception of certain immaterial leases of land and floor space of certain of its subsidiaries. The names and locations of Canon's plants and other facilities, their approximate floor space and the principal activities and products manufactured therein as of December 31, 2018 are as follows:

Name and location	Floor space (including leased space) (Thousands of square feet)	Principal activities and products manufactured
Domestic		
Headquarters, Tokyo	2,564	R&D, corporate administration and other functions
Canon Global Management Institute, Tokyo	166	Training and administration
Kawasaki Office, Kanagawa	1,904	R&D and manufacturing of production equipment and semiconductor devices; R&D of laser printers and toner cartridges
Kosugi Office, Kanagawa	370	Development of software for office imaging products

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Fuji-Susono Research Park, Shizuoka	932	R&D in electrophotographic technologies
Ayase Office, Kanagawa	394	R&D and manufacturing of semiconductor devices
Hiratsuka Plant, Kanagawa	926	R&D of display products and manufacturing of semiconductor devices
Tamagawa Office, Kanagawa	384	Quality engineering
Oita Plant, Oita	389	Manufacturing of semiconductor devices
Yako Office, Kanagawa	906	Development of inkjet printers, inkjet chemical products

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Name and location Domestic	Floor space (including leased space) (Thousands of square feet)	Principal activities and products manufactured
Utsunomiya Office, Tochigi	2,764	Manufacturing of lenses for cameras and other applications, R&D in optical technologies, development and sales of broadcasting equipment, R&D, manufacturing, sales and servicing of semiconductor production equipment
Toride Plant, Ibaraki	3,127	R&D in electrophotographic technologies, mass-production trials and supports; manufacturing of office imaging products, chemical products; training of manufacturing
Ami Plant, Ibaraki	972	Manufacturing of FPD production equipment
Canon Electronics Inc., Tokyo, Saitama and Gunma	1,310	Components, magnetic heads, document scanners and laser printers
Canon Finetech Nisca Inc., Saitama, Ibaraki and Yamanashi	1,104	Label printer, Card printer, Optical equipment, Motor
Canon Precision Inc., Aomori	1,591	Toner cartridges, sensors and micromotors
Canon Optron Inc., Ibaraki	144	Optical crystals (for lithography equipments, cameras, telescopes) and vapor deposition materials
Canon Chemicals Inc., Ibaraki	1,907	Toner cartridges and rubber functional components
Canon Components, Inc., Saitama	725	Contact image sensors, inkjet cartridges and medical equipment
Oita Canon Inc., Oita	1,577	Digital cameras, lenses and digital video camcorders
Nagahama Canon Inc., Shiga	1,095	Laser printers, toner cartridges and A-Si drums
Oita Canon Materials Inc., Oita	3,143	Chemical products for copying machines and printers, and inkjet cartridges
Ueno Canon Materials Inc., Mie	654	Chemical products for copying machines and printers
Fukushima Canon Inc., Fukushima	1,310	Inkjet printers and inkjet cartridges
Canon Semiconductor Equipment Inc., Ibaraki	233	Development and production of semiconductor production-related equipment
Canon Ecology Industry Inc., Ibaraki	992	

		Recycling of toner cartridges, repair and recycling of business machines
Fukui Canon Materials Inc., Fukui	191	OPC raw stock, material for optics, High water-repellent material
Miyazaki Canon Inc., Miyazaki	179	Digital cameras
Canon Mold Co., Ltd., Ibaraki	219	Molds

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Name and location	Floor space (including leased space) (Thousands of square feet)	Principal activities and products manufactured
Domestic		
Canon ANELVA Corporation, Kanagawa and Yamanashi	750	Production equipment for electron devices, flat panel display and semiconductors
Canon Machinery Inc., Shiga	675	Automated production equipment and semiconductor production-related equipment
Canon Tokki Corporation, Niigata, Kanagawa and Tokyo	373	Vacuum technology-related equipment
Nagasaki Canon Inc., Nagasaki	518	Digital cameras
Hita Canon Materials Inc., Oita	289	Rubber functional components
Canon Medical Systems Corporation, Tochigi	1,419	R&D, manufacturing and sales of medical equipment
Canon Electron Tubes & Devices Corporation, Tochigi	357	R&D, manufacturing and sales of electron tubes and its application products
Europe		
Canon Giessen GmbH, Giessen, Germany	348	Remanufacturing of copying machines and semiconductor production equipment
Canon Bretagne S.A.S., Liffre, France	505	Manufacturing and recycling of toner cartridges
Océ-Technologies B.V., Venlo, the Netherlands	2,179	Document management, digital sheet-fed presses and wide format printers
Americas		
Canon Virginia, Inc., Virginia, U.S.	1,537	Toner cartridges, molds and remanufacturing of copying machines
Asia		
Canon Inc., Taiwan, Taiwan	1,595	Lenses and digital cameras
Canon Opto (Malaysia) Sdn. Bhd., Selangor, Malaysia	611	Lenses and optical lens parts
Canon Dalian Business Machines, Inc., Dalian, China	1,721	Production and recycling of toner cartridges, production of laser printers
Canon Zhuhai, Inc., Zhuhai, China	1,722	Digital cameras, digital video camcorders and contact image sensors
Canon Prachinburi (Thailand) Ltd., Prachinburi, Thailand	1,268	Copying machines
Canon Hi-Tech (Thailand) Ltd., Ayutthaya and	3,274	Inkjet printers, office MFDs, scanners,

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Nakohon Ratchasima, Thailand		molds and plastic injection molded parts
Canon Zhongshan Business Machines Co., Ltd., Zhongshan, China	52	Laser printers
Canon Vietnam Co., Ltd., Hanoi, Vietnam	3,356	Inkjet printers, laser printers, office MFDs, scanners and contact image sensors

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Name and location Domestic	Floor space (including leased space) (Thousands of square feet)	Principal activities and products manufactured
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Canon (Suzhou) Inc., Suzhou, China	1,524	Copying machines
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Canon Business Machines (Philippines), Inc., Batangas, Philippines	898	Laser printers
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Canon considers its manufacturing and other facilities to be well maintained and believes that its plant capacity is adequate for its current requirements. None of the buildings or land are subject to any major encumbrances.

Main facilities under construction for establishment/expansion

Name and location Domestic	Principal activities and products manufactured
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Miyazaki Canon, Inc., Miyazaki	New production base (Imaging System Business Unit)
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Oita Canon Inc., Oita	New production base (Imaging System Business Unit)
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Item 4A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects**A. Operating Results**

The following discussion and analysis provides information that management believes to be relevant to understanding Canon's consolidated financial condition and results of operations.

Overview

Canon is one of the world's leading manufacturers of office MFDs, plain paper copying machines, laser printers, cameras, inkjet printers, medical equipment, semiconductor lithography equipment and FPD lithography equipment. Canon earns revenues primarily from the manufacture and sale of these products domestically and internationally. Canon's basic management policy is to contribute to the prosperity and well-being of the world while endeavoring to become a truly excellent global corporate group targeting continued growth and development.

Canon divides its businesses into four segments: the Office Business Unit, the Imaging System Business Unit, the Medical System Business Unit which was newly established in 2017, and the Industry and Others Business Unit.

Economic environment

Looking back at the global economy in 2018, the U.S. economy steadily recovered as corporate earnings and employment conditions improved. In Europe, while domestic demand remained firm, the rate of growth decelerated due to sluggish export growth. In China, the economy slowed down due to sluggish capital investments and a decline

in consumer spending. The economies of other emerging markets also worsened, due to such factors as local currency depreciation. In Japan, the economy recovered moderately supported by continuing improvements in employment conditions. As a result, the global economy overall continued to realize a moderate recovery. However, the pace of economic growth slowed down from the latter half of the year as a result of trade friction.

Table of Contents*Market environment*

As for the markets in which Canon operates amid these conditions, office MFDs and laser printers enjoyed solid demand due to the shift from monochrome to color models and robust demand in emerging markets. The decline of the camera market continued and the market for inkjet printers was slightly below the level of the previous year. On the other hand, demand for medical equipment grew moderately. Within the Industry and Others sector, capital investment in semiconductor lithography equipment increased, while capital investment in OLED panel manufacturing equipment faced a temporary slowdown. Demand for network cameras enjoyed solid growth.

The average value of the yen during the year was ¥110.43 against the U.S. dollar, a year-on-year appreciation of approximately ¥2, and ¥130.29 against the euro, a year-on-year depreciation of approximately ¥4.

Summary of operations

During 2018, unit sales of office MFDs increased compared with the previous year due to the expanded sales of color models, mainly outside of Japan. Additionally, unit sales of both monochrome and color laser printers increased compared with the previous year, supported by the steady sales of newly launched models. Total sales volume of interchangeable-lens digital cameras decreased compared with the previous year due to contraction of the market mainly for entry-class models. However, sales of mirrorless cameras increased. Looking at inkjet printers, although sales unit of refillable ink tank models increased in emerging markets, unit sales overall decreased compared with the previous year, due to decreasing demand in developed economies. For medical equipment, newly launched diagnostic ultrasound systems and MRI systems experienced solid demand, mainly outside of Japan, achieving increased sales compared with the previous year. For industrial equipment, sales of semiconductor lithography equipment increased significantly compared with the previous year, thanks to favorable market conditions. However, manufacturing equipment for OLED panels decreased compared with the previous year mainly due to a slowdown in investment in OLED panels. Sales of network cameras increased steadily in response to the growing market. Under these conditions, net sales for the year decreased by 3.1% year on year to ¥3,951,937 million. In addition, the gross profit ratio dropped by 2.4 points to 46.4%. This was mainly due to the fact that certain costs that were recorded under operating expenses in the prior years have been reclassified to cost of sales in 2018, following the adoption of new accounting standards related to revenue recognitions as described in Note 15 of the Notes to Consolidated Financial Statements. The reclassified amount for the year ended December 31, 2018 was ¥115,700 million. Excluding the impact of this reclassification, the gross profit ratio increased by 0.6 points to 49.4%. Operating expenses decreased by 10.6% year on year to ¥1,492,602 million, thanks to Group-wide efforts to thoroughly manage expenses as well as impairment loss on goodwill of commercial printing business during the previous year in addition to the impact of the aforementioned reclassification of figures related to the adoption of new accounting standards. As a result, operating profit increased by 6.6% to ¥342,952 million. Other income (deductions) decreased by ¥12,339 million, mainly due to gain on securities contributed to the retirement benefit trust during the previous year, while income before income taxes increased by 2.5% year on year to ¥362,892 million and net income attributable to Canon Inc. increased by 4.5% to ¥252,755 million.

Total assets decreased by ¥298,826 million to ¥4,899,465 million at December 31, 2018, compared to the end of previous year, mainly due to the decrease of cash and cash equivalents. Total liabilities decreased by ¥220,564 million to ¥1,881,552 million at December 31, 2018, compared to the end of previous year, mainly due to the repayment of the long-term debt. Total equity decreased by ¥78,262 million to ¥3,017,913 million at December 31, 2018, compared to the end of previous year, mainly due to the increase of accumulated other comprehensive loss resulting from the appreciation of yen.

Table of Contents*Key performance indicators*

The following are the key performance indicators (KPIs) that Canon uses in managing its business. The changes from year to year in these KPIs are set forth in the table shown below.

KEY PERFORMANCE INDICATORS

	2018	2017	2016	2015	2014
Net sales (Millions of yen)	3,951,937	4,080,015	3,401,487	3,800,271	3,727,252
Gross profit to net sales ratio	46.4%	48.8%	49.2%	50.8%	49.9%
R&D expense to net sales ratio	8.0%	8.2%	9.0%	8.8%	8.4%
Operating profit to net sales ratio	8.7%	7.9%	6.4%	9.0%	9.3%
Income before income taxes to net sales ratio	9.2%	8.7%	7.2%	9.1%	10.3%
Inventory turnover measured in days	56 days	49 days	59 days	47 days	50 days
Debt to total assets ratio	8.2%	10.2%	11.9%	0.0%	0.0%
Canon Inc. shareholders' equity to total assets ratio	57.7%	55.2%	54.2%	67.0%	66.8%

Notes:

1. Inventory turnover measured in days is determined by: Inventory divided by net sales for the previous six months, multiplied by 182.5. The increase of inventory turnover in 2016 was primarily due to the acquisition of CMSC on December 19, 2016. If this factor were excluded, the inventory turnover would show 50 days.
2. See notes to Item 3A Selected Financial Data .

Net sales and profit ratio

As Canon pursues the goal to become a truly excellent global company, one indicator upon which Canon's management places strong emphasis is revenue. The following are some of the KPIs related to revenue that management considers to be important.

Net sales is one such KPI. Canon derives net sales primarily from the sale of products and, to a lesser extent, provision of services associated with its products. Sales vary depending on such factors as product demand, the number and size of transactions within the reporting period, market acceptance for new products, and changes in sales prices. Other factors involved are market share and market environment. In addition, management considers the evaluation of net sales by segment to be important for the purpose of assessing Canon's sales performance in various segments, taking into account recent market trends.

Gross profit ratio (ratio of gross profit to net sales) is another KPI for Canon. Through its reforms of product development, Canon has been striving to shorten product development lead times in order to launch new, competitively priced products at a faster pace. Furthermore, Canon has further achieved cost reductions through enhancement of efficiency in its production. Canon believes that these achievements have contributed to improving Canon's gross profit ratio, and will continue pursuing the curtailment of product development lead times and reductions of production costs.

Operating profit ratio (ratio of operating profit to net sales), income before income taxes ratio (ratio of income before income taxes to net sales), and R&D expense to net sales ratio are considered to be KPIs by Canon. Canon is focusing on two areas for improvement. Canon is striving to control and reduce its selling, general and administrative expenses as its first key point. Secondly, Canon's R&D policy is designed to maintain adequate spending in core technology to sustain Canon's leading position in its current business areas and to exploit opportunities in other markets. Canon believes such investments will create the basis for future success in its business and operations.

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Cash flow management

Canon also places significant emphasis on cash flow management. The following are the KPIs relating to cash flow management that Canon's management believes to be important.

Inventory turnover measured in days is a KPI because it measures the efficiency of supply chain management. Inventories have inherent risks of becoming obsolete, physically damaged or otherwise decreasing significantly in value, which may adversely affect Canon's operating results. To mitigate these risks, management believes that it is crucial to continue reducing work-in-process inventories by decreasing production lead times in order to promptly recover related product expenses, while balancing risks of supply chain disruptions by optimizing finished goods inventories in order to avoid losing potential sales opportunities.

The debt to total assets ratio is also one of the KPIs. For a manufacturing company like Canon, it generally takes considerable time to realize profit from a business due to lead times required for R&D, manufacturing and sales has to be followed for success. Therefore, management believes that it is important to have sufficient financial strength. Canon will continue to reduce its dependency on external funds for capital investments in favor of generating the necessary funds from its own operations.

Canon Inc. shareholders' equity to total assets ratio is another KPI for Canon. Canon believes that its shareholders' equity to total assets ratio measures its long-term sustainability. Canon also believes that achieving a high or rising shareholders' equity ratio indicates that Canon has maintained a strong financial position or further improved its ability to fund debt obligations and other unexpected expenses. In the long-term, Canon's management believes a high shareholders' equity ratio will enable the company to maintain a high level of stable investments for its future operations and development. As Canon puts strong emphasis on its R&D activities, management believes that it is important to maintain a stable financial base and, accordingly, a high level of its shareholders' equity to total assets ratio.

Critical accounting policies and estimates

The consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP) and based on the selection and application of significant accounting policies which require management to make significant estimates and assumptions. These estimates and assumptions include future market conditions, net sales growth rate, gross margin and discount rate. Though Canon believes that the estimates and assumptions are reasonable, actual future results may differ from these estimates and assumptions. Canon believes that the following are the more critical judgment areas in the application of its accounting policies that currently affect its financial condition and results of operations.

Revenue recognition

Canon generates revenue principally through the sale of office, imaging system and medical system products, industrial equipment, supplies and related services under separate contractual arrangements. Revenue is recognized when, or as, control of promised goods or services transfers to customers in an amount that reflects the consideration to which Canon expects to be entitled in exchange for transferring these goods or services.

Revenue from sales of office products, such as office MFDs and laser printers, and imaging system products, such as digital cameras and inkjet printers, is recognized upon shipment or delivery, depending upon when the customer obtains controls of these products.

Revenue from sales of equipment that are sold with customer acceptance provisions related to their functionality including optical equipment such as semiconductor lithography equipment and FPD lithography equipment, and certain medical equipment such as CT systems and MRI systems, is recognized when the equipment is installed at the customer site and the agreed-upon specifications are objectively satisfied.

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Most of Canon's service revenue is generated from office and medical system products which is recognized over time. For the service contracts of office products, the customer typically pays a variable amount based on usage, a stated fixed fee or a stated base fee plus a variable amount which frequently include the provision of consumables as well as break fix activities. The majority portion of service revenue from the office products is recognized as billed since invoiced amount directly correlates with the value to the customer of the underlying performance obligation to date. For the service contracts of medical system products, the customer typically pays a stated fixed fee for the stand ready maintenance service and revenue is recognized ratably over the contract period.

The majority of service arrangements for office products are executed in combination with related products. Transaction prices for products and services need to be allocated to each performance obligation on a relative standalone selling price basis where significant judgements are required. Canon estimates the standalone selling price using a range of prices that would meet the allocation objective based on all the information that is reasonably available including market conditions and other observable inputs. If transaction prices of the product or service contracts are not within the acceptable range then the revenue is subject to allocation based on the estimated standalone selling prices. Canon recognizes the incremental costs of obtaining a contract as an expense when related office products are sold.

Canon also provides leasing arrangement to the customers primarily for the sales of office products. Approximately 4% of total revenue is generated from these leasing arrangements for the year ended December 31, 2018. Revenue from the sale of these products under sales-type leases is recognized at the inception of the lease. Interest income on sales-type leases and direct-financing leases is recognized over the life of each respective lease using the interest method. Leases not qualifying as sales-type leases or direct-financing leases are accounted for as operating leases and related revenue is recognized ratably over the lease term. When product leases are bundled with maintenance contracts, revenue is allocated based upon the estimated standalone selling prices of the lease and non-lease components. Lease components generally include product, financing and executory costs, while non-lease components generally consist of maintenance contracts and supplies.

The transaction prices that Canon is entitled to receive in exchange for transferring goods or services to the customer include certain forms of variable consideration, including product discounts, customer promotions and volume-based rebates mainly for imaging system products, which are sold predominantly through distributors and retailers. Canon includes estimated amounts in the transaction price only to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Variable considerations are estimated based upon historical trends and other known factors at the time of sale, and are subsequently adjusted in each period based on current information. In addition, Canon may provide a right of return on our products for a short time period after a sale. These rights are accounted for as variable consideration when determining the transaction price, and accordingly Canon recognizes revenue based on the estimated amount to which Canon expects to be entitled after considering expected returns.

Taxes collected from customers and remitted to governmental authorities are excluded from revenues in the consolidated statements of income.

Allowance for doubtful receivables

Allowance for doubtful receivables is determined using a combination of factors to ensure that Canon's trade and financing receivables are not overstated due to uncollectibility. These factors include the length of time receivables are past due, the credit quality of customers, macroeconomic conditions and historical experience. Also, Canon records specific reserves for individual accounts when Canon becomes aware of a customer's inability to meet its financial obligations to Canon, due for example to bankruptcy filings or deterioration in the customer's operating results or

financial position. If circumstances related to customers change, estimates of the recoverability of receivables are further adjusted.

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Valuation of inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined by the average method for domestic inventories and principally the first-in, first-out method for overseas inventories. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make a sale. Canon routinely reviews its inventories for their salability and for indications of obsolescence to determine if inventories should be written-down to market value. Judgments and estimates must be made and used in connection with establishing such allowances in any accounting period. In estimating the net realizable value of its inventories, Canon considers the age of the inventories and the likelihood of spoilage or changes in market demand for its inventories.

Impairment of long-lived assets

Long-lived assets, such as property, plant and equipment, and acquired intangibles subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the carrying amount of the asset exceeds its estimated undiscounted future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. Determining the fair value of the asset involves the use of estimates and assumptions.

Property, plant and equipment

Property, plant and equipment are stated at cost. Depreciation is calculated principally by the declining-balance method, except for certain assets which are depreciated by the straight-line method over the estimated useful lives of the assets.

Business combinations

The acquisition is accounted for using the acquisition method of accounting. The acquisition method of accounting requires the identification and measurement of all acquired tangible and intangible assets and assumed liabilities at their respective fair values, as of the acquisition date. The determination of the fair value of net assets acquired involves significant judgment and estimates, such as future cash flow projections, appropriate discount and capitalization rates and other estimates based on available market information. Estimates of future cash flows are based on a number of factors including operating results, known and anticipated trends, as well as market and economic conditions.

Goodwill and other intangible assets

Goodwill and other intangible assets with indefinite useful lives are not amortized, but are instead tested for impairment annually in the fourth quarter of each year, or more frequently if indicators of potential impairment exist. All goodwill is assigned to the reporting unit or units that benefit from the synergies arising from each business combination. If the carrying amount assigned to the reporting unit exceeds the fair value of the reporting unit, Canon recognizes an impairment charge in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit. Fair value of a reporting unit is determined primarily based on the discounted cash flow analysis which involves estimates of projected future cash flows and discount rates. Estimates of projected future cash flows are primarily based on Canon's forecast of future growth rates. Estimates of discount rates are determined based on the weighted average cost of capital, which considers primarily market and industry data as well as specific risk factors. Canon has completed its impairment test in the fourth quarter of 2018. The fair values of all reporting units exceeded its respective carrying amount, and thus no impairment charge was recognized as a result of 2018 impairment test.

However, with regard to goodwill attributed to commercial printing business included in Office Business Unit for which the impairment charge of ¥33,912 million was recognized for the year ended December 31, 2017, and goodwill attributed to Medical System Business Unit and network camera business included in Industry and Others Business Unit were resulted

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from recent acquisitions, fair values in excess of reported carrying values as a percentage are lower than other reporting units. As a result, a future reduction in cash flows of the related business, could trigger an impairment. The goodwill related to these reporting units are ¥28,066 million, ¥500,896 million and ¥211,598 million, respectively. Intangible assets with finite useful lives consist primarily of software, trademarks, patents and developed technology, license fees and customer relationships, which are amortized using the straight-line method. The estimated useful lives of software are from 3 years to 7 years, trademarks are 15 years, patents and developed technology are from 7 years to 17 years, license fees are 7 years, and customer relationships are from 11 years to 15 years, respectively.

Income tax uncertainties

Canon considers many factors when evaluating and estimating income tax uncertainties. These factors include an evaluation of the technical merits of the tax positions as well as the amounts and probabilities of the outcomes that could be realized upon settlement. The actual resolutions of those uncertainties will inevitably differ from those estimates, and such differences may be material to the financial statements.

Valuation of deferred tax assets

Canon currently has significant deferred tax assets, which are subject to periodic recoverability assessments. Realization of Canon's deferred tax assets is principally dependent upon its achievement of projected future taxable income. Canon's judgments regarding future profitability may change due to future market conditions, its ability to continue to successfully execute its operating restructuring activities and other factors. Any changes in these factors may require possible recognition of significant valuation allowances to reduce the net carrying value of these deferred tax asset balances. When Canon determines that certain deferred tax assets may not be recoverable, the amounts, which may not be realized, are charged to income tax expense and will adversely affect net income.

Employee retirement and severance benefit plans

Canon has significant employee retirement and severance benefit obligations that are recognized based on actuarial valuations. Inherent in these valuations are key assumptions, including discount rates and expected return on plan assets. Management must consider current market conditions, including changes in interest rates, in selecting these assumptions. Other assumptions include assumed rate of increase in compensation levels, mortality rate, and withdrawal rate. Changes in assumptions inherent in the valuation are reasonably likely to occur from period to period. Actual results that differ from the assumptions are accumulated and amortized over future periods and, therefore, generally affect future pension expenses. While management believes that the assumptions used are appropriate, the differences may affect employee retirement and severance benefit costs in the future.

In preparing its financial statements for 2018, Canon estimated a weighted-average discount rate used to determine benefit obligations of 0.6% for Japanese plans and 2.4% for foreign plans and a weighted-average expected long-term rate of return on plan assets of 2.9% for Japanese plans and 4.4% for foreign plans. In estimating the discount rate, Canon uses available information about rates of return on high-quality fixed-income government and corporate bonds currently available and expected to be available during the period to the maturity of the pension benefits. Canon establishes the expected long-term rate of return on plan assets based on management's expectations of the long-term return of the various plan asset categories in which it invests. Management develops expectations with respect to each plan asset category based on actual historical returns and its current expectations for future returns.

Decreases in discount rates lead to increases in actuarial pension benefit obligations which, in turn, could lead to an increase in service cost and amortization cost through amortization of actuarial gain or loss, a decrease in interest cost, and vice versa. For 2018, a decrease of 50 basis points in the discount rate increases the projected

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benefit obligation by approximately ¥94,366 million. The net effect of changes in the discount rate, as well as the net effect of other changes in actuarial assumptions and experience, is deferred until subsequent periods.

Decreases in expected returns on plan assets may increase net periodic benefit cost by decreasing the expected return amounts, while differences between expected value and actual fair value of those assets could affect pension expense in the following years, and vice versa. For 2018, a change of 50 basis points in the expected long-term rate of return on plan assets would cause a change of approximately ¥4,657 million in net periodic benefit cost. Canon multiplies management's expected long-term rate of return on plan assets by the value of its plan assets to arrive at the expected return on plan assets that is included in pension expense. Canon defers recognition of the difference between this expected return on plan assets and the actual return on plan assets. The net deferral affects future pension expense.

Canon recognizes the funded status (i.e., the difference between the fair value of plan assets and the projected benefit obligations) of its pension plans in its consolidated balance sheets, with a corresponding adjustment to accumulated other comprehensive income (loss), net of tax.

Recently Issued Accounting Guidance

Please refer to Note 1 of the Notes to Consolidated Financial Statements.

Consolidated results of operations**2018 compared with 2017**

Summarized results of operations for 2018 and 2017 are as follows:

	2018	Change	2017
	(Millions of yen, except per share amounts and percentage data)		
Net sales			
Products and Equipment	3,194,724	-9.3%	3,521,156
Services	757,213	+35.5	558,859
	3,951,937	-3.1	4,080,015
Operating profit	342,952	+6.6	321,605
Income before income taxes	362,892	+2.5	353,884
Net income attributable to Canon Inc.	252,755	+4.5	241,923
Net income attributable to Canon Inc. shareholders per share:			
Basic	234.09	+5.0	222.88
Diluted	234.08	+5.0	222.88

Note: See notes to Item 3A Selected Financial Data .

Sales

In the current business term, the world economy seemingly mounted a gradual recovery on the whole, yet decelerated in the latter half largely due to adverse effects of trade friction. In such an environment, although each of Canon

Group's businesses endeavored to expand sales particularly with respect to new products, Canon's consolidated net sales in 2018 totaled ¥3,951,937 million, a decrease of 3.1% from the previous year largely due to adverse effect of a shrinking market. The adoption of the new revenue standard required the reconsideration of the scope of performance obligations related to service contracts, which has resulted in a change in classification of revenues between the products and service revenues. As a result, net sales of products and equipment totaled ¥3,194,724 million, a year-on-year decrease of 9.3%, while net sales of services totaled ¥757,213 million, a year-on-year increase of 35.5%. For further information, please refer to Note 15 of the Notes to Consolidated Financial Statements.

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Overseas operations are significant to Canon's operating results and generated 78.0% of total net sales in 2018. Such sales are denominated in the applicable local currency and are subject to fluctuations in the value of the yen relative to those currencies. Despite efforts to reduce the impact of currency fluctuations on operating results, including localization of manufacturing in some regions along with procuring parts and materials from overseas suppliers, Canon believes such fluctuations have had and will continue to have a significant effect on its results of operations.

The average value of the yen during the year was ¥110.43 against the U.S. dollar, a year-on-year appreciation of approximately ¥2, and ¥130.29 against the euro, a year-on-year depreciation of approximately ¥4. The effects of foreign exchange rate fluctuations positively affected net sales by approximately ¥1,024 million in 2018. This favorable impact consisted of approximately ¥17,800 million of unfavorable impact for the U.S. dollar denominated sales and favorable impact of ¥22,534 million for the euro denominated sales, and unfavorable impact of ¥3,710 million for other foreign currency denominated sales.

Cost of sales

Cost of sales principally reflects the cost of raw materials, parts and labor used by Canon in the manufacture of its products. A portion of the raw materials used by Canon is imported or includes imported materials. Many of these raw materials are subject to fluctuations in world market prices accompanied by fluctuations in foreign exchange rates that may affect Canon's cost of sales. Other components of cost of sales include depreciation expenses, maintenance expenses, light and fuel expenses, and rent expenses. The ratios of cost of sales to net sales for 2018 and 2017 were 53.6% and 51.2%, respectively.

Gross profit

Canon's gross profit in 2018 decreased by 7.8% to ¥1,835,554 million from 2017. The gross profit ratio also dropped by 2.4 points to 46.4%. This was mainly due to the fact that certain costs that were under operating expenses have been reclassified under cost of sales following the adoption of new accounting standards related to revenue recognitions as described in Note 15 of the Notes to Consolidated Financial Statements. The reclassified amount for the year ended December 31, 2018 was ¥115,700 million. Excluding the impact of this reclassification, the gross profit ratio increased by 0.6 points to 49.4%.

Operating expenses

The major components of operating expenses are payroll, R&D, advertising expenses and other marketing expenses. Operating expenses decreased by 10.6% year on year to ¥1,492,602 million, thanks to Group-wide efforts to thoroughly manage expenses as well as impairment loss on goodwill of commercial printing business during the previous year in addition to the impact of the aforementioned reclassification of figures related to the adoption of new accounting standards.

Operating profit

Operating profit in 2018 increased by 6.6% from 2017 to a total of ¥342,952 million. The ratio of operating profit to net sales increased by 0.8 points to 8.7% from 2017.

Other income (deductions)

Other income (deductions) for 2018 was ¥19,940 million, a decrease of ¥12,339 million from 2017 mainly due to gain on securities contributed to the retirement benefit trust during the previous year.

Income before income taxes

Income before income taxes in 2018 was ¥362,892 million, an increase of 2.5% from 2017, and constituted 9.2% of net sales.

Table of Contents*Income taxes*

Income taxes in 2018 decreased by ¥1,874 million from 2017. The effective tax rate for 2018 was 26.5%, which was lower than the statutory tax rate in Japan. This was mainly due to the tax credit for R&D expenses.

Net income attributable to Canon Inc.

As a result, net income attributable to Canon Inc. in 2018 increased by 4.5% to ¥252,755 million, which represents 6.4% of net sales.

Segment information

Canon divides its businesses into four segments: the Office Business Unit, the Imaging System Business Unit, the Medical System Business Unit which was newly established in 2017, and the Industry and Others Business Unit.

The Office Business Unit mainly includes office MFDs, laser MFPs, laser printers, digital continuous feed presses, digital sheet-fed presses, wide-format printers and document solutions.

The Imaging System Business Unit mainly includes interchangeable-lens digital cameras, digital compact cameras, digital camcorders, digital cinema cameras, interchangeable lenses, Compact photo printers, inkjet printers, large format inkjet printers, commercial photo printers, image scanners, multimedia projectors, broadcast equipment and calculators.

The Medical System Business Unit mainly includes digital radiography systems, diagnostic X-ray systems, CT systems, MRI systems, diagnostic ultrasound systems, clinical chemistry analyzers and ophthalmic equipment.

The Industry and Others Business Unit mainly includes semiconductor lithography equipment, FPD lithography equipment, vacuum thin-film deposition equipment, OLED panel manufacturing equipment, die bonders, micromotors, network cameras, handy terminals and document scanners.

Sales by segment

Please refer to the table of sales by segment in Note 22 of the Notes to Consolidated Financial Statements.

Canon's sales by segment are summarized as follows:

	2018	Change	2017
	(Millions of yen, except percentage data)		
Office	1,807,301	+0.1%	1,804,782
Imaging System	1,008,165	-11.3	1,136,188
Medical System	437,578	+0.3	436,187
Industry and Others	805,211	+1.6	792,850
Eliminations	(106,318)		(89,992)
Total	3,951,937	-3.1%	4,080,015

Within the Office Business Unit, unit sales of office MFDs increased from the previous year, thanks to expanded sales of such color models as the imageRUNNER ADVANCE Gen3 2nd Edition series, which enhances convenience through compatibility with external cloud services, and the imageRUNNER C3020 series of strategic models for emerging markets. As for laser printers, sales of hardware increased from the previous year, supported by steady sales mainly of new models that achieve low power consumption, compact body designs and high productivity. Sales of consumables remained at the same level as the previous year. These factors resulted in total sales for the business unit of ¥1,807,301 million, a year-on-year increase of 0.1%, while income before income taxes increased by 17.3% year on year to ¥229,187 million partly due to impairment loss on goodwill during the previous year.

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Within the Imaging System Business Unit, although unit sales of interchangeable-lens digital cameras decreased overall compared with the previous year due to shrinking market, Canon maintained the top share of the overall interchangeable-lens digital cameras market, mainly in key countries in Europe and the Americas as well as in Japan and China. In mirrorless cameras, sales were strong for such new models as the EOS R, Canon's first mirrorless camera equipped with a full-frame sensor, and the entry-class EOS Kiss M. As for digital compact cameras, although unit sales decreased compared with the previous year amid the shrinking market, sales of such high-value-added models as the PowerShot G-series enjoyed solid demand. For inkjet printers, unit sales of refillable ink tank models increased significantly in emerging markets. However, unit sales decreased overall compared with the previous year, mainly due to the shrinking market in developed economies. For large format inkjet printers, the imagePROGRAF TX series, which is suitable for outputting CAD drawings and poster designs, garnered high praise from the market and enjoyed solid sales. As a result, sales for the business unit decreased by 11.3% year on year to ¥1,008,165 million, while income before income taxes decreased by 31.1% year on year to ¥121,254 million.

Within the Medical System Business Unit, sales increased due to such newly launched products as the Alphenix-series of next-generation diagnostic X-ray systems and the Vantage Orian, a high-image-quality MRI system incorporating leading-edge technology. As a result, sales for the business unit increased by 0.3% year on year to ¥437,578 million, while income before income taxes increased by 31.0% year on year to ¥29,479 million.

In the Industry and Others Business Unit, unit sales of semiconductor lithography equipment increased from the previous year due to increasing demand for memory devices used in data centers. However, for FPD lithography equipment and OLED panel manufacturing equipment, sales decreased compared with the previous year mainly due to a temporary slowdown in investment in OLED panels. As for network cameras, Axis enjoyed solid sales amid increasing market demand. Consequently, sales for the business unit increased by 1.6% year on year to ¥805,211 million, while income before income taxes increased by 60.7% year on year to ¥67,607 million.

Intersegment sales of ¥106,318 million are eliminated from total sales for the four segments, and are described as Eliminations .

Sales by geographic area

Please refer to the table of sales by geographic area in Note 22 of the Notes to Consolidated Financial Statements.

A summary of net sales by geographic area in 2018 and 2017 is provided below:

	2018	Change	2017
	(Millions of yen, except percentage data)		
Japan	869,577	-1.7%	884,828
Americas	1,076,402	-2.8	1,107,515
Europe	1,015,428	-1.3	1,028,415
Asia and Oceania	990,530	-6.5	1,059,257
Total	3,951,937	-3.1%	4,080,015

Note:

This summary of net sales by geographic area is determined by the location where the product is shipped to the customers.

A geographical analysis indicates that net sales in 2018 are summarized as follows.

In Japan, net sales decreased by 1.7% from the previous year mainly owing to the decline in sales of interchangeable-lens digital cameras and compact digital cameras.

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In the Americas, despite solid sales of network cameras, net sales decreased by 2.8% from the previous year mainly owing to the negative effect of the yen's appreciation and the decline in sales of interchangeable-lens digital cameras and compact digital cameras.

In Europe, net sales decreased by 1.3% from the previous year mainly owing to the decline in sales of interchangeable-lens digital cameras and compact digital cameras.

In Asia and Oceania, net sales decreased by 6.5% from the previous year mainly owing to the decline in sales of interchangeable-lens digital cameras, compact digital cameras, manufacturing equipment for OLED panels which is sold by Canon Tokki, and manufacturing equipment for FPD.

Income before income taxes by segment

Please refer to the table of segment information in Note 22 of the Notes to Consolidated Financial Statements.

Income before income taxes for the Office Business Unit in 2018 increased by 17.3% from the previous year to ¥229,187 million, as impairment loss on goodwill incurred during the previous year.

Income before income taxes for the Imaging System Business Unit in 2018 decreased by 31.1% from the previous year to ¥121,254 million, owing to shrinking market for interchangeable-lens digital cameras.

Income before income taxes for the Medical System Business Unit in 2018 increased by 31.0% from the previous year to ¥29,479 million, mainly due to cost reduction and favorable sales of diagnostic X-ray systems and MRI systems.

Income before income taxes for the Industry and Others Business Unit in 2018 increased by 60.7% from the previous year to ¥67,607 million, thanks to strong sales of semiconductor lithography equipment and network cameras.

2017 compared with 2016

Summarized results of operations for 2017 and 2016 are as follows:

	2017	Change	2016
	(Millions of yen, except per share amounts and percentage data)		
Net sales			
Products and Equipment	3,521,156	+17.9%	2,986,188
Services	558,859	+34.6	415,299
	4,080,015	+19.9	3,401,487
Operating profit	321,605	+48.6	216,425
Income before income taxes	353,884	+44.6	244,651
Net income attributable to Canon Inc.	241,923	+60.6	150,650
Net income attributable to Canon Inc. shareholders per share:			
Basic	222.88	+61.6	137.95
Diluted	222.88	+61.6	137.95

Note: See notes to Item 3A Selected Financial Data .

Sales

In the current business term, the world economy as a whole continued to recover more robustly than was expected at the beginning of the year. In such an environment, due to efforts to promote sales of newly launched

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models and high-value-added models, along with the impact of acquiring CMSC, Canon's consolidated net sales in 2017 totaled ¥4,080,015 million, an increase of 19.9% from the previous year. Net sales of products and equipment totaled ¥3,521,156 million, a year-on-year increase of 17.9%, while net sales of services totaled ¥558,859 million, a year-on-year increase of 34.6% due to the impact of acquiring CMSC.

Overseas operations are significant to Canon's operating results and generated 78.3% of total net sales in 2017. Such sales are denominated in the applicable local currency and are subject to fluctuations in the value of the yen relative to those currencies. Despite efforts to reduce the impact of currency fluctuations on operating results, including localization of manufacturing in some regions along with procuring parts and materials from overseas suppliers, Canon believes such fluctuations have had and will continue to have a significant effect on its results of operations.

The average value of the yen during the year was ¥112.13 against the U.S. dollar, a year-on-year depreciation of approximately ¥4, and ¥126.69 against the euro, a year-on-year depreciation of approximately ¥6. The effects of foreign exchange rate fluctuations positively affected net sales by approximately ¥96,224 million in 2017. This favorable impact consisted of approximately ¥42,467 million of favorable impact for the U.S. dollar denominated sales and favorable impact of ¥42,950 million for the euro denominated sales, and ¥10,807 million for other foreign currency denominated sales.

Cost of sales

Cost of sales principally reflects the cost of raw materials, parts and labor used by Canon in the manufacture of its products. A portion of the raw materials used by Canon is imported or includes imported materials. Many of these raw materials are subject to fluctuations in world market prices accompanied by fluctuations in foreign exchange rates that may affect Canon's cost of sales. Other components of cost of sales include depreciation expenses, maintenance expenses, light and fuel expenses, and rent expenses. The ratios of cost of sales to net sales for 2017 and 2016 were 51.2% and 50.8%, respectively.

Gross profit

Canon's gross profit in 2017 increased by 19.1% to ¥1,990,554 million from 2016. The gross profit ratio decreased by 0.4 points year on year to 48.8%. The decrease in the gross profit ratio is primarily due to the effect of product mix.

Operating expenses

The major components of operating expenses are payroll, R&D, advertising expenses and other marketing expenses. Operating expenses increased 14.7% year on year to ¥1,668,949 million owing to such factors as the increase in foreign-currency-denominated operating expenses after conversion into yen due to the depreciation of the yen, the impact of acquiring CMSC, and the impact of recognizing impairment losses on goodwill.

Operating profit

Operating profit in 2017 increased 48.6% from 2016 to a total of ¥321,605 million. The ratio of operating profit to net sales increased by 1.5 points to 7.9% from 2016.

Other income (deductions)

Other income (deductions) for 2017 was ¥32,279 million, an increase of ¥4,053 million from 2016 mainly due to gain on securities contributed to retirement benefit trust which was partially offset by foreign currency exchange losses.

Table of Contents*Income before income taxes*

Income before income taxes in 2017 was ¥353,884 million, an increase of 44.6% from 2016, and constituted 8.7% of net sales.

Income taxes

Income taxes in 2017 increased by ¥15,343 million from 2016. The effective tax rate for 2017 was 27.7%, which was lower than the statutory tax rate in Japan. This was mainly due to the effect of reversal of deferred tax liabilities derived from US tax reform in 2017 and the tax credit for R&D expenses which were partially offset by the impact of impairment losses on goodwill.

Net income attributable to Canon Inc.

As a result, net income attributable to Canon Inc. in 2017 increased by 60.6% to ¥241,923 million, which represents 5.9% of net sales.

Segment information

Canon divides its businesses into four segments: the Office Business Unit, the Imaging System Business Unit, the Medical System Business Unit which was newly established in 2017, and the Industry and Others Business Unit.

The Office Business Unit mainly includes office MFDs, laser MFPs, laser printers, digital continuous feed presses, digital sheet-fed presses, wide-format printers and document solutions.

The Imaging System Business Unit mainly includes interchangeable-lens digital cameras, digital compact cameras, digital camcorders, digital cinema cameras, interchangeable lenses, Compact photo printers, inkjet printers, large format inkjet printers, commercial photo printers, image scanners, multimedia projectors, broadcast equipment and calculators.

The Medical System Business Unit mainly includes digital radiography systems, diagnostic X-ray systems, CT systems, MRI systems, diagnostic ultrasound systems, clinical chemistry analyzers and ophthalmic equipment.

The Industry and Others Business Unit mainly includes semiconductor lithography equipment, FPD lithography equipment, vacuum thin-film deposition equipment, OLED panel manufacturing equipment, die bonders, micromotors, network cameras, handy terminals and document scanners.

Sales by segment

Please refer to the table of sales by segment in Note 22 of the Notes to Consolidated Financial Statements.

Canon's sales by segment are summarized as follows:

	2017	Change	2016
	(Millions of yen, except percentage data)		
Office	1,804,782	+3.4%	1,745,996
Imaging System	1,136,188	+3.7	1,095,289

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Medical System	436,187		
Industry and Others	792,850	+22.6	646,483
Eliminations	(89,992)		(86,281)
Total	4,080,015	+19.9%	3,401,487

Within the Office Business Unit, unit sales of office MFDs increased from the previous year and achieved higher growth than the market average, supported by steady sales of next-generation color models designed to

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strengthen the product lineup such as the newly launched color A3 (12 x18) imageRUNNER ADVANCE C3500 series for small- and medium-size offices. Among digital sheet-fed presses, unit sales of the Océ-produced VarioPrint i300, a digital sheet-fed presses color inkjet press that offers superior low-running-cost performance, increased. As for laser printers, sales of both hardware and consumables increased from the previous year, supported by steady sales of new models that achieve low power consumption and compact body designs. These factors resulted in total sales for the business unit of ¥1,804,782 million, a year-on-year increase of 3.4%, while income before income taxes totaled ¥195,369 million, a year-on-year increase of 15.0%.

Within the Imaging System Business Unit, while the pace of decline in demand for interchangeable-lens digital cameras is gradually decelerating, the sales of the advanced-amateur-models including the EOS 6D Mark II enjoyed solid demand, allowing Canon to maintain the top share, mainly in the United States, Europe, and Japan. As for compact-system cameras, the advanced-amateur-model EOS M6 and the entry-level EOS M100 enjoyed strong demand. As for digital compact cameras, amid the shrinking market, unit sales remained at the same level as the previous year, supported by the increased sales of such high-value-added models as the newly launched G9 X Mark II part of the high-image-quality PowerShot G-series lineup. As for inkjet printers, the newly designed home-use TS-series, refillable ink tank models targeting emerging countries and the imagePROGRAF PRO series of large format inkjet printer targeting the professional photo and graphic art markets enjoyed strong demand, resulting in unit sales increasing from the previous year. As a result, sales for the business unit increased by 3.7% year on year to ¥1,136,188 million, while income before income taxes totaled ¥175,913 million, a year-on-year increase of 21.8%.

Within the Medical System Business Unit, CMSC's CT system products increased the sales and maintained the top share in the Japanese market thanks to the solid sales of the newly launched Aquilion Precision CT scanner, which delivers the industry's highest level of high-resolution imaging. As for diagnostic ultrasound systems, sale of the Aplio i-series, which delivers proprietary high-resolution imaging technology, remained firm. As a result, sales for the business unit totaled ¥436,187 million, while income before income taxes totaled ¥22,505 million.

In the Industry and Others Business Unit, unit sales of semiconductor lithography equipment increased from the previous year as a result of increasing demand for memory devices used in data centers. Additionally, sales of FPD lithography equipment and manufacturing equipment for OLED panels increased significantly in response to continued growing demand for high-definition OLED displays used in mobile devices. As for network cameras, amid increasing market demand, Axis enjoyed solid sales, resulting in a considerable sales increase compared with the previous year. Consequently, sales for the business unit increased by 22.6% year on year to ¥792,850 million, while income before income taxes grew by ¥35,008 million from the previous year to ¥42,067 million.

Intersegment sales of ¥89,992 million are eliminated from total sales for the four segments, and are described as Eliminations .

Sales by geographic area

Please refer to the table of sales by geographic area in Note 22 of the Notes to Consolidated Financial Statements.

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A summary of net sales by geographic area in 2017 and 2016 is provided below:

	2017	Change	2016
	(Millions of yen, except percentage data)		
Japan	884,828	+25.2%	706,979
Americas	1,107,515	+14.9	963,544
Europe	1,028,415	+12.6	913,523
Asia and Oceania	1,059,257	+29.6	817,441
Total	4,080,015	+19.9%	3,401,487

Note: This summary of net sales by geographic area is determined by the location where the product is shipped to the customers.

A geographical analysis indicates that net sales in 2017 are summarized as follows.

In Japan, net sales increased by 25.2% from the previous year mainly due to the impact of acquiring CMSC.

In the Americas, net sales increased by 14.9% from the previous year due to the impact of acquiring CMSC, solid sales of network cameras and the positive effects of favorable currency exchange rates.

In Europe, net sales increased by 12.6% from the previous year due to the impact of acquiring CMSC, solid sales of network cameras and the positive effects of favorable currency exchange rates.

In Asia and Oceania, net sales increased by 29.6% from the previous year due to the impact of acquiring CMSC and strong sales of manufacturing equipment for OLED panels which is sold by Canon Tokki and manufacturing equipment for FPD.

Income before income taxes by segment

Please refer to the table of segment information in Note 22 of the Notes to Consolidated Financial Statements.

Income before income taxes for the Office Business Unit in 2017 increased by 15.0% from the previous year to ¥195,369 million, owing to the positive effects of favorable currency exchange rates.

Income before income taxes for the Imaging System Business Unit in 2017 increased by 21.8% from the previous year to ¥175,913 million, owing to the improvement in profitability from the sales shift to high-added-value models in cameras, along with the positive effects of favorable currency exchange rates.

Income before income taxes for the Medical System Business Unit, which was newly established in 2017, was ¥22,505 million in 2017.

Income before income taxes for the Industry and Others Business Unit in 2017 grew by ¥35,008 million to ¥42,067 million thanks to strong sales of manufacturing equipment for OLED panels and network cameras.

Foreign operations and foreign currency transactions

Canon's marketing activities are performed by subsidiaries in various regions in local currencies, while the cost of sales is generally in yen. Given Canon's current operating structure, appreciation of the yen has a negative impact on net sales and the gross profit ratio. To reduce the financial risks from changes in foreign exchange rates, Canon utilizes derivative financial instruments, which consist principally of forward currency exchange contracts.

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The operating profit on foreign operation sales is usually lower than that from domestic operations because foreign operations consist mainly of marketing activities. Marketing activities are generally less profitable than production activities, which are mainly conducted by the Company and its domestic subsidiaries. Please refer to the table of geographic information in Note 22 of the Notes to Consolidated Financial Statements.

B. Liquidity and capital resources

Cash and cash equivalents decreased by ¥201,169 million to ¥520,645 million in fiscal 2018 compared to the previous year. Canon's cash and cash equivalents are primarily denominated in Japanese yen and in U.S. dollars, with the remainder denominated in other currencies.

Net cash provided by operating activities decreased by ¥225,264 million to ¥365,293 million in fiscal 2018 compared to the previous year due to increase of capital used for operations and income tax paid. The major component of Canon's cash inflow is cash received from customers, and the major components of Canon's cash outflow are payments for parts and materials, selling, general and administrative expenses, R&D expenses and income taxes.

For fiscal 2018, cash inflow from cash received from customers decreased due to sales deterioration. There were no significant changes in Canon's collection rates. Cash outflow for payments for parts and materials increased due to an increase of inventory level resulting from sales decline. Cash outflow for payments for income taxes increased due to an increase in taxable income in fiscal 2017.

Net cash used in investing activities increased by ¥30,605 million to ¥195,615 million in fiscal 2018 mainly due to an increase in payment for acquisitions of businesses.

Canon defines "free cash flow" as cash flows from operating activities less cash flows from investing activities. For fiscal 2018, free cash flow decreased by ¥255,869 million to ¥169,678 million as compared with ¥425,547 million for fiscal 2017.

Note: "Free cash flow" is non-GAAP measure. Refer to "Non-GAAP Financial Measures" section for the explanation and the reconciliation to the reported GAAP measure.

Canon's management places importance on cash flow management and frequently monitors this indicator. Furthermore, Canon's management believes that this indicator is significant in understanding Canon's current liquidity and the alternatives of use in financing activities because it takes into consideration its operating and investing activities and believes that such indicator is beneficial to an investor's understanding. Canon refers to this indicator together with relevant U.S. GAAP financial measures shown in its consolidated statements of cash flows and consolidated balance sheets for cash availability analysis.

Net cash used in financing activities totaled ¥354,830 million in fiscal 2018, mainly resulting from the dividend payout of ¥178,159 million, the repayment for long-term loans of ¥136,094 million. The Company paid dividends in fiscal 2018 of ¥160.00 per share.

To the extent Canon relies on external funding for its liquidity and capital requirements, it generally has access to various funding sources, including the issuance of additional share capital, issuance of corporate bond or loans. While Canon has been able to obtain funding from its traditional financing sources and from the capital markets, and believes it will continue to be able to do so in the future, there can be no assurance that adverse economic or other conditions will not affect Canon's liquidity or long-term funding in the future.

Short-term loans (including the current portion of long-term debt) decreased by ¥801 million to ¥38,527 million at December 31, 2018 compared with ¥39,328 million at December 31, 2017. Long-term debt (excluding the current portion) decreased by ¥131,276 million to ¥361,962 million at December 31, 2018 compared with ¥493,238 million at December 31, 2017 thanks to the repayment for long-term loans.

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Canon's long-term debt mainly consists of bank borrowings and lease obligations.

In order to facilitate access to global capital markets, Canon obtains credit ratings from two rating agencies: Moody's Investors Services, Inc. (Moody's) and Standard and Poor's Ratings Services (S&P). In addition, Canon maintains a rating from Rating and Investment Information, Inc. (R&I), a rating agency in Japan, for access to the Japanese capital market.

As of February 28, 2019, Canon's debt ratings are: Moody's: Aa3 (long-term); S&P: AA- (long-term), A-1+ (short-term); and R&I: AA+ (long-term). Canon does not have any rating downgrade triggers that would accelerate the maturity of a material amount of its debt. A downgrade in Canon's credit ratings or outlook could, however, increase the cost of its borrowings.

Canon's management policy in recent periods to optimize inventory levels is intended to maintain an appropriate balance among relevant imperatives, including minimizing working capital, avoiding undue exposure to the risk of inventory obsolescence, and maintaining the ability to sustain sales despite the occurrence of unexpected disasters.

Canon's total inventory turnover ratios were 56, 49, and 59 days at the end of the fiscal years 2018, 2017, and 2016, respectively. The inventory turnover in 2018 was reflecting the foregoing circumstances. The inventory turnover in 2016 was primarily impacted by acquisition of CMSC on December 19, 2016. If this factor were excluded, the inventory turnover would show 50 days.

Increase in property, plant and equipment on an accrual basis in 2018 amounted to ¥159,316 million compared with ¥147,542 million in 2017 and ¥171,597 million in 2016. For 2019, Canon projects its increase in property, plant and equipment will be approximately ¥175,000 million.

Employer contributions to Canon's worldwide defined benefit pension plans were ¥35,044 million in 2018, ¥50,628 million in 2017 and ¥14,575 million in 2016. Employer contributions to Canon's worldwide defined contribution pension plans were ¥19,570 million in 2018, ¥18,979 million in 2017, and ¥17,603 million in 2016. In addition, employer contributions to the multiemployer pension plan of certain subsidiaries were ¥4,452 million in 2018, ¥4,165 million in 2017 and ¥3,482 million in 2016.

Working capital in 2018 decreased by ¥102,642 million to ¥1,020,527 million, compared with ¥1,123,169 million in 2017 and ¥1,116,379 million in 2016. Canon believes its working capital will be sufficient for its requirements for the foreseeable future. Canon's capital requirements are primarily dependent on management's business plans regarding the levels and timing of purchases of fixed assets and investments. The working capital ratio (ratio of current assets to current liabilities) for 2018 was 1.99 compared to 2.01 for 2017 and to 2.14 for 2016.

Return on assets (net income attributable to Canon Inc. divided by the average of total assets) was 5.0% in 2018, compared to 4.7% in 2017 and 3.1% in 2016.

Return on Canon Inc. shareholders' equity (net income attributable to Canon Inc. divided by the average of total Canon Inc. shareholders' equity) was 8.9% in 2018 compared with 8.6% in 2017 and 5.2% in 2016.

The debt to total assets ratios were 8.2%, 10.2% and 11.9% as of December 31, 2018, 2017 and 2016, respectively. Canon had short-term loans and long-term debt of ¥400,489 million as of December 31, 2018, ¥532,566 million as of December 31, 2017 and ¥613,139 million as of December 31, 2016.

Non-GAAP Financial Measures

We have reported our financial results in accordance with U.S. generally accepted accounting principles (U.S. GAAP). In addition, we have discussed our results using the combination of two GAAP cash flow

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measures, Net cash provided by operating activities and Net cash used for investing activities, which we refer to as Free Cash Flow which is non-GAAP measure. We believe this measure is beneficial to an investor's understanding on Canon's current liquidity and the alternatives of use in financing activities because it takes into consideration its operating and investing activities.

A reconciliation of these non-GAAP financial measures and the most directly comparable measures calculated and presented in accordance with GAAP are set forth on the following table.

Free Cash Flow

	December 31	
	2018	2017
	<i>(Millions of yen)</i>	
Net cash provided by operating activities	365,293	590,557
Net cash used in investing activities	(195,615)	(165,010)
Free cash flow	169,678	425,547

C. Research and development, patents and licenses

Canon has started its 5-year management plan, the Excellent Global Corporation Plan Phase V (Phase V) from the year 2016. In Phase V, our slogan is Embrace the challenge of new growth through a grand strategic transformation and there are three key strategies related to R&D:

- Establish a new production system to achieve a cost-of-sales ratio of 45%;
- Reinforce and expand new businesses while creating future businesses; and
- Enhance R&D capabilities through open innovation.

Canon has been striving to implement the three R&D related strategies as follows:

Establish a new production system to achieve a cost-of-sales ratio of 45%:

Strengthen domestic mother factories by integrating design, procurement, production engineering and manufacturing technology operations while pursuing total cost reduction by advancing production engineering capabilities with more sophisticated robots and next-generation technologies such as the IoT, big data and artificial intelligence.

Reinforce and expand new businesses while creating future businesses:

Create and expand new businesses by accelerating the horizontal expansion of existing business with the exploration of new application possibility of Canon's technologies into new fields. Also, invest intensively on the R&D of promising businesses areas such as commercial printing, network cameras and life sciences while actively taking advantage of M&A to accelerate the early expansion of these businesses.

Enhance R&D capabilities through open innovation:

Construct a more open R&D system that proactively leverages external technologies and knowledge to accelerate and improve efficiency of the R&D. Especially in our fundamental research and development, Canon is promoting joint and contract research with various partners including universities, research institutes, and startups around the world.

Canon is currently working on collaborative research with Massachusetts General Hospital and Brigham and Women's Hospital to develop medical robotics and ultra-miniature endoscope at the Healthcare Optics Research Laboratory in Boston. Also, CMSC has started collaborative research on Deep Learning Reconstruction in MRI systems, together with Kumamoto University and the University of Bordeaux.

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Canon has developed simulation systems covering comprehensive image processing including optical design, mechanical noise analysis, and thermal air flow analysis. With these simulation systems, Canon has succeeded in further reducing the need for prototypes, lowering costs and shortening product development lead times.

Canon believes that new products protected by the robust patent portfolio will not easily allow competitors to compete with them, and will give them an advantage in establishing standards in the market and industry.

Canon obtained the third greatest number of patents in the United States in 2018, according to the annual ranking list, released by IFI CLAIMS® Patent Services.

D. Trend information

Under the corporate philosophy of *kyosei* living and working together for the common good Canon's basic management policy is to contribute to the prosperity and well-being of the world while endeavoring to become a truly excellent global corporation targeting continued growth and development.

Based on this basic management policy, Canon launched the Excellent Global Corporation Plan in 1996 and, from Phase I through to Phase IV, has worked to strengthen its management base and improve corporate value. In 2016, under the slogan "Embracing the challenge of new growth through a grand strategic transformation," Canon embarked on a new five-year initiative: Phase V of the Excellent Global Corporation Plan. Under this plan, Canon aims to facilitate growth through structural transformation by reinforcing existing businesses and taking steps to cultivate and strengthen new businesses.

The global economy is expected to continue to slow down from the latter half of 2018 and overall, there are concerns of further economic slowdown occurring as a result of intensifying trade friction.

In the businesses in which Canon is involved, for office MFDs, color models are expected to grow steadily. Overall demand for laser printers is expected to remain at the same level as that of the previous year, supported by the trend of shifting from monochrome to color models and increasing demand in emerging markets. For interchangeable-lens digital cameras, while demand for interchangeable-lens digital cameras equipped with full-frame sensors is expected to grow steadily, overall demand is expected to decrease. Projections for digital compact cameras indicate continued market contraction, centered mainly on low-priced models. With regard to inkjet printers, demand is expected to continue to decrease slightly from the previous year.

As for the medical equipment market, demand is expected to remain firm, mainly outside of Japan, with increasing demand in emerging markets and increased demand for advanced medical care in the United States and Europe. Looking at industrial equipment, as for the semiconductor lithography equipment, while demand for automotive devices is expected to increase, capital investment is expected to slow down for memory devices. For FPD lithography equipment and OLED panel manufacturing equipment, capital investment in small- and medium-size display panels is expected to continue to slow down. As for network cameras, demand is expected to continue expanding for high-spec models and image analysis software due to the growing use of network cameras for a widening range of applications.

The Canon Group recognizes the Business Term in 2019 as a year for achieving transformation into an enterprise wielding high productivity on par with other excellent global corporations in every field of business ranging from R&D to production, sales and service, underpinned by a new business portfolio containing four additional new business areas (commercial printing, network cameras, medical system, and industrial equipment). Accordingly, we will work to address the following key challenges under the theme, "Accelerate Grand Strategic Transformation to achieve fundamental improvements in productivity."

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(1) Revitalizing existing businesses

We promote efforts to strengthen development of DANTOTSU products that overwhelm competitors, making extensive use of cloud, AI and IoT technologies.

We will enhance assembly automation by turning out product designs suitable to automation, and promote in-house production of equipment and key parts throughout the Group.

We will make quality and cost improvements by strengthening procurement functions and collaborating with suppliers, and promote in-house production and standardization of parts

(2) Bolstering and expanding new businesses

In commercial printing, our aims involve drawing up comprehensive strategy for all printing-related businesses, building platforms for the commercial printing business centered on Océ, and establishing product structures geared to high-resolution and high-mix, small-lot printing.

With network cameras, we will enhance and upgrade related software, and promote expansion into a wide range of fields beyond crime prevention and disaster monitoring applications.

In the medical field, we will enhance our product strengths and sales capabilities with respect to diagnostic equipment, and will explore possibilities for expanding our business into areas besides diagnostic equipment.

With industrial equipment, we will accelerate development of next-generation OLED panel manufacturing equipment and promote development of new industrial equipment

(3) Reforming R&D operation in anticipation of industrial and social changes

We will take an approach to the theme of development, grouped into the three areas of: 1. initiatives related to enhancing existing businesses, 2. initiatives aiming to commercialize opportunities in the near future, and 3. initiatives over the medium to long term. Accordingly, we will strive to improve development productivity by forming a development framework that is tailored to those three areas of focus.

We will expand and enhance our worldwide research into start-up companies that have substantial potential for growth drawing on their cutting-edge technologies and new business models.

For a discussion of the trend by business segments, see Item 4 B. Business overview and Item 5 A. Operating Results .

E. Off-balance sheet arrangements

As part of its ongoing business, Canon does not participate in transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Canon provides guarantees for its employees, affiliates and other companies. The guarantees for the employees are principally made for their housing loans. The guarantees for affiliates and other companies are made for their lease obligations and bank loans to ensure that those companies operate with less financial risk.

Canon would have to perform under a guarantee if the borrower defaults on a payment within the contract terms. The contract terms are 1 year to 30 years in case of employees with housing loans, and 1 year to 7 years in case of

affiliates and other companies with lease obligations and bank loans. The maximum amount of undiscounted payments Canon would have had to make in the event of default is ¥4,458 million at December 31, 2018. The carrying amounts of the liabilities recognized for Canon's obligations as a guarantor under those guarantees at December 31, 2018 were not significant.

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The following summarizes Canon's contractual obligations at December 31, 2018.

	Total	Payments Due By Period			
		Less than 1 year	1-3 years	3-5 years	More than 5 years
(Millions of yen)					
Contractual obligations:					
Long-Term Debt:					
Loan from the banks	360,000		360,000		
Other debt	4,602	2,640	1,443	509	10
Operating Lease Obligations	115,084	29,817	41,239	23,730	20,298
Purchase commitments for:					
Property, Plant and Equipment	54,905	54,905			
Parts and Raw Materials	120,344	120,344			
Other long-term liabilities					
Contribution to Defined Benefit Pension Plans	32,400	32,400			
Total	687,335	240,106	402,682	24,239	20,308

Note: The table does not include provisions for uncertain tax positions and related accrued interest and penalties, as the specific timing of future payments related to these obligations cannot be projected with reasonable certainty. See Note 12, Income Taxes in the Notes to Consolidated Financial Statements for further details.

Contribution to defined benefit pension plans reflects the expected amount only for the next fiscal year, since contributions beyond the next fiscal year are not currently determinable due to uncertainties related to changes in actuarial assumptions, returns on plan assets and changes to plan membership.

Canon provides warranties of generally less than one year against defects in materials and workmanship on most of its consumer products. Estimated product warranty related costs are established at the time revenue are recognized and are included in selling, general and administrative expenses. Estimates for accrued product warranty costs are primarily based on historical experience, and are affected by ongoing product failure rates, specific product class failures outside of the baseline experience, material usage and service delivery costs incurred in correcting a product failure. As of December 31, 2018 accrued product warranty costs amounted to ¥17,318 million.

At December 31, 2018, commitments outstanding for the purchase of property, plant and equipment were approximately ¥54,905 million, and commitments outstanding for the purchase of parts and raw materials were approximately ¥120,344 million, both for use in the ordinary course of its business. Canon anticipates that funds needed to fulfill these commitments will be generated internally through operations.

During 2019, Canon expects to contribute ¥13,089 million to its Japanese defined benefit pension plans and ¥19,311 million to its foreign defined benefit pension plans.

Canon's management believes that current financial resources, cash generated from operations and Canon's potential capacity for additional debt and/or equity financing will be sufficient to fund current and future capital requirements.

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Directors and Audit & Supervisory Board Members of the Company as of March 28, 2019 and their respective business experience are listed below.

Name (Date of birth)	Position (Group executive/function)	Date of commencement	Business experience (*current position/function)
Fujio Mitarai (Sep. 23, 1935)	Chairman & CEO	4/1961	Entered the Company
		1/1979	President of Canon U.S.A., Inc.
		3/1981	Director
		3/1985	Managing Director
		1/1989	In charge of HQ administration
		3/1989	Senior Managing Director
		3/1993	Executive Vice President
		9/1995	President & CEO
		3/2006	Chairman of the Board & President & CEO
		5/2006	Chairman & CEO*
Masaya Maeda (Oct. 17, 1952)	President & COO	4/1975	Entered the Company
		1/2006	Group Executive of Digital Imaging Business Group
		3/2007	Director
		4/2007	Chief Executive of Image Communication Products Operations
		3/2010	Managing Director
		3/2014	Senior Managing Director
		3/2016	President & COO*
Toshizo Tanaka (Oct. 8, 1940)	Executive Vice President & CFO (Group Executive of Finance & Accounting HQ, Group Executive of Public Affairs HQ, Group Executive of Facilities Management HQ)	4/1964	Entered the Company
		1/1992	Deputy Group Executive of Finance & Accounting HQ
		3/1995	Director
		4/1995	Group Executive of Finance & Accounting HQ
		3/1997	Managing Director
		3/2001	Senior Managing Director
		1/2007	Group Executive of Policy and Economy Research HQ
		3/2007	Executive Vice President & Director
		3/2008	Executive Vice President & CFO*

1/2010	Group Executive of General Affairs HQ
3/2010	Group Executive of External Relations HQ
4/2011	Group Executive of Finance & Accounting HQ
4/2012	Group Executive of Facilities Management HQ
3/2014	Group Executive of Human Resources Management & Organization HQ

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Name (Date of birth)	Position (Group executive/function)	Date of commencement	Business experience (*current position/function)	
		4/2017	Group Executive of Facilities Management HQ*	
		3/2018	Group Executive of Public Affairs HQ*	
		4/2018	Group Executive of Finance & Accounting HQ*	
Toshio Homma (Mar. 10, 1949)	Executive Vice President & CTO & In charge of Office Business	4/1972	Entered the Company	
		4/2001	Deputy Chief Executive of i Printer Products Operations	
		(Chief Executive of Office Imaging Products Operations)	3/2003	Director
			4/2003	Group Executive of Business Promotion HQ
			7/2003	Group Executive of L Printer Business Promotion HQ
			1/2007	Chief Executive of L Printer Products Operations
			3/2008	Managing Director
			3/2012	Senior Managing Director
				Group Executive of Procurement HQ
			3/2016	Executive Vice President
		4/2016	Chief Executive of Office Imaging Products Operations*	
		3/2017	Executive Vice President in charge of Office Business*	
		3/2019	CTO*	
Kunitaro Saida (May 4, 1943)	Director	5/2006	Qualified for attorney*	
		6/2007	Audit & Supervisory Board Member of NICHIREI CORPORATION*	
		6/2008	Director of Sumitomo Osaka Cement Co., Ltd.*	
		6/2010	Director of HEIWA REAL ESTATE CO., LTD.*	
		3/2014	Director*	
Haruhiko Kato (Jul. 21, 1952)	Director	7/2009	Commissioner of National Tax Agency	
		1/2011	Senior Managing Director of Japan Securities Depository Center, Incorporated	
		6/2011	President & CEO of Japan Securities Depository Center, Incorporated*	
		6/2013		

		3/2014	Director of Toyota Motor Corporation Director*
Masaaki Nakamura (Jul. 28, 1957)	Audit & Supervisory Board Member	4/1980 1/2013	Entered the Company Deputy Group Executive of Facilities Management HQ

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Name (Date of birth)	Position (Group executive/function)	Date of commencement	Business experience (*current position/function)
		3/2014	Deputy Group Executive of Human Resources Management & Organization HQ
		4/2014	Executive Officer
		3/2015	Director
		3/2016	Managing Executive Officer
		4/2016	Group Executive of Facilities Management HQ
		2/2017	Group Executive of Public Affairs HQ
		3/2018	Audit & Supervisory Board Member*
Hiroaki Sato (Jan. 29, 1960)	Audit & Supervisory Board Member	4/1982	Entered the Company
		2/2004	Senior General Manager of MR Systems Laboratory
		7/2014	Deputy Group Executive of Advanced Information & Real-world Technology Development Group, Digital System Technology Development HQ
		7/2015	Deputy Group Executive of Digital System Technology Development HQ
		4/2018	Principal Staff Engineer of Digital Business Platform Development HQ
		3/2019	Audit & Supervisory Board Member*
Yutaka Tanaka (Mar. 11, 1949)	Audit & Supervisory Board Member	4/1975	Assistant Judge of the Tokyo District Court
		4/1986	Judge of the Tokyo District Court
		4/1987	Instructor of the Legal Training & Research Institute, the Supreme Court of Japan
		4/1992	Judicial Research Official, the Supreme Court of Japan
		4/1996	Registered as an attorney*
		10/2014	Guest Professor of Keio University Law School*
		3/2019	Audit & Supervisory Board Member*
Hiroshi Yoshida (Sep. 5, 1954)	Audit & Supervisory Board Member	10/1980	Joined Tohmatsu Awoki & Co.
		4/1984	Registered as Certified Public Accountant*
		7/1993	Partner of Tohmatsu & Co.
		6/2000	

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Name (Date of birth)	Position (Group executive/function)	Date of commencement	Business experience (*current position/function)
		5/2007	Managing Partner, Finance & Administration of Deloitte Touche Tohmatsu
		11/2011	The Board Member of Deloitte Touche Tohmatsu CFO of Deloitte Touche Tohmatsu LLC
		3/2017	Audit & Supervisory Board Member*
Koichi Kashimoto (Jul. 2, 1961)	Audit & Supervisory Board Member	4/1984	Entered The Dai-ichi Life Insurance Company, Limited (formerly The Dai-ichi Mutual Life Insurance Co.)
		4/1997	Manager of Government Relations Department of The Dai-ichi Life Insurance Company, Limited
		4/2005	General Manager of Corporate Administration Center of The Dai-ichi Life Insurance Company, Limited
		4/2009	Managing Director of Dai-ichi Life International (Europe), Limited
		4/2012	General Manager of Secretarial Department of The Dai-ichi Life Insurance Company, Limited
		4/2016	Senior General Manager of Secretarial Department (in charge of Secretarial Department and General Affairs Department), and Senior General Manager of Group General Affairs Unit of The Dai-ichi Life Insurance Company, Limited
		10/2016	Senior General Manager of Secretarial Department (in charge of Secretarial Department and General Affairs Department) of The Dai-ichi Life Insurance Company, Limited, and Senior General Manager and Chief of General Affairs Unit of Dai-ichi Life

3/2018 Holdings, Inc.
Audit & Supervisory Board
Member*

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Term

All directors and Audit & Supervisory Board Members are elected by the shareholders at their general meeting.

Yutaka Tanaka, Hiroshi Yoshida and Koichi Kashimoto, are outside Audit & Supervisory Board Members as stipulated in Item 16, Article 2 of the Corporation Law of Japan. Kunitaro Saida and Haruhiko Kato are outside directors. The term of office of directors is one year. The current term of all directors expires in March 2020. The term of office of Audit & Supervisory Board Members is four years. The current term for Hiroshi Yoshida who was elected in the general meeting of shareholders in March 2017, expires in March 2021, the current term for Masaaki Nakamura and Koichi Kashimoto who were elected in the general meeting of shareholders in March 2018, expires in March 2022, and the current term for Hiroaki Sato and Yutaka Tanaka who were elected in the general meeting of shareholders in March 2019, expires in March 2023.

Board members and Audit & Supervisory Board Members may serve any number of consecutive terms.

There is no arrangement or understanding between any director or Audit & Supervisory Board Member and any major shareholder, customer, supplier or other material stakeholders in connection with the selection of such director or Audit & Supervisory Board Member.

Board of Directors and Audit & Supervisory Board Members

The Company's articles of incorporation provide for a board of directors of not more than 30 members and for not more than five Audit & Supervisory Board Members. Currently the number of board members is six and the number of Audit & Supervisory Board Members is five. There is no maximum age limit for members of the board. Board members and Audit & Supervisory Board Members may be removed from office at any time by a resolution of a general meeting of shareholders.

The board of directors has ultimate responsibility for the administration of the Company's affairs. By resolution, the board of directors designates, from among its members, representative directors who have authority individually to represent the Company generally in the conduct of its affairs.

Under the Corporation Law of Japan, board members must refrain from engaging in any business competing with the Company unless approved by a board resolution, and no board member may vote on a proposal, arrangement or contract in which that board member is deemed to be materially interested.

The Corporation Law of Japan requires a resolution of the board of directors for a company to acquire or dispose of material assets, to borrow substantial amounts of money, to employ or discharge important employees such as corporate officers, and to establish, change or abolish material corporate organizations such as a branch office.

The Audit & Supervisory Board Members are not required to be certified public accountants, although Hiroshi Yoshida is a certified public accountant. At least half of the Audit & Supervisory Board Members must be persons who have not been either board members or employees of the Company or any of its subsidiaries. An Audit & Supervisory Board Member may not at the same time be a board member or an employee of the Company or any of its subsidiaries. The Audit & Supervisory Board Members have the statutory duty of examining the Company's financial statements and the Company's business reports to be submitted annually by the board of directors at the general meetings of shareholders and of reporting their opinions to the shareholders. They also have the statutory duty of supervising the administration by the board members of the Company's affairs. They shall participate in the meetings of the board of directors but are not entitled to vote.

The Audit & Supervisory Board Members constitute the Audit & Supervisory Board. Under the Corporation Law of Japan, the Audit & Supervisory Board has a statutory duty to prepare and submit its audit report to the board of directors each year. An Audit & Supervisory Board Member may note an opinion in the auditor report if

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an Audit & Supervisory Board member's opinion is different from the opinion expressed in the audit report. The Audit & Supervisory Board is empowered to establish audit principles, the method of examination by Audit & Supervisory Board Members of the Company's affairs and financial position and other matters concerning the performance of the Audit & Supervisory Board Members' duties. The Company does not have an audit committee.

The amount of remuneration payable to the Company's board members as a group and that of the Company's Audit & Supervisory Board Members as a group in respect of a fiscal year is subject to approval by a general meeting of shareholders. Within those authorized amounts, the compensation for each board member and Audit & Supervisory Board Member is determined by the board of directors and a consultation with the Audit & Supervisory Board Members, respectively. The Company does not have a remuneration committee.

Under the Corporation Law of Japan and the Company's articles of incorporation, the board of directors may, by resolution, release current and former directors and Audit & Supervisory Board Members from liability for damages resulting from negligence in the fulfillment of their respective duties to the extent permitted by law. In addition, the Company may enter into contracts with outside directors limiting their liability for damages resulting from negligence in the fulfillment of their respective duties in an amount consistent with the limitation stipulated by law. Furthermore, the Company may enter into contracts with outside Audit & Supervisory Board Members limiting their liability for damages resulting from negligence in the fulfillment of their respective duties in an amount consistent with the limitation stipulated by law.

Canon established a standing committee, the Internal Control Committee in 2004, with the president appointed as chairman of the group. The Internal Control Committee has built a highly effective internal control system unique to Canon, which not only serves to ensure the reliability of the Company's financial reporting, but also aims to ensure the effectiveness and efficiency of its business operations, as well as compliance with related laws, regulations and internal controls. In 2015, with the aim of managing financial, compliance, and business risks from a comprehensive perspective, the Internal Control Committee was reorganized and renamed the Risk Management Committee which is tasked with performing this duty. Established under the Risk Management Committee are the following three subcommittees: the Financial Risk Management Subcommittee, which is in charge of improving systems to ensure the reliability of financial reporting, the Compliance Subcommittee, which is in charge of improving systems to ensure compliance of corporate ethics and major laws and regulations, and the Business Risk Management Subcommittee, which is in charge of improving systems to manage quality risks, information leakage risks and other significant business risks. The Risk Management Committee shall develop various measures with regard to improving the risk management system. These measures include the system for grasping any significant risks (violation of laws and regulations, inappropriate financial reporting, quality issues, work-related injuries, disasters, etc.) that the Canon Group may face in the course of business. Additionally, in accordance with any action plan that is approved by the Board of Directors, the Risk Management Committee shall evaluate the status of improvement and implementation of the risk management system and report its findings to the CEO and the Board of Directors.

The Disclosure Committee was established with the president appointed as chairman in 2005. This committee was formed to ensure that Canon is not only in compliance with applicable laws, rules and regulations, but also to ensure that information disclosed to shareholders and capital markets is both correct and comprehensive.

Executive Officer System

Canon adopted an Executive Officer System effective April 1, 2008. Executive Officers are appointed and discharged by the Board of Directors and have a term of office of one year. Taking into consideration growth in the scope of its business activities, Canon recognizes the need to bolster its management execution structure. By promoting capable human resources with accumulated executive knowledge across specific business areas, the Company is endeavoring

to realize more flexible and efficient management operations. To this end, Canon intends to gradually increase the number of Executive Officers and further solidify its management systems.

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Executive Officers of the Company appointed by the Board of Directors meeting held on January 30, 2019, whom are expected to take the assignment on April 1, 2019, are listed below.

Name	Position	(Group executive/function)
Yoroku Adachi	Executive Vice President	Chairman of Canon U.S.A., Inc.
Hideki Ozawa	Executive Vice President	President of Canon (China) Co., Ltd.
Seymour Liebman	Senior Managing Executive Officer	Executive Vice President of Canon U.S.A., Inc.
Naoji Otsuka	Senior Managing Executive Officer	Chief Executive of Inkjet Products Operations
Toshio Takiguchi	Senior Managing Executive Officer	Chief Executive of Medical Systems and Components Operations, President of Canon Medical Systems Corporation
Kenichi Nagasawa	Managing Executive Officer	Group Executive of Corporate Intellectual Property & Legal HQ
Masanori Yamada	Managing Executive Officer	Group Executive of Image Solutions Business Operations, Chief of Rugby World Cup/Olympic and Paralympic Project
Aitake Wakiya	Managing Executive Officer	Executive Vice President of Canon Europe Ltd.
Eiji Osanai	Managing Executive Officer	Group Executive of Production Engineering HQ
Ryuichi Ebinuma	Managing Executive Officer	Group Executive of Corporate Planning HQ
Yuichi Ishizuka	Managing Executive Officer	President of Canon Europa N.V., President of Canon Europe Ltd.
Kazuto Ogawa	Managing Executive Officer	President of Canon U.S.A., Inc.
Shunsuke Inoue	Managing Executive Officer	Group Executive of R&D HQ, Group Executive of Device Technology Development HQ
Takayuki Miyamoto	Managing Executive Officer	Chief Executive of Peripheral Products Operations, Chief of Canon EXPO Project
Katsumi Iijima	Managing Executive Officer	Group Executive of Digital Business Platform Development HQ
Hiroaki Takeishi	Managing Executive Officer	Chief Executive of Optical Products Operations
Soichi Hiramatsu	Managing Executive Officer	Group Executive of Procurement HQ
Takashi Takeya	Managing Executive Officer	Senior General Manager of Global Logistics Management Center
Go Tokura	Managing Executive Officer	Chief Executive of Image Communication Business Operations
Hisahiro Minokawa	Managing Executive Officer	Group Executive of Human Resources Management & Organization HQ
Nobutoshi Mizusawa	Executive Officer	Deputy Chief Executive of Medical Systems and Components Operations
Yoichi Iwabuchi	Executive Officer	Group Executive of Information & Communication Systems HQ
Nobuyuki Tainaka	Executive Officer	Senior General Manager of Global Legal Administration Center
Takanobu Nakamasu	Executive Officer	Executive Vice President of Canon Europe Ltd.
Toshihiko Kusumoto	Executive Officer	Deputy Chief Executive of Office Imaging Products Operations
Akiko Tanaka	Executive Officer	Deputy Group Executive of Corporate Planning HQ

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Ritsuo Mashiko	Executive Officer	President of Oita Canon Inc.
Noriko Gunji	Executive Officer	President of Canon Singapore Pte. Ltd.
Hideki Sanatake	Executive Officer	Deputy Group Executive of Corporate Intellectual Property and Legal HQ
Tamaki Hashimoto	Executive Officer	Group Executive of Consumer Inkjet Products Group
Hideto Kohtani	Executive Officer	Group Executive of Office Imaging Products Digital Solution Group
Minoru Asada	Executive Officer	Chairman of Océ Holding B.V.
Kazuhiko Nagashima	Executive Officer	Deputy Group Executive of Finance & Accounting HQ
Katsuhiko Shinjo	Executive Officer	Deputy Group Executive of R&D HQ
Katsuyoshi Soma	Executive Officer	President of Fukushima Canon Inc.
Masaki Omori	Executive Officer	Deputy Group Executive of Production Engineering HQ

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Name	Position	(Group executive/function)
Saijiro Endo	Executive Officer	Senior General Manager of Office Imaging Products Development Planning & Management Center
Toshiyuki Matsuda	Executive Officer	Group Executive of Peripherals Marketing Group
Takeshi Ichikawa	Executive Officer	Senior General Manager of Semiconductor Device Research & Development Center
Hiroto Okawara	Executive Officer	Senior General Manager of Image Solutions Development Center 2

B. Compensation

In the fiscal year ended December 31, 2018, Canon pays an aggregate of approximately ¥1,145 million to its directors and Audit & Supervisory Board Members. This amount includes bonuses.

Beginning from the fiscal year ended December 31, 2010, the Company is required to disclose the compensation of any director who receives total aggregate annual compensation exceeding ¥100 million in accordance with the Financial Instruments and Exchange Act of Japan and related ordinances. The following table sets forth the amount of compensation paid or planned to be paid directors whose aggregate compensation exceeded ¥100 million in 2018.

Name	(Position)	Company	Basic Compensation	Bonus	Category of remuneration		Total
					Stock-Type Compensation	Stock Options	
(Millions of yen)							
Fujio Mitarai (Director)		Canon Inc.	300	39	33		372
Masaya Maeda (Director)		Canon Inc.	137	22	15		174
Toshizo Tanaka (Director)		Canon Inc.	131	21	14		166
Toshio Homma(Director)		Canon Inc.	110	16	13		139
Shigeyuki Matsumoto(Director)		Canon Inc.	107	15	13		135

Notes:

(1) Bonus amounts represent the increased portion of accrued directors' bonuses in fiscal year 2018. The following two elements comprise remuneration to directors:

Basic Compensation: compensation for executing of business operations

Bonus: bonus links to business results of current fiscal year

In addition to the above, the Company issues stock options for the purpose of providing effective incentives to improve business results on a medium and long-term basis. The remuneration to Audit & Supervisory Board Members consists of only basic compensation, which is not affected by the performance of the Company.

The determination methods of remuneration are as follows:

Basic Compensation

Each maximum amount of total compensation to directors and Audit & Supervisory Board Members is determined by the Ordinary General Meeting of Shareholders. The remuneration to each director is determined by the meeting of the Board of Directors based on criteria set by the Company, and the remuneration to each Audit & Supervisory Board Member is determined by the meeting of Audit & Supervisory Board Members.

Bonus

Director bonuses are calculated based on internal criteria considering the performance of the Company. The total amount is proposed to and approved by the Ordinary General Meeting of Shareholders. The bonus amount

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paid to individual directors is determined at a meeting of the Board of Directors, based on the total approved amount, taking into account the position and performance of each director.

Stock Options

The descriptions of the stock option plans are below.

The Stock Option Plan Approved on March 29, 2018

1. Grantees of share options

The Company has 5 directors (excluding outside directors) and 28 executive officers.

2. Number of share options

The number of share options that the Board of Directors are authorized to issue is 740.

3. Number of shares acquired upon exercise of a share option

The number of shares acquired upon exercise of one share option (the Allotted Number of Shares) is 100 common shares, and the total number of shares to be delivered due to the exercise of share options is 74,000 common shares. However, in the case that the Company conducts a share split (including an allotment without consideration (*musho-wariate*) of shares of common stock of the Company; the same shall apply to all references to the share split herein) or share consolidation on and after the date of shareholders' resolution adopting the proposal at the above-mentioned General Meeting of Shareholders (the Allotment Date), the number of shares acquired shall be adjusted in accordance with the following formula, rounding down any fraction of less than one share resulting from such adjustment.

$$\begin{array}{l} \text{Number of shares} \\ \text{acquired after} \\ \text{adjustment} \end{array} = \begin{array}{l} \text{Number of shares} \\ \text{acquired before} \\ \text{adjustment} \end{array} \times \begin{array}{l} \text{Ratio of share split} \\ \text{or} \\ \text{share consolidation} \end{array}$$

In addition to the above, in any event that makes it necessary to adjust the number of shares acquired, including a merger and company split, on and after the Allotment Date, the Company may make appropriate adjustment to the Number of Shares Acquired within a reasonable range.

4. Cash payment for share options (yen)

The cash payment required for each stock acquisition right shall be ¥1 per share to be acquired upon exercise of each stock acquisition right, multiplied by the number of shares acquired.

5. Period during which share options are exercisable

From May 2, 2018 to May 1, 2048

6. Issue price and amount of increased stated capital (yen)

The issue price and amount of increased stated capital per share is ¥2,949 and ¥1,475, respectively. The issue price is total amount of the exercise price of each stock acquisition (¥1 per share) and the fair value of the stock acquisition rights at the allotment date (¥2,948 per share). In addition, the amount of capital to be increased due to the issuance of shares upon exercise of the stock acquisition rights shall be a half of the maximum amount of

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capital increase, etc, which is calculated in accordance with the Article 17, Paragraph 1 of the Company Accounting Regulations (*Kaisha Keisan Kisoku*), and any fraction less than ¥1 arising therefrom shall be rounded up to the nearest ¥1.

7. Other conditions for exercise of share options

(i) Those to whom stock acquisition rights are allotted (the Holder(s)) shall be entitled to exercise all the stock acquisition rights together within 10 days (in case the last day is not a business day, the following business day) from the day immediately following the day when they cease to hold any position as a director or an executive officer of the Company.

(ii) In the event that the Company recognizes any violation of laws and regulations, misconduct of the duties, act conflicting with the duty of due care or duty of loyalty, or any other act equivalent thereto of the Holder, the Company may limit, subject to a resolution by the Board of Directors of the Company, the number of offered stock acquisition rights that may be exercised by such Holder.

8. Restriction on acquisition of share options by transfer

An acquisition of share options by way of transfer requires the approval of the Board of Directors.

9. Treatment of the stock acquisition rights upon restructuring transaction

If the Company conducts a merger (limited to the case where the Company is dissolved due to the merger), or a share exchange or transfer (both, limited to the case where the Company becomes a wholly-owned subsidiary) (collectively, the Structural Reorganization), the Company shall, in each of the above cases, allot stock acquisition rights of any of the relevant companies listed in a through e of Article 236, Paragraph 1, Item 8 of the Company Law (the Reorganized Company) to the Holders holding the stock acquisition rights remaining at the time immediately preceding the effective date of the relevant Structural Reorganization (the Remaining Stock Acquisition Rights) (the effective date of the relevant Structural Reorganization shall mean, in the case of a merger, the date on which the merger becomes effective; in the case of a consolidation; the date of establishment of a newly-incorporated company through consolidation; in the case of a share exchange, the date on which the share exchange becomes effective; and in the case of a share transfer, the date of establishment of a wholly-owning parent company through the share transfer; hereinafter the same shall apply). Provided, however, that the foregoing shall be on the condition that transfer of such stock acquisition rights by the Reorganized Company in accordance with each of the following items is stipulated in a merger agreement, a consolidation agreement, a share exchange agreement or a share transfer plan.

(i) Number of stock acquisition rights of the Reorganized Company to be allotted:

A number equal to the number of the Remaining Stock Acquisition Rights held by the Holder shall be transferred to such Holder.

(ii) Class of shares of the Reorganized Company to be acquired upon exercise of stock acquisition rights:

Common stock of the Reorganized Company.

(iii) Number of shares of the Reorganized Company to be acquired upon exercise of stock acquisition rights:

To be determined in accordance with 3 above, taking into consideration, among others, the conditions of Structural Reorganization.

(iv) Value of assets to be contributed upon exercise of each stock acquisition right:

The value of assets to be contributed upon exercise of each stock acquisition right to be allotted shall be the amount obtained by multiplying (x) the exercise price after reorganization set forth below by (y) the number of

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shares of the Reorganized Company to be acquired upon exercise of the relevant stock acquisition rights as determined in accordance with (iii) above. The exercise price after reorganization shall be one 1 yen per share of the Reorganized Company to be acquired upon exercise of each of its stock acquisition rights.

(v) Exercise period of stock acquisition rights:

From and including whichever is the later of (x) the commencement date of the period during which the stock acquisition rights may be exercised or (y) the effective date of the Structural Reorganization, to and including the expiration date of the period during which the stock acquisition rights may be exercised as provided.

(vi) Matters regarding stated capital and capital reserves increased due to the issuance of shares upon exercise of stock acquisition rights:

(a) The increased amount of stated capital to be increased due to the issuance of shares upon exercise of the stock acquisition rights will be one half (1/2) of the maximum amount of increase of stated capital, etc. to be calculated in accordance with Article 17, Paragraph 1 of the Company Accounting Regulations (*Kaisha Keisan Kisoku*). Any fractional amount of less than one 1 yen resulting from such calculation will be rounded up to one 1 yen.

(b) The increased amount of capital reserves to be increased due to the issuance of shares upon exercise of the stock acquisition rights shall be the maximum amount of increases of stated capital, etc., mentioned in (a) above, after the subtraction of increased amount of stated capital mentioned in (a) above.

(vii) Restrictions on acquisition of stock acquisition rights by transfer:

The stock acquisition rights cannot be acquired through transfer, unless such acquisition is expressly approved by a resolution of the Board of Directors of the Reorganized Company.

(viii) Conditions for exercise of stock acquisition rights:

(a) Those to whom stock acquisition rights are allotted (the Holder(s)) shall be entitled to exercise all the stock acquisition rights together within 10 days (in case the last day is not a business day, the following business day) from the day immediately following the day when they cease to hold any position as a Director or an Executive Officer of the Company.

(b) In the event that the Company recognizes any violation of laws and regulations, misconduct of the duties, act conflicting with the duty of due care or duty of loyalty, or any other act equivalent thereto of the Holder, the Company may limit, subject to a resolution by the Board of Directors of the Company, the number of offered stock acquisition rights that may be exercised by such Holder.

(c) Besides the above, other conditions shall be stipulated in an agreement to be executed between the Company and the Holder, based on the resolution of the Board of Directors meeting.

(ix) Events regarding the Company's acquisition of stock acquisition rights:

If a proposal for the approval of a merger agreement under which the Company will become an extinguishing company or a proposal for the approval for a share exchange agreement or a share transfer plan under which the Company will become a wholly owned subsidiary is approved by the Company's shareholders at a Meeting of Shareholders (or by the Board of Directors if no resolution of a Meeting of Shareholders is required for such

approval), the Company will be entitled to acquire the share options, without compensation, on a date separately designated by the Board of Directors.

Table of Contents*The Stock Option Plan Approved on March 28, 2019*

1. Grantees of share options

The Company's 4 directors (excluding outside directors) and 31 executive officers.

2. Number of share options

The number of share options that the Board of Directors are authorized to issue is 1,163.

3. Number of shares acquired upon exercise of a share option

The number of shares acquired upon exercise of one share option (the Allotted Number of Shares) is 100 common shares, and the total number of shares to be delivered due to the exercise of share options is 116,300 common shares. However, in the case that the Company conducts a share split (including an allotment without consideration (*musho-wariate*) of shares of common stock of the Company; the same shall apply to all references to the share split herein) or share consolidation on and after the date of shareholders' resolution adopting the proposal at the above-mentioned General Meeting of Shareholders (the Allotment Date), the number of shares acquired shall be adjusted in accordance with the following formula, rounding down any fraction of less than one share resulting from such adjustment.

Number of shares		Number of shares		Ratio of share split
acquired after	=	acquired before	×	or
adjustment		adjustment		share consolidation

In addition to the above, in any event that makes it necessary to adjust the number of shares acquired, including a merger and company split, on and after the Allotment Date, the Company may make appropriate adjustment to the Number of Shares Acquired within a reasonable range.

4. Cash payment for share options (yen)

The cash payment required for each stock acquisition right shall be ¥1 per share to be acquired upon exercise of each stock acquisition right, multiplied by the number of shares acquired.

5. Period during which share options are exercisable

From April 27, 2019 to April 26, 2049

6. Issue price and amount of increased stated capital (yen)

The issue price is total amount of the exercise price of each stock acquisition (¥1 per share) and the fair value of the stock acquisition rights shall be calculated by using the Black-Scholes model based on some conditions to be applied on the allotment date. In addition, the amount of capital to be increased due to the issuance of shares upon exercise of the stock acquisition rights shall be a half of the maximum amount of capital increase, etc, which is calculated in accordance with Article 17, Paragraph 1 of the Company Accounting Regulations (*Kaisha Keisan Kisoku*), and any

fraction less than ¥1 arising therefrom shall be rounded up to the nearest ¥1.

7. Other conditions for exercise of share options

(i) Those to whom stock acquisition rights are allotted (the Holder(s)) shall be entitled to exercise all the stock acquisition rights together within 10 days (in case the last day is not a business day, the following business day) from the day immediately following the day when they cease to hold any position as a director or an executive officer of the Company.

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(ii) In the event that the Company recognizes any violation of laws and regulations, misconduct of the duties, act conflicting with the duty of due care or duty of loyalty, or any other act equivalent thereto of the Holder, the Company may limit, subject to a resolution by the Board of Directors of the Company, the number of offered stock acquisition rights that may be exercised by such Holder.

8. Restriction on acquisition of share options by transfer

An acquisition of share options by way of transfer requires the approval of the Board of Directors.

9. Treatment of the stock acquisition rights upon restructuring transaction

If the Company conducts a merger (limited to the case where the Company is dissolved due to the merger), or a share exchange or transfer (both, limited to the case where the Company becomes a wholly-owned subsidiary) (collectively, the Structural Reorganization), the Company shall, in each of the above cases, allot stock acquisition rights of any of the relevant companies listed in a through e of Article 236, Paragraph 1, Item 8 of the Company Law (the Reorganized Company) to the Holders holding the stock acquisition rights remaining at the time immediately preceding the effective date of the relevant Structural Reorganization (the Remaining Stock Acquisition Rights) (the effective date of the relevant Structural Reorganization shall mean, in the case of a merger, the date on which the merger becomes effective; in the case of a consolidation; the date of establishment of a newly-incorporated company through consolidation; in the case of a share exchange, the date on which the share exchange becomes effective; and in the case of a share transfer, the date of establishment of a wholly-owning parent company through the share transfer; hereinafter the same shall apply). Provided, however, that the foregoing shall be on the condition that transfer of such stock acquisition rights by the Reorganized Company in accordance with each of the following items is stipulated in a merger agreement, a consolidation agreement, a share exchange agreement or a share transfer plan.

(i) Number of stock acquisition rights of the Reorganized Company to be allotted:

A number equal to the number of the Remaining Stock Acquisition Rights held by the Holder shall be transferred to such Holder.

(ii) Class of shares of the Reorganized Company to be acquired upon exercise of stock acquisition rights:

Common stock of the Reorganized Company.

(iii) Number of shares of the Reorganized Company to be acquired upon exercise of stock acquisition rights:

To be determined in accordance with 3 above, taking into consideration, among others, the conditions of Structural Reorganization.

(iv) Value of assets to be contributed upon exercise of each stock acquisition right:

The value of assets to be contributed upon exercise of each stock acquisition right to be allotted shall be the amount obtained by multiplying (x) the exercise price after reorganization set forth below by (y) the number of shares of the Reorganized Company to be acquired upon exercise of the relevant stock acquisition rights as determined in accordance with (iii) above. The exercise price after reorganization shall be one 1 yen per share of the Reorganized Company to be acquired upon exercise of each of its stock acquisition rights.

(v) Exercise period of stock acquisition rights:

From and including whichever is the later of (x) the commencement date of the period during which the stock acquisition rights may be exercised or (y) the effective date of the Structural Reorganization, to and including the expiration date of the period during which the stock acquisition rights may be exercised as provided.

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(vi) Matters regarding stated capital and capital reserves increased due to the issuance of shares upon exercise of stock acquisition rights:

(a) The increased amount of stated capital to be increased due to the issuance of shares upon exercise of the stock acquisition rights will be one half (1/2) of the maximum amount of increase of stated capital, etc. to be calculated in accordance with Article 17, Paragraph 1 of the Company Accounting Regulations (*Kaisha Keisan Kisoku*). Any fractional amount of less than one 1 yen resulting from such calculation will be rounded up to one 1 yen.

(b) The increased amount of capital reserves to be increased due to the issuance of shares upon exercise of the stock acquisition rights shall be the maximum amount of increases of stated capital, etc., mentioned in (a) above, after the subtraction of increased amount of stated capital mentioned in (a) above.

(vii) Restrictions on acquisition of stock acquisition rights by transfer:

The stock acquisition rights cannot be acquired through transfer, unless such acquisition is expressly approved by a resolution of the Board of Directors of the Reorganized Company.

(viii) Conditions for exercise of stock acquisition rights:

(a) Those to whom stock acquisition rights are allotted (the Holder(s)) shall be entitled to exercise all the stock acquisition rights together within 10 days (in case the last day is not a business day, the following business day) from the day immediately following the day when they cease to hold any position as a Director or an Executive Officer of the Company.

(b) In the event that the Company recognizes any violation of laws and regulations, misconduct of the duties, act conflicting with the duty of due care or duty of loyalty, or any other act equivalent thereto of the Holder, the Company may limit, subject to a resolution by the Board of Directors of the Company, the number of offered stock acquisition rights that may be exercised by such Holder.

(c) Besides the above, other conditions shall be stipulated in an agreement to be executed between the Company and the Holder, based on the resolution of the Board of Directors meeting.

(ix) Events regarding the Company's acquisition of stock acquisition rights:

If a proposal for the approval of a merger agreement under which the Company will become an extinguishing company or a proposal for the approval for a share exchange agreement or a share transfer plan under which the Company will become a wholly owned subsidiary is approved by the Company's shareholders at a Meeting of Shareholders (or by the Board of Directors if no resolution of a Meeting of Shareholders is required for such approval), the Company will be entitled to acquire the share options, without compensation, on a date separately designated by the Board of Directors.

C. Board practices

See Item 6A Directors and senior management and Item 6B Compensation.

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The following table shows the numbers of Canon's employees as of December 31, 2018, 2017 and 2016.

	Total	Japan	Americas	Europe	Asia and Oceania
December 31, 2018					
Office	95,052	32,516	9,450	15,200	37,886
Imaging System	53,049	16,699	2,291	1,801	32,258
Medical System	11,759	6,200	1,975	1,744	1,840
Industry and Others	26,763	9,750	4,645	6,484	5,884
Corporate	8,433	8,295		52	86
Total	195,056	73,460	18,361	25,281	77,954
December 31, 2017					
Office	103,380	32,407	13,263	18,972	38,738
Imaging System	55,909	16,732	2,416	1,841	34,920
Medical System	10,851	5,942	1,834	1,577	1,498
Industry and Others	18,476	9,573	935	3,176	4,792
Corporate	9,160	9,011		57	92
Total	197,776	73,665	18,448	25,623	80,040
December 31, 2016					
Office	105,480	33,056	14,108	19,103	39,213
Imaging System	55,263	15,845	2,353	1,914	35,151
Industry and Others	27,790	15,042	2,699	4,434	5,615
Corporate	9,140	8,970		60	110
Total	197,673	72,913	19,160	25,511	80,089

Basically, the Company and its subsidiaries have their own independent labor union. The Company believes that the relationship between Canon and its labor union is good.

E. Share ownership

The following table shows the numbers of shares owned by the directors and Audit & Supervisory Board Members of the Company as of December 31, 2018. The total is 232,764 shares, constituting 0.02% of all outstanding shares.

Name	Position	Number of shares
Fujio Mitarai	Chairman & CEO	130,123
Masaya Maeda	President & COO	15,200
Toshizo Tanaka	Executive Vice President & CFO	23,110
Toshio Homma	Executive Vice President & CTO	54,652

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Kunitaro Saida	Director	5,500
Haruhiko Kato	Director	
Masaaki Nakamura	Audit & Supervisory Board Member	2,179
Hiroaki Sato	Audit & Supervisory Board Member	
Yutaka Tanaka	Audit & Supervisory Board Member	
Hiroshi Yoshida	Audit & Supervisory Board Member	1,500
Koichi Kashimoto	Audit & Supervisory Board Member	500
	Total	232,764

The number of shares that may be subscribed for under rights granted to the Directors and Audit & Supervisory Board Members, listed above, pursuant to the stock option plan approved by the stockholders on

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March 29, 2018 was 74,000 shares of common stock. The exercise price of the rights is ¥1 per share and those to whom stock acquisition rights are granted (the Holder(s)) shall be entitled to exercise all the stock acquisition rights together within 10 days (in case the last day is not a business day, the following business day) from after the date when they cease to hold any position as a director or an executive officer of the Company. The exercisable period of acquisition rights is from May 2, 2018 to May 1, 2048.

For additional information on the stock option plan, see B. Compensation of this Item.

The Company and certain of its subsidiaries encourage its employees to purchase shares of their Common Stock in the market through an employees stock purchase association.

Item 7. Major Shareholders and Related Party Transactions**A. Major shareholders**

The table below shows the numbers of the Company's shares held by the top ten holders of the Company's shares and their ownership percentage as of December 31, 2018:

Name of major shareholder	Shares owned	Percentage
		Number of shares owned / Number of shares issued
The Master Trust Bank of Japan, Ltd. (Trust Account)	92,066,100	8.5%
Japan Trustee Services Bank, Ltd. (Trust Account)	54,304,900	5.0%
The Dai-ichi Life Insurance Company, Limited	28,685,980	2.7%
Barclays Securities Japan Limited	26,000,000	2.4%
Mizuho Bank, Ltd.	22,558,173	2.1%
Japan Trustee Services Bank, Ltd. (Trust Account 5)	21,122,600	2.0%
State Street Bank West Client Treaty 505234	20,700,178	1.9%
OBAYASHI CORPORATION	16,527,607	1.5%
Moxley and Co. LLC	16,460,829	1.5%
JPMorgan Chase Bank, N.A. 385151	15,603,560	1.4%

Notes:

- 1: Apart from the above shares, The Dai-ichi Life Insurance Company, Limited held 6,180,000 shares contributed to a trust fund for its retirement and severance plans.
 - 2: Apart from the above shares, Mizuho Bank, Ltd. held 9,057,000 shares contributed to a trust fund for its retirement and severance plans.
 - 3: Moxley and Co. LLC is a nominee of JPMorgan Chase Bank, which is the depository of Canon's ADRs (American Depositary Receipts).
 - 4: Apart from the above shares, the Company owns 254,013,641 shares (19.0% of total issued shares) of treasury stock.
 - 5: Ownership percentage is calculated by deducting the number of treasury shares from the total shares issued.
- Canon's major shareholders do not have different voting rights from other shareholders.

As of December 31, 2018, 8.2% of the issued shares of common stock, including the Company's treasury stock, were held of record by 279 residents of the United States of America.

The Company is not directly or indirectly owned or controlled by any other corporation, by any government, or by any other natural or legal person or persons severally or jointly.

Table of Contents**B. Related party transactions**

During the latest three fiscal years, Canon has not transacted with, nor does Canon currently plan to transact with a related party (other than certain transactions with subsidiaries and affiliates of the Company). For purposes of this paragraph, a related party includes: (a) enterprises that directly or indirectly through one or more intermediaries, control or are controlled by, or are under common control with, Canon; (b) associates; (c) individuals owning, directly or indirectly, an interest in the voting power of Canon that gives them significant influence over Canon, and close members of any such individual's family; (d) key management personnel, that is, those persons having authority and responsibility for planning, directing and controlling the activities of Canon, including directors and senior management of companies and close member of such individual's families; (e) enterprises in which a substantial interest in the voting power is owned, directly or indirectly, by any person described in (c) or (d) or over which such a person is able to exercise significant influence. This includes enterprises owned by directors or major shareholders of Canon and enterprises that have a member of key management in common with Canon. Close members of an individual's family are those that may be expected to influence, or be influenced by, that person in their dealings with Canon. An associate is an unconsolidated enterprise in which Canon has a significant influence or which has significant influence over Canon. Significant influence over an enterprise is the power to participate in the financial and operating policy decisions of the enterprise but is less than control over those policies. Shareholders beneficially owning a 10% interest in the voting power of the Company are presumed to have a significant influence on Canon.

To the Company's knowledge, no person owned a 10% interest in the voting power of the Company as of March 28, 2019.

In the ordinary course of business on an arm's length basis, Canon purchases and sells materials, supplies and services from and to its affiliates accounted for by the equity method. There are 8 affiliates which are accounted for by the equity method. Canon does not consider the amounts of the transactions with the above affiliates to be material to its business.

C. Interests of experts and counsel

Not applicable.

Item 8. Financial Information**A. Consolidated financial statements and other financial information****Consolidated financial statements**

This Annual Report contains consolidated financial statements as of December 31, 2018 and 2017 and for each of the three years in the period ended December 31, 2018 prepared in accordance with U.S. generally accepted accounting principles and audited in accordance with the standards of the Public Company Accounting Oversight Board (United States) by an Independent Registered Public Accounting Firm. The financial statements as of and for the years ended December 31, 2018, 2017, and 2016 have been audited by Ernst & Young ShinNihon LLC, and their audit report covering each of the periods is included in Item 18 of this report.

Refer to Item 18 Financial Statements.

Legal proceedings

There are no outstanding legal or other proceedings which could reasonably be expected to have a material adverse effect on Canon's consolidated financial position, results of operations or cash flows.

Dividend policy

Dividends are proposed by the Board of Directors of the Company based on the year-end non-consolidated financial statements of the Company, and are approved at the ordinary general meeting of shareholders, which is

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held in March of each year. Recordholders of the Company's ADSs on the dividends record dates are entitled to receive payment in full of the declared dividends. In addition to annual dividends, by resolution of the Board of Directors, the Company may declare a cash distribution as an interim dividend. The record dates for the Company's year-end dividends and for the interim dividends are December 31 and June 30, respectively.

Canon is being more proactive in returning profits to shareholders, mainly in the form of a dividend, taking into consideration mid-term profit forecasts, planned future investments, cash flow and other factors.

In 2018, to provide a stable and active return to shareholders, Canon has decided to distribute a full-year dividend of ¥160 per share, (interim dividend of ¥80 per share that was already distributed and year-end dividend of ¥80) which is same as the previous year's dividend that included payment of a commemorative dividend (¥10 per share).

B. Significant changes

No significant change has occurred since the date of the annual financial statements.

Item 9. The Offer and Listing

A. Offer and listing details

Trading in domestic markets

The common stock of the Company has been listed on the Tokyo Stock Exchange (TSE), the principal stock exchange market in Japan, since 1949, and is traded on the First Section of the TSE. The shares are also listed on three other regional markets in Japan (Nagoya, Fukuoka and Sapporo).

Trading in foreign markets

The Company's ADRs are listed on the New York Stock Exchange (NYSE).

Since the Company's 1969 public offering in the United States of U.S.\$9,000,000 principal amount of its ½ % Convertible Debentures due 1984, there has been limited trading in the over-the-counter market in the Company's ADRs. Since March 16, 1998, each ADR represents one share of the Company's common stock. The Company's ADSs had been quoted on the National Association of Securities Dealers Automated Quotation system (NASDAQ) from 1972 to September 13, 2000 under the symbol CANNY.

On September 14, 2000, Canon listed its ADSs on the NYSE under the symbol CAJ.

The depositary and agent of the ADRs is JPMorgan Chase Bank, N.A., located at 4 New York Plaza Floor 12, New York, N.Y. 10004, U.S.A.

B. Plan of distribution

Not applicable.

C. Markets

See Item 9A Offer and listing details .

D. Selling shareholders

Not applicable.

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E. Dilution

Not applicable.

F. Expenses of the issue

Not applicable.

Item 10. Additional Information

A. Share capital

Not applicable.

B. Memorandum and articles of association

Objects and Purposes in the Company's Articles of Incorporation

The objects and purposes of the Company, as provided in Article 2 of the Company's Articles of Incorporation, are to engage in the following businesses:

- (1) Manufacture and sale of optical machineries and instruments of various kinds.
- (2) Manufacture and sale of acoustic, electrical and electronic machineries and instruments of various kinds.
- (3) Manufacture and sale of precision machineries and instruments of various kinds.
- (4) Manufacture and sale of medical machineries and instruments of various kinds.
- (5) Manufacture and sale of general machineries, instruments and equipments of various kinds.
- (6) Manufacture and sale of parts, materials, etc. relative to the products mentioned in each of the preceding items.
- (7) Production and sale of software products.
- (8) Manufacture and sale of pharmaceutical products.
- (9)

Telecommunications business, and information service business such as information processing service business, information providing service business, etc.

(10) Contracting for telecommunications works, electrical works and machinery and equipment installation works.

(11) Sale, purchase and leasing of real properties, contracting for construction works, design of buildings and supervision of construction works.

(12) Manpower providing business, property leasing business and travel business.

(13) Business relative to investigation, analysis of the environment and purification process of soil, water, etc.

(14) Any and all business relative to each of the preceding items.

Provisions Regarding Directors

There is no provision in the Company's Articles of Incorporation as to a Director's power to vote on a proposal, arrangement or contract in which the Director is materially interested, but, under the Corporation Law of Japan, the law relating to joint stock corporations (known in Japanese as *kabushiki kaisha*) which came into effect on May 1, 2006, a director is required to refrain from voting on such matters at meetings of the board of directors.

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The Corporation Law of Japan provides that compensation for directors is determined at a general meeting of shareholders of a company. Within the upper limit approved at the shareholders' meeting, the board of directors determines the amount of compensation for each director. The board of directors may, by its resolution, leave such decision to the discretion of the company's representative director.

The Corporation Law of Japan provides that the incurrence by a company of a significant loan from a third party should be approved by the company's board of directors. The Company's Regulations of the Board of Directors incorporate this requirement.

There is no mandatory retirement age for the Company's Directors under the Corporation Law of Japan or its Articles of Incorporation.

There is no requirement concerning the number of shares an individual must hold in order to qualify him as a director of the Company under the Corporation Law of Japan or its Articles of Incorporation.

Holding of Shares by Foreign Investors

Other than the Japanese unit share system that is described in *Rights of Shareholders - Japanese Unit Share System* below, there are no limitations on the rights of non-residents or foreign shareholders to hold or exercise voting rights on the Company's shares imposed by the laws of Japan or the Company's Articles of Incorporation or other constituent documents.

Rights of Shareholders

Set forth below is information relating to the Company's common stock, including brief summaries of the relevant provisions of its Articles of Incorporation and Regulations for Handling of Shares, as currently in effect, and of the Corporation Law of Japan and related legislation.

General

The Company's authorized share capital is 3,000,000,000 shares, of which 1,333,763,464 shares were issued, including the Company's treasury stock, as of December 31, 2018. In accordance with the Law Concerning Book-Entry Transfer of Corporate Bonds, Shares, etc. (including regulations promulgated thereunder; the *Book-Entry Law*), the Japan Securities Depository Center, Inc. (*JASDEC*) is the only institution that is designated by the relevant authorities as a clearing house which is permitted to engage in the clearing operations of shares of Japanese listed companies under the *Book-Entry Law*. Under the new clearing system, in order for any person to hold, sell or otherwise dispose of shares of Japanese listed companies, it must have an account at an account management institution unless such person has an account at *JASDEC*. Account management institutions are financial instruments traders (i.e., securities companies), banks, trust companies and certain other financial institutions which meet the requirements prescribed by the *Book-Entry Law*.

Under the *Book-Entry Law*, any transfer of shares is effected through book entry, and title to the shares passes to the transferee at the time when the transferred number of the shares is recorded at the transferee's account at an account management institution. The holder of an account at an account management institution is presumed to be the legal owner of the shares held in such account.

Under the Corporation Law of Japan and the *Book-Entry Law*, in order to assert shareholders' rights against the Company, a shareholder must have its name and address registered in the register of shareholders of the Company,

except in limited circumstances.

The registered beneficial holder of deposited shares underlying the ADSs is the depositary for the ADSs. Accordingly, holders of ADSs will not be able to directly assert shareholders' rights.

Table of Contents*Distributions of Surplus*

Under the Corporation Law of Japan, distributions of cash or other assets by joint stock corporations to their shareholders, so called dividends, are referred to as distributions of Surplus (Surplus is defined in Restriction on Distributions of Surplus below). The Company may make distributions of Surplus to the shareholders any number of times per fiscal year, subject to certain limitations described in Restriction on Distributions of Surplus . Under the Corporation Law of Japan, distributions of Surplus are required to be authorized by a resolution of a general meeting of shareholders.

Under the Articles of Incorporation of the Company, year-end dividends and interim dividends, if any, may be distributed to shareholders (or pledgees) appearing in the register of shareholders as of December 31 and June 30 of each year, respectively.

Distributions of Surplus may be made in cash or in kind in proportion to the number of shares held by each shareholder. A resolution of a shareholders meeting must specify the kind and aggregate book value of the assets to be distributed, the manner of allocation of such assets to shareholders, and the effective date of the distribution. If a distribution of Surplus is to be made in kind, the Company may, pursuant to a resolution of shareholders meeting, grant a right to its shareholders to require the Company to make such distribution in cash instead of in kind. If no such right is granted to shareholders, the relevant distribution of Surplus must be approved by a special resolution of a general meeting of shareholders.

Restriction on Distributions of Surplus

When the Company makes a distribution of Surplus, the Company must, until the aggregate amount of its additional paid-in capital and legal reserve reaches one-quarter of its stated capital, set aside in its additional paid-in capital and/or legal reserve an amount equal to one-tenth of the amount of Surplus so distributed.

The amount of Surplus at any given time must be calculated in accordance with the following formula:

$$A + B + C + D - (E + F + G)$$

In the above formula, the letters from A to G are defined as follows:

A = the total amount of other capital surplus and other retained earnings, each such amount that is appearing on its non-consolidated balance sheet as of the end of the last fiscal year;

B = (if the Company has disposed of its treasury stock after the end of the last fiscal year) the amount of the consideration for such treasury stock received by the Company less the book value thereof;

C = (if the Company has reduced its stated capital after the end of the last fiscal year) the amount of such reduction less the portion thereof that has been transferred to additional paid-in capital or legal reserve (if any);

D = (if the Company has reduced its additional paid-in capital or legal reserve after the end of the last fiscal year) the amount of such reduction less the portion thereof that has been transferred to stated capital (if any);

E = (if the Company has cancelled its treasury stock after the end of the last fiscal year) the book value of such treasury stock;

F = (if the Company has distributed Surplus to its shareholders after the end of the last fiscal year) the total book value of the Surplus so distributed;

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G = certain other amounts set forth in the ordinances of the Ministry of Justice, including (if the Company has reduced Surplus and increased its stated capital, additional paid-in capital or legal reserve after the end of the last fiscal year) the amount of such reduction and (if the Company has distributed Surplus to the shareholders after the end of the last fiscal year) the amount set aside in the additional paid-in capital or legal reserve (if any) as required by the ordinances of the Ministry of Justice.

The aggregate book value of Surplus distributed by the Company may not exceed a prescribed distributable amount (the Distributable Amount), as calculated on the effective date of such distribution. The Distributable Amount at any given time shall be equal to the amount of Surplus less the aggregate of the following:

- (a) the book value of the Company's treasury stock;
- (b) the amount of consideration for the treasury stock disposed of by the Company after the end of the last fiscal year; and
- (c) certain other amounts set forth in the ordinances of the Ministry of Justice, including (if the sum of one-half of goodwill and the deferred assets exceeds the total of stated capital, additional paid-in capital and legal reserve, each such amount that is appearing on the non-consolidated balance sheet as of the end of the last fiscal year) all or certain part of such exceeding amount as calculated in accordance with the ordinances of the Ministry of Justice.

If the Company has become at its option a company with respect to which consolidated balance sheets should also be taken into consideration in the calculation of the Distributable Amount (*renketsu haito kisei tekiyo kaisha*), it will be required to further deduct from the amount of Surplus the excess amount (if the amount is zero or below zero) of (x) the total amount of shareholders' equity appearing on its non-consolidated balance sheet as of the end of the last fiscal year and certain other amounts set forth in the ordinances of the Ministry of Justice over (y) the total amount of shareholders' equity and certain amounts set forth in the ordinances of the Ministry of Justice appearing on its consolidated balance sheets as of the end of the last fiscal year.

If the Company has prepared interim financial statements as described below, and if such interim financial statements have been approved (unless exempted by the Corporation Law of Japan) by a general meeting of shareholders, the Distributable Amount must be adjusted to take into account the amount of profit or loss, and the amount of consideration for the treasury stock disposed of by the Company, during the period in respect of which such interim financial statements have been prepared. The Company may prepare non-consolidated interim financial statements consisting of a balance sheet as of any date subsequent to the end of the last fiscal year and an income statement for the period from the first day of the current fiscal year to the date of such balance sheet. Interim financial statements so prepared by the Company must be approved by the board of directors and audited by its independent auditors, as required by the ordinances of the Ministry of Justice.

Stock Splits

The Corporation Law of Japan permits the Company, by resolution of its Board of Directors, to make stock splits, regardless of the value of net assets (as appearing in its latest non-consolidated balance sheet) per share. In addition, by resolution of the Company's Board of Directors, the Company may increase the authorized shares up to the number reflecting the rate of stock splits and amend its Articles of Incorporation to this effect without the approval of a shareholders' meeting. For example, if each share became three shares by way of a stock split, the Company may increase the authorized shares from the current 3,000,000,000 shares to 9,000,000,000 shares.

Under the Book-Entry Law, the Company must give notice to JASDEC regarding a stock split at least two weeks prior to the relevant record date. On the effective date of the stock split, the numbers of shares recorded in all accounts held by the Company's shareholders at account management institutions or JASDEC will be increased in accordance with the applicable ratio.

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Japanese Unit Share System

The Company's Articles of Incorporation provided that 100 shares of common stock constitute one unit. The Corporation Law of Japan permits the Company, by resolution of its Board of Directors, to reduce the number of shares which constitutes one unit or abolish the unit share system, and amend its Articles of Incorporation to this effect without the approval of a shareholders' meeting.

Transferability of Shares Representing Less than One Unit

Under the new clearing system, shares constituting less than one unit are transferable. However, because shares constituting less than one unit do not comprise a trading unit, such shares may not be sold on the Japanese stock exchanges under the rules of the Japanese stock exchanges.

Right of a Holder of Shares Representing Less than One Unit to Require the Company to Purchase Its Shares

A holder of shares representing less than one unit may at any time require the Company to purchase its shares through the account management institutions and JASDEC; provided, however, that the Company is not obliged to do so if the Company does not own its own shares in the number which it is requested to sell. These shares will be purchased at (a) the closing price of the shares reported by the TSE on the day when the request to purchase is made or (b) if no sale takes place on the TSE on that day, then the price at which sale of shares is effected on such stock exchange immediately thereafter.

Right of a Holder of Shares Representing Less than One Unit to Purchase from the Company its Shares up to a Whole Unit

The Articles of Incorporation of the Company provide that a holder of shares representing less than one unit may require the Company to sell its shares to such holder so that the holder can raise its fractional ownership to a whole unit; provided, however, that the Company is not obliged to do so if the Company does not own its own shares in the number which it is requested to sell. Such a request shall be made through the account management institutions and JASDEC. These shares will be sold at (a) the closing price of the shares reported by the TSE on the day when the request to sell becomes effective or (b) if no sale has taken place on the TSE on that day, then the price at which sale of shares is effected on such stock exchange immediately thereafter.

Voting Rights of a Holder of Shares Representing Less than One Unit

A holder of shares representing less than one unit cannot exercise any voting rights pertaining to those shares. In calculating the quorum for various voting purposes, the aggregate number of shares representing less than one unit will be excluded from the number of outstanding shares. A holder of shares representing one or more whole units will have one vote for each whole unit represented.

A holder of shares representing less than one unit does not have any rights relating to voting, such as the right to participate in a demand for the resignation of a director, the right to participate in a demand for the convocation of a general meeting of shareholders and the right to join with other shareholders to propose an agenda item to be addressed at a general meeting of shareholders.

However, a holder of shares constituting less than one unit has all other rights of a shareholder in respect of those shares, including the following rights:

to receive annual and interim dividends,
to receive cash or other assets in case of consolidation or split of shares, exchange or transfer of shares or corporate merger,
to be allotted rights to subscribe for free for new shares when such rights are granted to shareholders, and
to participate in any distribution of surplus assets upon liquidation.

Table of Contents*Ordinary and Extraordinary General Meeting of Shareholders*

The Company normally holds its ordinary general meeting of shareholders in March of each year in Ohta-ku, Tokyo or in a neighboring area. In addition, the Company may hold an extraordinary general meeting of shareholders whenever necessary by giving at least two weeks advance notice. Under the Corporation Law of Japan, notice of any shareholders' meeting must be given to each shareholder having voting rights or, in the case of a non-resident shareholder, to his resident proxy or mailing address in Japan in accordance with the Company's Regulations for Handling of Shares, at least two weeks prior to the date of the meeting.

Voting Rights

A shareholder is generally entitled to one vote per one unit of shares as described in this paragraph and under "Japanese Unit Share System" above. In general, under the Corporation Law of Japan, a resolution can be adopted at a general meeting of shareholders by a majority of the shares having voting rights represented at the meeting. The Corporation Law of Japan and the Company's Articles of Incorporation require a quorum for the election of directors and Audit & Supervisory Board Members of not less than one-third of the total number of outstanding shares having voting rights. The Company's shareholders are not entitled to cumulative voting in the election of Directors. A corporate shareholder whose outstanding shares are in turn more than one-quarter directly or indirectly owned by the Company does not have voting rights. Shareholders may exercise their voting rights through proxies, provided that those proxies are also shareholders who have voting rights.

Pursuant to the Corporation Law of Japan and the Company's Articles of Incorporation, a quorum of not less than one-third of the outstanding shares with voting rights must be present at a shareholders' meeting to approve any material corporate actions such as:

- a reduction of stated capital,
- amendment of the Articles of Incorporation (except amendments which the Board of Directors are authorized to make under the Corporation Law of Japan as described in "Stock Splits" and "Japanese Unit Share System" above),
- the removal of an Audit & Supervisory Board Member,
- establishment of a 100% parent-subsidiary relationship by way of share exchange or share transfer,
- a dissolution, merger or consolidation,
- a corporate separation,
- the transfer of the whole or an important part of the Company's business,
- the transfer of the whole or a part of the Company's equity interests in any of the Company's significant subsidiaries which meets certain requirements,
- the taking over of the whole of the business of any other corporation,
- any issuance of new shares at a specially favorable price, stock acquisition rights (*shinkabu yoyakuken*) with specially favorable conditions or bonds with stock acquisition rights (*shinkabu yoyakuken-tsuki shasai*) with specially favorable conditions to persons other than shareholders,
- distribution of Surplus in kind with respect to which shareholders are not granted the right to require the Company to make such distribution in cash instead of in kind,
- purchase of shares by the Company from a specific shareholder other than its subsidiaries,
- consolidation of shares, and
- discharge of a portion of liabilities of Directors, Audit & Supervisory Board Members or independent auditors that are owed to the Company.

At least two-thirds of the outstanding shares having voting rights present at the meeting is required to approve these actions.

The voting rights of holders of ADSs are exercised by the depositary based on instructions from those holders.

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Subscription Rights

Holders of shares have no pre-emptive rights. Authorized but unissued shares may be issued at such times and upon such terms as the board of directors determines, subject to the limitations as to the issue of new shares at a specially favorable price mentioned in *Voting Rights* above. The board of directors may, however, determine that shareholders be given subscription rights to new shares, in which case they must be given on uniform terms to all shareholders as of a record date with not less than two weeks prior public notice. Each of the shareholders to whom such rights are given must also be given at least two weeks prior notice of the date on which such rights will expire.

Stock Acquisition Rights

The Company may issue stock acquisition rights or bonds with stock acquisition rights (in relation to which the stock acquisition rights are undetachable). Except where the issue would be on specially favorable conditions mentioned in *Voting Rights* above, the issue of stock acquisition rights or bonds with stock acquisition rights may be authorized by a resolution of the board of directors. Subject to the terms and conditions thereof, holders of stock acquisition rights may acquire a prescribed number of shares by exercising their stock acquisition rights and paying the exercise price at any time during the exercise period thereof. Upon exercise of stock acquisition rights, the Company will be obliged to either issue the relevant number of new shares or transfer the necessary number of existing shares held by it as treasury stock to the holder. The entitlements accorded to stock acquisition rights attached to bonds are substantially similar to those accorded to stock acquisition rights issued without being attached to bonds, provided that, if so determined by the board of directors at the time of its resolution authorizing the issue of the relevant bonds with stock acquisition rights, then, upon exercise of the stock acquisition rights, their exercise price will be deemed to have been paid by the holder thereof to the Company in lieu of the Company redeeming the relevant bonds.

Liquidation Rights

In the event of liquidation, the assets remaining after payment of all debts, liquidation expenses and taxes will be distributed among the shareholders in proportion to the number of shares they own.

Liability to Further Calls or Assessments

All of the Company's currently outstanding shares, including shares represented by the ADSs, are fully paid and nonassessable.

Share Registrar

Mizuho Trust & Banking Co., Ltd. (Mizuho Trust) is the share registrar for the Company's shares. Mizuho Trust's office is located at 2-1, Yaesu 1-chome, Chuo-ku, Tokyo, Japan. Under the clearing system, Mizuho Trust maintains the Company's register of shareholders and records transfers of record ownership upon the Company's receipt of necessary information from JASDEC and other information in the register of shareholders, as described under *Record Date* below.

Record Date

The close of business on December 31 is the record date for the Company's year-end dividends, if paid. June 30 is the record date for interim dividends, if paid. A holder of shares constituting one or more whole units who is registered as a holder on the Company's register of shareholders at the close of business as of December 31 is also entitled to exercise shareholders' voting rights at the ordinary general meeting of shareholders with respect to the fiscal year

ending on December 31. In addition, the Company may set a record date for determining the shareholders entitled to other rights and for other purposes by giving at least two weeks prior public notice.

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Under the Book-Entry Law, the Company is required to give notice of each record date to JASDEC at least two weeks prior to such record date. JASDEC is required to promptly give the Company notice of the names and addresses of the Company's shareholders, the numbers of shares held by them and other relevant information as of such record date.

The shares generally trade ex-dividend or ex-rights in the Japanese stock exchanges on the second business day before a record date (or if the record date is not a business day, the third business day prior thereto), for the purpose of dividends or rights offerings.

Repurchase by the Company of Shares

Under the Corporation Law of Japan, the Company may acquire its shares (i) by soliciting all shareholders to offer to sell its shares held by them (in this case, the certain terms of such acquisition, such as the total number of the shares to be purchased and the total amount of the consideration, shall be set by an ordinary resolution of a general meeting of shareholders in advance, and acquisition shall be effected pursuant to a resolution of the board of directors), (ii) from a specific shareholder other than any of the Company's subsidiaries (pursuant to a special resolution of a general meeting of shareholders), (iii) from any of the Company's subsidiaries (pursuant to a resolution of the board of directors), or (iv) by way of purchase on any Japanese stock exchange on which the Company's shares are listed by way of tender offer (in either case pursuant to a resolution of the board directors). In the case of (ii) above, if the purchase price or any other consideration to be received by the relevant specific shareholder exceeds the then market price of the Company's shares calculated in a manner set forth in the ordinances of the Ministry of Justice, any other shareholder may make a request to a representative director to be included as a seller in the proposed acquisition by the Company.

The total amount of the purchase price of the Company's shares may not exceed the Distributable Amount, as described in "Restriction on Distributions of Surplus" above.

In addition, the Company may acquire its shares by means of repurchase of any number of shares constituting less than one unit upon the request of the holder of those shares, as described under "Japanese Unit Share System" above.

Right of Controlling Shareholder Representing 90 Per Cent or More of Shares to Request Other Shareholders to Sell All Shares

A shareholder holding, directly or indirectly, 90 per cent or more of the voting rights of the Company's shares has the right to request, subject to approval by the Company's Board of Directors, that the other shareholders and (if the controlling shareholder so determines) all holders of stock acquisition rights of the Company sell to the controlling shareholder all shares and all stock acquisition rights, as the case may be, held by them. In the above case, the Company will be required to give public notice thereof to all holders and registered pledgees of shares (and stock acquisition rights, as the case may be) not later than 20 days prior to the effective date of such sales.

C. Material contracts

On March 15, 2016, Canon entered into a provisional borrowing agreement with MUFG Bank, Ltd. for acquiring CMSC. This borrowing was refinanced on January 31, 2017. For further information, please refer to Note 9 of the Notes to Consolidated Financial Statements.

All contracts other than above entered into by Company during the two years preceding the date of this annual report were entered into in the ordinary course of business.

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D. Exchange controls

(a) Information with respect to Japanese exchange regulations affecting the Company's security holders is as follows:

The Foreign Exchange and Foreign Trade Law of Japan and the cabinet orders and ministerial ordinances thereunder (the Foreign Exchange Regulations) govern certain aspects relating to the issuance of securities by the Company and the acquisition and holding of such securities by non-residents of Japan and by foreign investors, as hereinafter defined.

Non-residents of Japan are defined as individuals who are not resident in Japan and corporations whose principal offices are located outside Japan. Generally, branches and other offices of Japanese corporations located outside Japan are regarded as non-residents of Japan, while branches and other offices located within Japan of non-resident corporations are regarded as residents of Japan. Foreign investors are defined to be (i) individuals not resident in Japan, (ii) corporations which are organized under the laws of foreign countries or whose principal offices are located outside Japan, (iii) corporations of which 50% or more of the shares are held by (i) and / or (ii) above and (iv) corporations in respect of which (a) a majority of the officers are non-resident individuals or (b) a majority of the officers having the power to represent the corporation are non-resident individuals.

Issuance of Securities by the Company

Under the Foreign Exchange Regulations, the issue of securities outside Japan by the Company is, in principle, not subject to a prior notification requirement, but subject to a post reporting requirement of the Minister of Finance. Under the Foreign Exchange Regulations as currently in effect, payments of principal, premium and interest in respect of securities and any additional amounts payable pursuant to the terms thereof may in general be paid when made without any restrictions under the Foreign Exchange Regulations.

Acquisition of Shares

In general, the acquisition of shares of stock of a Japanese company listed on any Japanese stock exchange by a non-resident of Japan from a resident of Japan is not subject to a prior notification requirement, but subject to a post reporting requirement of the Minister of Finance by such resident.

In the case where a foreign investor intends to acquire listed shares (whether from a resident or a non-resident of Japan, from another foreign investor or from or through a designated securities company) and as a result of such acquisition the number of shares held, directly or indirectly, by such foreign investor (if there are other foreign investors with whom the foreign investor has a special relationship, the shares held by such other foreign investors will be included in the number) would become 10% or more of the total outstanding shares of the company, the foreign investor must generally report such acquisition to the Minister of Finance and other Ministers having jurisdiction over the business of the subject company by the 15th day of the immediately following month in the date of acquisition falls. In certain exceptional cases, a prior notification is required in respect of such acquisition.

Acquisition of Shares upon Exercise of Rights for Subscription of Shares

The acquisition by a non-resident of Japan of shares upon exercise of his rights for subscription of shares is exempted from the notification and reporting requirements described under Acquisition of Shares above.

Dividends and Proceeds of Sales

Under the Foreign Exchange Regulations currently in effect, dividends paid on, and the proceeds of sale in Japan of, the shares held by non-residents of Japan may be converted into any foreign currency and repatriated abroad. The acquisition of shares by non-resident shareholders by way of stock splits is not subject to any of the aforesaid notification requirements.

Table of Contents**(b) Reporting of Substantial Shareholdings:**

The Financial Instruments and Exchange Law of Japan requires any person who has become, beneficially and solely or jointly, a holder of more than 5% of the total outstanding voting shares of capital stock of a company listed on any Japanese stock exchange to file with the relevant Local Finance Bureau of the Minister of Finance within five business days a report concerning such share ownership. A similar report must also be made in respect of any subsequent change of 1% or more in any such holding or any change in material set out in a previously filed report. For this purpose, shares with exercisable rights for subscription of shares held by such holder are taken into account in determining both the size of a holding and a company's total outstanding share capital.

E. Taxation**1. Taxation in Japan**

Generally, a non-resident of Japan or non-Japanese corporation (a **Non-Resident Holder**) is subject to Japanese withholding tax on dividends paid by Japanese corporations. Stock splits are not subject to Japanese income tax. A conversion of retained earnings or legal reserve (but not additional paid-in capital, in general) into stated capital (whether made in connection with a stock split or otherwise) is not treated as a deemed dividend payment to shareholders for Japanese tax purposes. Thus, such a conversion does not trigger Japanese withholding taxation. (Article 2 (16) of the Japanese Corporation Tax Law and Article 8 (1) (xiii) of the Japanese Corporation Tax Law Enforcement Order).

Pursuant to the Convention Between the Government of the United States of America and the Government of Japan for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income (the **Treaty**), dividend payments made by a Japanese corporation to a U.S. resident or corporation, unless the recipient of the dividend has a **permanent establishment** in Japan and the shares or ADSs with respect to which such dividends are paid are effectively connected with such **permanent establishment**, are generally subject to a withholding tax at rate of: (1) 10% for portfolio investors who are qualified U.S. residents eligible for benefits of the Treaty; and (2) 0% (*i.e.*, no withholding) for pension funds which are qualified U.S. residents eligible for benefits of the Treaty, provided that the dividends are not derived from the carrying on of a business, directly or indirectly, by such pension funds. Japan is a party to a number of income tax treaties, conventions and agreements, (collectively **Tax Treaties**), whereby the maximum withholding tax rate for dividend payments is set at, in most cases, 15% for portfolio investors who are Non-Resident Holders. Specific countries with which such Tax Treaties have been entered into include Belgium, Canada, Denmark, Finland, Germany, Ireland, Italy, Luxembourg, New Zealand, Norway, Singapore and Spain. Japan's income tax treaties with Australia, France, The Netherlands, Sweden, Switzerland and the United Kingdom have been amended to generally reduce the maximum withholding tax rate to 10%. Japan signed the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (the **MLI**). The tax treaties with Australia, France, Israel, New Zealand, Poland, Slovakia and the United Kingdom are partly overridden by the MLI as of January 1, 2019.

On the other hand, unless one of the applicable Tax Treaties reducing the maximum rate of withholding tax applies, the standard tax rate applicable to dividends paid with respect to listed shares before 2037, such as those paid by the Company on shares or ADSs, to Non-Resident Holders is 15.315% under the Japanese Income Tax Law, except for dividends paid to any individual shareholder who holds 3% or more of the issued shares, in which case the applicable rate is 20.42% (Article 182(ii) of the Japanese Income Tax Law and Article 9-3(1)(i) of the Japanese Special Tax Measures Law, including its relevant temporary provision for these withholding rates).

In order to enjoy a lower treaty rate, the taxpayer must file a treaty application in advance with the Company. Gains derived from the sale outside Japan of Japanese corporations' shares or ADSs by Non-Resident Holders, or from the sale of Japanese corporations' shares or ADSs within Japan by a non-resident of Japan as an

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occasional transaction or by a non-Japanese corporation not having a permanent establishment in Japan, are generally not subject to Japanese income or corporation taxes, provided that the seller is a portfolio investor. Japanese inheritance and gift taxes at progressive rates may apply to an individual who has acquired Japanese corporations shares or ADSs as a distributee, legatee or donee.

2. Taxation in the United States

The following is a discussion of the material U.S. federal income tax consequences of owning and disposing of the Company shares or ADSs to the U.S. holders described below, but it does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a particular person's decision to acquire, hold or dispose of such securities. The discussion does not address the potential application of the provisions of the Internal Revenue Code of 1986, as amended (the Code) known as the Medicare contribution tax. The discussion applies only if a U.S. holder holds the Company shares or ADSs as capital assets for U.S. federal income tax purposes and it does not address special classes of holders, such as:

- certain financial institutions;
- insurance companies;
- dealers and traders in securities or foreign currencies;
- persons holding the Company shares or ADSs as part of a straddle, conversion, other integrated transaction or other similar transaction;
- persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
- partnerships or other entities classified as partnerships for U.S. federal income tax purposes;
- persons liable for the alternative minimum tax;
- tax-exempt entities;
- persons holding the Company shares or ADSs that own or are deemed to own 10% or more of the Company stock, by vote or by value;
- persons who acquired the Company shares or ADSs pursuant to the exercise of any employee stock option or otherwise as compensation; or
- persons holding the Company shares or ADSs in connection with trade or business conducted outside of the United States.

This discussion is based on the Code, administrative pronouncements, judicial decisions, final, temporary and proposed Treasury regulations and the Treaty, all as of the date hereof. These laws are subject to change, possibly on a retroactive basis. It is also based in part on representations by the depositary and assumes that each obligation under the deposit agreement and any related agreement will be performed in accordance with its terms. An investor should consult its own tax adviser concerning the U.S. federal, state, local and foreign tax consequences of owning and disposing of the Company shares or ADSs in its particular circumstances.

As used herein, a U.S. holder is a beneficial owner of the Company shares or ADSs that is eligible for the benefits of the Treaty and is, for U.S. federal tax purposes:

- a citizen or individual resident of the United States;
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state thereof or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds the Company shares or ADSs, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships holding the Company shares or ADSs and partners in such partnerships should consult their tax advisers as to the particular U.S. federal income tax consequences of holding and disposing of the Company shares or ADSs.

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In general, if a U.S. holder owns ADSs, it will be treated for U.S. federal income tax purposes as the owner of the underlying shares represented by those ADSs. Accordingly, no gain or loss will be recognized if a U.S. holder exchanges ADSs for the underlying shares represented by those ADSs.

The U.S. Treasury has expressed concerns that parties to whom American depositary shares are released before shares are delivered to the depositary (pre-released), or intermediaries in the chain of ownership between the holder and the issuer of the security underlying the American depositary shares, may be taking actions that are inconsistent with the claiming of foreign tax credits by holders of American depositary shares. Such actions would also be inconsistent with the claiming of the reduced rate of tax applicable to dividends received by certain non-corporate U.S. holders. Accordingly, the analysis of the creditability of Japanese taxes and the reduced rates of taxation applicable to dividends received by certain non-corporate U.S. holders, both as described below, could be affected by actions that may be taken by parties to whom ADSs are pre-released or by intermediaries.

This discussion assumes that the Company was not a passive foreign investment company for 2018, as described below.

Taxation of Distributions

Distributions paid on the Company shares or ADSs, other than certain *pro rata* distributions of common shares, to the extent paid out of the Company's current or accumulated earnings and profits (as determined under U.S. federal income tax principles) will be treated as dividends for U.S. tax purposes. Because the Company does not maintain calculations of its earnings and profits under U.S. federal income tax principles, it is expected that distributions will be reported to U.S. holders as dividends. The amount of a dividend will include any amounts withheld by the Company or its paying agent in respect of Japanese taxes. The amount of the dividend will be treated as foreign-source dividend income and will generally not be eligible for the dividends-received deductions allowed to U.S. corporations. Subject to applicable limitations that may vary depending upon a U.S. holder's individual circumstances and the concerns of the U.S. Treasury described above, dividends paid to certain non-corporate U.S. holders will be taxable at the favorable rates applicable to long-term capital gains. Non-corporate U.S. holders should consult their own tax advisers to determine whether they are subject to any special rules that limit their ability to be taxed at these favorable rates.

Dividends paid in Japanese yen will be included in a U.S. holder's income in a U.S. dollar amount calculated by reference to the exchange rate in effect on the date of receipt of the dividend by the U.S. holder, in the case of the Company shares, or by the depositary, in the case of ADSs, regardless of whether the payment is in fact converted into U.S. dollars at that time. If the dividend is converted into U.S. dollars on the date of receipt, a U.S. holder generally should not be required to recognize foreign currency gain or loss in respect of the dividend income. A U.S. holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt.

Japanese income taxes withheld from cash dividends on the Company shares or ADSs at a rate not exceeding the rate provided by the Treaty will be creditable against a U.S. holder's U.S. federal income tax liability, subject to applicable limitations that may vary depending upon a U.S. holder's circumstances and the concerns expressed by the U.S. Treasury described above. The rules governing foreign tax credits are complex, and a U.S. holder should consult its own tax adviser regarding the availability of foreign tax credits in its particular circumstances. Instead of claiming a credit, a U.S. holder may, at its election, deduct such Japanese taxes in computing its income, subject to generally applicable limitations under U.S. federal income tax law.

Sale or Other Disposition of the Company Shares or ADSs

For U.S. federal income tax purposes, gain or loss a U.S. holder realizes on the sale or other disposition of the Company shares or ADSs will be capital gain or loss, and will be long-term capital gain or loss if such holder

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held the Company shares or ADSs for more than one year. The amount of a U.S. holder's gain or loss will be equal to the difference between the U.S. dollar amount realized on the disposition and the U.S. holder's U.S. dollar tax basis in the Company shares or ADSs that were disposed of. Such gain or loss will generally be U.S.-source gain or loss for foreign tax credit purposes. The deductibility of capital losses is subject to limitation.

Passive Foreign Investment Company Rules

The Company believes that it was not a passive foreign investment company (PFIC) for U.S. federal income tax purposes for its 2018 fiscal year. However, since PFIC status depends upon the composition of the Company's income and assets and the market value of its assets (including, among others, goodwill and equity investments in less than 25% owned entities) from time to time, there can be no assurance that the Company will not be considered a PFIC for any taxable year. If the Company were treated as a PFIC for any taxable year during which a U.S. holder owned the Company shares or ADSs, certain adverse tax consequences could apply to such U.S. holder.

If the Company were treated as a PFIC for any taxable year during which a U.S. holder owned the Company shares or ADSs, gain recognized by a U.S. holder on the sale or other disposition, including certain pledges, of the Company shares or ADSs would be allocated ratably over its holding period for such securities. The amounts allocated to the taxable year of the sale or other disposition and to any year before the Company became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect in such taxable year for individuals or corporations, as appropriate, and an interest charge would be imposed on the tax liability attributable to such allocated amounts. Further, any distribution in respect of the Company shares or ADSs in excess of 125% of the average of the annual distributions on such securities received by a U.S. holder during the preceding three years or its holding period, whichever is shorter, would be subject to taxation as described immediately above. Certain elections (including a mark-to-market election) may be available to a U.S. holder that would result in alternative tax treatments.

In addition, if the Company were a PFIC or, with respect to a particular U.S. holder, were treated as a PFIC in a taxable year in which it pays a dividend or the prior taxable year, the favorable tax rates discussed above with respect to dividends paid to certain non-corporate U.S. holders would not apply.

If the Company were a PFIC for any taxable year during which a U.S. holder owned the Company shares or ADSs, the U.S. holder would generally be required to file IRS Form 8621 with its annual U.S. federal income tax return, subject to certain exceptions.

Information Reporting and Backup Withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting and may be subject to backup withholding unless the U.S. holder is a corporation or other exempt recipient or, in the case of backup withholding, the U.S. holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. holder will be allowed as a credit against such holder's U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely furnished to the Internal Revenue Service.

Certain U.S. holders who are individuals may be required to report information relating to stock of a non-U.S. person, generally on IRS Form 8938, subject to certain exceptions (including an exception for stock held in custodial accounts maintained by a U.S. financial institution). U.S. holders are urged to consult their tax advisers regarding the effect, if

any, of this requirement on their tax reporting obligations.

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F. Dividends and paying agents

Not applicable.

G. Statement by experts

Not applicable.

H. Documents on display

Under the Securities Exchange Act of 1934, as amended (the Exchange Act), the Company is subject to requirements information disclosure. The Company files various reports and other information, including Form 20-F and Annual Reports, with the Securities Exchange Commission and the NYSE. These reports may be inspected at the following sites.

Securities Exchange Commission (Public Reference Room):

100 F Street, N.E., Washington D.C. 20549

New York Stock Exchange, Inc.:

11 Wall Street, New York, New York 10005

Form 20-F is also available at the Electronic Data Gathering, Analysis, Retrieval system (EDGAR) website which is maintained by the Securities Exchange Commission.

Securities Exchange Commission Home Page:

<http://www.sec.gov>

I. Subsidiary information

Not applicable.

Item 11. Quantitative and Qualitative Disclosures about Market Risk

Market risk exposures

Canon is exposed to market risks, including changes in foreign currency exchange rates, interest rates and prices of marketable securities and investments. In order to hedge the risks of changes in foreign currency exchange rates, Canon uses derivative financial instruments.

Equity price risk

Canon holds marketable securities included in current assets, which consist generally of highly-liquid and low-risk instruments. Investments included in noncurrent assets are held as long-term investments. Canon does not hold marketable securities and investments for trading purposes.

Maturities and fair values of such marketable securities and investments with original maturities of more than three months were as follows at December 31, 2018.

	2018 Fair value (Millions of yen)
Debt securities	
Due within one year	630
Fund trusts and others	1,038
Equity securities	13,787
	15,455

Table of Contents**Foreign currency exchange rate and interest rate risk**

Canon operates internationally, exposing it to the risk of changes in foreign currency exchange rates. Derivative financial instruments are comprised principally of foreign currency exchange contracts utilized by the Company and certain of its subsidiaries to reduce the risk. Canon assesses foreign currency exchange rate risk by continually monitoring changes in the exposures and by evaluating hedging opportunities. Canon does not hold or issue derivative financial instruments for trading purposes. Canon is also exposed to credit-related losses in the event of non-performance by counterparties to derivative financial instruments, but it is not expected that any counterparties will fail to meet their obligations. Most of the counterparties are internationally recognized financial institutions and selected by Canon taking into account their financial condition, and contracts are diversified across a number of major financial institutions.

Canon's international operations expose Canon to the risk of changes in foreign currency exchange rates. Canon uses foreign exchange contracts to manage certain foreign currency exchange exposures principally from the exchange of U.S. dollars and euros into Japanese yen. These contracts are primarily used to hedge the foreign currency exposure of forecasted intercompany sales and intercompany trade receivables which are denominated in foreign currencies. In accordance with Canon's policy, a specific portion of foreign currency exposure resulting from forecasted intercompany sales are hedged using foreign exchange contracts which principally mature within three months.

The following table provides information about Canon's major derivative financial instruments related to foreign currency exchange transactions existing at December 31, 2018. All of the foreign exchange contracts described in the following table have a contractual maturity date in 2019.

	U.S.\$	Euro	Others	Total
	(Millions of yen)			
Forwards to sell foreign currencies:				
Contract amounts	108,126	101,356	21,023	230,505
Estimated fair value	857	1,235	513	2,605
Forwards to buy foreign currencies:				
Contract amounts	24,025	2,807	3,984	30,816
Estimated fair value	(158)	(11)	(59)	(228)

Canon expects that fair value changes and cash flows resulting from reasonable near-term changes in interest rates will be immaterial. Accordingly, Canon believes interest rate risk is insignificant. See also Note 9 of the Notes to Consolidated Financial Statements.

Changes in the fair value of derivative financial instruments designated as cash flow hedges, including foreign currency exchange contracts associated with forecasted intercompany sales, are reported in accumulated other comprehensive income (loss). These amounts are subsequently reclassified into earnings through other income (deductions) in the same period as the hedged items affect earnings. Substantially all such amounts recorded in accumulated other comprehensive income (loss) at year-end are expected to be recognized in earnings over the next twelve months. Canon excludes the time value component from the assessment of hedge effectiveness. Changes in the fair value of a foreign currency exchange contract for the period between the date that the forecasted intercompany sales occur and its maturity date are recognized in earnings and not considered hedge ineffectiveness. From the quarter beginning January 1, 2019, Canon will adopt ASU No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities. After the adoption of this guidance, gains and losses resulting from derivative financial instruments designated as cash flow hedges associated with forecasted intercompany sales,

which are currently included in other income (deductions) in the consolidated statements of income, will be included in net sales.

The amount of the hedging ineffectiveness was not material for the years ended December 31, 2018, 2017 and 2016. The amounts of net losses excluded from the assessment of hedge effectiveness (time value

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component) which was recorded in other income (deductions) were ¥682 million, ¥332 million and ¥311 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Canon has entered into certain foreign currency exchange contracts to manage its foreign currency exposures. These foreign currency exchange contracts have not been designated as hedges. Accordingly, the changes in fair values of these contracts are recorded in earnings immediately.

Item 12. Description of Securities Other than Equity Securities

A. Debt securities

Not applicable.

B. Warrants and rights

Not applicable.

C. Other securities

Not applicable.

D. American Depositary Shares

(a) Depositing or substituting the underlying shares
Not applicable.

(b) Receiving or distributing dividends
Not applicable.

(c) Selling or exercising rights
Upon the distribution or sale of Canon's ADSs, a holder of American Depositary Receipts is required to pay a commission fee of \$5.00 to the depository for each 100 ADSs (or part of the 100 ADSs) for this transaction.

(d) Withdrawing an underlying security
Not applicable.

(e) Transferring, splitting or grouping receipts
Not applicable.

(f) General depositary services, particularly those charged on an annual basis
Not applicable.

(g) Expenses of the depositary
Not applicable.

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PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

Item 15. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Canon's disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives and Canon's chief executive officer and chief financial officer concluded that Canon's disclosure controls and procedures, as defined in Rule 13a-15(e) of the Exchange Act, are effective at the reasonable assurance level as of December 31, 2018.

Management's Report on Internal Control over Financial Reporting

The management of Canon is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) promulgated under the Securities Exchange Act of 1934, as amended, as a process designed by, or under the supervision of, the company's principal executive and principal financial officers and effected by the company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Canon's management assessed the effectiveness of internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria established in internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the "COSO criteria").

Based on its assessment, management concluded that, as of December 31, 2018, Canon's internal control over financial reporting was effective based on the COSO criteria.

Canon's independent registered public accounting firm, Ernst & Young ShinNihon LLC, has issued an audit report on the effectiveness of Canon's internal control over financial reporting. This report appears in Item 18.

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There has been no change in Canon's internal control over financial reporting that occurred during the period covered by this Annual Report that has materially affected, or is reasonably likely to materially affect, its internal control over financial reporting.

Item 16A. Audit Committee Financial Expert

Canon's Audit & Supervisory Board has determined that Hiroshi Yoshida is an audit committee financial expert as defined by the rules of the SEC. Hiroshi Yoshida has considerable experience and advanced expert knowledge in corporate accounting gained through his longstanding practice as a certified public accountant. Hiroshi Yoshida was elected as one of Canon's Outside Audit & Supervisory Board Members at an ordinary general meeting of shareholders held in March 2017. Hiroshi Yoshida met the independence requirements imposed on Audit & Supervisory Board Members as set forth by Japanese legal provisions.

Item 16B. Code of Ethics

Canon maintains a Canon Group Code of Conduct or Code of Conduct, applicable to all executives and employees. The Code of Conduct sets forth provisions relating to honest and ethical conduct (including the handling of conflicts of interest), compliance with applicable laws, rules and regulations and accountability for adherence to the provisions of the Code of Conduct. The Board of Directors maintains a Code of Ethics as a supplement to the Code of Conduct. This Code of Ethics applies to Canon's President and Chief Executive Officer, each member of the Board of Directors (which includes the Chief Financial Officer) and general managers belonging to Canon's accounting headquarters. The Code of Ethics requires full, fair, accurate, timely and understandable disclosure in reports and documents that Canon files with or submits to the SEC and in Canon's other communications with the public, prompt internal reporting of violations of the Code of Conduct or Code of Ethics, and accountability for adherence to their provisions. Both the Code of Conduct and the Code of Ethics have been filed as exhibits.

Item 16C. Principal Accountant Fees and Services*Policy on Pre-Approval of Audit and Non-Audit Services of Independent Auditors*

Canon's Audit & Supervisory Board consisting of five members, including three outside auditors, is responsible for the oversight of the services of its independent registered public accounting firm. The Audit & Supervisory Board has established Pre-Approval Policies and Procedures for Audit and Non-Audit Services. These policies and procedures govern the Audit & Supervisory Board's review and approval of the board of director's engagement of Canon's independent registered public accounting firm to render audit or non-audit services. Non-audit services include audit-related services, tax services and other services, as described in greater detail below under Fees and Services. Canon and any affiliate controlled by Canon directly, indirectly or through one or more intermediaries must follow these policies and procedures before any engagement of Canon's independent registered public accounting firm for U.S. securities law reporting purposes.

The policies and procedures stipulate three means by which audit and non-audit services may be pre-approved, depending on the content of and the fee for the services.

All services provided to Canon necessary to perform an annual audit or review to comply with the standards of the Public Company Accounting Oversight Board (United States), in any jurisdiction, including tax services and accounting consultation necessary to comply with the standards of the Public Company Accounting Oversight Board (United States) in those jurisdictions, and any engagement of an Independent Registered Public Accounting Firm for any audit or non-audit service involving estimated fees exceeding ¥10,000,000 per single engagement must be pre-approved by the majority of Audit & Supervisory Board.

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Certain other services may be pre-approved under detailed categories of audit and non-audit services established annually by the Audit & Supervisory Board, as long as those services do not exceed specified maximum yen limits for aggregate fees relating to each of those categories. Any engagement of an Independent Registered Public Accounting Firm by this means must be reported to the Audit & Supervisory Board at its next regularly scheduled meeting.

For services that are not covered by the above two means of pre-approval, the Audit & Supervisory Board has delegated pre-approval authority to any of the standing Audit & Supervisory Board Members of the board. Any engagement of an Independent Registered Public Accounting Firm pre-approved by one of the standing Audit & Supervisory Board Members is required to be reported to the Audit & Supervisory Board at its next regularly scheduled meeting.

Additional services may be pre-approved by the Audit & Supervisory Board on an individual basis.

No services were provided for which pre-approval was waived pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

Fees and services

The following table discloses the aggregate fees accrued or paid to Canon's principal accountant and member firms of Ernst & Young for each of the last two fiscal years and briefly describes the services performed:

	Year ended December 31, 2018	Year ended December 31, 2017
	(Millions of yen)	
Audit fees	3,073	3,028
Audit-related fees	19	27
Tax fees	103	119
All other fees	9	10
Total	3,204	3,184

Audit fees include fees billed for professional services rendered for audits of Canon's annual consolidated financial statements, reviews of consolidated quarterly financial information and statutory audits of the Company and its subsidiaries.

Audit-related fees include fees billed for assurance and related services such as due diligence, accounting consultations and audits in connection with mergers and acquisitions, employee benefit plan audits, internal control reviews, and consultations concerning financial accounting and reporting standards.

Tax fees include fees billed for services related to tax compliance, including the preparation of tax returns and claims for refund, tax planning and tax advice, including assistance with tax audits and appeals, advice related to mergers and acquisitions, tax services for employee benefit plans and assistance with respect to requests for rulings from tax authorities.

All other fees include fees billed primarily for services rendered with respect to advisory and training services.

Ernst & Young ShinNihon LLC served as Canon's principal accountant for 2018 and 2017.

Item 16D. Exemptions from the Listing Standards for Audit Committees

Canon is relying on the general exemption contained in Rule 10A-3(c)(3) under the Exchange Act. Because of such reliance, Canon does not have an audit committee which can act independently and satisfy the other requirements of Rule 10A-3 under the Exchange Act.

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According to Rule 10A-3 under the Exchange Act and NYSE listing standards, Canon's Audit & Supervisory Board has been identified to act in place of an audit committee. The Audit & Supervisory Board meets the following requirements of the general exemption contained in Rule 10A-3(c)(3):

the Audit & Supervisory Board is established pursuant to applicable Japanese law and Canon's Articles of Incorporation;

under Japanese legal requirements, the Audit & Supervisory Board is separate from the board of directors;

the Audit & Supervisory Board is not elected by the management of Canon and no executive officer of Canon is a member of the Audit & Supervisory Board;

all of the members of the Audit & Supervisory Board meet specific independence requirements from the Company and Canon, the management and the auditing firm, as set forth by Japanese legal provisions;

the Audit & Supervisory Board, in accordance with and to the extent permitted by Japanese law, is responsible for the appointment, retention and oversight of the work of Canon's external auditors engaged for the purpose of issuing audit reports on Canon's annual financial statements;

the Audit & Supervisory Board maintains a complaints procedure in accordance with Rule 10A-3(b)(3) of the Exchange Act;

the Audit & Supervisory Board is authorized to engage independent counsel and other advisers, as it deems appropriate; and

the Audit & Supervisory Board is provided with appropriate funding for payment of (i) compensation to Canon's independent registered public accounting firm engaged for the purpose of issuing audit reports on Canon's annual financial statements, (ii) compensation to independent counsel and other advisers engaged by the Audit & Supervisory Board, and (iii) ordinary administrative expenses of the Audit & Supervisory Board in carrying out its duties.

Canon's reliance on Rule 10A-3(c)(3) does not, in its opinion, materially adversely affect the ability of its Audit & Supervisory Board to act independently and to satisfy the other requirements of Rule 10A-3.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

The following table sets forth, for each of the months indicated, the total number of shares purchased by Canon, or on Canon's behalf or by any affiliated purchaser, the average price paid per share, the number of shares purchased pursuant to the applicable shareholder resolution or board resolution, which are publicly announced, and the maximum number of shares that may yet be purchased pursuant to these shareholder resolutions or board resolutions.

Period	(a) Total number of shares purchased	(b) Average price paid per share	(c) Total number of shares purchased as part of publicly announced plans or programs	(d) Maximum number of shares that may yet be purchased under the plans or programs
2018	(Shares)	(Yen)		
January 1 - January 31	792	4,312		
February 1 - February 28	587	4,148		
March 1 - March 31	356	3,982		
April 1 - April 30	445	3,859		

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May 1 - May 31	603	3,805
June 1 - June 30	519	3,742
July 1 - July 31	242	3,556
August 1 - August 31	300	3,535
September 1- September 30	894	3,491
October 1 - October 31	619	3,591
November 1 - November 30	783	3,241
December 1 - December 31	735	3,176

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Column (a) represents the total number of shares purchased as fractional shares from fractional shareowners in accordance with the Corporation Law of Japan, and the purchase of shares from publicly announced plans which is shown in column (c). During 2018, the Company purchased 6,875 shares for a total purchase price of 25,358,703 yen upon requests from holders of shares consisting less than one full unit.

Item 16F. Change in Registrant's Certifying Accountant

Not applicable.

Item 16G. Corporate Governance***Significant Differences in Corporate Governance Practices between Canon and U.S. Companies Listed on the NYSE***

Section 303A of the New York Stock Exchange (the NYSE) Listed Company Manual (the Manual) provides that companies listed on the NYSE must comply with certain corporate governance standards. However, foreign private issuers whose shares have been listed on the NYSE, such as Canon Inc. (the Company), are permitted, with certain exceptions, to follow the laws and practices of their home country in place of the corporate governance practices stipulated under the Manual. In such circumstances, the foreign private issuer is required to disclose the significant differences between the corporate governance practices under Section 303A of the Manual and those required in Japan. A summary of these differences as they apply to the Company is provided below.

1. Directors

Currently, the Company's board of directors does not have any director who could be regarded as an independent director under the NYSE Corporate Governance Rules for U.S. listed companies. Unlike the NYSE Corporate Governance Rules, the Corporation Law of Japan (the Corporation Law) does not require Japanese companies with the Audit & Supervisory Board such as the Company, to appoint independent directors as members of the board of directors. The NYSE Corporate Governance Rules require non-management directors of U.S. listed companies to meet at regularly scheduled executive sessions without the presence of management. Unlike the NYSE Corporate Governance Rules, however, the Corporation Law does not require companies to implement an internal corporate organ or committee comprised solely of independent directors. Thus, the Company does not have such internal corporate organ or committee.

The Company currently has two outside directors under the Corporation Law. Under the Corporation Law, an outside director is defined as a person who meets the prescribed conditions, such as, that the person is not currently, and has not been in the ten years prior to his or her assumption of office as outside director, an executive director (which means a director concurrently performing an executive role) (*gyomu shikko torishimariyaku*), a corporate executive officer, a manager (*shihainin*), or any other type of employee of the company or any of its subsidiaries. Such qualifications for an outside director are different from the director independence requirements under the NYSE Corporate Governance Rules.

In addition, pursuant to the regulations of the Japanese stock exchanges, the Company is required to have one or more independent director(s)/audit & supervisory board member(s), defined under the relevant regulations of the Japanese stock exchanges as outside directors or outside audit & supervisory board members (as defined under the Corporation Law), who are unlikely to have any conflicts of interests with the Company's general shareholders. Each of the outside directors of the Company satisfies the independent director/audit & supervisory board member requirements under the regulations of the Japanese stock exchanges. The definition of independent director/audit & supervisory board

member is different from that of the definition of independent director under the NYSE Corporate Governance Rules.

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2. Committees

Under the Corporation Law, the Company may choose to:(i) have an audit committee, nomination committee and compensation committee and abolish the post of the Audit & Supervisory Board Members; (ii) have an audit and supervisory committee and abolish the post of the Audit & Supervisory Board Members; or (iii) have the Audit & Supervisory Board. The Company has elected to have the Audit & Supervisory Board, whose duties include monitoring and reviewing the management and reporting the results of these activities to the shareholders or board of directors of the Company. While the NYSE Corporate Governance Rules provide that U.S. listed companies must have an audit committee, nominating committee and compensation committee, each composed entirely of independent directors, the Corporation Law does not require companies to have specified committees, including those that are responsible for director nomination, corporate governance and executive compensation.

The Company's board of directors nominates candidates for directorships and submits a proposal at the general meeting of shareholders for shareholder approval. Pursuant to the Corporation Law, the shareholders then vote to elect directors at the meeting. The Corporation Law requires that the total amount or calculation method of compensation for directors and Audit & Supervisory Board Members be determined by a resolution of the general meeting of shareholders respectively, unless the amount or calculation method is provided under the Articles of Incorporation. As the Articles of Incorporation of the Company do not provide an amount or calculation method, the amount of compensation for the directors and the Audit & Supervisory Board Members of the Company is determined by a resolution of the general meeting of shareholders. The allotment of compensation for each director from the total amount of compensation is determined by the Company's board of directors, and the allotment of compensation to each Audit & Supervisory Board Member is determined by consultation among the Company's Audit & Supervisory Board Members.

3. Audit Committee

The Company avails itself of paragraph (c)(3) of Rule 10A-3 of the Security Exchange Act, which provides that a foreign private issuer which has established the Audit & Supervisory Board shall be exempt from the audit committee requirements, subject to certain requirements which continue to be applicable under Rule 10A-3. Pursuant to the requirements of the Corporation Law, the shareholders elect the Audit & Supervisory Board Members by resolution of a general meeting of shareholders. The Company currently has five Audit & Supervisory Board Members, although the minimum number of Audit & Supervisory Board Members required pursuant to the Corporation Law is three. Unlike the NYSE Corporate Governance Rules, Japanese laws and regulations, including the Corporation Law, do not require the Audit & Supervisory Board Members to be experts in accounting or to have any other area of expertise. Under the Corporation Law, the Audit & Supervisory Board may determine the auditing policies and methods for investigating the business and assets of a Company, and may resolve other matters concerning the execution of the Audit & Supervisory Board Member's duties. The Audit & Supervisory Board prepares auditors' reports, determines a proposal for the nomination or removal of the accounting auditors to be submitted to the general meeting of shareholders, and may veto a proposal for the nomination of the Audit & Supervisory Board Members, accounting auditors and the determination of the amount of compensation for the accounting auditors put forward by the board of directors. Under the Corporation Law, the half or more of a company's Audit & Supervisory Board Members must be outside Audit & Supervisory Board Members. An outside Audit & Supervisory Board Member is defined as a person who meets the prescribed conditions, such as, that the person has not been in the ten years prior to his or her assumption of office as outside Audit & Supervisory Board Member, a director, an accounting adviser (*kaikei sanyo*), a corporate executive officer, a manager (*shihainin*), or any other type of employee of the company or any of its subsidiaries. The Company's current Audit & Supervisory Board Member system meets these requirements. In addition, pursuant to the regulations of the Japanese stock exchanges, the Company is required to have one or more independent director(s) or independent Audit & Supervisory Board Member(s) which terms are defined under the

relevant regulations of the Japanese stock exchanges as outside directors or outside Audit & Supervisory Board Members (each of which terms is defined under the Corporation Law) who

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are unlikely to have any conflict of interests with shareholders of the Company. Among the five members on the Company's board of auditors, three are outside Audit & Supervisory Board Members. In addition, all such three outside Audit & Supervisory Board Members are also qualified as independent Audit & Supervisory Board Members under the regulations of the Japanese stock exchanges. The qualifications for an outside or independent Audit & Supervisory Board Member under the Corporation Law or the regulations of the Japanese stock exchanges are different from the audit committee independence requirement under the NYSE Corporate Governance Rules.

4. Shareholder Approval of Equity Compensation Plans

The NYSE Corporate Governance Rules require that shareholders be given the opportunity to vote on all equity compensation plans and any material revisions of such plans, with certain limited exceptions. Under the Corporation Law, a Company is required to obtain shareholder approval regarding the stock options to be issued to directors and Audit & Supervisory Board Members as part of remuneration of directors and Audit & Supervisory Board Member.

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Not applicable.

Item 18. Financial Statements

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<u>Consolidated Balance Sheets as of December 31, 2018 and 2017</u>	93
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All other schedules are omitted as permitted by the rules and regulations of the Securities and Exchange Commission as not applicable.	

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of

Canon Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Canon Inc. and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and financial statement schedule listed in the Index at Item 18 (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 28, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

We have served as the Company's auditor for SEC reporting purposes since 2004, and as its Japanese statutory auditor since 1978.

Tokyo, Japan

March 28, 2019

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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of

Canon Inc.

Opinion on Internal Control over Financial Reporting

We have audited Canon Inc. and subsidiaries' internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Canon Inc. and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and financial statement schedule listed in the Index at Item 18 and our report dated March 28, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding

prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Tokyo, Japan

March 28, 2019

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Canon Inc. and Subsidiaries

Consolidated Balance Sheets

	December 31	
	2018	2017
	(Millions of yen)	
Assets		
Current assets:		
Cash and cash equivalents <i>(Note 1)</i>	520,645	721,814
Short-term investments <i>(Note 2)</i>	956	1,965
Trade receivables, net <i>(Notes 3 and 15)</i>	612,953	650,872
Inventories <i>(Notes 4 and 15)</i>	611,281	570,033
Prepaid expenses and other current assets <i>(Notes 6, 15 and 18)</i>	304,346	287,965
Total current assets	2,050,181	2,232,649
Noncurrent receivables <i>(Note 19)</i>	18,230	35,444
Investments <i>(Note 2)</i>	42,556	48,320
Property, plant and equipment, net <i>(Notes 5 and 6)</i>	1,090,992	1,126,620
Intangible assets, net <i>(Notes 7 and 8)</i>	391,021	420,972
Goodwill <i>(Notes 7 and 8)</i>	908,511	936,722
Other assets <i>(Notes 6, 11 and 12)</i>	397,974	397,564
Total assets	4,899,465	5,198,291
Liabilities and equity		
Current liabilities:		
Short-term loans and current portion of long-term debt <i>(Note 9)</i>	38,527	39,328
Trade payables <i>(Note 10)</i>	352,489	380,654
Accrued income taxes <i>(Note 12)</i>	41,264	77,501
Accrued expenses <i>(Notes 11, 15 and 19)</i>	321,137	330,188
Other current liabilities <i>(Notes 5, 15 and 18)</i>	276,237	281,809
Total current liabilities	1,029,654	1,109,480
Long-term debt, excluding current installments <i>(Notes 9 and 20)</i>	361,962	493,238
Accrued pension and severance cost <i>(Note 11)</i>	382,789	365,582
Other noncurrent liabilities <i>(Note 12)</i>	107,147	133,816
Total liabilities	1,881,552	2,102,116
Commitments and contingent liabilities <i>(Note 19)</i>		
Equity:		
Canon Inc. shareholders' equity:		
Common stock		
Authorized 3,000,000,000 shares; issued 1,333,763,464 shares in 2018 and 2017	174,762	174,762

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Additional paid-in capital	404,389	401,386
Legal reserve (<i>Note 13</i>)	67,116	66,879
Retained earnings (<i>Note 13</i>)	3,508,908	3,429,312
Accumulated other comprehensive income (loss) (<i>Note 14</i>)	(269,071)	(143,228)
Treasury stock, at cost; 254,013,641 shares in 2018 and 254,007,681 shares in 2017	(1,058,502)	(1,058,481)
Total Canon Inc. shareholders' equity	2,827,602	2,870,630
Noncontrolling interests	190,311	225,545
Total equity	3,017,913	3,096,175
Total liabilities and equity	4,899,465	5,198,291

See accompanying Notes to Consolidated Financial Statements.

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Canon Inc. and Subsidiaries
Consolidated Statements of Income

	Years ended December 31		
	2018	2017	2016
	(Millions of yen)		
Net sales (<i>Note 15</i>)			
Products and Equipment	3,194,724	3,521,156	2,986,188
Services	757,213	558,859	415,299
	3,951,937	4,080,015	3,401,487
Cost of sales (<i>Notes 5, 8, 11, 15 and 19</i>)			
Products and Equipment	1,762,171	1,875,581	1,574,679
Services	354,212	213,880	154,810
	2,116,383	2,089,461	1,729,489
Gross profit	1,835,554	1,990,554	1,671,998
Operating expenses (<i>Notes 1, 5, 8, 11, 15, 16, 19 and 21</i>):			
Selling, general and administrative expenses	1,176,760	1,301,666	1,149,036
Research and development expenses	315,842	333,371	306,537
Impairment losses on goodwill		33,912	
	1,492,602	1,668,949	1,455,573
Operating profit	342,952	321,605	216,425
Other income (deductions):			
Interest and dividend income	6,604	6,012	4,762
Interest expense	(797)	(818)	(1,061)
Other, net (<i>Notes 1, 2, 11, 14 and 18</i>)	14,133	27,085	24,525
	19,940	32,279	28,226
Income before income taxes	362,892	353,884	244,651
Income taxes (<i>Note 12</i>)	96,150	98,024	82,681
Consolidated net income	266,742	255,860	161,970
Less: Net income attributable to noncontrolling interests	13,987	13,937	11,320
Net income attributable to Canon Inc.	252,755	241,923	150,650

(Yen)

Net income attributable to Canon Inc. shareholders per share (*Note 17*):

Basic	234.09	222.88	137.95
Diluted	234.08	222.88	137.95
Cash dividends per share	160.00	160.00	150.00

See accompanying Notes to Consolidated Financial Statements.

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Canon Inc. and Subsidiaries
Consolidated Statements of Comprehensive Income

	Years ended December 31		
	2018	2017	2016
	(Millions of yen)		
Consolidated net income	266,742	255,860	161,970
Other comprehensive income (loss), net of tax <i>(Note 14)</i> :			
Foreign currency translation adjustments	(93,146)	47,090	(107,666)
Net unrealized gains and losses on securities	(141)	(9,362)	997
Net gains and losses on derivative instruments	488	2,588	(2,948)
Pension liability adjustments	(30,570)	21,207	(70,355)
	(123,369)	61,523	(179,972)
Comprehensive income (loss)	143,373	317,383	(18,002)
Less: Comprehensive income attributable to noncontrolling interests	6,918	18,807	1,745
Comprehensive income (loss) attributable to Canon Inc.	136,455	298,576	(19,747)

See accompanying Notes to Consolidated Financial Statements.

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Canon Inc. and Subsidiaries

Consolidated Statements of Equity

	Common stock	Additional paid-in capital	Legal reserve	Retained earnings	Accumulated other comprehensive income (loss) (Millions of yen)	Treasury stock	Total Canon Inc. shareholders equity	Non- controlling interests	Total equity
Balance at December 31, 2015	174,762	401,358	65,289	3,365,158	(29,742)	(1,010,410)	2,966,415	218,048	3,184,463
Equity transactions with noncontrolling interests and other		27			258		285	(5,270)	(4,985)
Dividends to Canon Inc. shareholders				(163,810)			(163,810)		(163,810)
Dividends to noncontrolling interests								(4,077)	(4,077)
Acquisition of subsidiaries								1,047	1,047
Transfer to legal reserve			1,269	(1,269)					
Comprehensive income:									
Net income				150,650			150,650	11,320	161,970
Other comprehensive income (loss), net of tax (<i>Note 14</i>):									
Foreign currency translation adjustments					(101,257)		(101,257)	(6,409)	(107,666)
Net unrealized gains and losses on securities					1,196		1,196	(199)	997
					(2,924)		(2,924)	(24)	(2,948)

Net gains and losses on derivative instruments										
Pension liability adjustments					(67,412)		(67,412)	(2,943)		(70,355)
Total comprehensive income (loss)							(19,747)	1,745		(18,002)
Repurchases and reissuance of treasury stock					(1)	(13)	(14)			(14)
Balance at December 31, 2016	174,762	401,385	66,558	3,350,728	(199,881)	(1,010,423)	2,783,129	211,493		2,994,622
Equity transactions with noncontrolling interests and other		1					1	(1)		
Dividends to Canon Inc. shareholders					(162,887)		(162,887)			(162,887)
Dividends to noncontrolling interests								(4,814)		(4,814)
Acquisition of subsidiaries								60		60
Transfer to legal reserve			321	(321)						
Comprehensive income:										
Net income				241,923			241,923	13,937		255,860
Other comprehensive income (loss), net of tax (<i>Note 14</i>):										
Foreign currency translation adjustments					44,168		44,168	2,922		47,090
Net unrealized gains and losses on					(9,767)		(9,767)	405		(9,362)

securities									
Net gains and losses on derivative instruments				2,562		2,562	26		2,588
Pension liability adjustments				19,690		19,690	1,517		21,207
Total comprehensive income (loss)						298,576	18,807		317,383
Repurchases of treasury stock					(50,036)	(50,036)			(50,036)
Reissuance of treasury stock			(131)		1,978	1,847			1,847
Balance at December 31, 2017	174,762	401,386	66,879	3,429,312	(143,228)	(1,058,481)	2,870,630	225,545	3,096,175

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Canon Inc. and Subsidiaries

Consolidated Statements of Equity (continued)

	Common stock	Additional paid-in capital	Legal reserve	Retained earnings	Accumulated other comprehensive income (loss) (Millions of yen)	Treasury stock	Total Canon Inc. shareholders equity	Non- controlling interests	Total equity
Cumulative effects of accounting standard update adoption of ASU No.2014-09				(106)			(106)	(76)	(182)
Cumulative effects of accounting standard update adoption of ASU No. 2016-01				5,343	(5,343)				
Equity transactions with noncontrolling interests and other		3,003			(4,200)		(1,197)	(36,518)	(37,715)
Dividends to Canon Inc. shareholders				(178,159)			(178,159)		(178,159)
Dividends to noncontrolling interests								(5,558)	(5,558)
Transfers to legal reserve			237	(237)					
Comprehensive income:									
Net income				252,755			252,755	13,987	266,742
Other comprehensive income (loss), net of tax (<i>Note 14</i>):									

Foreign currency translation adjustments					(89,823)		(89,823)	(3,323)	(93,146)
Net unrealized gains and losses on securities					(141)		(141)		(141)
Net gains and losses on derivative instruments					488		488		488
Pension liability adjustments					(26,824)		(26,824)	(3,746)	(30,570)
Total comprehensive income (loss)							136,455	6,918	143,373
Repurchases of treasury stock						(25)	(25)		(25)
Reissuance of treasury stock				0		4	4		4
Balance at December 31, 2018	174,762	404,389	67,116	3,508,908	(269,071)	(1,058,502)	2,827,602	190,311	3,017,913

See accompanying Notes to Consolidated Financial Statements.

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Canon Inc. and Subsidiaries

Consolidated Statements of Cash Flows

	Years ended December 31		
	2018	2017	2016
	(Millions of yen)		
Cash flows from operating activities:			
Consolidated net income	266,742	255,860	161,970
Adjustments to reconcile consolidated net income to net cash provided by operating activities:			
Depreciation and amortization	251,554	261,881	250,096
Loss on disposal of fixed assets	5,726	6,935	5,203
Equity in earnings of affiliated companies	(1,414)	(1,196)	(890)
Impairment losses on goodwill (<i>Notes 8 and 21</i>)		33,912	
Gain on securities contributed to retirement benefit trust (<i>Note 2</i>)		(17,836)	
Deferred income taxes	(11,849)	(17,603)	7,188
(Increase) decrease in trade receivables	(17,724)	3,563	(4,155)
(Increase) decrease in inventories	(61,755)	2,967	6,156
Increase (decrease) in trade payables	(31,212)	4,951	56,844
Increase (decrease) in accrued income taxes	(35,284)	46,296	(16,456)
Increase (decrease) in accrued expenses	2,541	18,503	(5,256)
Increase (decrease) in accrued (prepaid) pension and severance cost	(17,738)	522	5,489
Other, net (<i>Note 6</i>)	15,706	(8,198)	34,094
Net cash provided by operating activities	365,293	590,557	500,283
Cash flows from investing activities:			
Purchases of fixed assets (<i>Note 5</i>)	(191,399)	(189,484)	(206,971)
Proceeds from sale of fixed assets (<i>Note 5</i>)	9,634	26,444	6,177
Purchases of securities	(2,311)	(2,220)	(84)
Proceeds from sale and maturity of securities	1,615	970	1,181
Decrease in time deposits, net	401	3,373	15,414
Acquisitions of businesses, net of cash acquired (<i>Note 7</i>)	(13,346)	(6,557)	(649,570)
Other, net	(209)	2,464	(3,272)
Net cash used in investing activities	(195,615)	(165,010)	(837,125)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt (<i>Note 9</i>)	439	1,570	610,552
Repayments of long-term debt (<i>Note 9</i>)	(136,094)	(126,578)	(856)
Increase (decrease) in short-term loans, net (<i>Note 9</i>)	2,501	5,628	(80,580)
Transactions with noncontrolling interests	(37,942)		(4,993)
Dividends paid	(178,159)	(162,887)	(163,810)
Repurchases and reissuance of treasury stock	(21)	(50,034)	(14)
Other, net	(5,554)	(8,163)	(4,607)
Net cash provided by (used in) financing activities	(354,830)	(340,464)	355,692

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Effect of exchange rate changes on cash and cash equivalents	(16,017)	6,538	(22,270)
Net change in cash and cash equivalents	(201,169)	91,621	(3,420)
Cash and cash equivalents at beginning of year	721,814	630,193	633,613
Cash and cash equivalents at end of year	520,645	721,814	630,193

Supplemental disclosure for cash flow information:

Cash paid during the year for:

Interest	749	1,026	738
Income taxes	131,616	71,473	76,714

See accompanying Notes to Consolidated Financial Statements.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements

1. Basis of Presentation and Significant Accounting Policies

(a) Description of Business

Canon Inc. (the Company) and subsidiaries (collectively Canon) is one of the world's leading manufacturers in such fields as office products, imaging system products, medical system products and industry and other products. Office products consist mainly of office multifunction devices (MFDs), laser multifunction printers (MFPs), laser printers, digital continuous feed presses, digital sheet-fed presses, wide-format printers and document solutions. Imaging system products consist mainly of interchangeable-lens digital cameras, digital compact cameras, digital camcorders, digital cinema cameras, interchangeable lenses, compact photo printers, inkjet printers, large format inkjet printers, commercial photo printers, image scanners, multimedia projectors, broadcast equipment and calculators. Medical system products consist mainly of digital radiography systems, diagnostic X-ray systems, computed tomography (CT) systems, magnetic resonance imaging (MRI) systems, diagnostic ultrasound systems, clinical chemistry analyzers and ophthalmic equipment. Industry and other products consist mainly of semiconductor lithography equipment, FPD (Flat panel display) lithography equipment, vacuum thin-film deposition equipment, organic LED (OLED) panel manufacturing equipment, die bonders, micromotors, network cameras, handy terminals and document scanners. Sales are made principally under the Canon brand name, almost entirely through sales subsidiaries. These subsidiaries are responsible for marketing and distribution, and primarily sell to retail dealers in their geographic area. Further segment information is described in Note 22.

Canon sells laser printers on an OEM basis to HP Inc.; such sales constituted 13.6%, 13.1% and 14.8% of consolidated net sales for the years ended December 31, 2018, 2017 and 2016, respectively, and are included in the Office Business Unit.

Canon's manufacturing operations are conducted primarily at 30 plants in Japan and 18 overseas plants which are located in countries or regions such as the United States, Germany, France, the Netherlands, Taiwan, China, Malaysia, Thailand, Vietnam and Philippines.

(b) Basis of Presentation

The Company and its domestic subsidiaries maintain their books of account in conformity with financial accounting standards of Japan. Foreign subsidiaries maintain their books of account in conformity with financial accounting standards of the countries of their domicile.

Certain adjustments and reclassifications have been incorporated in the accompanying consolidated financial statements to conform with U.S. generally accepted accounting principles (U.S. GAAP). These adjustments were not recorded in the statutory books of account.

(c) Principles of Consolidation

The consolidated financial statements include the accounts of the Company, its majority owned subsidiaries and those variable interest entities where the Company or its consolidated subsidiaries are the primary beneficiaries. All significant intercompany balances and transactions have been eliminated.

(d) Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the period. Significant estimates and assumptions are

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

1. Basis of Presentation and Significant Accounting Policies (continued)

(d) Use of Estimates (continued)

reflected in valuation and disclosure of accounts including: revenue recognition, allowance for doubtful receivables, inventories, long-lived assets, goodwill and other intangible assets with indefinite useful lives, environmental liabilities, deferred tax assets, uncertain tax positions and employee retirement and severance benefit obligations. Actual results could differ materially from those estimates.

(e) Translation of Foreign Currencies

Assets and liabilities of the Company's subsidiaries located outside Japan with functional currencies other than Japanese yen are translated into Japanese yen at the rates of exchange in effect at the balance sheet date. Income and expense items are translated at the average exchange rates prevailing during the year. Gains and losses resulting from translation of financial statements are excluded from earnings and are reported in other comprehensive income (loss).

Gains and losses resulting from foreign currency transactions, including foreign exchange contracts, and translation of assets and liabilities denominated in foreign currencies are included in other income (deductions) in the consolidated statements of income. Foreign currency exchange gains and losses were net losses of ¥6,044 million, ¥9,775 million and ¥2 million for the years ended December 31, 2018, 2017 and 2016, respectively.

(f) Cash Equivalents

All highly liquid investments acquired with original maturities of three months or less are considered to be cash equivalents. Certain debt securities with original maturities of less than three months, classified as available-for-sale securities of ¥70,500 million at December 31, 2018 and 2017, respectively, are included in cash and cash equivalents in the consolidated balance sheets.

(g) Investments

Investments consist primarily of time deposits with original maturities of more than three months, debt and equity securities and investments in affiliated companies.

Canon classifies investments in debt securities as available-for-sale securities. Canon does not hold any trading securities which are bought and held primarily for the purpose of sale in the near term, or any held-to-maturity securities. Canon reports investments with maturities of less than one year as short-term investments.

Available-for-sales debt securities and equity securities with readily determinable fair value that are not accounted for under the equity method are recorded at fair value which is determined based on quoted market prices, projected discounted cash flows or other valuation techniques as appropriate. The changes in fair value are recognized in net income for equity securities and in other comprehensive income for available-for-sales debt securities.

Available-for-sale debt securities are regularly reviewed for other-than-temporary declines in the carrying amount based on criteria that include the length of time and the extent to which the market value has been less than cost, the financial condition and near-term prospects of the issuer and Canon's intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in market value. For available-for-sale securities for which the declines are deemed to be other-than-temporary and there is

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

1. Basis of Presentation and Significant Accounting Policies (continued)

(g) Investments (continued)

no intent to sell, the impairment are separated into the amount related to credit loss, which is recognized in earnings and the amount related to all other factors is recognized in other comprehensive income (loss). For available-for-sale securities for which the declines are deemed to be other-than-temporary and there is an intent to sell, the impairments in their entirety are recognized in earnings. Canon recognizes an impairment loss to the extent by which the cost basis of the investment exceeds the fair value of the investment.

Canon measures non-marketable equity securities without readily determinable fair value at cost, minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

Realized gains and losses are determined by the average cost method and reflected in earnings.

Investments in affiliated companies over which Canon has the ability to exercise significant influence, but does not hold a controlling financial interest, are accounted for by the equity method.

(h) Allowance for Doubtful Receivables

Allowance for doubtful trade and finance receivables is maintained for all customers based on a combination of factors, including aging analysis, macroeconomic conditions and historical experience. An additional reserve for individual accounts is recorded when Canon becomes aware of a customer's inability to meet its financial obligations, such as in the case of bankruptcy filings. If circumstances related to customers change, estimates of the recoverability of receivables would be further adjusted. When all collection options are exhausted including legal recourse, the accounts or portions thereof are deemed to be uncollectable and charged against the allowance.

(i) Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined by the average method for domestic inventories and principally by the first-in, first-out method for overseas inventories.

(j) Impairment of Long-Lived Assets

Long-lived assets, such as property, plant and equipment, and acquired intangible assets subject to amortization, 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 the asset and the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of the asset exceeds its estimated undiscounted future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. Assets to be disposed of by sale are reported at the lower of the carrying amount or fair value less costs to sell, and are no longer depreciated.

(k) Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is calculated principally by the declining-balance method, except for certain assets which are depreciated by the straight-line method over the estimated useful lives of the assets.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

1. Basis of Presentation and Significant Accounting Policies (continued)

(k) Property, Plant and Equipment (continued)

The depreciation period ranges from 3 years to 60 years for buildings and 1 year to 20 years for machinery and equipment.

Assets leased to others under operating leases are stated at cost and depreciated to the estimated residual value of the assets by the straight-line method over the lease term, generally from 2 years to 5 years.

(l) Goodwill and Other Intangible Assets

Goodwill and other intangible assets with indefinite useful lives are not amortized, but are instead tested for impairment annually in the fourth quarter of each year, or more frequently if indicators of potential impairment exist. All goodwill is assigned to the reporting unit or units that benefit from the synergies arising from each business combination. If the carrying amount assigned to the reporting unit exceeds the fair value of the reporting unit, Canon recognizes an impairment charge in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Intangible assets with finite useful lives consist primarily of software, trademarks, patents and developed technology, license fees and customer relationships, which are amortized using the straight-line method. The estimated useful lives of software are from 3 years to 7 years, trademarks are 15 years, patents and developed technology are from 7 years to 17 years, license fees are 7 years, and customer relationships are from 11 years to 15 years, respectively. Certain costs incurred in connection with developing or obtaining internal-use software are capitalized. These costs consist primarily of payments made to third parties and the salaries of employees working on such software development. Costs incurred in connection with developing internal-use software are capitalized at the application development stage. In addition, Canon develops or obtains certain software to be sold where related costs are capitalized after establishment of technological feasibility.

(m) Environmental Liabilities

Liabilities for environmental remediation and other environmental costs are accrued when environmental assessments or remedial efforts are probable and the costs can be reasonably estimated. Such liabilities are adjusted as further information develops or circumstances change. Costs of future obligations are not discounted to their present values.

(n) 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 income in the period that includes the enactment date. Canon records a valuation allowance to reduce the deferred tax assets to the amount that is more likely than not realizable.

Canon recognizes the financial statement effects of tax positions when it is more likely than not, based on the technical merits, that the tax positions will be sustained upon examination by the tax authorities. Benefits from tax positions that meet the more-likely-than-not recognition threshold are measured at the largest amount of benefit that is greater than 50% likely of being realized upon settlement. Interest and

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

1. Basis of Presentation and Significant Accounting Policies (continued)

(n) Income Taxes (continued)

penalties accrued related to unrecognized tax benefits are included in income taxes in the consolidated statements of income.

(o) Stock-Based Compensation

Canon measures stock-based compensation cost at the grant date, based on the fair value of the award, and recognizes the cost on a straight-line basis over the requisite service period, which is the vesting period.

(p) Net Income Attributable to Canon Inc. Shareholders per Share

Basic net income attributable to Canon Inc. shareholders per share is computed by dividing net income attributable to Canon Inc. by the weighted-average number of common shares outstanding during each year. Diluted net income attributable to Canon Inc. shareholders per share includes the effect from potential issuances of common stock based on the assumptions that all stock options were exercised.

(q) Revenue Recognition

Canon generates revenue principally through the sale of office, imaging system and medical system products, industrial equipment, supplies and related services under separate contractual arrangements. Revenue is recognized when, or as, control of promised goods or services transfers to customers in an amount that reflects the consideration to which Canon expects to be entitled in exchange for transferring these goods or services. For further information, please refer to Note 15.

(r) Research and Development Costs

Research and development costs are expensed as incurred.

(s) Advertising Costs

Advertising costs are expensed as incurred. Advertising expenses were ¥58,729 million, ¥61,207 million and ¥58,707 million for the years ended December 31, 2018, 2017 and 2016, respectively.

(t) Shipping and Handling Costs

Shipping and handling costs totaled ¥54,844 million, ¥52,953 million and ¥44,296 million for the years ended December 31, 2018, 2017 and 2016, respectively, and are included in selling, general and administrative expenses in the consolidated statements of income.

(u) Derivative Financial Instruments

All derivatives are recognized at fair value and are included in prepaid expenses and other current assets, or other current liabilities in the consolidated balance sheets.

Canon uses and designates certain derivatives as a hedge of a forecasted transaction or the variability of cash flows to be received or paid related to a recognized asset or liability (cash flow hedge). Canon formally documents all relationships between hedging instruments and hedged items, as well as its risk-

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

1. Basis of Presentation and Significant Accounting Policies (continued)

(u) Derivative Financial Instruments (continued)

management objective and strategy for undertaking various hedge transactions. Canon also formally assesses, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in cash flows of hedged items. When it is determined that a derivative is not highly effective as a hedge or that it has ceased to be a highly effective hedge, Canon discontinues hedge accounting prospectively. Changes in the fair value of a derivative that is designated and qualifies as a cash flow hedge are recorded in other comprehensive income (loss), until earnings are affected by the variability in cash flows of the hedged item. Gains and losses from hedging ineffectiveness are included in other income (deductions). Gains and losses related to the components of hedging instruments excluded from the assessment of hedge effectiveness are included in other income (deductions).

Canon also uses certain derivative financial instruments which are not designated as hedges. The changes in fair values of these derivative financial instruments are immediately recorded in earnings.

Canon classifies cash flows from derivatives as cash flows from operating activities in the consolidated statements of cash flows.

(v) Guarantees

Canon recognizes, at the inception of a guarantee, a liability for the fair value of the obligation it has undertaken in issuing guarantees.

(w) Recent Accounting Guidance

Recently adopted accounting guidance

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606) Section C – Background Information and Basis for Conclusions, which is a new accounting standard related to revenue from contracts with customers, as amended. (Accounting Standards Codification (ASC) 606) This standard 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. Canon adopted this standard from the quarter beginning January 1, 2018 with modified retrospective method of adoption to contracts that were not completed as of the adoption. The cumulative-effects to the retained earnings and the impact on the consolidated result of operations for the year ended December 31, 2018 from the adoption of this standard were not material. For further information,

please refer to Note 15.

In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities, which addresses certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. This guidance includes the requirement that equity investments that do not result in consolidation and are not accounted for under the equity method be measured at fair value with changes in the fair value recognized in net income. Canon adopted this standard from the quarter beginning January 1, 2018, and Canon recognized a cumulative-effect adjustment to retained earnings of ¥5,343 million as of January 1, 2018 for the unrealized gains, net of tax, on available-for-sale equity securities previously recognized in accumulated other comprehensive income.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

1. Basis of Presentation and Significant Accounting Policies (continued)

(w) Recent Accounting Guidance (continued)

In October 2016, the FASB issued ASU No. 2016-16, Income Taxes (Topic 740): Intra-entity Transfers of Assets other than Inventory, which requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. Consequently, the amendments in this guidance eliminate the exception for an intra-entity transfer of an asset other than inventory. Two common examples of assets included in the scope of this guidance are intellectual property and property, plant, and equipment. The amendments in this guidance should be applied on a modified retrospective basis through a cumulative effect adjustment directly to retained earnings as of the beginning of the period of adoption. Canon adopted this standard from the quarter beginning January 1, 2018. The adoption of this guidance did not have a material impact on its consolidated results of operation and financial condition.

In March 2017, the FASB issued ASU No. 2017-07, Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, which requires an entity to disaggregate the service cost component from the other components of net benefit cost and present it 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 separately from the service cost component, such as in other income (deductions) in the income statement. 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 were to 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. Canon adopted this guidance from the quarter beginning January 1, 2018. The adoption of the new presentation requirement of the service cost component and the other components of net benefit cost resulted in reclassification of ¥2,137 million and ¥1,835 million from cost of sales, ¥4,419 million and ¥4,161 million from selling, general and administrative expenses and ¥3,318 million and ¥6,445 million from research and development expenses into other income (deductions) for the years ended December 31, 2017 and 2016, respectively. Please refer to Note 11 for additional information. The adoption of the capitalization of the service cost component of net benefit cost did not have a material impact on its consolidated results of operations and financial condition.

Recently issued accounting guidance not yet adopted

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842) Section A – Leases: Amendments to the FASB Accounting Standards Codification, which requires lessees to recognize most leases on their balance sheets but recognize expenses on their income statements in a manner similar to the current guidance. For lessors, the standard modifies the classification criteria and the accounting for sales-type and direct financing leases. FASB also modified the definition of lease. Additionally, the guidance expands qualitative and quantitative disclosures related to lease. The guidance is effective for annual reporting periods beginning after December 15, 2018. Canon applies the guidance from the quarter beginning after January 1, 2019. Canon applies the package of practical expedients that allows us not

to reassess whichever any existing contracts at or expired contracts prior to the adoption date are or contain leases, lease classification and whichever initial direct costs qualify for capitalization, in addition to short term lease exception. Canon also adopts the transition method which no restatement of comparative periods and no reassessment of land easements not previously accounted for as a lease that exist at or expired prior to the adoption date are required. The right of use assets for operating leases recognized at January 1, 2019 is ¥125,649 million almost same as the lease obligations and are included in noncurrent assets and liabilities in the accompanying consolidated balance sheets. Canon does not expect the adoption of this guidance such

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

1. Basis of Presentation and Significant Accounting Policies (continued)

(w) Recent Accounting Guidance (Continued)

as the modification the definition of lease and the changes in lessor accounting to have material impact on its consolidated results of operation.

In August 2017, the FASB issued ASU No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities, which amends existing guidance to simplify the application of the hedge accounting in certain situations and enable an entity to better portray the economic results of an entity's risk management activities in its financial statements. This guidance eliminates the requirement to separately measure and report hedge ineffectiveness, and requires an entity to present the earnings effect of the hedging instrument in the same income statement line item which the earnings effect of the hedged item is reported. The amendments in this guidance should be applied on a modified retrospective basis through a cumulative effect adjustment directly to retained earnings as of the beginning of the period of adoption. This guidance is effective for Canon from the quarter beginning January 1, 2019. Gains and losses resulting from derivative financial instruments designated as cash flow hedges associated with forecasted intercompany sales, which are currently included in other income (deductions) in the consolidated statements of income, will be included in net sales after the adoption of this guidance. Canon does not expect other material impacts from the adoption on its consolidated results of operation and financial condition.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

2. Investments

The cost, gross unrealized holding gains, gross unrealized holding losses and fair value for available-for-sale debt securities and equity securities included in short-term investments and investments by major security type at December 31, 2018 and 2017 are as follows:

	Cost	December 31, 2018 Gross unrealized holding gains (Millions of yen)	Gross unrealized holding losses	Fair value
Current:				
Corporate bonds	630			630
	630			630

	Cost	December 31, 2017 Gross unrealized holding gains (Millions of yen)	Gross unrealized holding losses	Fair value
Current:				
Corporate bonds	1,222			1,222
	1,222			1,222
Noncurrent:				
Government bonds	305		16	289
Corporate bonds	640	182		822
Fund trusts*	122	2		124
Equity securities*	10,965	11,612	1,676	20,901
	12,032	11,796	1,692	22,136

* After the adoption of ASU No. 2016-01, equity investments are measured at fair value with changes in the fair value recognized in net income from the quarter beginning January 1, 2018.

Maturities of available-for-sale debt securities included in short-term investments in the accompanying consolidated balance sheet are as follows at December 31, 2018:

	Cost (Millions of yen)	Fair value
Due within one year	630	630
	630	630

The unrealized and realized gains and losses related to debt securities were not significant for the years ended December 31, 2018, 2017 and 2016, respectively.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

2. Investments (continued)

The unrealized and realized gains and losses related to equity securities for the year ended December 31, 2018 are as follows:

	Millions of yen Year ended December 31, 2018
Net gains and (losses) recognized during the period on equity securities	(6,092)
Less: Net gains and (losses) recognized during the period on equity securities sold during the period	675
Unrealized gains and (losses) recognized during the period on equity securities still held at December 31.	(6,767)

Gross realized gains related to equity securities were ¥18,514 million and ¥750 million for the years ended December 31, 2017 and 2016, respectively. Gross realized losses, including write-downs for impairments that were other-than-temporary, were ¥42 million and ¥1,032 million for the years ended December 31, 2017, 2016, respectively.

During the year ended December 31, 2017, Canon contributed certain marketable equity securities, not including those of its subsidiaries and affiliated companies, to an established employee retirement benefit trust, with no cash proceeds there on. The fair value of those securities at the time of contribution was ¥30,473 million. Upon contribution of those available-for-sale securities, the unrealized gains amounting to ¥17,836 million were realized and were included in Other, net in the consolidated statements of income.

The carrying amount of non-marketable equity securities without readily determinable fair value totaled ¥4,629 million at December 31, 2018. Aggregate cost of non-marketable equity securities accounted for under the cost method totaled ¥3,760 million at December 31, 2017. The impairment or other adjustments resulting from observable price changes recorded during the year ended December 31, 2018 and 2017 were not significant.

Time deposits with original maturities of more than three months are ¥326 million and ¥743 million at December 31, 2018 and 2017, respectively, and are included in short-term investments in the accompanying consolidated balance sheets.

Investments in affiliated companies accounted for by the equity method amounted to ¥21,312 million and ¥20,496 million at December 31, 2018 and 2017, respectively. Canon's share of the net earnings in affiliated companies accounted for by the equity method, included in other income (deductions), were earnings of ¥1,414 million, ¥1,196 million and ¥890 million for the years ended December 31, 2018, 2017 and 2016 respectively.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

3. Trade Receivables

Trade receivables are summarized as follows:

	December 31	
	2018	2017
	(Millions of yen)	
Notes	29,878	37,077
Accounts	594,552	627,173
	624,430	664,250
Less allowance for doubtful receivables	(11,477)	(13,378)
	612,953	650,872

4. Inventories

Inventories are summarized as follows:

	December 31	
	2018	2017
	(Millions of yen)	
Finished goods	393,820	377,632
Work in process	165,003	144,251
Raw materials	52,458	48,150
	611,281	570,033

5. Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and are summarized as follows:

	December 31	
	2018	2017
	(Millions of yen)	

Land	272,443	274,551
Buildings	1,629,927	1,638,202
Machinery and equipment	1,793,499	1,804,982
Construction in progress	67,045	46,940
	3,762,914	3,764,675
Less accumulated depreciation	(2,671,922)	(2,638,055)
	1,090,992	1,126,620

Depreciation expenses for the years ended December 31, 2018, 2017 and 2016 were ¥175,771 million, ¥189,712 million and ¥199,133 million, respectively.

Amounts due for purchases of property, plant and equipment were ¥32,433 million and ¥23,432 million at December 31, 2018 and 2017, respectively, and are included in other current liabilities in the accompanying consolidated balance sheets. Fixed assets presented in the consolidated statements of cash flows include property, plant and equipment and intangible assets.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

6. Finance Receivables and Operating Leases

Finance receivables represent financing leases which consist of sales-type leases and direct-financing leases resulting from the sales of Canon's and complementary third-party products. These receivables typically have terms ranging from 1 year to 7 years. The components of the finance receivables, which are included in prepaid expenses and other current assets, and other assets in the accompanying consolidated balance sheets, are as follows:

	December 31	
	2018	2017
	(Millions of yen)	
Total minimum lease payments receivable	351,198	361,686
Unguaranteed residual values	12,661	15,055
Executory costs	(2,112)	(2,216)
Unearned income	(31,007)	(32,286)
	330,740	342,239
Less allowance for credit losses	(2,675)	(2,681)
	328,065	339,558
Less current portion	(111,629)	(120,186)
	216,436	219,372

The activity in the allowance for credit losses is as follows:

	Years ended	
	December 31	
	2018	2017
	(Millions of yen)	
Balance at beginning of year	2,681	2,325
Charge-offs	(1,284)	(1,523)
Provision	938	1,436
Translation adjustments and other	340	443
Balance at end of year	2,675	2,681

Canon has policies in place to ensure that its products are sold to customers with an appropriate credit history, and continuously monitors its customers' credit quality based on information including length of period in arrears, macroeconomic conditions, initiation of legal proceedings against customers and bankruptcy filings. The allowance

for credit losses of finance receivables are evaluated collectively based on historical experience of credit losses. An additional reserve for individual accounts is recorded when Canon becomes aware of a customer's inability to meet its financial obligations, such as in the case of bankruptcy filings. Finance receivables which are past due or individually evaluated for impairment at December 31, 2018 and 2017 are not significant.

The cost of equipment leased to customers under operating leases included in property, plant and equipment, net at December 31, 2018 and 2017 was ¥120,457 million and ¥103,078 million, respectively. Accumulated depreciation on equipment under operating leases at December 31, 2018 and 2017 was ¥82,698 million and ¥78,307 million, respectively.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

6. Finance Receivables and Operating Leases (continued)

The following is a schedule by year of the future minimum lease payments to be received under financing leases and noncancelable operating leases at December 31, 2018.

Year ending December 31:	Financing leases	Operating leases
	(Millions of yen)	
2019	127,068	9,207
2020	98,772	6,409
2021	66,719	2,917
2022	37,181	1,202
2023	14,792	317
Thereafter	6,666	60
	351,198	20,112

Canon has a syndication arrangement to sell its entire interests in finance receivables to a third-party financial institution. The transactions under the arrangement are accounted for as sales in accordance with ASC 860 Transfers and Servicing. The finance receivables sold and derecognized from its consolidated balance sheet was ¥21,909 million during the year ended December 31, 2018 and the amount remained uncollected was ¥22,956 million as of December 31, 2018. This amount includes uncollected finance receivables which were sold before 2018. Cash proceeds from the transaction are included in other, net under the cash flow from operating activities in the consolidated statement of cash flows. Canon continues to provide collection and administrative services for the financial institution. The amount associated with the servicing liability measured at fair value was not material as of December 31, 2018. Canon also retains limited recourse obligations which cover credit defaults. The recourse obligation was not material as of December 31, 2018.

There were no significant transfers of finance receivables for the years ended December 31, 2017 and 2016.

7. Acquisitions

On March 17, 2016, Canon entered into a Shares and Other Securities Transfer Agreement with Toshiba Corporation and acquired the share options for consideration of cash to acquire all the ordinary shares of Toshiba Medical Systems Corporation which was renamed as Canon Medical Systems Corporation (CMSC), as of January 4, 2018, which was exercisable upon the clearances of necessary competition regulatory authorities. As such clearances were obtained, Canon exercised the share options and acquired all the ordinary shares of CMSC on December 19, 2016. The acquisition date was December 19, 2016 and the purchase price was ¥665,498 million, which approximates the fair

value at that date.

The acquisition was accounted for using the acquisition method of accounting. Acquisition-related costs were expensed as incurred and were not material.

Under Phase V of the Excellent Global Corporation Plan, a five-year initiative that Canon has been implementing since 2016, embracing the challenge of new growth through a grand strategic transformation has been set as a basic policy. With regard to strengthening and growing new businesses, and creating future businesses, a particularly important strategy, Canon intends to develop medical system business within the realm of safety and security, as a next-generation pillar of growth.

CMSC is one of the leading global companies in the medical equipment industry. Within the field of medical X-ray CT systems in particular, CMSC is the overwhelming market share leader in Japan and has been steadily

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

7. Acquisitions (continued)

increasing its global market share. By maximizing the combination of both companies' management resources, Canon aims to solidify its business foundation for medical system that can contribute to the world.

The purchase price allocation was based on estimated fair values of the assets acquired and liabilities assumed at acquisition date. Since the acquisition date of CMSC was near the balance sheet date in 2016, and CMSC is composed of various entities located around the world, the purchase price allocation was preliminary at December 31, 2016. The purchase price allocation was finalized in the fourth quarter of 2017. The certain underlying inputs for inventories and intangible assets have been updated during the measurement period. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at acquisition date.

	Preliminary	Measurement Period Adjustment (Millions of yen)	Final
Cash and cash equivalents	25,301		25,301
Other current assets	169,545	(1,962)	167,583
Intangible assets	227,500	627	228,127
Other noncurrent assets	42,975		42,975
Total assets acquired	465,321	(1,335)	463,986
Current liabilities	199,223	(877)	198,346
Noncurrent liabilities	92,231	(1,049)	91,182
Total liabilities assumed	291,454	(1,926)	289,528
Noncontrolling interest	1,047		1,047
Net identifiable assets acquired	172,820	591	173,411
Goodwill	492,678	(591)	492,087
Net assets acquired	665,498		665,498

Intangible assets acquired, which are subject to amortization, mainly consist of customer relationships of ¥143,600 million, and patents and developed technology of ¥73,000 million. Canon has estimated the amortization period for the customer relationships, and patents and developed technology to be 15 years and 10 years, respectively.

The weighted average amortization period for all intangible assets is approximately 13 years.

Goodwill recorded is attributable primarily to expected synergies from combining operations of CMSC and Canon, such as accelerating entry into new fields, further improvement in quality through shared production technology and expanding business domains through the enhancement of R&D capabilities. None of the goodwill is expected to be deductible for tax purposes.

Canon acquired businesses other than that described above during the years ended December 31, 2018 and 2017 that were not material to its consolidated financial statements.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

8. Goodwill and Other Intangible Assets

Intangible assets subject to amortization acquired during the year ended December 31, 2018, including those recorded from businesses acquired, totaled ¥48,004 million, which primarily consist of software of ¥36,859 million, and patent and developed technology of ¥6,109 million. The weighted average amortization periods for intangible assets in total acquired during the year ended December 31, 2018 are approximately 6 years. The weighted average amortization periods for software, and patent and developed technology acquired during the year ended December 31, 2018 are approximately 5 years and 11 years, respectively.

Intangible assets subject to amortization acquired during the year ended December 31, 2017, including those recorded from businesses acquired, totaled ¥35,112 million, which primarily consist of software of ¥33,437 million and customer relationships of ¥1,203 million. The weighted average amortization periods for intangible assets in total acquired during the year ended December 31, 2017 are approximately 5 years. The weighted average amortization periods for software and customer relationships acquired during the year ended December 31, 2017 are approximately 5 years and 8 years, respectively.

The components of intangible assets subject to amortization at December 31, 2018 and 2017 were as follows:

	December 31, 2018		December 31, 2017	
	Gross carrying amount	Accumulated amortization	Gross carrying amount	Accumulated amortization
	(Millions of yen)			
Software	362,130	244,188	342,322	217,654
Customer relationships	156,679	27,263	162,832	22,463
Patents and developed technology	123,831	36,029	121,886	27,085
Trademarks	44,449	12,062	48,823	9,890
License fees	16,071	6,461	13,565	6,375
Other	19,319	9,859	18,592	8,136
	722,479	335,862	708,020	291,603

Aggregate amortization expense for the years ended December 31, 2018, 2017 and 2016 was ¥75,783 million, ¥72,169 million and ¥50,963 million, respectively. Estimated amortization expense for intangible assets currently held for the next five years ending December 31 is ¥68,730 million in 2019, ¥54,115 million in 2020, ¥46,067 million in 2021, ¥37,158 million in 2022, and ¥31,202 million in 2023.

Intangible assets not subject to amortization other than goodwill at December 31, 2018 and 2017 were not significant.

For management reporting purposes, goodwill is not allocated to the segments. Goodwill has been allocated to its respective segment for impairment testing.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

8. Goodwill and Other Intangible Assets (continued)

The changes in the carrying amount of goodwill by segment for the years ended December 31, 2018 and 2017 were as follows:

	Year ended December 31, 2018					Total
	Office	Imaging System	Medical System	Industry and Others	Unallocated	
	(Millions of yen)					
Goodwill gross	135,125	52,561	499,915	283,577		971,178
Accumulated impairment losses	(22,069)			(12,387)		(34,456)
Balance at beginning of year	113,056	52,561	499,915	271,190		936,722
Goodwill acquired during the year			1,521	6,106		7,627
Translation adjustments and other	(5,966)	(3,891)	(540)	(25,441)		(35,838)
Goodwill gross	127,860	48,670	500,896	263,513		940,939
Accumulated impairment losses	(20,770)			(11,658)		(32,428)
Balance at end of year	107,090	48,670	500,896	251,855		908,511

	Year ended December 31, 2017					Total
	Office	Imaging System	Medical System	Industry and Others	Unallocated *1	
	(Millions of yen)					
Balance at beginning of year *3	124,993	49,034		269,719	492,678	936,424
Goodwill acquired during the year	857	236		2,394		3,487
Transfer *1			499,855	(7,177)	(492,678)	
Impairment loss *2, 3	(21,721)			(12,191)		(33,912)
Translation adjustments and other *3	8,927	3,291	60	18,445		30,723
Balance at end of year	113,056	52,561	499,915	271,190		936,722

*1

Canon did not complete the allocation of goodwill to the segments for impairment testing which was attributable to the acquisition of CMSC as of December 31, 2016. Based on the realignment of Canon's internal reporting and management structure, Canon newly established Medical System Business Unit effective at the beginning of the second quarter of 2017. Goodwill related to CMSC as well as goodwill related to certain medical business which was previously included in Industry and Others Business Unit have been transferred to Medical System Business Unit.

- *2 After entering the commercial printing business through the acquisition of Océ N.V. in 2010, the market environment surrounding this business has become significantly competitive and rapid technological changes have required increasing investments into R&D. These factors resulted in lower operating margin than expected, which led to the decline in the estimated fair value of this business which was determined based on the income approach. As the result of the annual goodwill impairment test as of October 1, 2017, it was determined that the estimated fair value of commercial printing business was less than its carrying value of the reporting unit. Based on the accounting policy described in Note 1, Canon recognized an impairment charge of ¥33,912 million representing the excess of the carrying amount over the reporting unit's fair value.
- *3 Based on the realignment of Canon's internal reporting and management structure, from the beginning of the third quarter of 2018, Canon has reclassified certain businesses from Office Business Unit to Industry

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

8. Goodwill and Other Intangible Assets (continued)

and Others Business Unit. The goodwill balance at the beginning of the year ended December 31, 2017 has been restated to reflect the transfer of ¥11,263 million in goodwill between the segments. Impairment loss of ¥12,191 million and translation adjustments and other of ¥928 million for the year ended December 31, 2017 related to the reclassified business were restated from Office Business Unit to Industry and Others Business Unit, accordingly.

9. Short-Term Loans and Long-Term Debt

Short-term loans consisting of bank borrowings at December 31, 2018 and 2017 were ¥35,887 million and ¥33,398 million, respectively. The weighted average interest rate on short-term borrowings outstanding at December 31, 2018 and 2017 were 0.43% and 0.52%, respectively.

Long-term debt consisted of the following:

	December 31	
	2018	2017
	(Millions of yen)	
Loan from the banks; bearing interest of 0.07% at December 31, 2018 and 0.06% at December 31, 2017 *1	360,000	490,000
Other debt *2	4,602	9,168
	364,602	499,168
Less current portion	(2,640)	(5,930)
	361,962	493,238

*1 Canon entered into the unsecured revolving credit facility contracts expiring in December 2021. Canon prepaid ¥130,000 million of the loan with cash flows generated during the year ended December 31, 2018. The outstanding loans under the credit facilities are ¥360,000 million at a floating interest of 0.07% and Canon has no unused credit facilities as of December 31, 2018.

*2 The other debt consisted of term-loans and capital lease obligations as of December 31, 2018 and 2017. The aggregate annual maturities of long-term debt outstanding at December 31, 2018 were as follows:

	(Millions of yen)
Year ending December 31:	
2019	2,640
2020	638
2021	360,805
2022	427
2023	82
Thereafter	10
	364,602

Both short-term and long-term bank loans are primarily made under general agreements which provide that security and guarantees for present and future indebtedness will be given upon request of the bank, and that the bank shall have the right to offset cash deposits against obligations that have become due or, in the event of default, against all obligations due to the bank.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

10. Trade Payables

Trade payables are summarized as follows:

	December 31	
	2018	2017
	(Millions of yen)	
Notes	68,140	81,002
Accounts	284,349	299,652
	352,489	380,654

11. Employee Retirement and Severance Benefits

The Company and certain of its subsidiaries have contributory and noncontributory defined benefit pension plans covering substantially all of their employees. Benefits payable under the plans are based on employee earnings and years of service. The Company and certain of its subsidiaries also have defined contribution pension plans covering substantially all of their employees. CMSC temporarily participated in Toshiba Corporate Pension Funds (Toshiba Funds) after CMSC was acquired by Canon in 2016. In April 2018, CMSC established a new pension provision which provides participants an equivalent level of benefits as compared to the Toshiba Funds. As of December 31, 2018, a majority of plan participants have been transferred from the Toshiba Funds into the new pension provision. Participants who have not transferred are still part of Toshiba Funds as of December 31, 2018. Canon calculated the projected benefit obligations for the participants with Toshiba Funds based on the benefit level of Toshiba Funds and included the proportional share of the plan assets of CMSC to which they have legal right in the following tables.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

11. Employee Retirement and Severance Benefits (continued)*Obligations and funded status*

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

	Japanese plans		Foreign plans	
	December 31		December 31	
	2018	2017	2018	2017
	(Millions of yen)		(Millions of yen)	
Change in benefit obligations:				
Projected benefit obligations at beginning of year	929,630	906,007	423,579	392,086
Service cost	31,241	30,889	7,982	6,962
Interest cost	5,419	5,689	8,691	8,691
Plan participants' contributions			1,535	1,644
Actuarial (gain) loss	(1,844)	11,112	(24,297)	(1,760)
Benefits paid	(33,477)	(29,020)	(10,135)	(7,884)
Acquisition		4,239		
Plan amendments	(3,963)	1,149	3,257	(1,069)
Curtailments and settlements		(435)	(1,149)	
Foreign currency exchange rate changes			(23,514)	24,909
Projected benefit obligations at end of year	927,006	929,630	385,949	423,579
Change in plan assets:				
Fair value of plan assets at beginning of year	735,513	667,436	254,020	224,939
Actual return on plan assets	(38,010)	47,376	(6,042)	14,262
Employer contributions	12,651	43,468	22,393	7,160
Plan participants' contributions			1,535	1,644
Benefits paid	(27,459)	(23,967)	(10,135)	(7,884)
Acquisition		1,223		
Settlements		(23)	(1,150)	
Foreign currency exchange rate changes			(11,979)	13,899
Fair value of plan assets at end of year	682,695	735,513	248,642	254,020
Funded status at end of year	(244,311)	(194,117)	(137,307)	(169,559)

Employer contributions for the year ended December 31, 2017 include contribution of equity securities to a retirement benefit trust. The fair value of those securities at the time of contribution was ¥30,473 million.

Amounts recognized in the consolidated balance sheets at December 31, 2018 and 2017 are as follows:

	Japanese plans		Foreign plans	
	December 31		December 31	
	2018	2017	2018	2017
	(Millions of yen)		(Millions of yen)	
Other assets	1,536	1,695	1,306	1,215
Accrued expenses	(679)		(992)	(1,004)
Accrued pension and severance cost	(245,168)	(195,812)	(137,621)	(169,770)
	(244,311)	(194,117)	(137,307)	(169,559)

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

11. Employee Retirement and Severance Benefits (continued)
Obligations and funded status (continued)

Amounts recognized in accumulated other comprehensive income (loss) at December 31, 2018 and 2017 before the effect of income taxes are as follows:

	Japanese plans		Foreign plans	
	December 31		December 31	
	2018	2017	2018	2017
	(Millions of yen)		(Millions of yen)	
Actuarial loss	267,355	221,106	95,121	105,883
Prior service credit	(48,392)	(57,430)	(227)	(3,638)
	218,963	163,676	94,894	102,245

The accumulated benefit obligation for all defined benefit plans was as follows:

	Japanese plans		Foreign plans	
	December 31		December 31	
	2018	2017	2018	2017
	(Millions of yen)		(Millions of yen)	
Accumulated benefit obligation	893,154	894,329	371,653	402,390

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:

	Japanese plans		Foreign plans	
	December 31		December 31	
	2018	2017	2018	2017
	(Millions of yen)		(Millions of yen)	
Plans with projected benefit obligations in excess of plan assets:				
Projected benefit obligations	918,736	924,536	384,167	420,383
Fair value of plan assets	672,889	728,724	245,554	249,609
Plans with accumulated benefit obligations in excess of plan assets:				

Accumulated benefit obligations	891,204	889,652	369,215	394,840
Fair value of plan assets	670,826	728,724	244,826	245,247

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

11. Employee Retirement and Severance Benefits (continued)*Components of net periodic benefit cost and other amounts recognized in other comprehensive income (loss)*

Net periodic benefit cost for Canon's employee retirement and severance defined benefit plans for the years ended December 31, 2018, 2017 and 2016 consisted of the following components:

	Japanese plans			Foreign plans		
	Years ended December 31			Years ended December 31		
	2018	2017	2016	2018	2017	2016
	(Millions of yen)			(Millions of yen)		
Service cost	31,241	30,889	29,367	7,982	6,962	6,816
Interest cost	5,419	5,689	8,238	8,691	8,691	8,792
Expected return on plan assets	(21,983)	(20,493)	(19,443)	(12,601)	(10,722)	(10,012)
Amortization of prior service credit	(13,001)	(12,860)	(13,230)	(217)	(83)	85
Amortization of actuarial loss	11,900	14,220	10,944	5,108	5,747	2,185
(Gain) loss on curtailments and settlements		(63)				
	13,576	17,382	15,876	8,963	10,595	7,866

Service cost component of net periodic benefit cost for Canon's employee retirement and severance defined benefit plans is included in cost of sales and operating expenses in the consolidated statements of income. The components other than the service cost component are included in other, net of other income (deductions) in the consolidated statements of income.

Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss) for the years ended December 31, 2018, 2017 and 2016 are summarized as follows:

	Japanese plans			Foreign plans		
	Years ended December 31			Years ended December 31		
	2018	2017	2016	2018	2017	2016
	(Millions of yen)			(Millions of yen)		
Current year actuarial (gain) loss	58,149	(15,771)	53,076	(5,654)	(5,300)	47,365
Current year prior service credit	(3,963)	1,149	(4,734)	3,257	(1,069)	
Amortization of actuarial loss	(11,900)	(14,220)	(10,944)	(5,108)	(5,747)	(2,185)
Amortization of prior service credit	13,001	12,860	13,230	217	83	(85)
Curtailments and settlements		19		(63)		

55,287 (15,963) 50,628 **(7,351)** (12,033) 45,095

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

	Japanese plans (Millions of yen)	Foreign plans (Millions of yen)
Prior service credit	(11,887)	(57)
Actuarial loss	15,230	4,852

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

11. Employee Retirement and Severance Benefits (continued)*Assumptions*

Weighted-average assumptions used to determine benefit obligations are as follows:

	Japanese plans December 31		Foreign plans December 31	
	2018	2017	2018	2017
Discount rate	0.6%	0.6%	2.4%	2.2%
Assumed rate of increase in future compensation levels	2.6%	2.6%	1.9%	1.8%

Weighted-average assumptions used to determine net periodic benefit cost are as follows:

	Japanese plans Years ended December 31			Foreign plans Years ended December 31		
	2018	2017	2016	2018	2017	2016
Discount rate	0.6%	0.7%	1.1%	2.2%	2.2%	3.0%
Assumed rate of increase in future compensation levels	2.6%	2.6%	3.0%	1.8%	2.1%	2.0%
Expected long-term rate of return on plan assets	2.9%	3.1%	3.1%	4.4%	4.2%	4.4%

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

Plan assets

Canon'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, Canon 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. Canon 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. Canon revises the model portfolio when and to the extent considered necessary to achieve the expected long-term rate of return on plan assets.

Canon's model portfolio for Japanese plans consists of three major components: approximately 25% is invested in equity securities, approximately 50% is invested in debt securities, and approximately 25% is invested in other investment vehicles, primarily consisting of investments in life insurance company general accounts.

Outside Japan, investment policies vary by country, but the long-term investment objectives and strategies remain consistent. Canon's model portfolio for foreign plans has been developed as follows: approximately 35% is invested in equity securities, approximately 25% is invested in debt securities, and approximately 40% is invested in other investment vehicles, primarily consisting of investments in real estate assets.

The equity securities are selected primarily from stocks that are listed on the securities exchanges. Prior to investing, Canon has investigated the business condition of the investee companies, and appropriately diversified investments by type of industry and other relevant factors. The debt securities are selected primarily from government bonds, public debt instruments, and corporate bonds. Prior to investing, Canon has investigated the

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

11. Employee Retirement and Severance Benefits (continued)*Plan assets (continued)*

quality of the issue, including rating, interest rate, and repayment dates, and has appropriately diversified the investments. Pooled funds are selected using strategies consistent with the equity and debt securities described above. As for investments in life insurance company general accounts, the contracts with the insurance companies include a guaranteed interest rate and return of capital. With respect to investments in foreign investment vehicles, Canon has investigated the stability of the underlying governments and economies, the market characteristics such as settlement systems and the taxation systems. For each such investment, Canon has selected the appropriate investment country and currency.

The three levels of input used to measure fair value are more fully described in Note 21. The fair values of Canon's pension plan assets at December 31, 2018 and 2017, by asset category, are as follows:

	December 31, 2018							
	Level 1	Japanese plans			Total	Level 1	Foreign plans	
		Level 2	Level 3			Level 2	Level 3	
	(Millions of yen)							
Equity securities:								
Japanese companies (a)	67,283			67,283				
Foreign companies	5,451			5,451	8,567			8,567
Pooled funds (b)		137,712		137,712		49,312		49,312
Debt securities:								
Government bonds (c)	137,858			137,858				
Municipal bonds		1,483		1,483		2,642		2,642
Corporate bonds		12,595		12,595		6,318		6,318
Pooled funds (d)		140,712		140,712		59,419		59,419
Mortgage backed securities (and other asset backed securities)		8,489		8,489				
Life insurance company general accounts		123,747		123,747		9,019		9,019
Other assets		30,009	1,451	31,460		95,844		95,844
Investment measured at net asset value				15,905				17,521
	210,592	454,747	1,451	682,695	8,567	222,554		248,642

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

11. Employee Retirement and Severance Benefits (continued)*Plan assets (continued)*

	December 31, 2017							
	Level 1	Japanese plans		Total	Level 1	Foreign plans		Total
		Level 2	Level 3	(Millions of yen)		Level 2	Level 3	
Equity securities:								
Japanese companies (e)	83,765			83,765				
Foreign companies	8,261			8,261	32,240			32,240
Pooled funds (f)		164,946		164,946		73,968		73,968
Debt securities:								
Government bonds (g)	138,092			138,092	9,343			9,343
Municipal bonds		1,166		1,166		2,901		2,901
Corporate bonds		15,246		15,246		22,045		22,045
Pooled funds (h)		130,507		130,507		25,821		25,821
Mortgage backed securities (and other asset backed securities)		8,076		8,076		3		3
Life insurance company general accounts		126,985		126,985		8,683		8,683
Other assets		43,070		43,070		73,320		73,320
Investment measured at net asset value				15,399				5,696
	230,118	489,996		735,513	41,583	206,741		254,020

- (a) The plan's equity securities include common stock of the Company and certain of its subsidiaries in the amounts of ¥147 million.
- (b) These funds invest in listed equity securities consisting of approximately 30% Japanese companies and 70% foreign companies for Japanese plans, and mainly foreign companies for foreign plans.
- (c) This class includes approximately 90% Japanese government bonds and 10% foreign government bonds for Japanese plans, and mainly foreign government bonds for foreign plans.
- (d) These funds invest in approximately 30% Japanese government bonds, 50% foreign government bonds, 5% Japanese municipal bonds, and 15% corporate bonds for Japanese plans. These funds invest in approximately 35% foreign government bonds and 65% corporate bonds for foreign plans.
- (e) The plan's equity securities include common stock of the Company and certain of its subsidiaries in the amounts of ¥381 million.
- (f)

These funds invest in listed equity securities consisting of approximately 30% Japanese companies and 70% foreign companies for Japanese plans, and mainly foreign companies for foreign plans.

- (g) This class includes approximately 90% Japanese government bonds and 10% foreign government bonds for Japanese plans, and mainly foreign government bonds for foreign plans.
- (h) These funds invest in approximately 30% Japanese government bonds, 45% foreign government bonds, 5% Japanese municipal bonds, and 20% corporate bonds for Japanese plans. These funds invest in approximately 70% foreign government bonds and 30% corporate bonds for foreign plans.

Each level into which assets are categorized is based on inputs used to measure the fair value of the assets, and does not necessarily indicate the risks or ratings of the assets.

Level 1 assets are comprised principally of equity securities and government bonds, which are valued using unadjusted quoted market prices in active markets with sufficient volume and frequency of transactions. Level 2 assets are comprised principally of pooled funds that invest in equity and debt securities, corporate bonds,

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

11. Employee Retirement and Severance Benefits (continued)***Plan assets (continued)***

investments in life insurance company general accounts and other assets. Pooled funds are valued at their net asset values that are calculated by the sponsor of the fund and have daily liquidity. Corporate bonds are valued using quoted prices for identical assets in markets that are not active. Investments in life insurance company general accounts are valued at conversion value. Other assets are comprised principally of interest bearing cash and hedge funds.

The fair value of Level 3 asset, consisting of hedge funds, was ¥1,451 million at December 31, 2018. Amounts of actual returns on, purchases and sales of these assets during the year ended December 31, 2018 were not significant.

The fair values of plan assets for the participants with Toshiba Funds by each asset category are calculated based on a pro-rata basis of total plan assets of Toshiba Funds.

Contributions

Canon expects to contribute ¥13,089 million to its Japanese defined benefit pension plans and ¥19,311 million to its foreign defined benefit pension plans for the year ending December 31, 2019.

Estimated future benefit payments

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

Year ending December 31:	Japanese plans (Millions of yen)	Foreign plans (Millions of yen)
2019	35,604	12,077
2020	36,896	12,214
2021	38,524	13,221
2022	41,775	13,927
2023	43,119	14,562
2024 - 2028	226,704	87,006

Multiemployer pension plans

The amounts of cost recognized for the multiemployer pension plans primarily in the Netherlands for the years ended December 31, 2018, 2017 and 2016 were ¥4,452 million, ¥4,165 million and ¥3,482 million, respectively. The multiemployer pension plan in which the subsidiaries in the Netherlands participated was 102% funded as of

December 31, 2017. The collective bargaining agreements have no expiration date. Canon is not liable for other participating employers' obligations under the terms and conditions of the agreements.

Defined contribution plans

The amounts of cost recognized for the defined contribution pension plans of the Company and certain of its subsidiaries for the years ended December 31, 2018, 2017 and 2016 were ¥19,570 million, ¥18,979 million and ¥17,603 million, respectively.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

12. Income Taxes

Domestic and foreign components of income before income taxes and the current and deferred income tax expense attributable to such income are summarized as follows:

	Year ended December 31, 2018		
	Japanese	Foreign	Total
	(Millions of yen)		
Income before income taxes	241,474	121,418	362,892
Income taxes:			
Current	75,556	32,443	107,999
Deferred	(6,552)	(5,297)	(11,849)
	69,004	27,146	96,150

	Year ended December 31, 2017		
	Japanese	Foreign	Total
	(Millions of yen)		
Income before income taxes	276,149	77,735	353,884
Income taxes:			
Current	80,225	35,402	115,627
Deferred	(7,453)	(10,150)	(17,603)
	72,772	25,252	98,024

	Year ended December 31, 2016		
	Japanese	Foreign	Total
	(Millions of yen)		
Income before income taxes	135,131	109,520	244,651
Income taxes:			
Current	47,687	27,806	75,493
Deferred	4,126	3,062	7,188
	51,813	30,868	82,681

The Company and its domestic subsidiaries are subject to a number of income taxes, which, in the aggregate, represent a statutory income tax rate of approximately 31%, 31% and 33% for the years ended December 31, 2018, 2017 and 2016, respectively.

The statutory income tax rate utilized for deferred tax assets and liabilities which are expected to be settled or realized in the future period is approximately 31%. The adjustments of deferred tax assets and liabilities for amendments to the Japanese tax regulations enacted on March 29, 2016 which have been reflected in income taxes in the consolidated statements of income for the years ended December 31, 2016 were ¥3,498 million.

The United States enacted tax reform legislation (the Tax Reform Legislation) on December 22, 2017. Due to the Tax Reform Legislation, the federal corporate income tax rate in the U.S. is reduced from 35% to 21% from the fiscal year commencing on January 1, 2018. The adjustment to deferred tax assets and liabilities for the tax rate change was tax benefit of ¥14,563 million for the year ended December 31, 2017. The impacts related to other changes from the Tax Reform Legislation are not material.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

12. Income Taxes (continued)

A reconciliation of the Japanese statutory income tax rate and the effective income tax rate as a percentage of income before income taxes is as follows:

	Years ended December 31		
	2018	2017	2016
Japanese statutory income tax rate	31.0%	31.0%	33.0%
Increase (reduction) in income taxes resulting from:			
Expenses not deductible for tax purposes *	0.7	3.7	0.8
Income of foreign subsidiaries taxed at lower than Japanese statutory tax rate	(3.0)	(2.1)	(3.0)
Tax credit for research and development expenses	(3.4)	(4.8)	(3.0)
Change in valuation allowance	0.4	1.7	(0.8)
Effect of enacted changes in tax laws and rates on Japanese tax			1.4
Effect of enacted changes in U.S. tax laws		(3.6)	
Other	0.8	1.8	5.4
Effective income tax rate	26.5%	27.7%	33.8%

* Expenses not deductible for tax purposes for the year ended December 31, 2017 primarily consist of impairment losses on goodwill.

Net deferred income tax assets and liabilities are included in the accompanying consolidated balance sheets under the following captions:

	December 31	
	2018	2017
Other assets	160,541	150,854
Other noncurrent liabilities	(70,336)	(90,010)
	90,205	60,844

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

12. Income Taxes (continued)

The tax effects of temporary differences that give rise to the deferred tax assets and deferred tax liabilities at December 31, 2018 and 2017 are presented below:

	December 31	
	2018	2017
	(Millions of yen)	
Deferred tax assets:		
Inventories	10,739	11,921
Accrued business tax	2,361	4,705
Accrued pension and severance cost	105,933	98,114
Research and development costs capitalized for tax purposes	4,690	5,383
Property, plant and equipment	33,738	33,488
Accrued expenses	28,015	30,126
Net operating losses carried forward	28,549	29,006
Other	38,683	38,526
	252,708	251,269
Less valuation allowance	(30,734)	(30,783)
Total deferred tax assets	221,974	220,486
Deferred tax liabilities:		
Undistributed earnings of foreign subsidiaries	(7,615)	(9,859)
Tax deductible reserve	(4,050)	(4,396)
Financing lease revenue	(26,441)	(38,287)
Intangible assets	(66,189)	(74,377)
Other	(27,474)	(32,723)
Total deferred tax liabilities	(131,769)	(159,642)
Net deferred tax assets	90,205	60,844

The net changes in the total valuation allowance were a decrease of ¥49 million, an increase of ¥4,096 million and a decrease of ¥6,244 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Based on the level of historical taxable income and projections for future taxable income over the periods which the net deductible temporary differences are expected to reverse, management believes it is more likely than not that Canon will realize the benefits of these deferred tax assets, net of the valuation allowance, at December 31, 2018.

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At December 31, 2018, Canon had net operating losses which can be carried forward for income tax purposes of ¥186,114 million to reduce future taxable income. Periods available to reduce future taxable income vary in each tax jurisdiction and generally range from one year to an indefinite period as follows:

	(Millions of yen)
Within one year	5,854
After one year through five years	26,802
After five years through ten years	38,687
After ten years through twenty years	48,642
Indefinite period	66,129
Total	186,114

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

12. Income Taxes (continued)

Income taxes have not been accrued on undistributed earnings of domestic subsidiaries as the tax law provides a means by which the dividends from a domestic subsidiary can be received tax free.

Canon has not recognized deferred tax liabilities of ¥27,278 million for a portion of undistributed earnings of foreign subsidiaries of ¥1,001,310 million as of December 31, 2018 because Canon currently does not expect to have such amounts distributed or paid as dividends to the Company in the foreseeable future. Deferred tax liabilities will be recognized when Canon expects that it will realize those undistributed earnings in a taxable manner, such as through receipt of dividends or sale of the investments.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	Years ended December 31		
	2018	2017	2016
	(Millions of yen)		
Balance at beginning of year	10,282	7,318	6,056
Additions for tax positions of the current year	45	2,956	2,741
Additions for tax positions of prior years	178	250	
Reductions for tax positions of prior years	(17)	(915)	(665)
Settlements with tax authorities	(1,286)		(370)
Other	(553)	673	(444)
Balance at end of year*	8,649	10,282	7,318

* The total amounts of unrecognized tax benefits presented in other noncurrent liabilities in the consolidated balance sheets were offset by deferred tax assets in the amount of ¥2,043 million, ¥124 million and ¥32 million as of December 31, 2018, 2017 and 2016.

The total amounts of unrecognized tax benefits that would reduce the effective tax rate, if recognized, were ¥8,649 million and ¥10,282 million at December 31, 2018 and 2017, respectively.

Although Canon believes its estimates and assumptions of unrecognized tax benefits are reasonable, uncertainty regarding the final determination of tax examination settlements and any related litigation could affect the effective tax rate in a future period. Based on each of the items of which Canon is aware at December 31, 2018, no significant changes to the unrecognized tax benefits are expected within the next twelve months.

Canon recognizes interest and penalties accrued related to unrecognized tax benefits in income taxes. Both interest and penalties accrued at December 31, 2018 and 2017, and interest and penalties included in income taxes for the years ended December 31, 2018, 2017 and 2016 were not significant.

Canon files income tax returns in Japan and various foreign tax jurisdictions. In Japan, Canon is no longer subject to regular income tax examinations by the tax authority for years before 2017 with few exceptions. Canon is also no longer subject to a transfer pricing examination by the tax authority for years before 2017 with few exceptions. In other major foreign tax jurisdictions, including the United States and the Netherlands, Canon is no longer subject to income tax examinations by tax authorities for years before 2009 with few exceptions. The tax authorities are currently conducting income tax examinations of Canon's income tax returns for years after 2008 in some foreign tax jurisdictions.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

13. Legal Reserve and Retained Earnings

The Corporation Law of Japan provides that an amount equal to 10% of distributions from retained earnings paid by the Company and its Japanese 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% of their respective stated capital. The Corporation Law of Japan also provides that additional paid-in capital and legal reserve are available for appropriations by resolution of the shareholders. Certain foreign subsidiaries are also required to appropriate their earnings to legal reserves under the laws of their respective countries.

Cash dividends and appropriations to the legal reserve charged to retained earnings for the years ended December 31, 2018, 2017 and 2016 represent dividends paid out during those years and the related appropriations to the legal reserve. Retained earnings at December 31, 2018 did not reflect current year-end dividends in the amount of ¥86,380 million which were approved by the shareholders in March 2019.

The amount available for dividends under the Corporation Law of Japan is based on the amount recorded in the Company's nonconsolidated books of account in accordance with financial accounting standards of Japan. Such amount was ¥984,692 million at December 31, 2018.

Retained earnings at December 31, 2018 included Canon's equity in undistributed earnings of affiliated companies accounted for by the equity method in the amount of ¥18,265 million.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

14. Other Comprehensive Income (Loss)

Changes in accumulated other comprehensive income (loss) for the years ended December 31, 2018, 2017 and 2016 are as follows:

	Foreign currency translation adjustments	Unrealized gains and losses on securities	Gains and losses on derivative instruments	Pension liability adjustments	Total
	(Millions of yen)				
Balance at December 31, 2015	87,038	14,055	182	(131,017)	(29,742)
Equity transactions with noncontrolling interests and other	259			(1)	258
Other comprehensive income (loss) before reclassifications	(101,350)	814	938	(67,511)	(167,109)
Amounts reclassified from accumulated other comprehensive income (loss)	93	382	(3,862)	99	(3,288)
Net change during the year	(100,998)	1,196	(2,924)	(67,413)	(170,139)
Balance at December 31, 2016	(13,960)	15,251	(2,742)	(198,430)	(199,881)
Equity transactions with noncontrolling interests and other					
Other comprehensive income (loss) before reclassifications	44,184	2,813	(1,452)	14,785	60,330
Amounts reclassified from accumulated other comprehensive income (loss)	(16)	(12,580)	4,014	4,905	(3,677)
Net change during the year	44,168	(9,767)	2,562	19,690	56,653
Balance at December 31, 2017	30,208	5,484	(180)	(178,740)	(143,228)
Cumulative effects of accounting standard update adoption of ASU No. 2016-01 *		(5,343)			(5,343)
Equity transactions with noncontrolling interests and other	(4,200)				(4,200)
Other comprehensive income (loss) before reclassifications	(89,823)		(457)	(29,909)	(120,189)
Amounts reclassified from accumulated other comprehensive income (loss)		(141)	945	3,085	3,889

Net change during the year	(94,023)	(5,484)	488	(26,824)	(125,843)
Balance at December 31, 2018	(63,815)		308	(205,564)	(269,071)

* Represents the impact of adopting the new accounting standard related to financial instruments. Please refer to Note 1(w) for more detailed information.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

14. Other Comprehensive Income (Loss) (continued)

Reclassifications out of accumulated other comprehensive income (loss) for the years ended December 31, 2018, 2017 and 2016 are as follows:

	Amount reclassified from accumulated other comprehensive income (loss) *1			Affected line items in consolidated statements of income
	Year ended December 31, 2018	Year ended December 31, 2017 (Millions of yen)	Year ended December 31, 2016	
Foreign currency translation adjustments		(39)	139	Other, net
		12	(46)	Income taxes
		(27)	93	Consolidated net income
		11		Net income attributable to noncontrolling interests
		(16)	93	Net income attributable to Canon Inc.
Unrealized gains and losses on securities	(178)	(18,472)	282	Other, net
	37	5,727	(94)	Income taxes
	(141)	(12,745)	188	Consolidated net income
		165	194	Net income attributable to noncontrolling interests
	(141)	(12,580)	382	Net income attributable to Canon Inc.
Gains and losses on derivative instruments	1,341	5,772	(5,890)	Other, net
	(392)	(1,732)	2,049	Income taxes
	949	4,040	(3,841)	Consolidated net income
	(4)	(26)	(21)	Net income attributable to noncontrolling interests

	945	4,014	(3,862)	Net income attributable to Canon Inc.
Pension liability adjustments	3,853	7,005	(16)	Other, net
	(699)	(1,832)	164	Income taxes
	3,154	5,173	148	Consolidated net income
	(69)	(268)	(49)	Net income attributable to noncontrolling interests
	3,085	4,905	99	Net income attributable to Canon Inc.
Total amount reclassified, net of tax and noncontrolling interests	3,889	(3,677)	(3,288)	

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

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

14. Other Comprehensive Income (Loss) (continued)

Tax effects allocated to each component of other comprehensive income (loss) and reclassification adjustments, including amounts attributable to noncontrolling interests, are as follows:

	Years ended December 31		
	Before-tax amount	Tax (expense) or benefit (Millions of yen)	Net-of-tax amount
2018:			
Foreign currency translation adjustments			
Amount arising during the year	(93,955)	809	(93,146)
Reclassification adjustments for gains and losses realized in net income			
Net change during the year	(93,955)	809	(93,146)
Net unrealized gains and losses on securities:			
Amount arising during the year			
Reclassification adjustments for gains and losses realized in net income	(178)	37	(141)
Net change during the year	(178)	37	(141)
Net gains and losses on derivative instruments:			
Amount arising during the year	(586)	125	(461)
Reclassification adjustments for gains and losses realized in net income	1,341	(392)	949
Net change during the year	755	(267)	488
Pension liability adjustments:			
Amount arising during the year	(51,789)	18,065	(33,724)
Reclassification adjustments for gains and losses realized in net income	3,853	(699)	3,154
Net change during the year	(47,936)	17,366	(30,570)
Other comprehensive income (loss)	(141,314)	17,945	(123,369)
2017:			
Foreign currency translation adjustments			

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Amount arising during the year	47,825	(708)	47,117
Reclassification adjustments for gains and losses realized in net income	(39)	12	(27)
Net change during the year	47,786	(696)	47,090
Net unrealized gains and losses on securities:			
Amount arising during the year	5,100	(1,717)	3,383
Reclassification adjustments for gains and losses realized in net income	(18,472)	5,727	(12,745)
Net change during the year	(13,372)	4,010	(9,362)
Net gains and losses on derivative instruments:			
Amount arising during the year	(2,080)	628	(1,452)
Reclassification adjustments for gains and losses realized in net income	5,772	(1,732)	4,040
Net change during the year	3,692	(1,104)	2,588
Pension liability adjustments:			
Amount arising during the year	20,991	(4,957)	16,034
Reclassification adjustments for gains and losses realized in net income	7,005	(1,832)	5,173
Net change during the year	27,996	(6,789)	21,207
Other comprehensive income (loss)	66,102	(4,579)	61,523

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

14. Other Comprehensive Income (Loss) (continued)

	Years ended December 31		
	Before-tax amount	Tax (expense) or benefit	Net-of-tax amount
	(Millions of yen)		
2016:			
Foreign currency translation adjustments			
Amount arising during the year	(108,280)	521	(107,759)
Reclassification adjustments for gains and losses realized in net income	139	(46)	93
Net change during the year	(108,141)	475	(107,666)
Net unrealized gains and losses on securities:			
Amount arising during the year	1,184	(375)	809
Reclassification adjustments for gains and losses realized in net income	282	(94)	188
Net change during the year	1,466	(469)	997
Net gains and losses on derivative instruments:			
Amount arising during the year	1,619	(726)	893
Reclassification adjustments for gains and losses realized in net income	(5,890)	2,049	(3,841)
Net change during the year	(4,271)	1,323	(2,948)
Pension liability adjustments:			
Amount arising during the year	(95,707)	25,204	(70,503)
Reclassification adjustments for gains and losses realized in net income	(16)	164	148
Net change during the year	(95,723)	25,368	(70,355)
Other comprehensive income (loss)	(206,669)	26,697	(179,972)

15. Revenue

Revenue from sales of office products, such as office MFDs and laser printers, and imaging system products, such as digital cameras and inkjet printers, is recognized upon shipment or delivery, depending upon when the customer obtains controls of these products.

Revenue from sales of equipment that are sold with customer acceptance provisions related to their functionality including optical equipment such as semiconductor lithography equipment and FPD lithography equipment, and certain medical equipment such as CT systems and MRI systems, is recognized when the equipment is installed at the customer site and the agreed-upon specifications are objectively satisfied.

Most of Canon's service revenue is generated from office and medical system products which is recognized over time. For the service contracts of office products, the customer typically pays a variable amount based on usage, a stated fixed fee or a stated base fee plus a variable amount which frequently include the provision of consumables as well as break fix activities. The majority portion of service revenue from the office products is recognized as billed since invoiced amount directly correlates with the value to the customer of the underlying performance obligation to date. For the service contracts of medical system products, the customer typically pays a stated fixed fee for the stand ready maintenance service and revenue is recognized ratably over the contract period.

The majority of service arrangements for office products are executed in combination with related products. Transaction prices for products and services need to be allocated to each performance obligation on a relative standalone selling price basis where significant judgements are required. Canon estimates the standalone selling price using a range of prices that would meet the allocation objective based on all the information that is

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

15. Revenue (continued)

reasonably available including market conditions and other observable inputs. If transaction prices of the product or service contracts are not within the acceptable range then the revenue is subject to allocation based on the estimated standalone selling prices. Canon recognizes the incremental costs of obtaining a contract as an expense when related office products are sold.

Canon also provides leasing arrangement to the customers primarily for the sales of office products. Approximately 4% of total revenue is generated from these leasing arrangements for the year ended December 31, 2018. Revenue from the sale of these products under sales-type leases is recognized at the inception of the lease. Interest income on sales-type leases and direct-financing leases is recognized over the life of each respective lease using the interest method. Leases not qualifying as sales-type leases or direct-financing leases are accounted for as operating leases and related revenue is recognized ratably over the lease term. When product leases are bundled with maintenance contracts, revenue is allocated based upon the estimated standalone selling prices of the lease and non-lease components. Lease components generally include product, financing and executory costs, while non-lease components generally consist of maintenance contracts and supplies.

The transaction prices that Canon is entitled to receive in exchange for transferring goods or services to the customer include certain forms of variable consideration, including product discounts, customer promotions and volume-based rebates mainly for imaging system products, which are sold predominantly through distributors and retailers. Canon includes estimated amounts in the transaction price only to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. Variable considerations are estimated based upon historical trends and other known factors at the time of sale, and are subsequently adjusted in each period based on current information. In addition, Canon may provide a right of return on our products for a short time period after a sale. These rights are accounted for as variable consideration when determining the transaction price, and accordingly Canon recognizes revenue based on the estimated amount to which Canon expects to be entitled after considering expected returns.

Disaggregated revenue by timing is as follows. Disaggregated revenue by business unit, product and geographic area are described in Note 22.

	Office	Imaging System	Medical System	Industry and Corporate and Others	and eliminations	Consolidated
	(Millions of yen)					
2018:						
Revenue recognized at a point in time	1,286,100	993,658	305,457	599,766	(106,318)	3,078,663
Revenue recognized over time	521,201	14,507	132,121	205,445		873,274
Total	1,807,301	1,008,165	437,578	805,211	(106,318)	3,951,937

Revenue recognized over time includes primarily revenue from maintenance service in the office and medical system products and sales of certain industrial equipment which do not have alternative use and for which Canon has enforceable right to payment to the customers for the performance completed to date.

The adoption of the new revenue standard required the reconsideration of the scope of performance obligations related to service contracts, which has resulted in a change in classification of revenues between the products and service revenues. Specifically, certain revenue historically classified within products revenues, including consumables provided under the service contracts and certain outsourcing business, is currently classified within service revenues and cost of sales in the consolidated statement of income under the new revenue standard. Canon has started separating revenues and cost of sales into products and services in the consolidated statements

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

15. Revenue (continued)

of income starting from the quarter beginning January 1, 2018, including prior period's presentation. However, prior period's presentation is not retrospectively adjusted and is presented in accordance with the historical accounting policy. In addition, in conjunction with the application of the new standard, Canon has reclassified certain expenses related to service revenues from operating expenses to cost of sales in the accompanying consolidated statement of income. The amount reclassified for the year ended December 31, 2018 was ¥115,700 million. The reconsideration of the scope of performance obligations did not materially affect the timing of revenue recognition. The impacts of adoption of new revenue standard on Canon's consolidated balance sheet as of December 31, 2018 and the consolidated statement of income for the year ended December 31, 2018 were as follows.

Consolidated Balance Sheet

	As Reported	December 31, 2018 Balance under historical accounting policy (Millions of yen)	Effect of Change
<u>Assets</u>			
Trade receivables, net	612,953	657,419	(44,466)
Inventories	611,281	614,243	(2,962)
Prepaid expenses and other current assets	304,346	253,547	50,799
Other assets	397,974	397,949	25
Total assets	4,899,465	4,896,069	3,396
<u>Liabilities and equity</u>			
Accrued expenses	321,137	319,416	1,721
Other current liabilities	276,237	274,741	1,496
Total liabilities	1,881,552	1,878,335	3,217
Retained earnings	3,508,908	3,508,704	204
Noncontrolling interests	190,311	190,336	(25)
Total equity	3,017,913	3,017,734	179

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

15. Revenue (continued)

Consolidated Statement of Income

	For the year ended December 31, 2018		
	As Reported	Amount under historical accounting policy (Millions of yen)	Effect of Change
Net sales			
Products and Equipment	3,194,724	3,383,566	(188,842)
Services	757,213	567,582	189,631
	3,951,937	3,951,148	789
Cost of sales			
Products and Equipment	1,762,171	1,783,798	(21,627)
Services	354,212	216,513	137,699
	2,116,383	2,000,311	116,072
Gross profit	1,835,554	1,950,837	(115,283)
Selling, general and administrative expenses	1,176,760	1,292,460	(115,700)
Operating profit	342,952	342,535	417
Income before income taxes	362,892	362,475	417
Income taxes	96,150	96,094	56
Consolidated net income	266,742	266,381	361
Less: Net income attributable to noncontrolling interests	13,987	13,936	51
Net income attributable to Canon Inc.	252,755	252,445	310

Canon recognized contract assets primarily for unbilled receivables mainly arising from services contracts for office products totaled to ¥42,915 million at the adoption date and included in prepaid expenses and other current assets in the consolidated balance sheet with an offsetting impact to trade receivables. Contract assets at December 31, 2018 were ¥50,799 million.

Canon typically bills to the customer when performance obligation is satisfied and collects the payment in relatively short term except for certain maintenance service of office and medical products and certain industrial equipment for which Canon occasionally receives the payment in advance from customers. The amount received in excess of revenue recognized is recognized as deferred revenue until the performance obligation for distinct goods or services are satisfied. Deferred revenue at December 31, 2018 and 2017 were ¥123,686 million and ¥125,965 million, respectively, and are included in other current liabilities in the accompanying consolidated balance sheets. Revenue recognized for the year ended December 31, 2018, which had been included in the deferred revenue balance at December 31, 2017, was ¥104,678 million.

Remaining performance obligations for products and equipment at December 31, 2018 primarily arise from the sales of certain industrial equipment, amounting to ¥72,708 million, 75% of which is expected to be recognized as revenue within one year and remaining 25% is within two years. Disclosure of remaining performance obligations is not required for the majority of service since the revenue is recognized as billed basis applying the right to invoice practical expedient or is generated from the contracts with original expected duration of less than

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

15. Revenue (continued)

one year. The portion of fixed maintenance service contract for office and medical products with original expected duration of more than one year is approximately 11% of total service revenue and the average remaining period for these fixed contracts as of December 31, 2018 is about 2 years.

Taxes collected from customers and remitted to governmental authorities are excluded from revenues in the consolidated statements of income.

16. Stock-Based Compensation

On May 2, 2018, based on the approval of the shareholders, the Company granted stock options to its directors and executive officers to acquire 74,000 shares of common stock. Those to whom stock acquisition rights are granted (the Holder(s)) shall be entitled to exercise all the stock acquisition rights together within 10 days (in case the last day is not a business day, the following business day) from after the date when they cease to hold any position as a director or an executive officer of the Company. These option awards have a 30 year exercisable period. The grant-date fair value per share of the stock options granted during the year ended December 31, 2018 was ¥2,948.

On May 1, 2011, based on the approval of the shareholders, the Company granted stock options to its directors, executive officers and certain employees to acquire 912,000 shares of common stock. These option awards vest after two years of continued service beginning on the grant date and have a four year exercisable period. The grant-date fair value per share of the stock options granted during the year ended December 31, 2011 was ¥772.

On May 1, 2010, based on the approval of the shareholders, the Company granted stock options to its directors, executive officers and certain employees to acquire 890,000 shares of common stock. These option awards vest after two years of continued service beginning on the grant date and have a four year exercisable period. The grant-date fair value per share of the stock options granted during the year ended December 31, 2010 was ¥988.

The compensation cost recognized for these stock options for the years ended December 31, 2018 was ¥218 million and 2017 and 2016 was nil, and it is included in selling, general and administrative expenses in the consolidated statements of income.

The fair value of the option award was estimated on the date of grant using the Black-Sholes option pricing model that incorporates the assumptions presented below:

	Year ended December 31, 2018
Expected term of option (in years)	6.0

Expected volatility	23.02%
Dividend yield	4.14%
Risk-free interest rate	(0.07%)

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

16. Stock-Based Compensation (continued)

A summary of option activity under the stock option plans as of and for the years ended December 31, 2018, 2017 and 2016 is presented below:

	Shares	Weighted-average exercise price (Yen)	Weighted-average remaining contractual term (Year)	Aggregate intrinsic value (Millions of yen)
Outstanding at January 1, 2016	1,296,000	4,263	0.4	
Exercised				
Forfeited/Expired	(693,000)	4,500		
Outstanding at December 31, 2016	603,000	3,990	0.2	
Exercised				
Forfeited/Expired	(603,000)	3,990		
Outstanding at December 31, 2017				
Granted	74,000	1		
Exercised				
Forfeited/Expired				
Outstanding at December 31, 2018	74,000	1	29.3	222
Exercisable at December 31, 2018	74,000	1	29.3	222

The total fair value of shares vested during the years ended December 31, 2018 was ¥218 million and 2017 and 2016 was nil. Cash received from the exercise of stock options for the years ended December 31, 2018, 2017 and 2016 was nil.

17. Net Income Attributable to Canon Inc. Shareholders per Share

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

	Years ended December 31		
	2018	2017	2016
	(Millions of yen)		
Net income attributable to Canon Inc.	252,755	241,923	150,650
	(Number of shares)		
Average common shares outstanding	1,079,753,008	1,085,439,370	1,092,070,680
Effect of dilutive securities:			
Stock options	49,319		
Diluted common shares outstanding	1,079,802,327	1,085,439,370	1,092,070,680
	(Yen)		
Net income attributable to Canon Inc. shareholders per share:			
Basic	234.09	222.88	137.95
Diluted	234.08	222.88	137.95

The computation of diluted net income attributable to Canon Inc. shareholders per share for the years ended December 31, 2017 and 2016 excludes outstanding stock options because the effect would be anti-dilutive.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

18. Derivatives and Hedging Activities***Risk management policy***

Canon operates internationally, exposing it to the risk of changes in foreign currency exchange rates. Derivative financial instruments are comprised principally of foreign exchange contracts utilized by the Company and certain of its subsidiaries to reduce the risk. Canon assesses foreign currency exchange rate risk by continually monitoring changes in the exposures and by evaluating hedging opportunities. Canon does not hold or issue derivative financial instruments for trading purposes. Canon is also exposed to credit-related losses in the event of non-performance by counterparties to derivative financial instruments, but it is not expected that any counterparties will fail to meet their obligations. Most of the counterparties are internationally recognized financial institutions and selected by Canon taking into account their financial condition, and contracts are diversified across a number of major financial institutions.

Foreign currency exchange rate risk management

Canon's international operations expose Canon to the risk of changes in foreign currency exchange rates. Canon uses foreign exchange contracts to manage certain foreign currency exchange exposures principally from the exchange of U.S. dollars and euros into Japanese yen. These contracts are primarily used to hedge the foreign currency exposure of forecasted intercompany sales and intercompany trade receivables that are denominated in foreign currencies. In accordance with Canon's policy, a specific portion of foreign currency exposure resulting from forecasted intercompany sales are hedged using foreign exchange contracts which principally mature within three months.

Cash flow hedge

Changes in the fair value of derivative financial instruments designated as cash flow hedges, including foreign exchange contracts associated with forecasted intercompany sales, are reported in accumulated other comprehensive income (loss). These amounts are subsequently reclassified into earnings through other income (deductions) in the same period as the hedged items affect earnings. Substantially all amounts recorded in accumulated other comprehensive income (loss) at year-end are expected to be recognized in earnings over the next twelve months. Canon excludes the time value component from the assessment of hedge effectiveness. Changes in the fair value of a foreign exchange contract for the period between the date that the forecasted intercompany sales occur and its maturity date are recognized in earnings and not considered hedge ineffectiveness.

Derivatives not designated as hedges

Canon has entered into certain foreign exchange contracts to primarily offset the earnings impact related to fluctuations in foreign currency exchange rates associated with certain assets denominated in foreign currencies. Although these foreign exchange contracts have not been designated as hedges as required in order to apply hedge accounting, the contracts are effective from an economic perspective. The changes in the fair value of these contracts are recorded in earnings immediately.

Contract amounts of foreign exchange contracts at December 31, 2018 and 2017 are set forth below:

	December 31	
	2018	2017
	(Millions of yen)	
To sell foreign currencies	230,505	272,563
To buy foreign currencies	30,816	46,168

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

18. Derivatives and Hedging Activities (continued)*Fair value of derivative instruments in the consolidated balance sheets*

The following tables present Canon's derivative instruments measured at gross fair value as reflected in the consolidated balance sheets at December 31, 2018 and 2017.

Derivatives designated as hedging instruments

	Balance sheet location	Fair value December 31	
		2018	2017
(Millions of yen)			
Assets:			
Foreign exchange contracts	Prepaid expenses and other current assets	521	255
Liabilities:			
Foreign exchange contracts	Other current liabilities	323	367
<u>Derivatives not designated as hedging instruments</u>			

	Balance sheet location	Fair value December 31	
		2018	2017
(Millions of yen)			
Assets:			
Foreign exchange contracts	Prepaid expenses and other current assets	2,622	289
Liabilities:			
Foreign exchange contracts	Other current liabilities	443	2,892
<i>Effect of derivative instruments in the consolidated statements of income</i>			

The following tables present the effect of Canon's derivative instruments in the consolidated statements of income for the years ended December 31, 2018, 2017 and 2016.

Derivatives in cash flow hedging relationships**Years ended December 31**

	Gain (loss) recognized in OCI (effective portion) Amount	Gain (loss) reclassified from accumulated OCI into income (effective portion) Location	Amount	Gain (loss) recognized in income (ineffective portion and amount excluded from effectiveness testing) Location	Amount
			(Millions of yen)		
2018:					
Foreign exchange contracts	(586)	Other, net	(1,341)	Other, net	(682)
2017:					
Foreign exchange contracts	(2,080)	Other, net	(5,772)	Other, net	(332)
2016:					
Foreign exchange contracts	1,619	Other, net	5,890	Other, net	(311)

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

18. Derivatives and Hedging Activities (continued)*Effect of derivative instruments in the consolidated statements of income (continued)*Derivatives not designated as hedging instruments

	Location	Gain (loss) recognized in income on derivative		
		Years ended December 31		
		2018	2017	2016
		(Millions of yen)		
Foreign exchange contracts	Other, net	5,284	(7,932)	7,018

19. Commitments and Contingent Liabilities*Commitments*

At December 31, 2018, commitments outstanding for the purchase of property, plant and equipment approximated ¥54,905 million, and commitments outstanding for the purchase of parts and raw materials approximated ¥120,344 million.

Canon occupies sales offices and other facilities under lease arrangements accounted for as operating leases. Deposits made under such arrangements aggregated ¥12,728 million and ¥13,740 million at December 31, 2018 and 2017, respectively, and are included in noncurrent receivables in the accompanying consolidated balance sheets. Rental expenses of cancelable and noncancelable operating leases amounted to ¥49,394 million, ¥47,619 million and ¥42,714 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Future minimum lease payments required under noncancelable operating leases that have initial or remaining lease terms in excess of one year at December 31, 2018 are as follows:

	(Millions of yen)
Year ending December 31:	
2019	29,817
2020	23,402
2021	17,837
2022	13,565
2023	10,165
Thereafter	20,298

Total future minimum lease payments	115,084
-------------------------------------	---------

Guarantees

Canon provides guarantees for its employees, affiliates and other companies. The guarantees for the employees are principally made for their housing loans. The guarantees for affiliates and other companies are made for their lease obligations and bank loans to ensure that those companies operate with less financial risk.

Canon would have to perform under a guarantee if the borrower defaults on a payment within the contract terms. The contract terms are 1 year to 30 years in case of employees with housing loans, and 1 year to 7 years in case of affiliates and other companies with lease obligations and bank loans. The maximum amount of undiscounted payments Canon would have had to make in the event of default is ¥4,458 million at December 31, 2018. The carrying amounts of the liabilities recognized for Canon's obligations as a guarantor under those guarantees at December 31, 2018 were not significant.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

19. Commitments and Contingent Liabilities (continued)***Guarantees (continued)***

Canon also issues contractual product warranties under which it generally guarantees the performance of products delivered and services rendered for a certain period or term. Changes in accrued product warranty costs for the years ended December 31, 2018 and 2017 are summarized as follows:

	Years ended December 31	
	2018	2017
	(Millions of yen)	
Balance at beginning of year	17,452	13,168
Additions	18,870	18,893
Utilization	(14,707)	(12,957)
Other	(4,297)	(1,652)
Balance at end of year	17,318	17,452

Legal proceedings

Canon is involved in various claims and legal actions arising in the ordinary course of business. Canon has recorded provisions for liabilities when it is probable that liabilities have been incurred and the amount of loss can be reasonably estimated. Canon reviews these provisions at least quarterly and adjusts these provisions to reflect the impact of the negotiations, settlements, rulings, advice of legal counsel and other information and events pertaining to a particular case. Based on its experience, although litigation is inherently unpredictable, Canon believes that any damage amounts claimed in outstanding matters are not a meaningful indicator of Canon's potential liability. In the opinion of management, any reasonably possible range of losses from outstanding matters would not have a material adverse effect on Canon's consolidated financial position, results of operations, or cash flows.

20. Disclosures about the Fair Value of Financial Instruments and Concentrations of Credit Risk***Fair value of financial instruments***

The estimated fair values of Canon's financial instruments at December 31, 2018 and 2017 are set forth below. The following summary excludes cash and cash equivalents, trade receivables, finance receivables, noncurrent receivables, short-term loans, trade payables and accrued expenses for which fair values approximate their carrying amounts. The summary also excludes investments and derivative instruments which are disclosed in Note 2 and Note 21, and Note

18, respectively.

	December 31			
	2018		2017	
	Carrying amount	Estimated fair value	Carrying amount	Estimated fair value
	(Millions of yen)			
Long-term debt, including current installments	(364,602)	(364,570)	(499,168)	(499,126)

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

20. Disclosures about the Fair Value of Financial Instruments and Concentrations of Credit Risk (continued)
Fair value of financial instruments (continued)

The following methods and assumptions are used to estimate the fair value in the above table.

Long-term debt

Canon's long-term debt instruments are classified as Level 2 instruments and valued based on the present value of future cash flows associated with each instrument discounted using current market borrowing rates for similar debt instruments of comparable maturity. The levels are more fully described in Note 21.

Limitations of fair value estimates

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.

Concentrations of credit risk

At December 31, 2018 and 2017, one customer accounted for approximately 12% and 8% of consolidated trade receivables, respectively. Although Canon does not expect that the customer will fail to meet its obligations, Canon is potentially exposed to concentrations of credit risk if the customer failed to perform according to the terms of the contracts.

21. Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A three-level fair value hierarchy that prioritizes the inputs used to measure fair value is as follows:

- Level 1 Inputs are quoted prices in active markets for identical assets or liabilities.
- Level 2 Inputs are quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable, and inputs that are derived principally from or corroborated by observable market data by correlation or

other means.

Level 3 Inputs are derived from valuation techniques in which one or more significant inputs or value drivers are unobservable, which reflect the reporting entity's own assumptions about the assumptions that market participants would use in establishing a price.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

21. Fair Value Measurements (continued)*Assets and liabilities measured at fair value on a recurring basis*

The following tables present Canon's assets and liabilities that are measured at fair value on a recurring basis consistent with the fair value hierarchy at December 31, 2018 and 2017.

	Level 1	December 31, 2018		Total
		Level 2	Level 3	
(Millions of yen)				
Assets:				
Cash and cash equivalents		70,500		70,500
Short-term investments:				
Available-for-sale:				
Corporate bonds	630			630
Investments:				
Available-for-sale:				
Government bonds				
Corporate bonds				
Fund trusts and others	630	408		1,038
Equity securities	13,787			13,787
Prepaid expenses and other current assets:				
Derivatives		3,143		3,143
Total assets	15,047	74,051		89,098
Liabilities:				
Other current liabilities:				
Derivatives		766		766
Total liabilities		766		766
	Level 1	December 31, 2017		Total
		Level 2	Level 3	
(Millions of yen)				
Assets:				
Cash and cash equivalents		70,500		70,500
Short-term investments:				

Available-for-sale:			
Corporate bonds	1,222		1,222
Investments:			
Available-for-sale:			
Government bonds	289		289
Corporate bonds	605	217	822
Fund trusts	13	111	124
Equity securities	20,901		20,901
Prepaid expenses and other current assets:			
Derivatives		544	544
Total assets	23,030	71,372	94,402
Liabilities:			
Other current liabilities:			
Derivatives		3,259	3,259
Total liabilities		3,259	3,259

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

21. Fair Value Measurements (continued)*Assets and liabilities measured at fair value on a recurring basis (continued)*

Level 1 investments are comprised principally of Japanese equity securities, which are valued using an unadjusted quoted market price in active markets with sufficient volume and frequency of transactions. Level 2 cash and cash equivalents are valued based on market approach, using quoted prices for identical assets in markets that are not active.

Derivative financial instruments are comprised of foreign exchange contracts. Level 2 derivatives are valued using quotes obtained from counterparties or third parties, which are periodically validated by pricing models using observable market inputs, such as foreign currency exchange rates and interest rates, based on market approach.

Assets and liabilities measured at fair value on a nonrecurring basis

There were no assets or liabilities to be measured at fair value on a nonrecurring basis during the year ended December 31, 2018. The following table presents the Canon's asset that was measured at fair value on a nonrecurring basis consistent with the fair value hierarchy and related impairment charge recognized during the year ended December 31, 2017.

	Year ended December 31, 2017				Total
	Total loss	Level 1	Level 2	Level 3	
	Fair value				
	(Millions of yen)				
Asset:					
Goodwill	(33,912)			29,370	29,370

Goodwill was classified as Level 3 items and valued based on an income approach using unobservable inputs. Canon performed the annual goodwill impairment test as of October 1, 2017, which indicated that the fair value of the reporting unit was less than its carrying value. Canon recognized the impairment charge for the amount representing the excess of the carrying amount over the reporting unit's fair value. The fair value for the reporting unit was measured based on the discounted cash flow method with 6.0% of weighted average cost of capital and estimated future cash flows. Future cash flows are based on management's estimates of projected revenues, gross profits, operating expenses, a long-term growth rate, taking into consideration industry trends and market conditions.

22. Segment Information

Canon operates its business in four segments: the Office Business Unit, the Imaging System Business Unit, the Medical System Business Unit, and the Industry and Others Business Unit, which are based on the organizational

structure and information reviewed by Canon's management to evaluate results and allocate resources.

Based on the realignment of Canon's internal reporting and management structure, from the beginning of the third quarter of 2018, Canon has reclassified certain businesses from Office Business Unit to Industry and Others Business Unit. Segment information for the year ended December 31, 2018 have reflected this change. Prior period amounts also have been restated. Canon newly established Medical System Business Unit effective at the beginning of the second quarter of 2017, and certain businesses included in Industry and Others Business Unit have been reclassified. Operating results for the year ended December 31, 2017 have been reclassified and for the year ended December 31, 2016 have not been restated since they have not been material. Total assets as of December 31, 2016 have been restated.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

22. Segment Information (continued)

The primary products included in each segment are as follows:

Office Business Unit:	Office multifunction devices (MFDs) / Laser multifunction printers (MFPs) / Laser printers / Digital continuous feed presses / Digital sheet-fed presses / Wide-format printers / Document solutions
Imaging System Business Unit:	Interchangeable-lens digital cameras / Digital compact cameras / Digital camcorders / Digital cinema cameras / Interchangeable lenses / Compact photo printers / Inkjet printers / Large format inkjet printers / Commercial photo printers / Image scanners / Multimedia projectors / Broadcast equipment / Calculators
Medical System Business Unit:	Digital radiography systems / Diagnostic X-ray systems / Computed tomography (CT) systems / Magnetic resonance imaging (MRI) systems / Diagnostic ultrasound systems / Clinical chemistry analyzers / Ophthalmic equipment
Industry and Others Business Unit:	Semiconductor lithography equipment / FPD (Flat panel display) lithography equipment/ Vacuum thin-film deposition equipment / Organic LED (OLED) panel manufacturing equipment / Die bonders / Micromotors / Network cameras / Handy terminals / Document scanners

The accounting policies of the segments are substantially the same as those described in the significant accounting policies in Note 1. While Canon previously disclosed operating profit as segment profit, Canon has newly adopted income before income taxes as segment profit for the year ended December 31, 2018. Due to the increase of other income (deductions) from the adoption of ASU No. 2017-07, Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, Canon has changed its business performance measure. Please refer to Note 1 (w) for more detailed information about the change in the accounting standard.

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

22. Segment Information (continued)

Information about operating results and assets for each segment as of and for the years ended December 31, 2018, 2017 and 2016 is as follows:

	Office	Imaging System	Medical System	Industry and Others	Corporate and eliminations	Consolidated
	(Millions of yen)					
2018:						
Net sales:						
External customers	1,804,002	1,007,365	437,305	703,265		3,951,937
Intersegment	3,299	800	273	101,946	(106,318)	
Total	1,807,301	1,008,165	437,578	805,211	(106,318)	3,951,937
Operating cost and expenses	1,586,497	891,210	408,739	739,665	(17,126)	3,608,985
Operating profit	220,804	116,955	28,839	65,546	(89,192)	342,952
Other income (deductions)	8,383	4,299	640	2,061	4,557	19,940
Income before income taxes	229,187	121,254	29,479	67,607	(84,635)	362,892
Total assets	923,261	393,004	247,282	383,568	2,952,350	4,899,465
Depreciation and amortization	64,964	40,541	9,365	38,582	98,102	251,554
Capital expenditures	48,127	25,796	7,454	24,091	95,036	200,504
2017:						
Net sales:						
External customers	1,802,542	1,135,584	434,985	706,904		4,080,015
Intersegment	2,240	604	1,202	85,946	(89,992)	
Total	1,804,782	1,136,188	436,187	792,850	(89,992)	4,080,015
Operating cost and expenses	1,615,521	962,663	414,246	752,122	13,858	3,758,410
Operating profit	189,261	173,525	21,941	40,728	(103,850)	321,605
Other income (deductions)	6,108	2,388	564	1,339	21,880	32,279
Income before income taxes	195,369	175,913	22,505	42,067	(81,970)	353,884
Total assets	946,213	387,088	238,824	376,064	3,250,102	5,198,291

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Depreciation and amortization	72,346	41,695	5,212	39,736	102,892	261,881
Impairment losses on goodwill	21,721			12,191		33,912
Capital expenditures	46,769	28,508	8,963	16,620	80,529	181,389

2016:

Net sales:

External customers	1,743,039	1,094,291		564,157		3,401,487
Intersegment	2,957	998		82,326	(86,281)	

Total	1,745,996	1,095,289		646,483	(86,281)	3,401,487
Operating cost and expenses	1,583,588	953,567		641,082	6,825	3,185,062

Operating profit	162,408	141,722		5,401	(93,106)	216,425
Other income (deductions)	7,467	2,691		1,658	16,410	28,226

Income before income taxes	169,875	144,413		7,059	(76,696)	244,651
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Total assets	947,602	391,661	204,755	354,602	3,239,909	5,138,529
Depreciation and amortization	76,500	47,386		42,872	83,338	250,096
Capital expenditures	71,841	25,564		29,694	81,280	208,379

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

22. Segment Information (continued)

Intersegment sales are recorded at the same prices used in transactions with third parties. Expenses not directly associated with specific segments are allocated based on the most reasonable measures applicable. Corporate expenses include certain corporate research and development expenses. Amortization costs of identified intangible assets resulting from the purchase price allocation of CMSC are also included in corporate expenses. Segment assets are based on those directly associated with each segment. Corporate assets primarily consist of cash and cash equivalents, investments, deferred tax assets, goodwill, identified intangible assets from acquisitions and corporate properties. Capital expenditures represent the additions to property, plant and equipment and intangible assets measured on an accrual basis.

Information about sales by product to external customers for each segment for the years ended December 31, 2018, 2017 and 2016 is as follows:

	Years ended December 31		
	2018	2017	2016
	(Millions of yen)		
Office			
Monochrome copiers	280,035	287,823	289,532
Color copiers	403,522	405,576	386,193
Printers	702,378	702,491	664,846
Others	418,067	406,652	402,468
Total	1,804,002	1,802,542	1,743,039
Imaging System			
Cameras	599,578	702,598	666,868
Inkjet printers	318,382	333,721	329,066
Others	89,405	99,265	98,357
Total	1,007,365	1,135,584	1,094,291
Medical System			
Diagnostic equipment	437,305	434,985	
Industry and Others			
Lithography equipment	199,722	193,113	121,090
Others	503,543	513,791	443,067
Total	703,265	706,904	564,157

Consolidated

3,951,937 4,080,015 3,401,487

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Canon Inc. and Subsidiaries

Notes to Consolidated Financial Statements (continued)

22. Segment Information (continued)

Information by major geographic area as of and for the years ended December 31, 2018, 2017 and 2016 is as follows:

	2018	2017	2016
	(Millions of yen)		
Net sales:			
Japan	869,577	884,828	706,979
Americas	1,076,402	1,107,515	963,544
Europe	1,015,428	1,028,415	913,523
Asia and Oceania	990,530	1,059,257	817,441
Total	3,951,937	4,080,015	3,401,487
Long-lived assets:			
Japan	1,046,065	1,081,522	1,163,374
Americas	129,989	141,937	147,129
Europe	169,357	174,889	166,734
Asia and Oceania	136,602	149,244	164,007
Total	1,482,013	1,547,592	1,641,244

Net sales are attributed to areas based on the location where the product is shipped and the service is performed to the customers. Other than in Japan and the United States, Canon does not conduct business in any individual country in which its sales in that country exceed 10% of consolidated net sales. Net sales in the United States were ¥995,245 million, ¥1,022,305 million and ¥884,083 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Long-lived assets represent property, plant and equipment and intangible assets for each geographic area.

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Canon Inc. and Subsidiaries

Schedule II Valuation and Qualifying Accounts

	Balance at beginning of period	Addition- charged to income	Deduction bad debts written off	Translation adjustments and other	Balance at end of period
	(Millions of yen)				
Year ended December 31, 2018:					
Allowance for doubtful receivables					
Trade receivables	13,378	1,347	(2,789)	(459)	11,477
Finance receivables	2,681	938	(1,284)	340	2,675
Year ended December 31, 2017:					
Allowance for doubtful receivables					
Trade receivables	11,075	3,574	(1,787)	516	13,378
Finance receivables	2,325	1,436	(1,523)	443	2,681
Year ended December 31, 2016:					
Allowance for doubtful receivables					
Trade receivables	12,077	1,460	(1,824)	(638)	11,075
Finance receivables	2,878	398	(978)	27	2,325

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Item 19. Exhibits

List of exhibits

- 1.1 Articles of Incorporation of Canon Inc. (Translation), incorporated by reference from the annual report on Form 20-F (Commission file number 001-15122) filed on March 30, 2016
- 1.2 Regulations of the Board of Directors of Canon Inc. (Translation), incorporated by reference from the annual report on Form 20-F (Commission file number 001-15122) filed on March 30, 2016
- 2 Regulations for Handling of Shares of Canon Inc. (Translation), incorporated by reference from the annual report on Form 20-F (Commission file number 001-15122) filed on March 27, 2009
- 8 List of Significant Subsidiaries (See Organizational Structure in Item 4.C. of this Form 20-F)
- 11.1 Canon Group Code of Conduct (Translation), incorporated by reference from the annual report on Form 20-F (Commission file number 001-15122) filed on March 28, 2013
- 11.2 Code of Ethics (Supplement to The Canon Group Code of Conduct) (Translation), incorporated by reference from the annual report on Form 20-F (Commission file number 001-15122) filed on June 10, 2004
- 12 Certifications of Chairman and CEO and Executive Vice President and CFO pursuant to Section 302 of the Sarbanes-Oxley Act
- 13 Certification of Chairman and CEO and Executive Vice President and CFO pursuant to Section 906 of the Sarbanes-Oxley Act
- 101 INSTANCE DOCUMENT
- 101 SCHEMA DOCUMENT
- 101 CALCULATION LINKBASE DOCUMENT
- 101 LABELS LINKBASE DOCUMENT
- 101 PRESENTATION LINKBASE DOCUMENT
- 101 DEFINITION LINKBASE DOCUMENT

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SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, as amended, the registrant certifies that it meets all of the requirements for filing on Form 20-F and has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

CANON INC.
(Registrant)

/s/ Toshizo Tanaka
Toshizo Tanaka
Executive Vice President & CFO

Canon Inc.
30-2, Shimomaruko 3-chome,
Ohta-ku, Tokyo 146-8501, Japan

Date March 28, 2019